

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 21, Weeks 16-17

April 17 to 30, 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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Summary

During weeks 16-17 (April 17 - 30, 2011), all influenza surveillance indicators suggest low level influenza activity in BC. The sentinel physician ILI rate was low and within the expected range for this time of year and similar to that reported in previous weeks. MSP influenza visits were also stable at low levels. One school ILI outbreak was reported in which rhinovirus was detected. Influenza was detected in a very small proportion of submitted specimens (4.0%, 7 out of 173). Of 173 specimens tested for other respiratory viruses, 46 (26.6%) were positive for rhino/enterovirus, 13 (7.5%) for RSV, and 11 (6.4%) for parainfluenza. Other respiratory viruses were also sporadically detected.

Please note that this will be the last regular bulletin of the 2010-11 influenza reporting period.

We will continue to monitor the usual activity indicators but further bulletins through the summer will be issued on an as-needed basis only, until we resume regular reporting for the 2011-12 influenza season.

Report disseminated May 06, 2011

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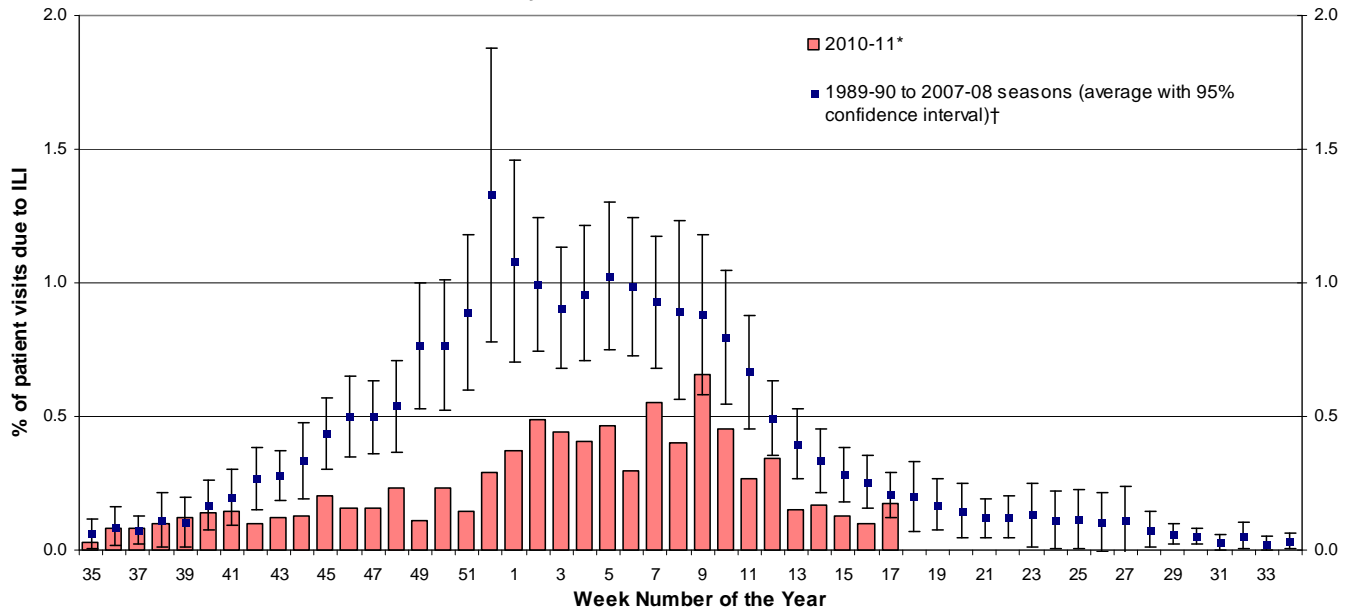
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British Columbia

Sentinel Physicians

During weeks 16-17, less than 0.2% of patients presenting to sentinel physicians had ILI, which is similar to the preceding weeks 14-15, and within the expected range for this time of year. Sixty-eight percent (30/44) and 48% (21/44) of sentinel physician sites have reported to-date for week 16 and week 17, respectively.

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

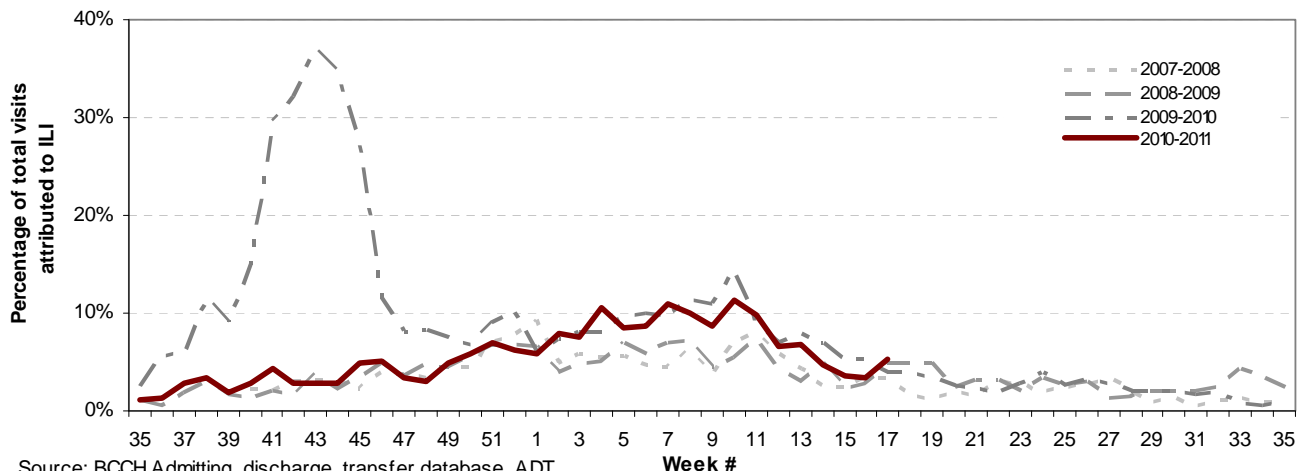


*Data subject to change as reporting becomes increasingly complete
 †Historical values exclude 2008-09 season due to atypical seasonality.

BC Children's Hospital Emergency Room

The percentage of BC Children's Hospital Emergency Room visits attributed to "fever and cough" or flu-like illness during week 16 and week 17 were 3.4% and 5.3%, respectively, similar to that reported in week 14-15 (3.5-4.8%), and consistent with the 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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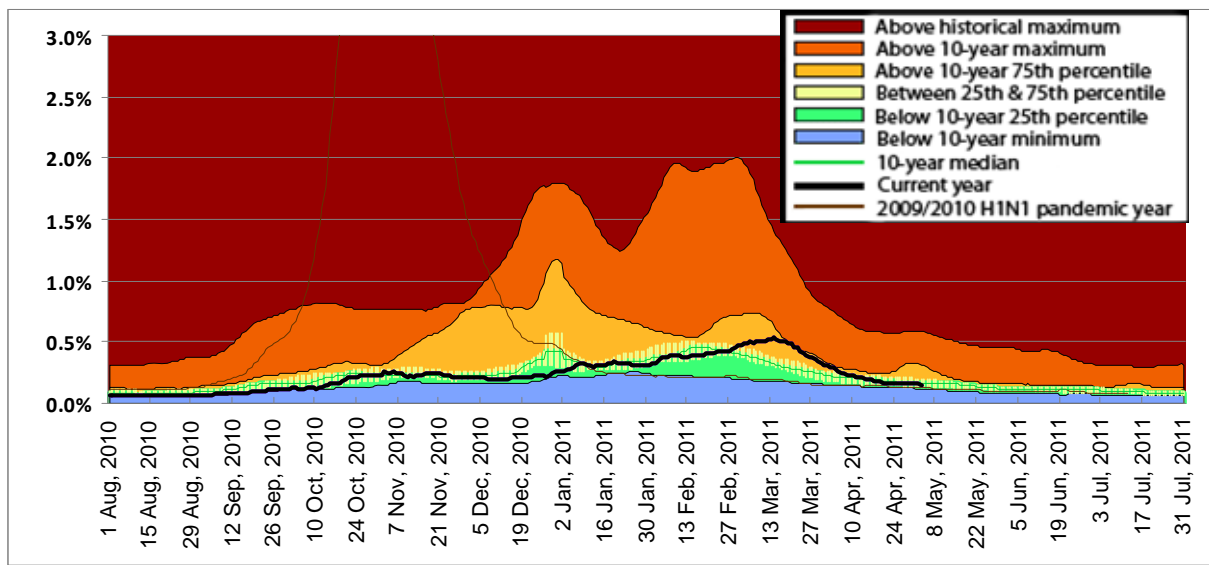
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Medical Services Plan

Influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims was generally stable at low levels during the past two weeks. 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).

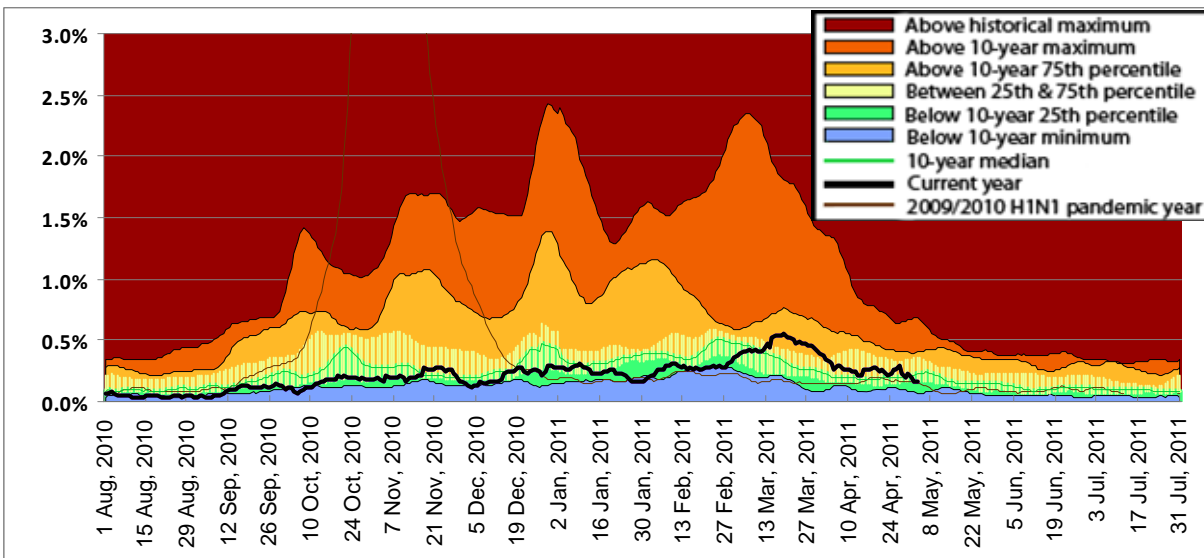
Influenza Illness Claims* British Columbia



* 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, BC Ministry of Health Services

Notes: MSP week beginning 24 April 2010 corresponds to sentinel ILI week 17
Data current to April 30, 2011

Northern

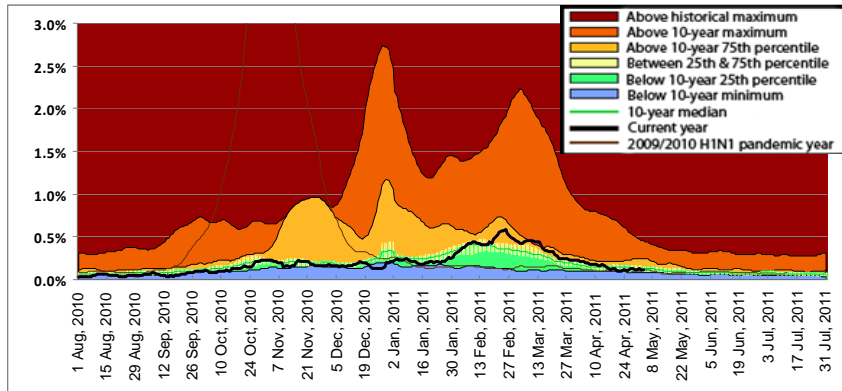


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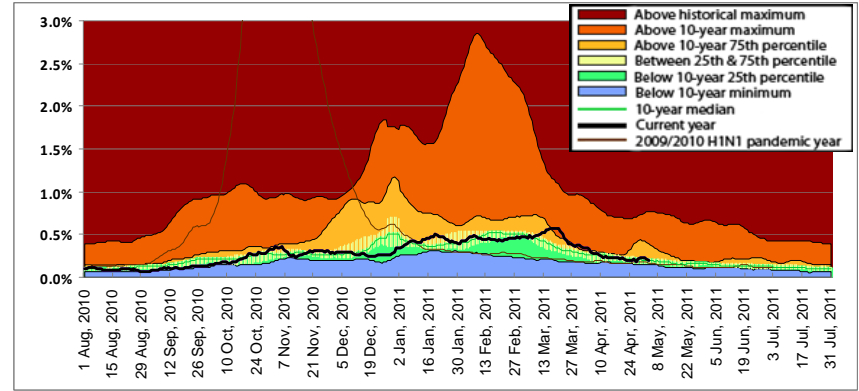
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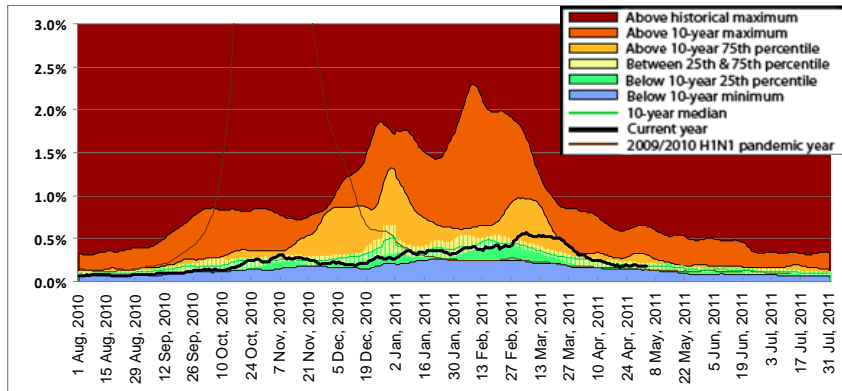
Interior



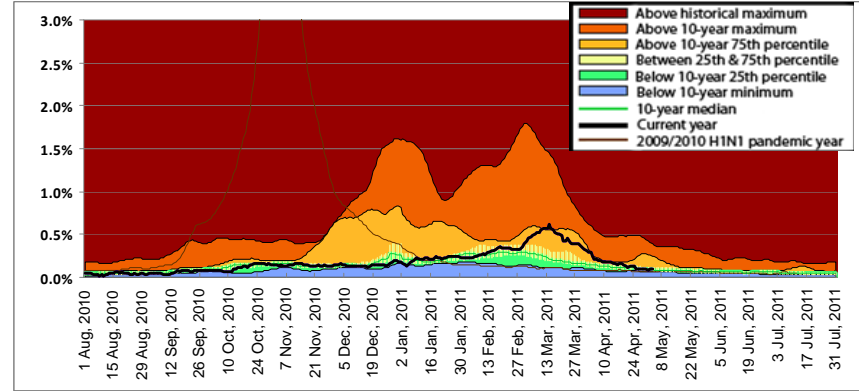
Vancouver Coastal



Fraser



Vancouver Island



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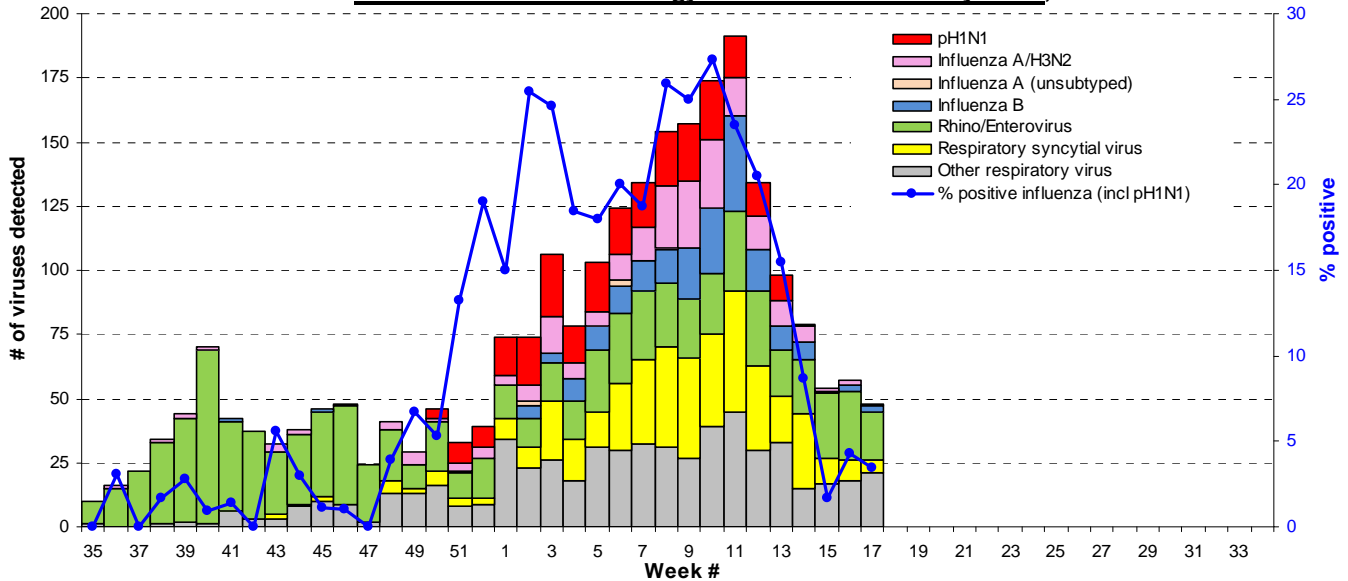
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Laboratory Reports

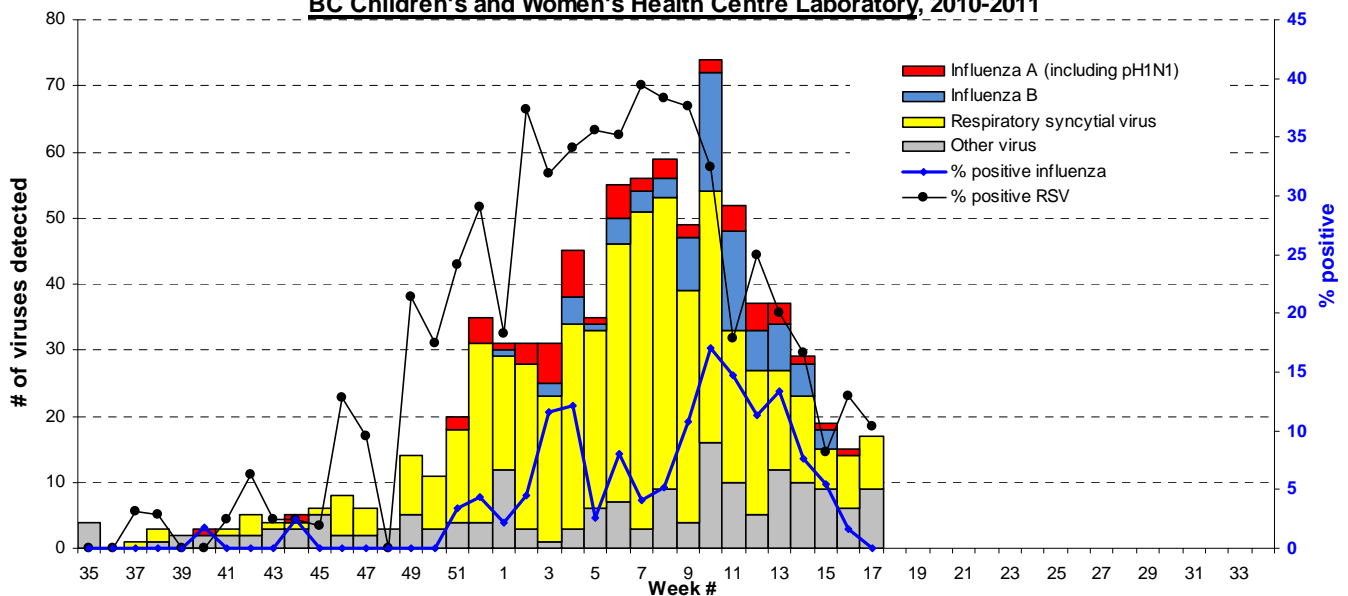
One hundred and seventy-three respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory during weeks 16-17. Influenza was detected in 7 (4.0%) of submitted specimens (4/88 in week 16 and 3/85 in week 17): three (1.7% of submitted specimens) were A/H3N2, 4 (2.3%) were type B. Seasonal influenza A/H3N2 was detected in Fraser and Vancouver Island HAs; influenza B was detected in all but Fraser HA. During weeks 16-17, of 173 specimens tested for other respiratory viruses, 46 (26.6%) were positive for rhino/enterovirus, 13 (7.5%) for RSV, and 11 (6.4%) for parainfluenza. Other respiratory viruses were also sporadically detected.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Public Health Microbiology & Reference Laboratory PHSA, 2010-2011



During weeks 16-17, BC Children's and Women's Health Centre Laboratory tested 139 respiratory specimens. One (0.7%) was positive for influenza. 16 specimens (11.5%) were positive for RSV.

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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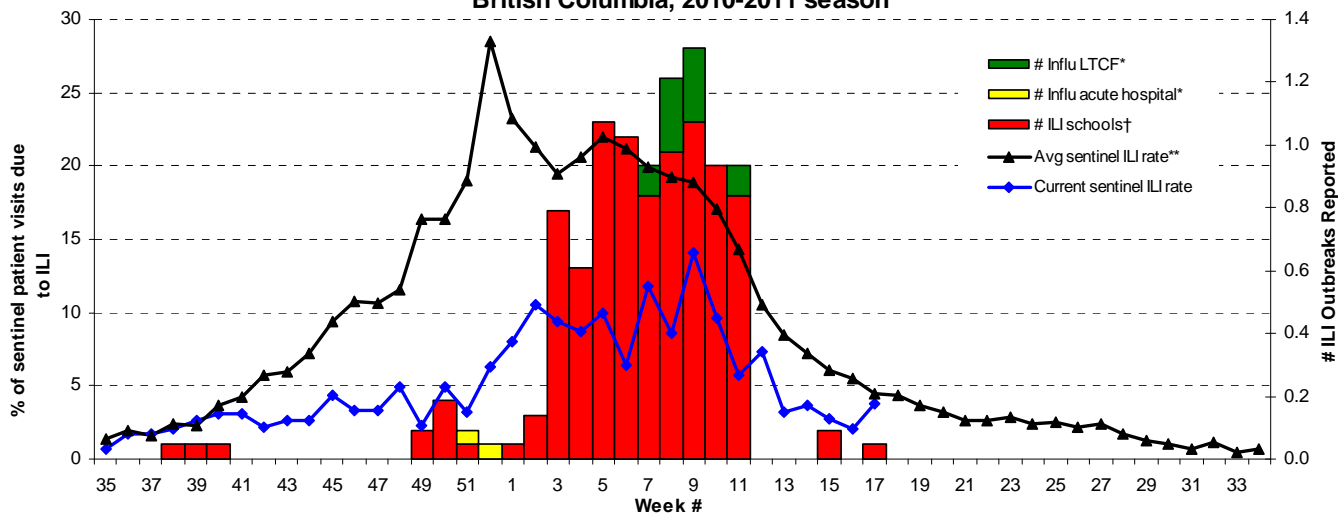
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ILI Outbreaks

During weeks 16-17, one new school ILI outbreak was reported from Northern HA, in which laboratory testing confirmed rhinovirus. One new outbreak was also reported from a long-term care facility (LTCF) from Interior HA, but respiratory virus testing found no pathogen.

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.

** Historical values exclude 2008-09 season due to atypical seasonality.

CANADA

FluWatch

In week 16 ending April 23, 2011, all indicators of influenza activity continued to decline. This was the third week in which more influenza B detections were reported than influenza A. Two hundred and twelve (7.2%) specimens in week 16 tested positive for influenza, a decrease from the previous week 15 (10.3%), including 55 (25.9%) influenza A and 157 (74.1%) influenza B. Among detected influenza A, 20 (36.4%) were reported as A/H3N2, 1 (1.8%) as pandemic H1N1, and 34 (61.8%) as unsubtype influenza A. The influenza-like illness (ILI) consultation rate per 1,000 patient visits in week 16 was slightly lower than the previous week (16.7 vs. 17.2), and within the expected rate for this time of year. Fourteen new outbreaks were reported during this week. In addition, 7 new paediatric hospitalizations and 4 new adult hospitalizations related to influenza were reported through IMPACT and CNISP networks in week 16. www.phac-aspc.gc.ca/fluwatch/

National Microbiology Laboratory (NML): Strain Characterization

Between September 1, 2010 and April 27, 2011, eight hundred and four influenza isolates were collected from provincial and hospital labs and characterized at the NML as follows:

252 A/Perth/16/2009 (H3N2)-like[†] from NB, QC, ON, MB, SK, ALTA, BC & NU;

137 A/California/07/2009 (H1N1)-like* from NS, NB, QC, ON, ALTA & BC;

396 B/Brisbane/60/2008 (Victoria lineage)-like[†] from NB, QC, ON, MB, SK, ALTA, BC, NT & NU;

19 B/Wisconsin/01/2010-like (Yamagata lineage)-like[‡] from 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 recommended influenza B component of the 2010-2011 northern hemisphere trivalent influenza vaccine

[‡] indicates a strain match to the recommended influenza B component of the 2008-2009 northern hemisphere trivalent influenza vaccine

NML: Antiviral Resistance

Drug susceptibility testing at the NML between September 1, 2010 and April 28, 2011 indicated that all but one A/H3N2 and all pandemic H1N1 isolates were resistant to amantadine. All the isolates of A/H3N2, pandemic H1N1, and B tested for zanamivir showed susceptibility. Oseltamivir resistance testing found that all but one pandemic H1N1, all but one A/H3N2, and all B isolates were susceptible.

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INTERNATIONAL

Northern Hemisphere: During week 16 ending April 23, 2011, influenza activity continued to decrease in the United States www.cdc.gov/flu/weekly/. Eighty eight (4.3% out of the 2,072 specimens) tested positive for influenza in week 16: 5 (10.0%) pandemic A/H1N1, 32 (64.0%) A/H3N2, 13 (26.0%) unsubtype influenza A, and 38 (43.2%) type B. The proportion of outpatient visits for ILI was 1.3%, which was below the national baseline of 2.5%. The CDC further reported that the proportion of deaths attributed to pneumonia and influenza in week 16 (8.0%) was at the epidemic threshold (7.7%) for the 13th consecutive week in the USA. **Other Areas:** According to WHO as of May 5, 2011, influenza activity in the European Region continued to decline and activity returned to baseline in 36 of 50 countries; five percent of sentinel specimens from patients with ILI tested positive for influenza and 3% of specimens from sentinel SARI patients tested positive for influenza; 55% of the few influenza samples that tested positive were due to influenza B, and 35% were due to pandemic A/H1N1. In North Africa, influenza virus activity was similar to the pattern observed in Europe. In Northern Asia, influenza activity also returned to or near baseline levels; of the very small number of viruses detected, most were influenza type B. Influenza activity for the southern hemisphere's 2011 season has yet to show signs of increase.

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

Avian Influenza: Two confirmed cases of influenza A/H5N1 were reported by Egypt's MOH on April 16: one died after hospitalization and another was in stable condition as of April 21, 2011. The previous case of influenza A/H5N1 reported by Cambodia's MOH on April 11 died after hospitalization. The cumulative number of confirmed human cases of avian influenza A/H5N1 in 2011 is 36, with 16 (44.4%) deaths. Details can be found in the latest WHO reports at: http://www.who.int/csr/disease/avian_influenza/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:

http://www.who.int/csr/disease/influenza/recommendations_2011_12north/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

