

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2009-10: Number 31, Weeks 36-39

September 5 to October 2, 2010



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &
Emerging Respiratory Pathogens Team

Influenza activity in BC remains low; sporadic A/H3N2 detected

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Summary

In weeks 36 through 39 (September 5 – October 2), influenza- activity in BC remained low. Sentinel physician and MSP indicators remained consistent with low levels observed in previous weeks. No lab-confirmed influenza outbreaks were reported in the province. At the BC Provincial Laboratory, 215 respiratory specimens were tested between September 5 and October 2, 110 (51%) of which were positive for rhino/enterovirus. Four (<2%) influenza A/H3N2 viruses were detected, all in elderly people. Of 188 specimens tested at BC Children's Hospital Laboratory, none were positive for influenza. Other non-influenza respiratory viruses were sporadically detected at both labs during this period. In the temperate Northern Hemisphere there has been little respiratory illness activity during this time. In sub-tropical/tropical regions of the Northern Hemisphere and temperate parts of the Southern Hemisphere, rates of respiratory illness have fluctuated in recent weeks, with regionally intense activity (Central America, China, South East Asia, South Africa) and low levels of activity in others. Detections to date have included a mix of pandemic influenza A/H1N1 virus and seasonal influenza B and A/H3N2 viruses, with variation by country. BCCDC continues to monitor the situation in the southern hemisphere during their typical influenza season (April - October).

Report disseminated October 8, 2010

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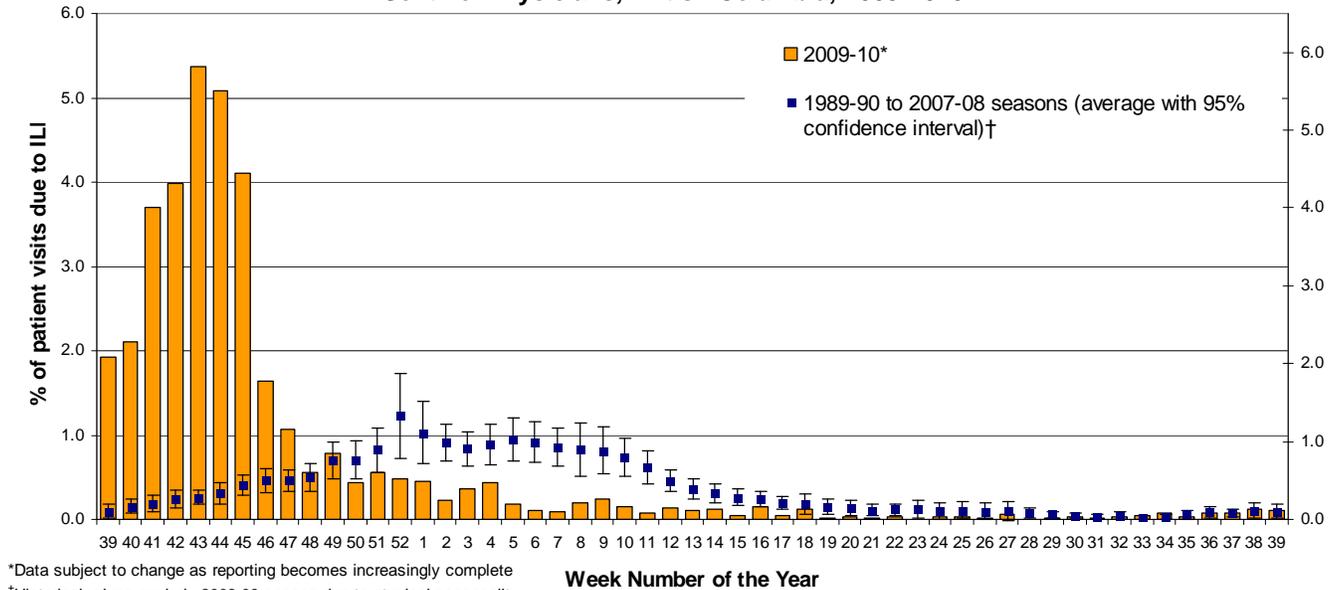
September 5 to October 2, 2010

British Columbia

Sentinel Physicians

During weeks 36-39, less than 0.2% of patients presenting to sentinel physicians had ILI, which is consistent with the expected range for this time of year. Seventy-five percent (36/48) of sentinel physician sites have reported to-date for week 36, 69% (33/48) for week 37, 67% (32/48) for week 38, and 56% (27/48) for week 39.

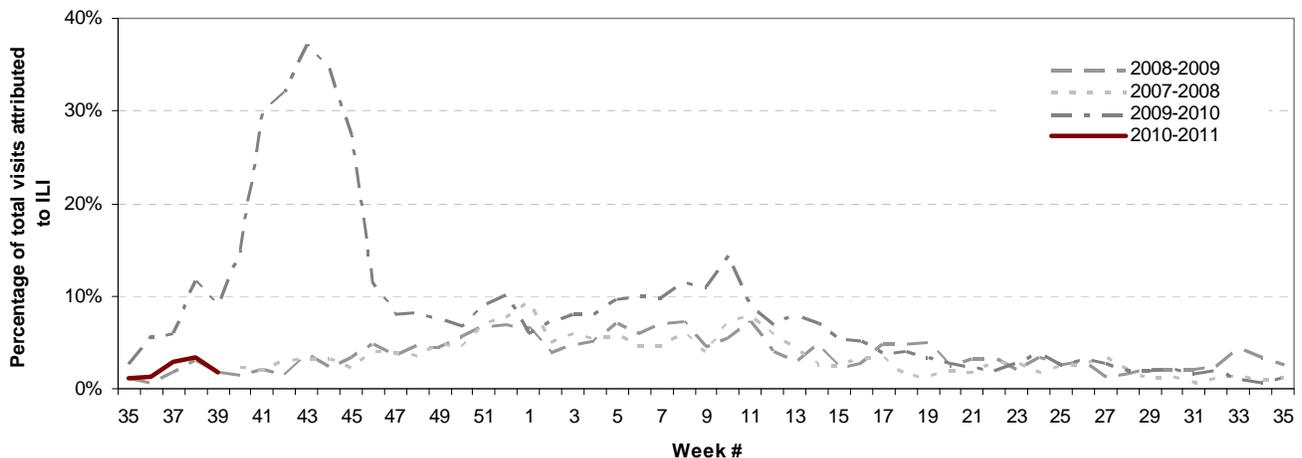
Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 19 Seasons Sentinel Physicians, British Columbia, 2009-2010



BC Children's Hospital Emergency Room

The percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness remained low (<3%) in weeks 36-39, consistent with levels observed in previous seasons.

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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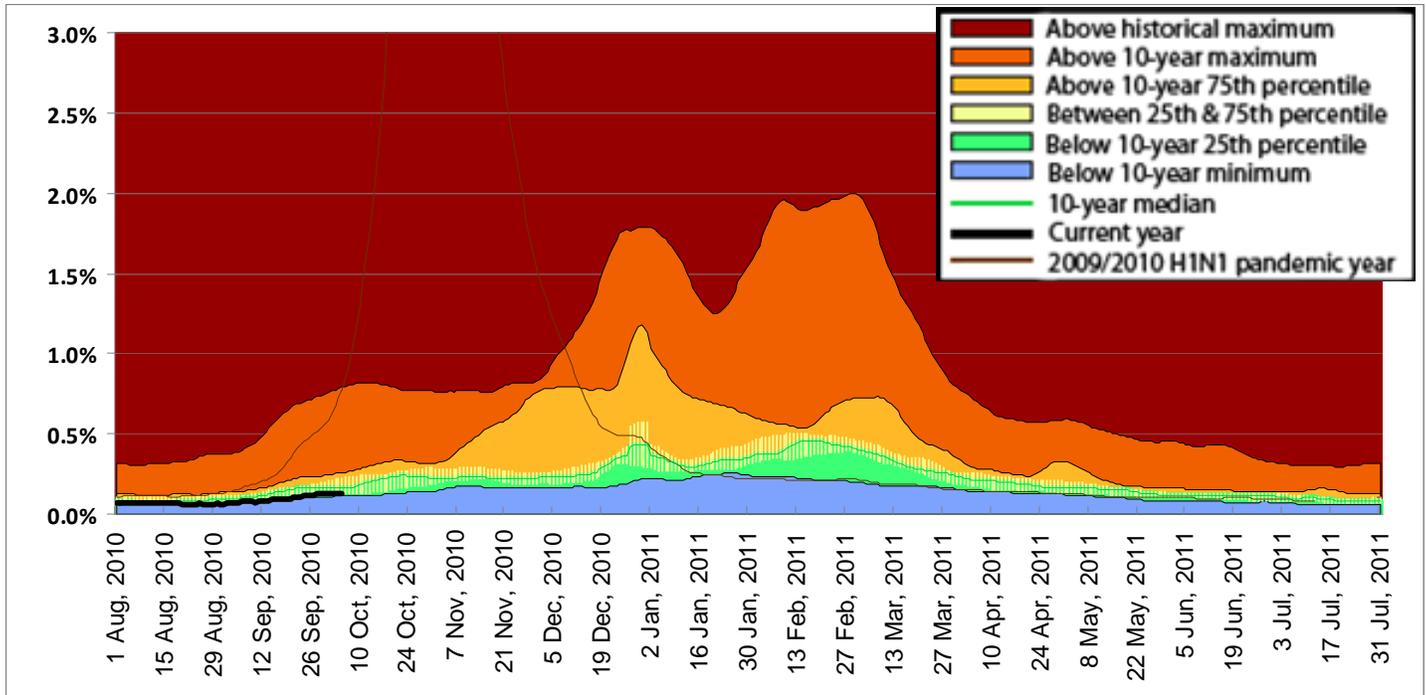
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Medical Services Plan

Influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims also remained low in the last four weeks. Proportions in all 5 RHAs remain at or below historical medians. To better reveal current low-level trends, the ~9% peak in MSP claims of late October/early November 2009 is not shown in the graphs below (consult earlier bulletins).

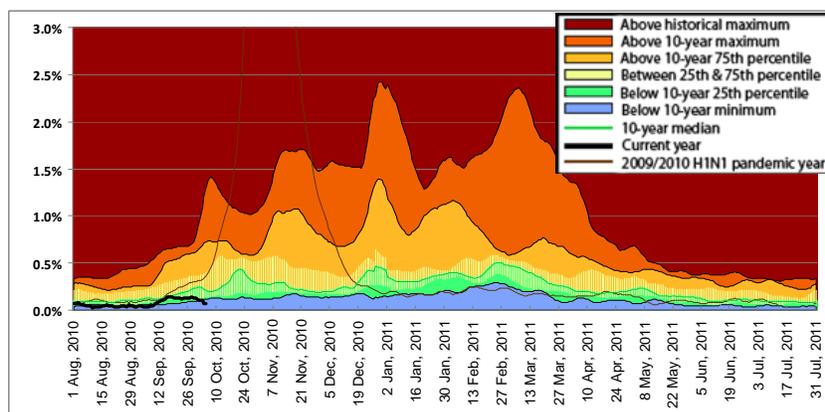
Influenza Illness Claims* British Columbia



* 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, Ministry of Healthy Living & Sport

Notes: MSP week 26 Sep, 2010 corresponds to sentinel ILI week 39.
Data current to Oct 5, 2010

Northern

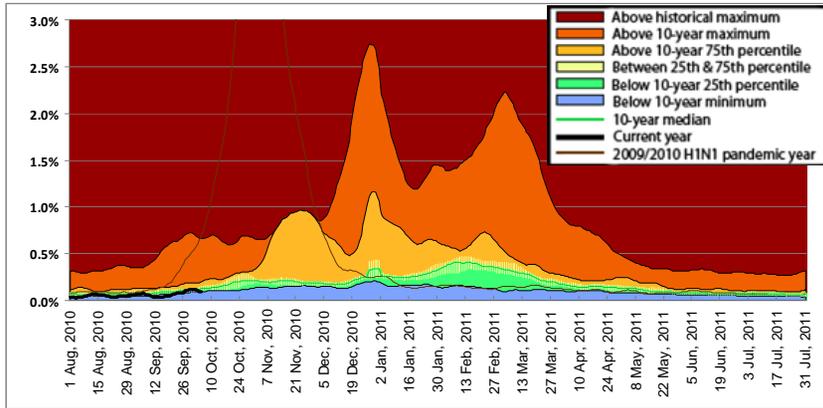


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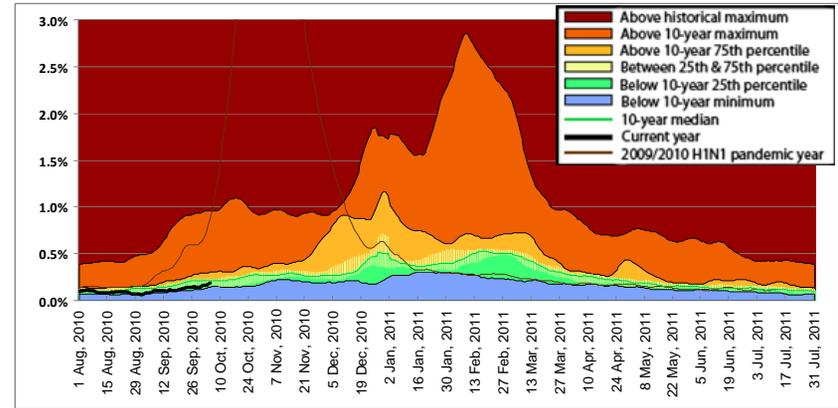
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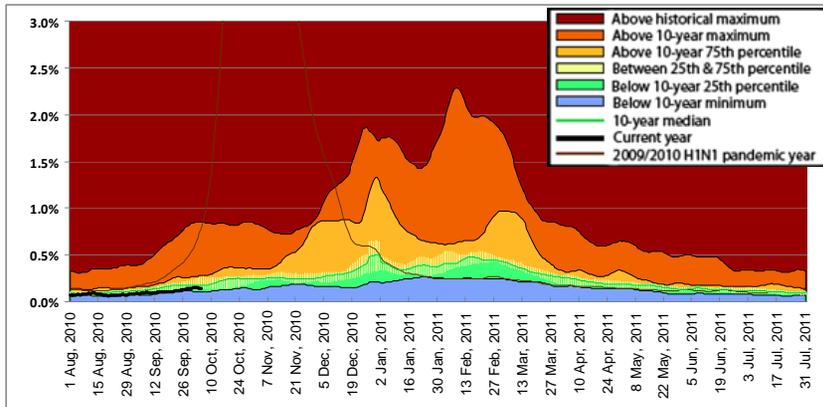
Interior



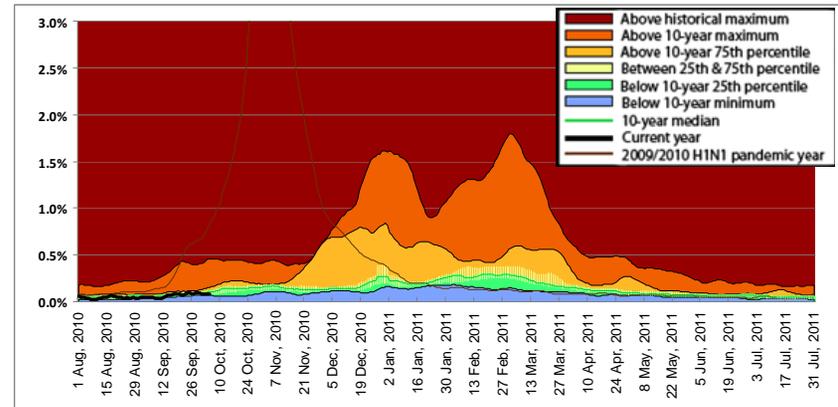
Vancouver Coastal



Fraser



Vancouver Island



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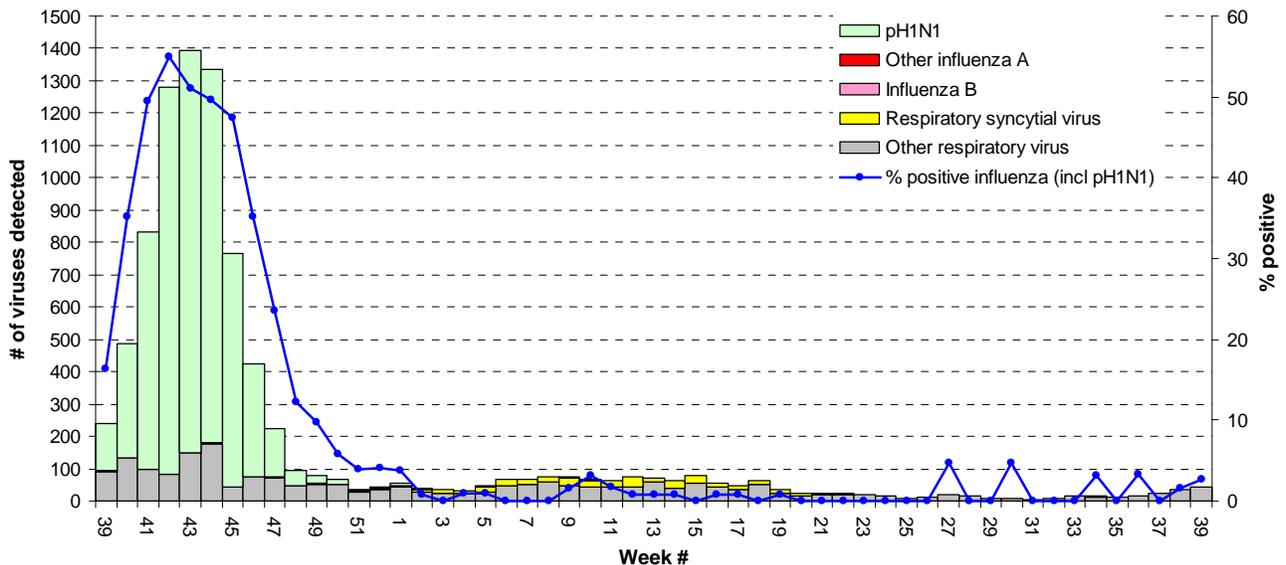
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Laboratory Reports

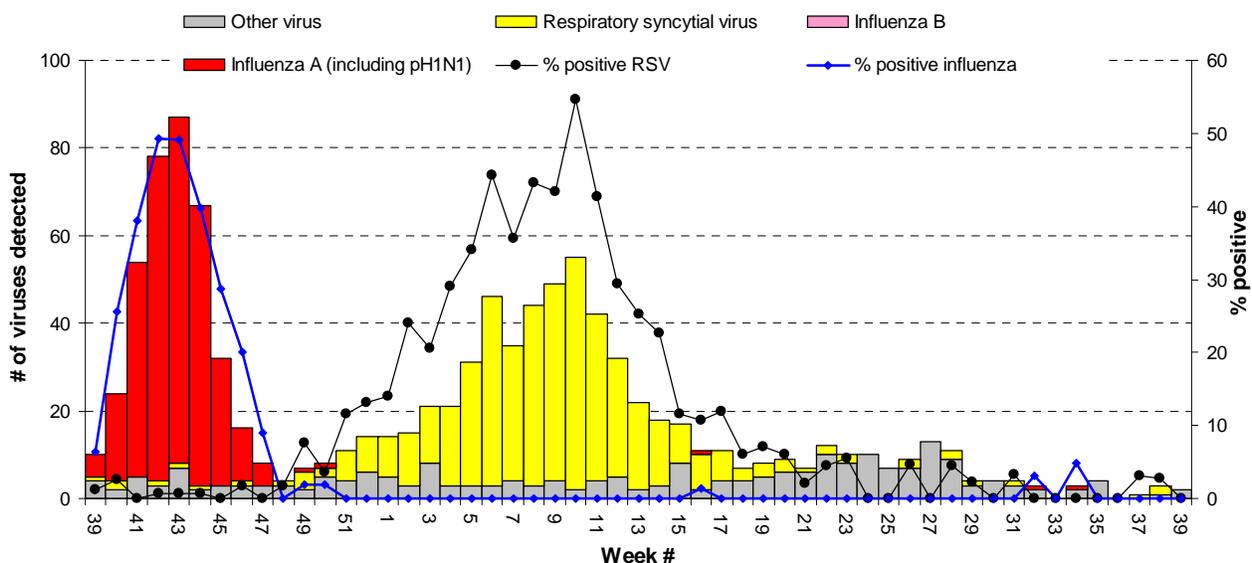
Two hundred fifteen respiratory specimens were tested at the BC Provincial Laboratory in weeks 36-39. Four (<2%) were positive for influenza A/H3N2 (one in week 36, one in week 38, and two in week 39), all among elderly people. There have been no BC Prov Lab detections of pH1N1 since week 27, and of influenza B since week 19. In weeks 36-39, of 215 specimens tested for other respiratory viruses, 110 (51%) tested positive for rhino/enterovirus, and 3 (1.4%) for parainfluenza. This suggests that acute febrile respiratory symptoms observed in the population at this time may be more likely due to other respiratory viruses, notably rhino/enterovirus, than influenza.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Provincial Laboratory, 2009-2010



During weeks 36-39, BC Children's and Women's Health Centre Laboratory tested 188 respiratory specimens. None were positive for influenza. Three specimens (1.6%) were positive for RSV, and 3 (1.6%) for parainfluenza.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Children's and Women's Health Centre Laboratory, 2009-2010



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

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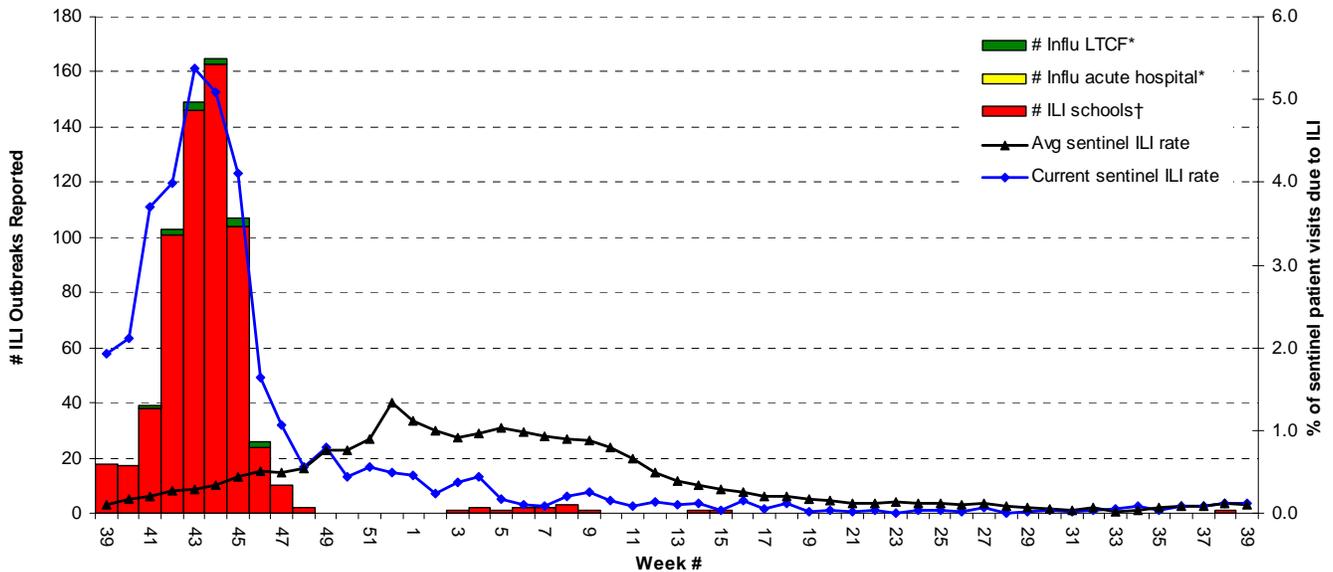
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ILI Outbreaks

Four ILI outbreaks were reported by facilities in the province, but none were confirmed by laboratory testing to be influenza. Where results were available, laboratory testing identified rhino/enterovirus. One ILI outbreak (not lab-confirmed) was reported in a school in BC during weeks 36-39.

Number of Influenza and Influenza-Like Illness (ILI) Outbreaks Reported, Compared to Current Sentinel ILI Rate and Average Sentinel ILI Rate for past 19 years, per Week, British Columbia, 2009-2010



* 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.

CANADA

FluWatch

During the two weeks ending September 25, 2010, influenza activity in Canada increased slightly but remained low. Most of the influenza surveillance regions reported no activity. One school and one long-term care facility (both in Ontario) each reported an influenza outbreak. Eleven specimens (out of 2,246 or 0.5%) tested positive for influenza in weeks 37 and 38: five A/H3N2, and six untyped influenza A. Those specimens were reported from AB, ON and QC. www.phac-aspc.gc.ca/fluwatch/

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National Microbiology Laboratory (NML): Strain Characterization

Between September 1 and October 7, 2010, five influenza isolates (all seasonal influenza) were collected from provincial and hospital labs and characterized at the NML:

4 A/Perth/16/2009 (H3N2)-like[†] from QC, ON & AB;

1 B/Brisbane/60/2008 (Victoria lineage)-like[†] from QC;

[†] indicates a strain match to the recommended H3N2 component of the 2010-11 northern hemisphere trivalent influenza vaccine

[†] indicates a strain match to the influenza B component of the 2010-2011 northern hemisphere trivalent influenza vaccine

NML: Antiviral Resistance

Drug susceptibility testing at the NML between September 1 and October 7, 2010 indicated that all five isolates were sensitive to oseltamivir and zanamivir. Two of the A/H3N2 isolates were tested and found to be resistant to amantadine.

INTERNATIONAL

To September 24, 2010, the WHO reported that Influenza virus circulation remained most active in areas of the temperate Southern Hemisphere and in parts of Asia, particularly South and Southeast Asia. Australia reported increasing ILI activity, with most of the lab detections being pH1N1, mixed with some influenza B. As of Oct 2, Chile reported a second straight week of decrease in national ILI activity. Both Chile and New Zealand's influenza seasons have been later than typical. In Asia, significant influenza virus circulation continues to be reported in India and Thailand and to a lesser extent in China. In India, there is widespread persistence of active influenza virus circulation. In South Africa, peak wintertime influenza activity has passed but there continues to be active co-circulation of seasonal influenza (type B and H3N2) viruses and also, more recently, influenza H1N1 (2009) viruses.

http://www.who.int/csr/disease/influenza/2010_09_24_GIP_surveillance/en/index.html

www.pandemia.cl

WHO Recommendations for 2010-11 Northern Hemisphere Influenza Vaccine

On February 18, the WHO announced the recommended strain components for the 2010-11 Northern Hemisphere trivalent influenza vaccine:

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

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

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

A/California/7/2009 (H1N1) was the recommended component for pandemic H1N1 vaccines produced and administered in 2009-10. The recommended H3N2 virus has changed from the previous year's vaccine (A/Brisbane/10/2007), while the recommended B virus remains unchanged (B/Brisbane/60/2008). For further details, see: www.who.int/csr/disease/influenza/recommendations2010_11north/en/index.html

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Contact Us:

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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

