

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 2, Weeks 46-47

November 14 to 27, 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

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Summary

During weeks 46 through 47 (November 14 – November 27), influenza activity in BC remained low. Sentinel physician and MSP indicators were consistent with the low levels observed in previous weeks. No lab-confirmed influenza outbreaks were reported in the province. At the BC Provincial Laboratory, 157 respiratory specimens were tested between November 14 and 27, 58 (37%) of which were positive for rhino/enterovirus. One (<1%) type B influenza virus was detected in a 60 year old. Of 89 specimens tested at BC Children's Hospital Laboratory, 1 (<1%) was positive for influenza. Other non-influenza respiratory viruses were sporadically detected at both labs during this period. Influenza activity during week 47 in the rest of Canada remained low. However, some regions of the Prairies, Ontario and Quebec have reported slightly increased activity related to A/H3N2. During week 47, influenza activity in the United States remained relatively low overall, but increased slightly in the Southeast with 19% of specimens positive for influenza. Elsewhere in the temperate Northern Hemisphere there has been little respiratory illness activity to date. Other recent influenza virus detections of note include two unlinked human cases of novel swine influenza A/H3N2 in the United States reported in week 44 and an outbreak of avian influenza H5N2 in a commercial poultry operation in Manitoba in week 46. Further human cases have not been detected in association with either of these events. See complete bulletin for details.

Report disseminated December 4, 2010

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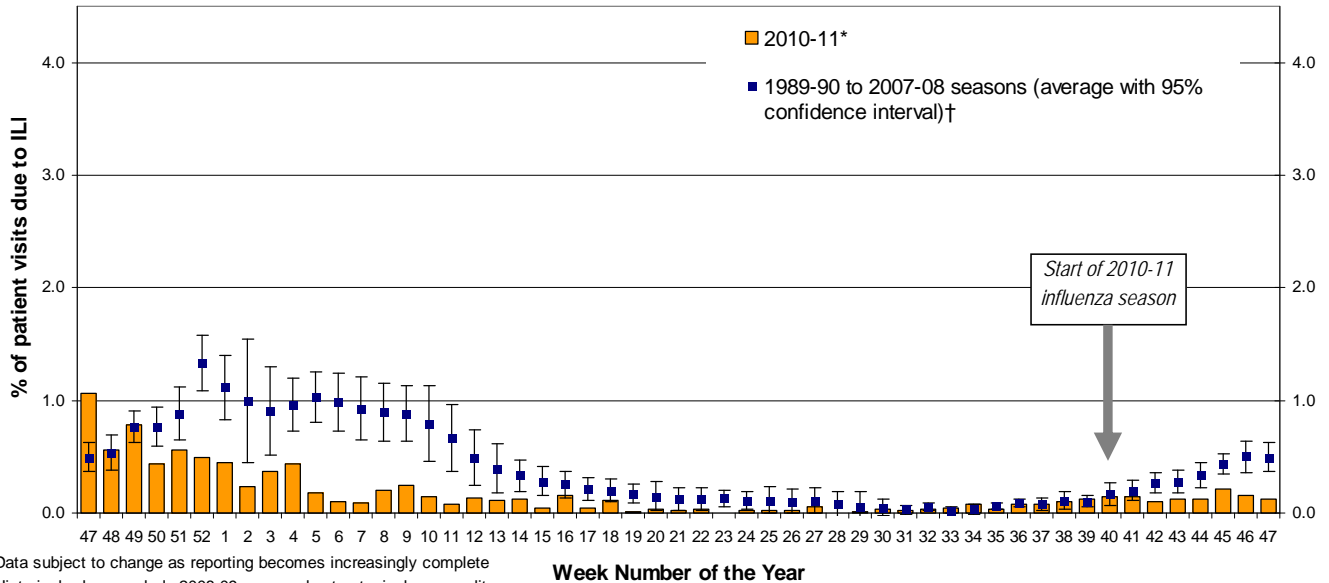
November 14 to 27, 2010

British Columbia

Sentinel Physicians

During weeks 46-47, less than 0.2% of patients presenting to sentinel physicians had ILI, which is below the expected range for this time of year. Seventy-four percent (35/47) of sentinel physician sites have reported to-date for week 46, and 49% (23/47) for week 47.

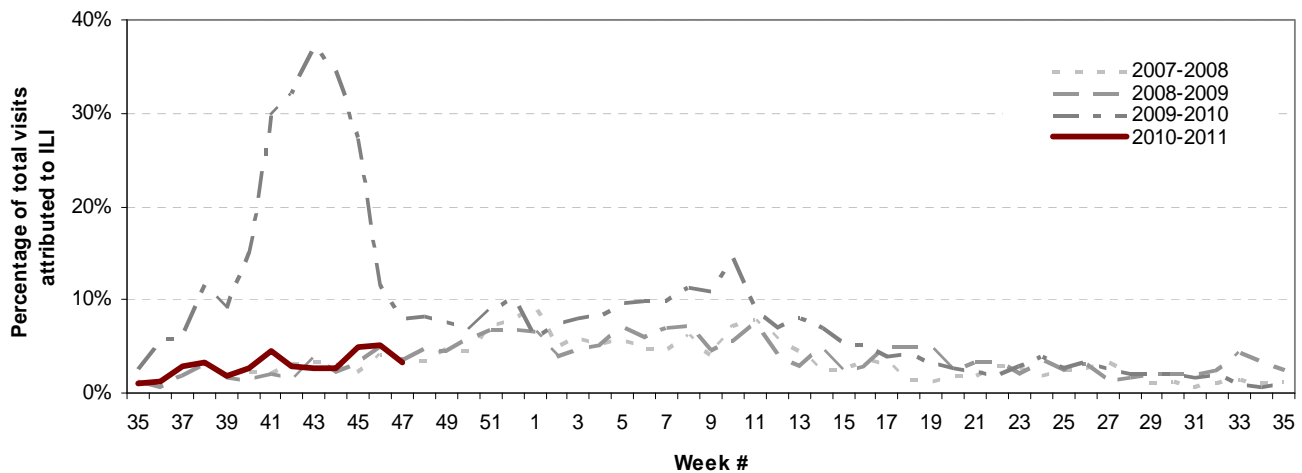
Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 19 Seasons Sentinel Physicians, British Columbia, 2010-2011



BC Children's Hospital Emergency Room

The percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness decreased to under 5% towards the end of this period and remains 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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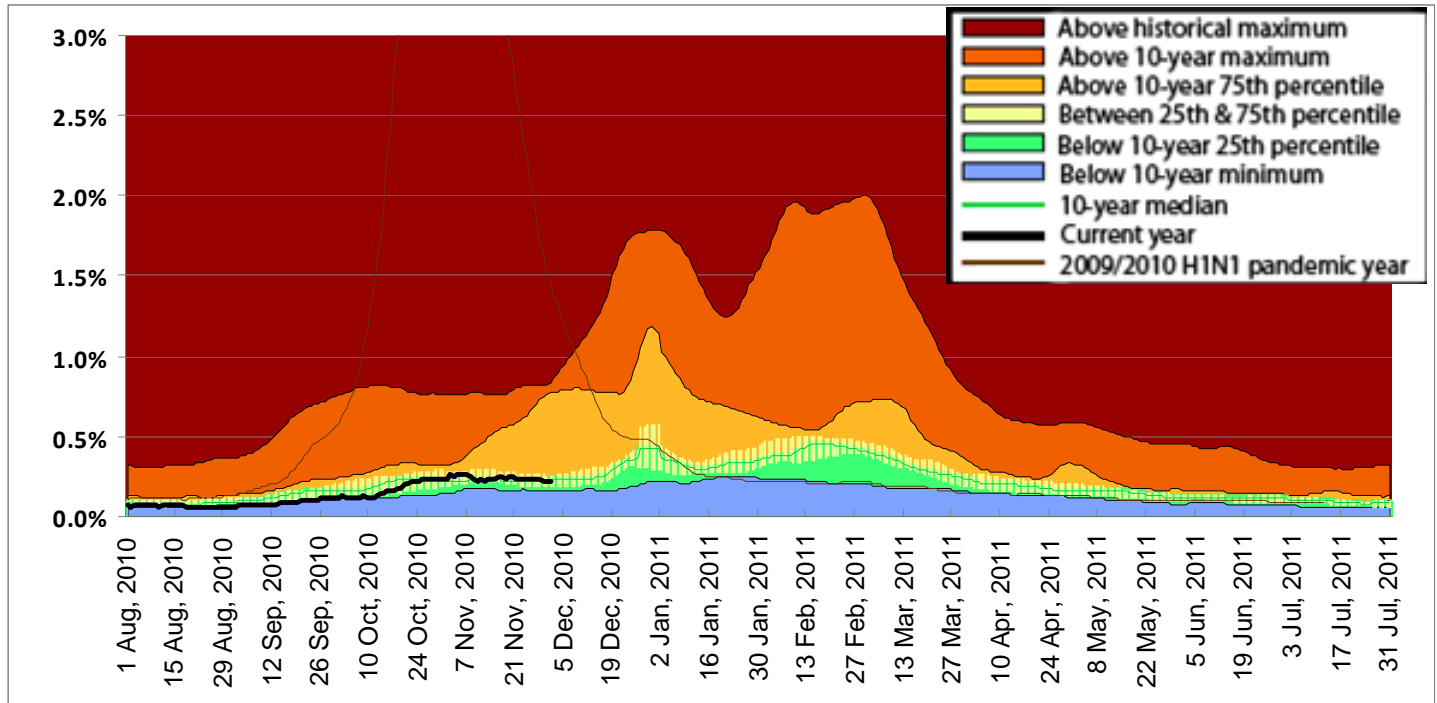
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Medical Services Plan

Influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims also remained low during the last two weeks. Proportions in all 5 RHAs remain at or below the 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).

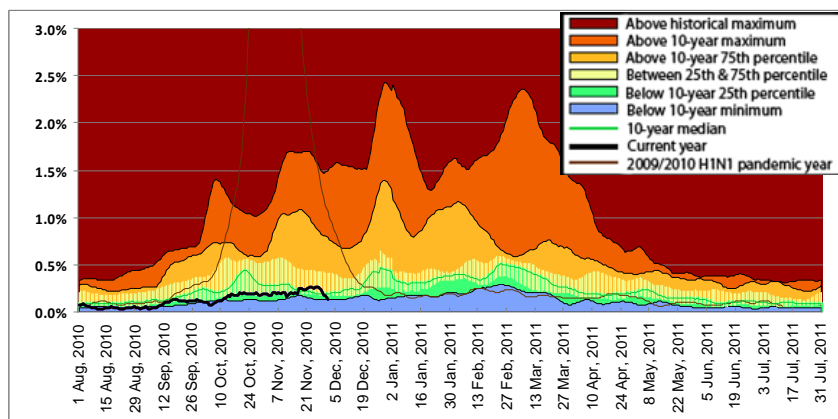
Influenza Illness Claims* British Columbia



* 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 21 Nov, 2010 corresponds to sentinel ILI week 47.
Data current to Dec 2, 2010

Northern

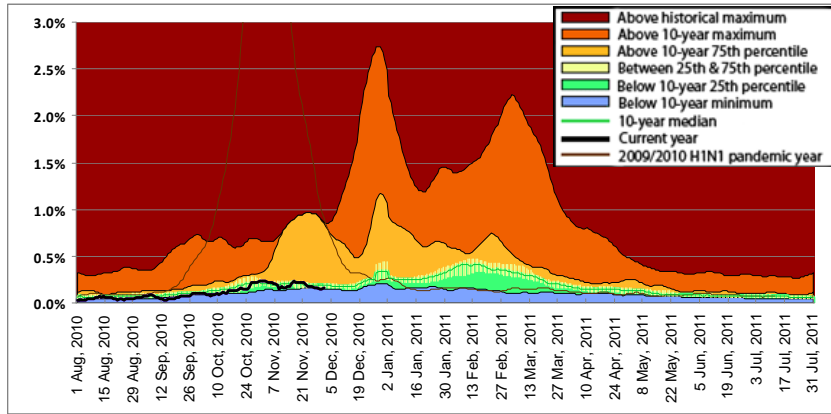


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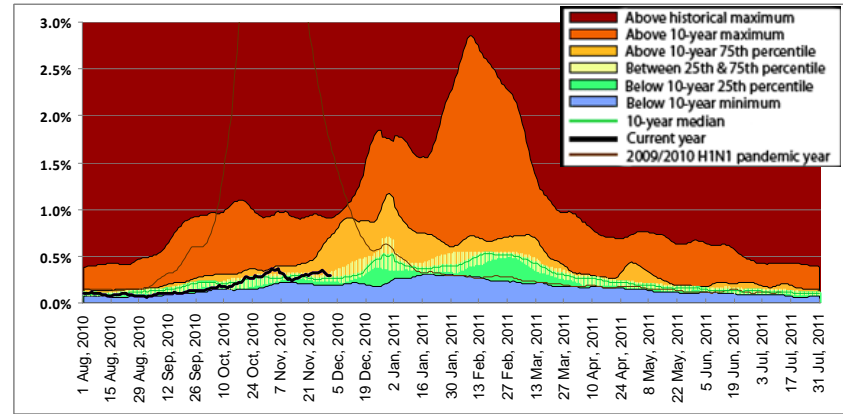
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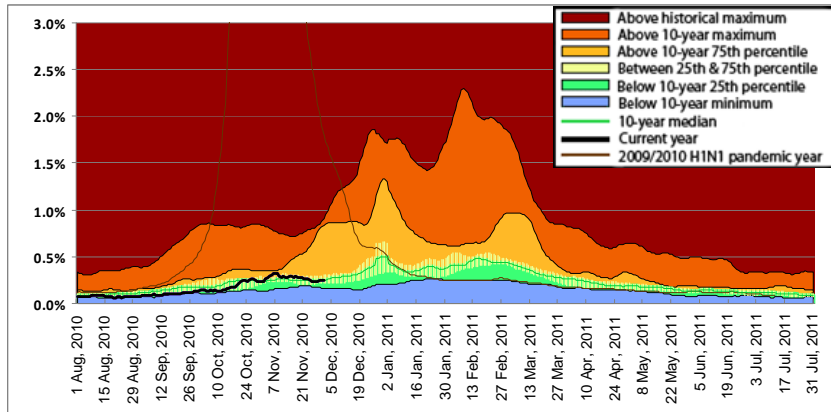
Interior



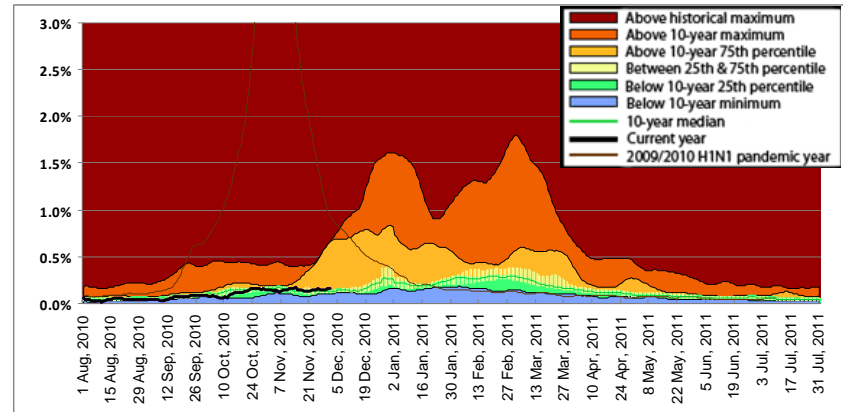
Vancouver Coastal



Fraser



Vancouver Island



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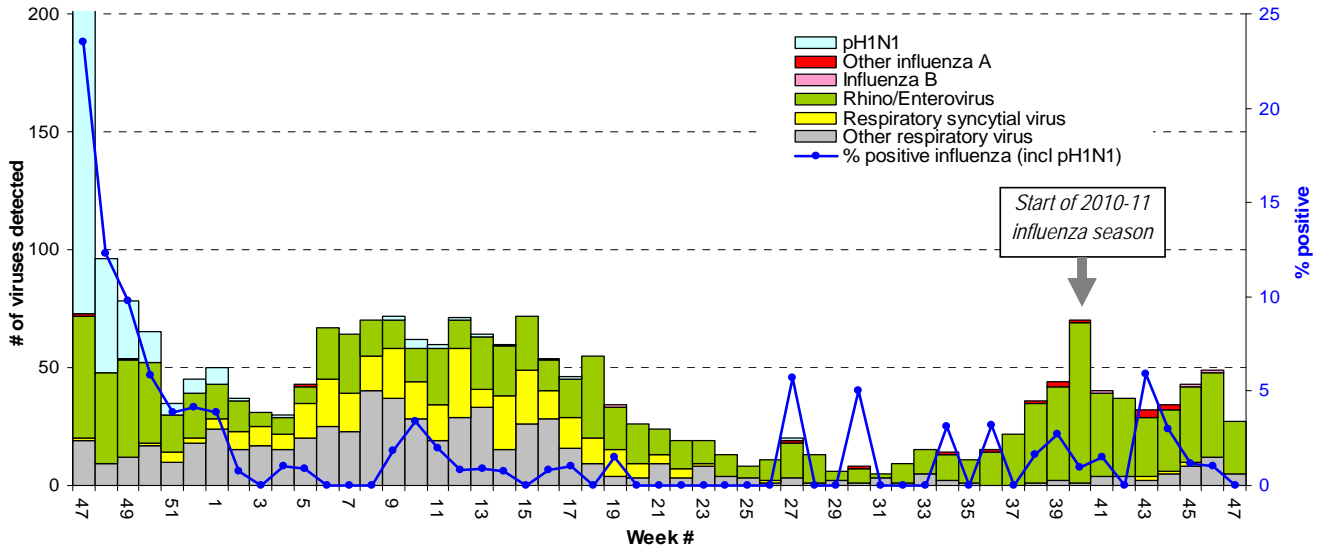
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Laboratory Reports

One hundred fifty-seven respiratory specimens were tested at the BC Provincial Laboratory in weeks 46-47. One (<1%) was positive for type B (week 46) in a 60 year old. No specimen was positive for influenza A in these two weeks. In weeks 46-47, of 157 specimens tested for other respiratory viruses, 58 (37%) tested positive for rhino/enterovirus, 3 (2%) for adenovirus, and 11 (7%) 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.

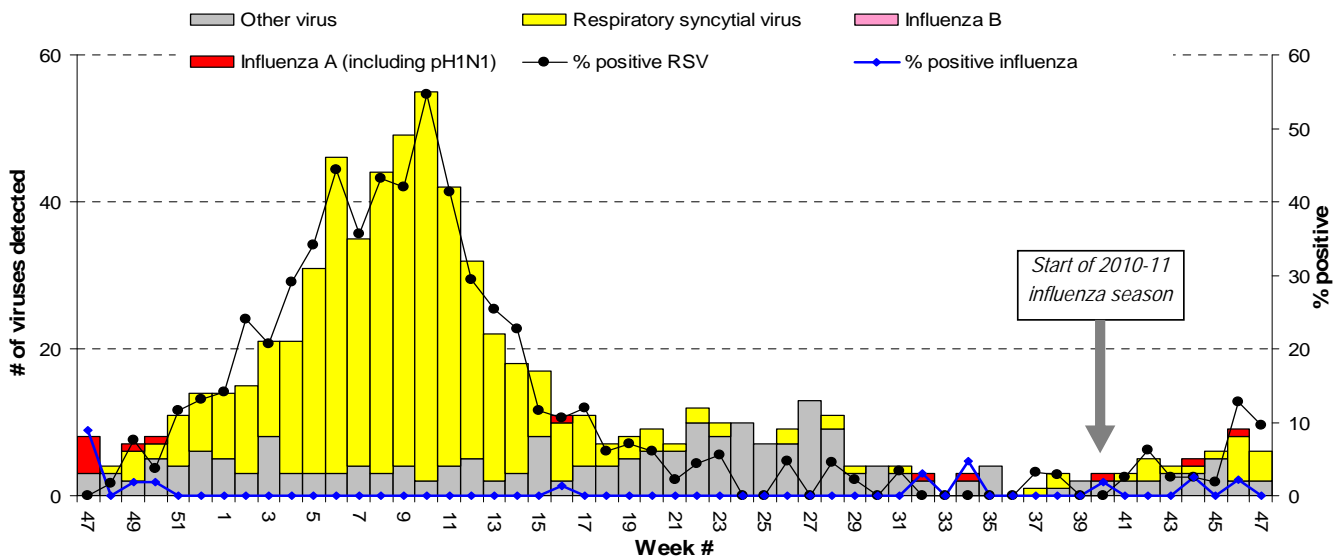
Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Provincial Laboratory, 2010-2011



Older data truncated to show greater detail in newer data (see earlier bulletins).
Before week 14 testing for other viruses was performed on a subset of specimens.

During weeks 46-47, BC Children's and Women's Health Centre Laboratory tested 89 respiratory specimens. One (1.1%) was positive for influenza A (not subtyped). Ten specimens (11.2%) were positive for RSV, 0 (0%) for parainfluenza, and 4 (4.5%) for adenovirus.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Children's and Women's Health Centre Laboratory, 2010-2011



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

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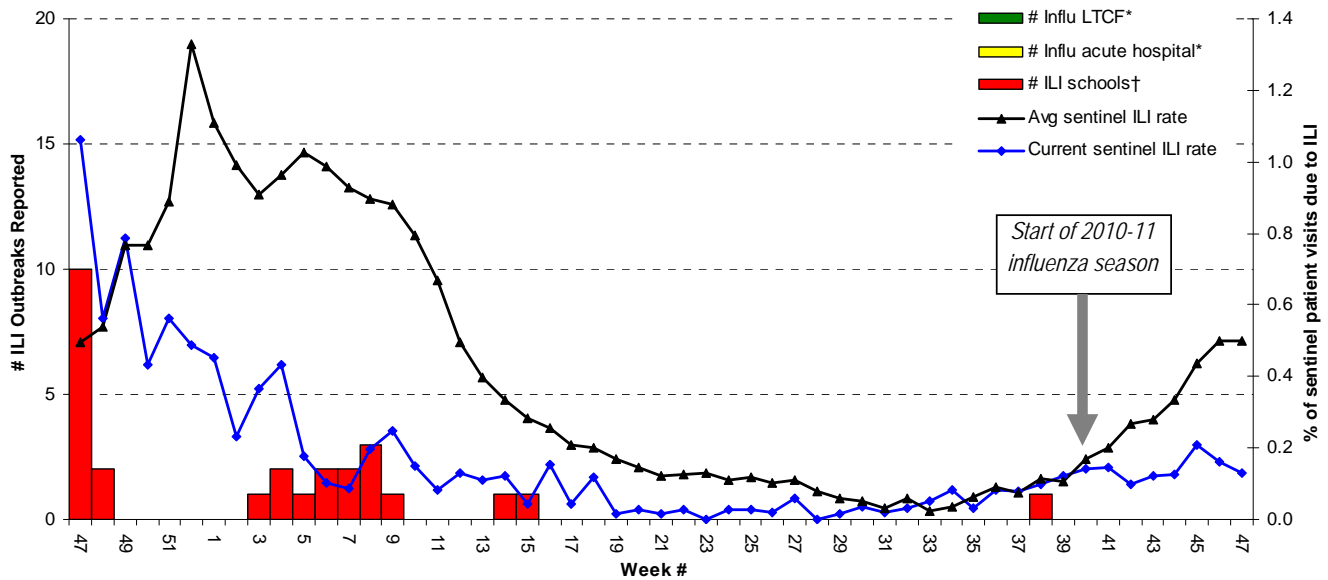
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ILI Outbreaks

Two ILI outbreaks were reported by facilities in the province, but no influenza was identified in either one. Laboratory testing identified parainfluenza type 3 in one of these. No ILI outbreaks were reported in BC schools during weeks 46-47.

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, 2010-2011 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.

CANADA

FluWatch

During the week ending November 27, 2010, influenza activity in Canada remained low. However, the activity level in some regions of the Prairies, Ontario and Quebec has slightly increased. The influenza-like illness (ILI) consultation rate remained within the expected range for this time of year. One hundred eleven specimens (out of 2,418 or 4.59%) tested positive for influenza in week 47: 39 A/H3N2, 63 unsubtype influenza A, and 9 influenza B. Those specimens were reported from ON, QC, MB, AB, SK, and BC. Influenza A activity was mainly concentrated in ON, QC and MB. Presence of low pathogenic H5N2 avian influenza was confirmed in a commercial poultry operation in Rockwood, MB in week 46. The infected farm remains quarantined and all birds in the operation will be destroyed. No associated human illness was reported. www.phac-aspc.gc.ca/fluwatch/

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National Microbiology Laboratory (NML): Strain Characterization

Between September 1 and December 2, 2010, twenty-nine influenza isolates were collected from provincial and hospital labs and characterized at the NML:

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

1 A/California/07/2009 (H1N1)-like* from ON;

4 B/Brisbane/60/2008 (Victoria lineage)-like[†] from QC, ON & BC;

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

* indicates a strain match to the recommended H1N1 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 December 2, 2010 indicated that all A/H3N2 and pH1N1 isolates were resistant to amantadine. All the isolates tested for zanamivir and oseltamivir resistance (21 A/H3N2, 1 pH1N1, 3 type B) showed susceptibility.

INTERNATIONAL

Northern Hemisphere: During the week ending November 27, 2010, influenza activity remained low in the United States <http://www.cdc.gov/flu/weekly/>. Three hundred sixty six specimens (out of 3,430, or 10.7%) tested positive for influenza in week 47: 7 pH1N1, 127 A/H3, 47 untyped influenza A, and 185 type B. The proportion of ILINet physician visits for ILI was 1.9%, which was below the national baseline of 2.5%. The CDC further reported that the proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold in the USA. Two cases of human infection with a novel swine influenza A/H3N2 virus were reported in week 44 FluView; one case in Wisconsin (symptom onset: September 8, 2010) and one case in Pennsylvania (symptom onset: October 24, 2010). Both cases lived in the vicinity of pig farms and have recovered. There are no reports of further community transmission (http://www.cdc.gov/flu/weekly/pdf/External_F1044.pdf). Most countries in Europe continued to report low ILI activity, with a mix of A/H3N2, pH1N1, and type B identified. Most countries in temperate Asia reported ILI activity at or below the seasonal baseline. China and Japan reported low to sporadic influenza activity.

Southern Hemisphere: To November 19, 2010, the WHO reported low influenza activity overall worldwide. Influenza virus circulation remained most active in areas of Southeast Asia and temperate South America. As of early November, Australia reported low levels of pH1N1 and influenza B co-circulation. Argentina reported localized, late season epidemics of influenza A during September and October 2010. Chile reported low influenza activity overall, and Bolivia and Columbia reported low to moderate levels of A/H3N2 and pH1N1. In Asia, active influenza virus circulation continues to be reported in Thailand and Cambodia, whereas India and Bangladesh reported significantly subsided circulation. In Hong Kong, ILI activity returned to seasonal baseline. The reported sporadic A/H5N1 case on November 17, 2010 by WHO http://www.who.int/csr/don/2010_11_19/en/index.html and Hong Kong Centre for Health Protection http://www.chp.gov.hk/files/pdf/2010_avian_influenza_report_vol6_week48.pdf had travel history to Shanghai, Nanjing, and Hangzhou. No secondary case was detected. The case is now in stable condition. In Singapore, sustained influenza activity was reported since April 2010. In South Africa, sub-Saharan Africa, and West Africa, low influenza activity was reported. In Central Africa, Cameroon reported significant circulation of A/H3N2 and type B.

http://www.who.int/csr/disease/influenza/2010_11_22_GIP_surveillance/en/index.html

www.pandemia.cl

<http://www.msal.gov.ar/hm/site/alerta-epidemiologico.asp>

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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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

