

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2011-12: Number 6, Week 1

January 1 to 7, 2012



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &
Emerging Respiratory Pathogens Team

Continued moderate level influenza activity in BC

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Summary

In week 1 (January 1-7, 2012), influenza surveillance indicators in BC returned to the pre-holiday level. The influenza-like illness (ILI) rate reported by sentinel physicians remained low and below the expected range for this time of year. The MSP influenza illness proportion declined throughout BC, though remaining above the 10-year median level for this time of year at the provincial level and within most HAs. The ILI consultation rate in BC Children's Hospital ER was lower than the previous week and consistent with the expected level for this time of year. Two lab-confirmed influenza outbreaks were reported from long term care facilities, including one A/H3N2 in Interior HA and one influenza B in Vancouver Coastal HA. Among 174 specimens tested at the provincial laboratory in week 1, 29 (16.7%) were positive for influenza, lower than previous weeks, including 25 A/H3N2 and 4 influenza B. Other significant respiratory virus detections included human metapneumovirus (21/174, 12.1%) respiratory syncytial virus (13/174, 7.5%) and rhino/enterovirus (12/174, 6.9%). In addition, RSV continued to increase and dominate among respiratory viruses detected at BC Children's Hospital.

Report disseminated January 12, 2012

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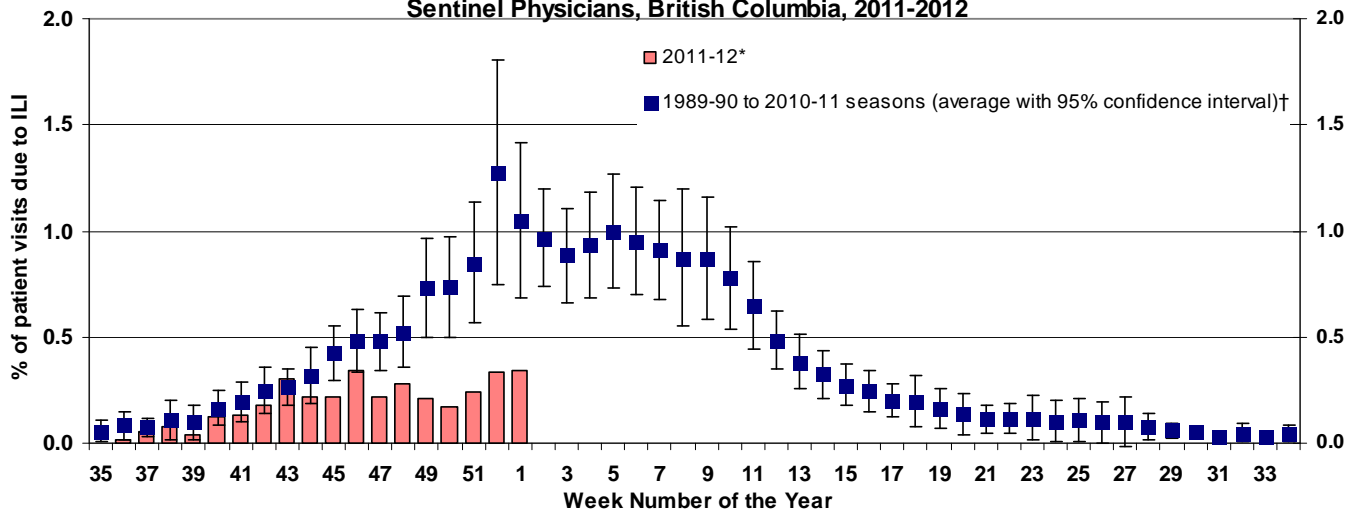
January 1 to 7, 2012

British Columbia

Sentinel Physicians

In week 1, the proportion of patients with ILI among those presenting to sentinel physicians was 0.35%, remaining below the expected range for this time of year. Fifty percent of sentinel physician sites have reported for week 1 to-date.

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



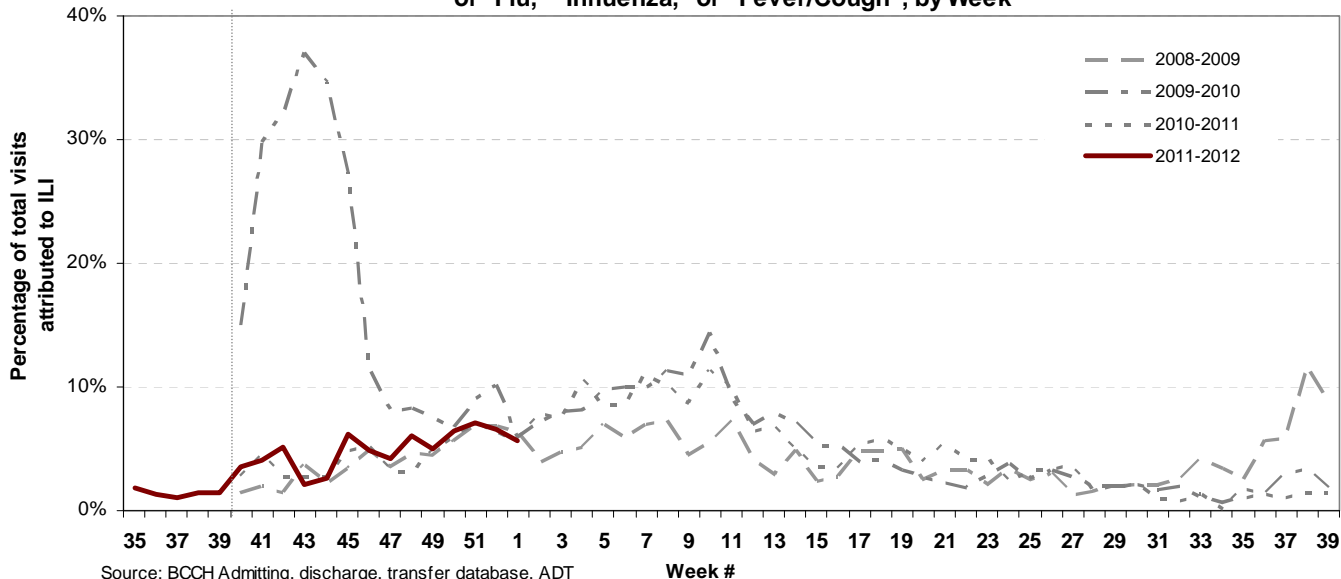
* Data subject to change as reporting becomes increasingly complete.

† 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 1 was 5.6%, slightly lower than the previous week and consistent with this time last 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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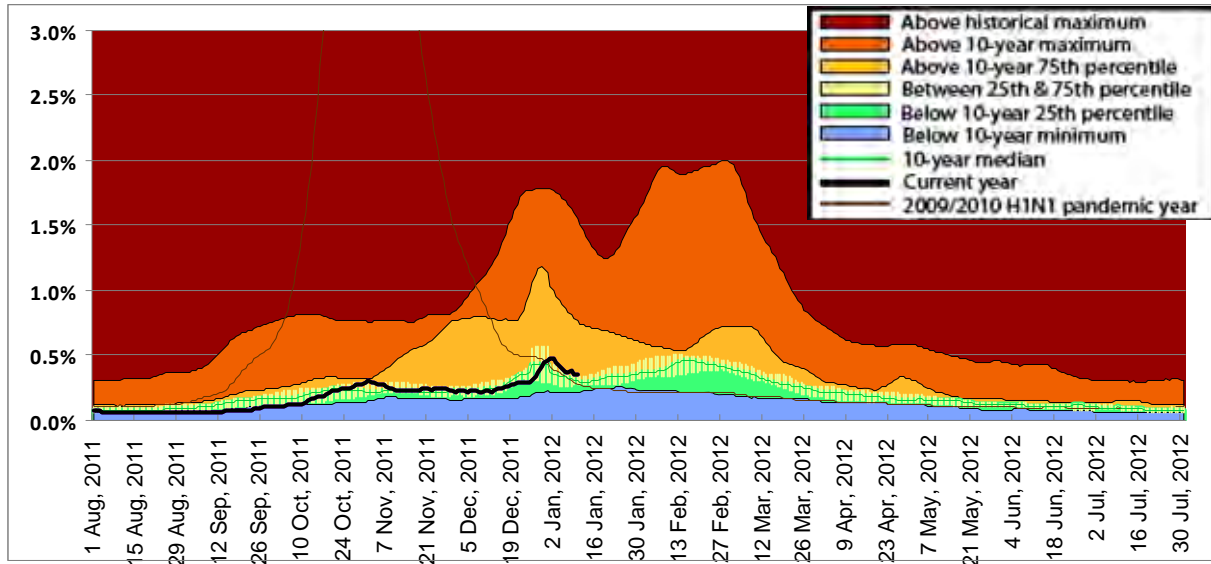
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Medical Services Plan

In week 1, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims started to decline back towards the ten-year median throughout BC similar to the pre-holiday period, except in Northern and Interior HAs where this rate was below the ten-year median.

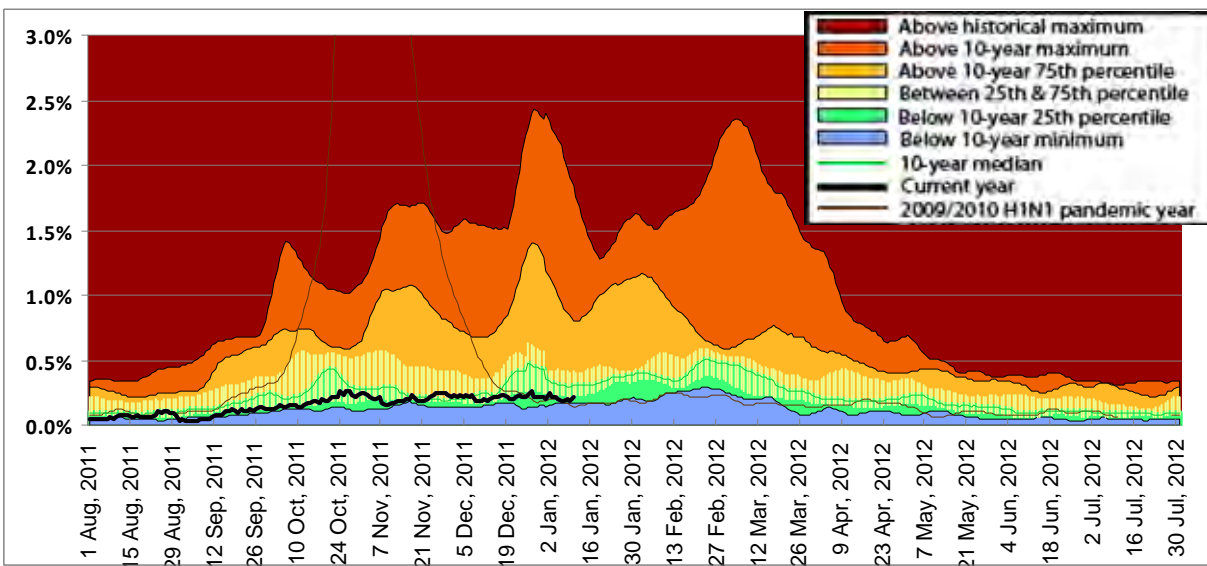
Influenza Illness Claims* British Columbia



* 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 11 January 2012

Northern

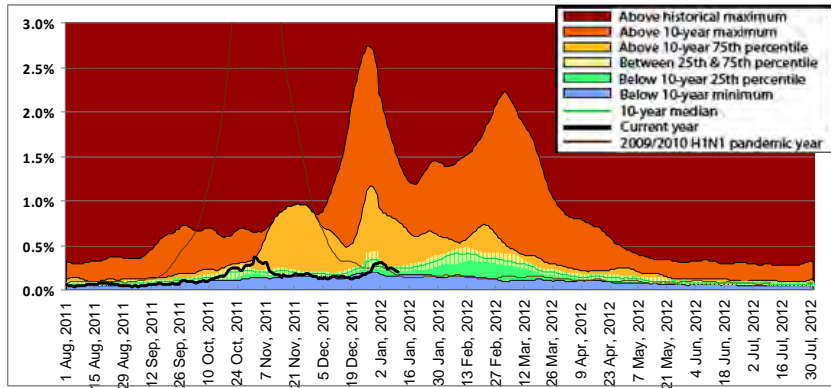


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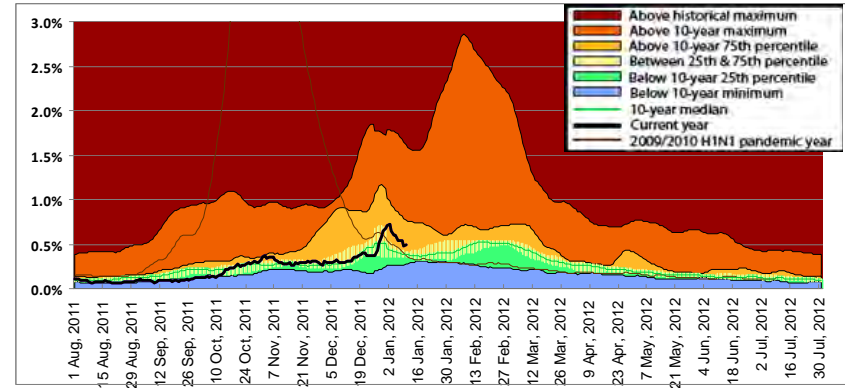
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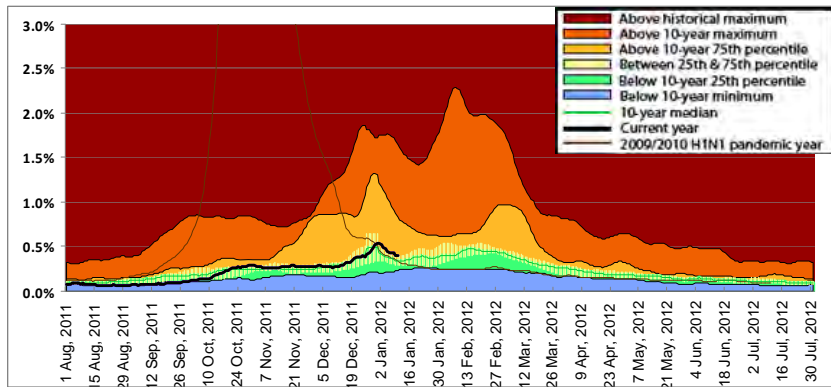
Interior



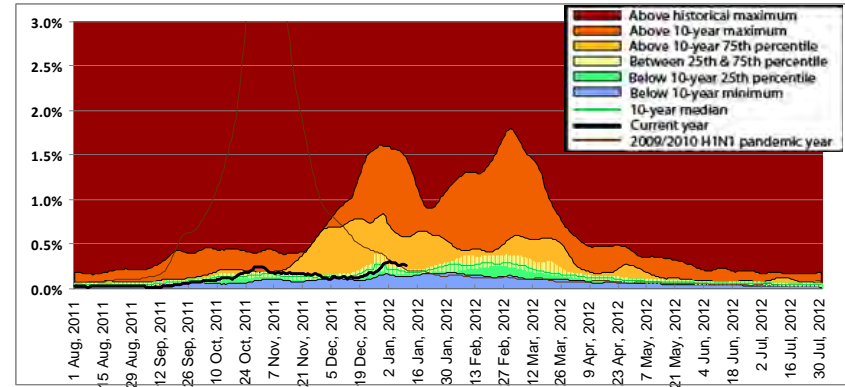
Vancouver Coastal



Fraser



Vancouver Island



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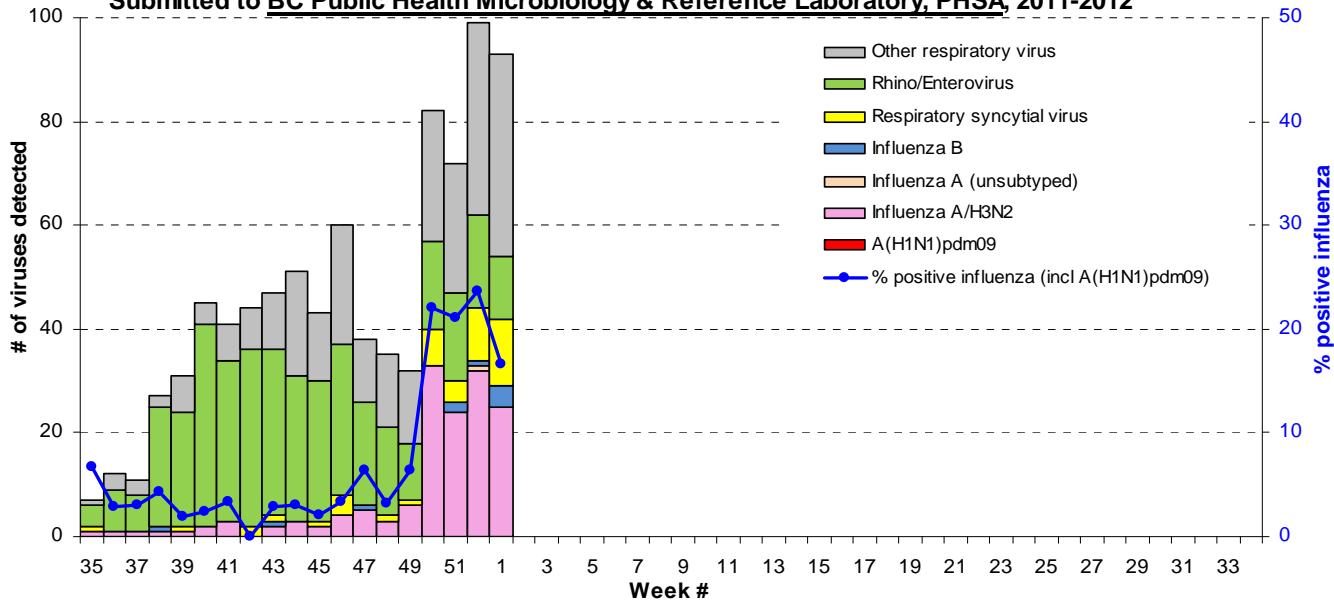
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Laboratory Reports

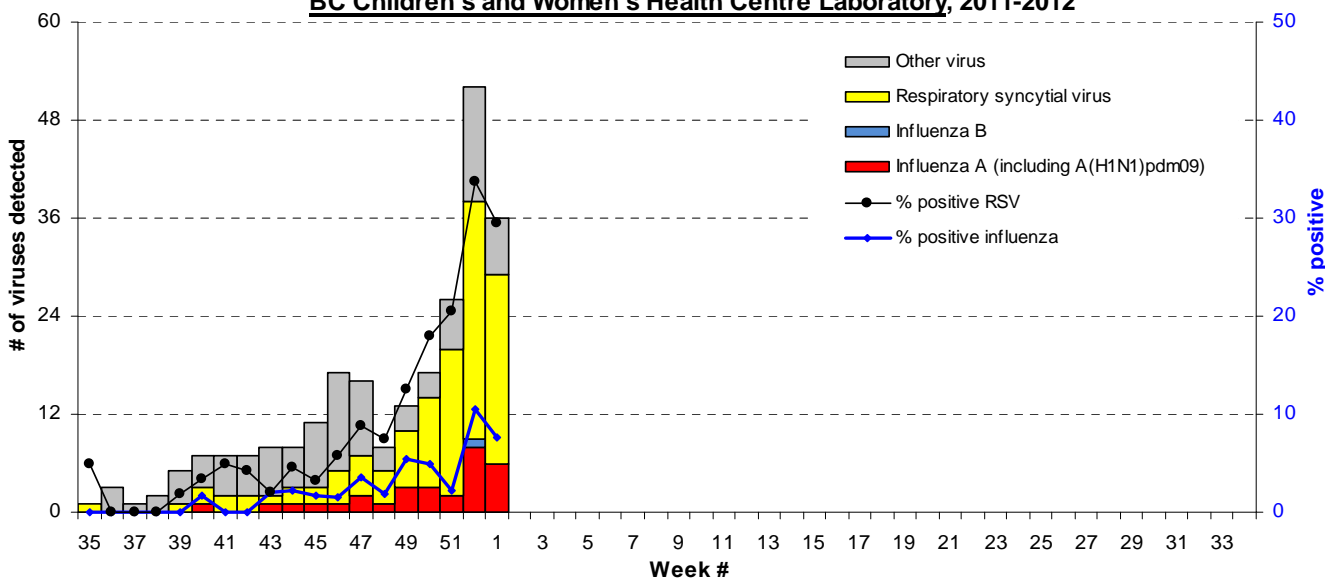
The proportion of lab-confirmed influenza positive specimens in week 1 declined (16.7%) compared to the high level (~20%) observed in the preceding three weeks. In week 1, 174 respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory, PHSA. Influenza was detected in 29 (16.7%) submitted specimens (4 facility outbreak-related), including 25 A/H3N2 and 4 influenza B. In week 1, of 174 specimens tested for other respiratory viruses, significant detections included human metapneumovirus (12.1%, 21), RSV (7.5%, 13) and rhino/enterovirus (6.9%, 12). 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 1, BC Children's and Women's Health Centre Laboratory tested 78 respiratory specimens: six (7.7%) were positive for influenza A (subtype pending). RSV continued to predominate and increase as a proportion of respiratory viruses detected (29.5%). 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

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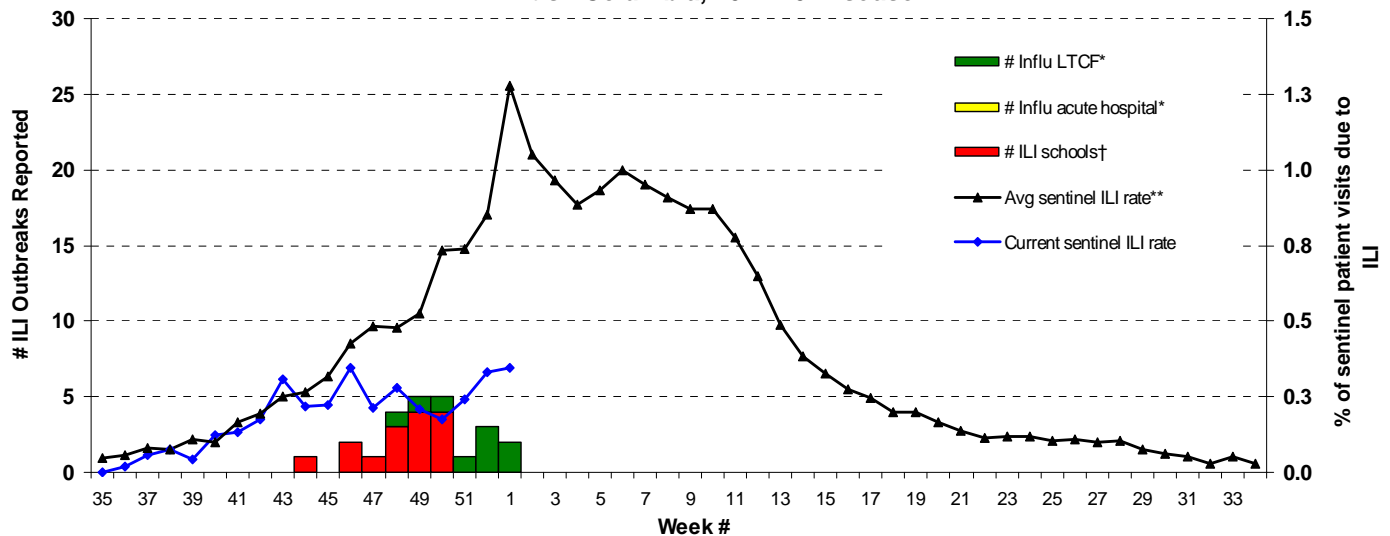
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ILI Outbreaks

In week 1, two lab-confirmed influenza outbreaks were reported from long term care facilities (LTCF) including one influenza A/H3N2 in Interior HA and one influenza B in Vancouver Coastal HA. As is typical of the seasonal holiday period, no school ILI outbreaks were reported.

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 52 (December 25 to 31, 2011), influenza activity in Canada increased in some regions but remained low in most areas of the country. The proportion of tests positive for influenza in week 52 was 2.6% (73/2,789). Seventy-three influenza detections included 42 A/H3N2, 1 A(H1N1)pdm09, 15 A untyped and 15 influenza B. The ILI consultation rate increased compared to previous weeks but remained within expected levels for this time of year. (www.phac-aspc.gc.ca/fluwatch/).

National Microbiology Laboratory (NML): Strain Characterization

Between September 1, 2011 and January 12, 2012, 61 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

27 A/Perth/16/2009-like (H3N2)[†] from ONT, SASK, ALTA, and BC;

8 A/California/07/09-like (H1N1)* from QUE and ONT;

14 B/Brisbane/60/2008-like (B/Victoria/02/87 lineage)[†] from QUE, ONT, ALTA, and BC;

12 B/Wisconsin/01/2010-like (recent B Yamagata lineage) from NB, QUE, 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, 2011 to January 12, 2012, drug susceptibility to oseltamivir and zanamivir was tested at the NML for twenty-seven influenza A/H3N2, nine influenza A(H1N1)pdm09, and twenty-five influenza B isolates. The results indicated that all isolates were sensitive to oseltamivir and zanamivir. In addition, thirty-six A/H3N2 and six 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 52 ending December 31, 2011, influenza activity increased but remained relatively low in the United States. 95 (2.9%) specimens tested were positive for influenza. Of those subtyped, the predominant influenza virus continued to be A/H3N2. The proportion of outpatient visits for ILI was 1.7% which is below the national baseline of 2.4%. The USA further reported that 7% of all deaths reported were due to pneumonia and influenza illness, which is also below the epidemic threshold for this time of the year.

www.cdc.gov/flu/weekly/. **Other Areas:** According to the most recent WHO report (6 January 2012), influenza activity in the temperate regions of the northern hemisphere remained below seasonal threshold levels, though notable increases in activity were reported in some areas; the persistence of the increased activity over the last few weeks in these areas likely represents the start of the influenza transmission season. The influenza viruses detected throughout the northern hemisphere temperate zone were predominantly A/H3N2 subtype with the exception of China (and to a lesser degree Southeast Asia) where influenza type B predominated. Countries in the tropical zone reported low levels of influenza activity except for Costa Rica, which was primarily detecting influenza A/H3N2. Influenza activity in the temperate countries of the southern hemisphere was at inter-seasonal levels though Chile and Australia both reported persistent transmission of A/H3N2 with smaller numbers of influenza type B in Australia.

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

Avian Influenza:

According to the WHO on 11 January 2012, the Ministry of Health of Indonesia notified the WHO of one new case of human infection with avian influenza A/H5N1 virus: a 23-year-old male who died on 7 January 2012 after brief hospitalization. Epidemiological investigation indicated that he had handled birds, including one that had been ill. The cumulative number of deaths attributed to A/H5N1 in 2012 has reached 1 (100%) out of the total of 1 case reported to the WHO. http://www.who.int/csr/don/2012_01_11/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	<u>Reporting Information</u>	Health unit/medical health officer notified? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Person Reporting: _____	Title: _____
	Contact Phone: _____	Email: _____
	Health Authority: _____	HSDA: _____
	Full Facility Name: _____	
	Is this report:	<input type="checkbox"/> First Notification (<i>complete section B below; Section D if available</i>) <input type="checkbox"/> Update (<i>complete section C below; Section D if available</i>) <input type="checkbox"/> Outbreak Over (<i>complete section C below; Section D if available</i>)

B	<u>First Notification</u>														
	Type of facility: <input type="checkbox"/> LTCF <input type="checkbox"/> Acute Care Hospital <input type="checkbox"/> Senior's Residence <i>(if ward or wing, please specify name/number: _____)</i>														
	<input type="checkbox"/> Workplace <input type="checkbox"/> School (grades: _____) <input type="checkbox"/> Other (_____)														
	Date of onset of first case of ILI (dd/mm/yyyy): <u>DD</u> / <u>MMM</u> / <u>YYYY</u>														
	<table border="1"> <thead> <tr> <th>Numbers to date</th> <th>Residents/Students</th> <th>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															
Hospitalized															
Died															

C	<u>Update AND Outbreak Declared Over</u>															
	Date of onset for most recent case of ILI (dd/mm/yyyy): <u>DD</u> / <u>MMM</u> / <u>YYYY</u>															
	If over, date outbreak declared over (dd/mm/yyyy): <u>DD</u> / <u>MMM</u> / <u>YYYY</u>															
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	Numbers to date	Residents/Students	Staff													
Total																
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Died																

D	<u>Laboratory Information</u>
	Specimen(s) submitted? <input type="checkbox"/> Yes (location: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know If yes, organism identified? <input type="checkbox"/> Yes (specify: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know