

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 10, Week 3

January 16 to 22, 2011



BC Centre for Disease Control

An agency of the Provincial Health Services Authority

Prepared by BCCDC Influenza &
Emerging Respiratory Pathogens Team

Slight increase in influenza activity in BC

Contents:

British Columbia:

Sentinel Physicians	Page 2
Children's Hospital ER	Page 2
Medical Services Plan	Page 3
Laboratory Surveillance	Page 5
ILI Outbreaks	Page 6

Canada:

FluWatch Activity levels	Page 6
NML Strain Characterization	Page 6
NML Antiviral Resistance	Page 7

<u>International:</u>	Page 7
-----------------------	------------------------

Other:

List of Acronyms	Page 8
Web Sites	Page 8
Outbreak Report Form	Page 9

Summary

During week 3 (January 16 – 22, 2011), influenza surveillance indicators in BC (sentinel physician ILI rate and MSP influenza visits) were mostly consistent with the last reporting period, showing only slight increase while remaining below historic levels for this time of year. At the BC Public Health Microbiology & Reference Laboratory, 173 respiratory specimens were tested. Influenza A was detected in 37 (21%) specimens: pandemic influenza A/H1N1 in 14 (8%), A/H3N2 in 14 (8%), and untyped influenza A in 9 (5%). Influenza B was detected in 4 (2%) specimens.

For your information, an updated influenza antiviral guidance document entitled "The Use of Antiviral Drugs for Influenza: Guidance for Practitioners, 2010-11" has been posted on the Association of Medical Microbiology and Infectious Disease, Canada (AMMI Canada) website available at the following link: www.ammi.ca/index.php. This document is also available on the Public Health Agency of Canada FightFlu.ca website at: www.fightflu.ca/health_professionals-eng.html

Report disseminated January 27, 2011

Contributors: Samson Chan, Lisan Kwindt, Naveed Janjua, Danuta Skowronski

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 10, Week 3

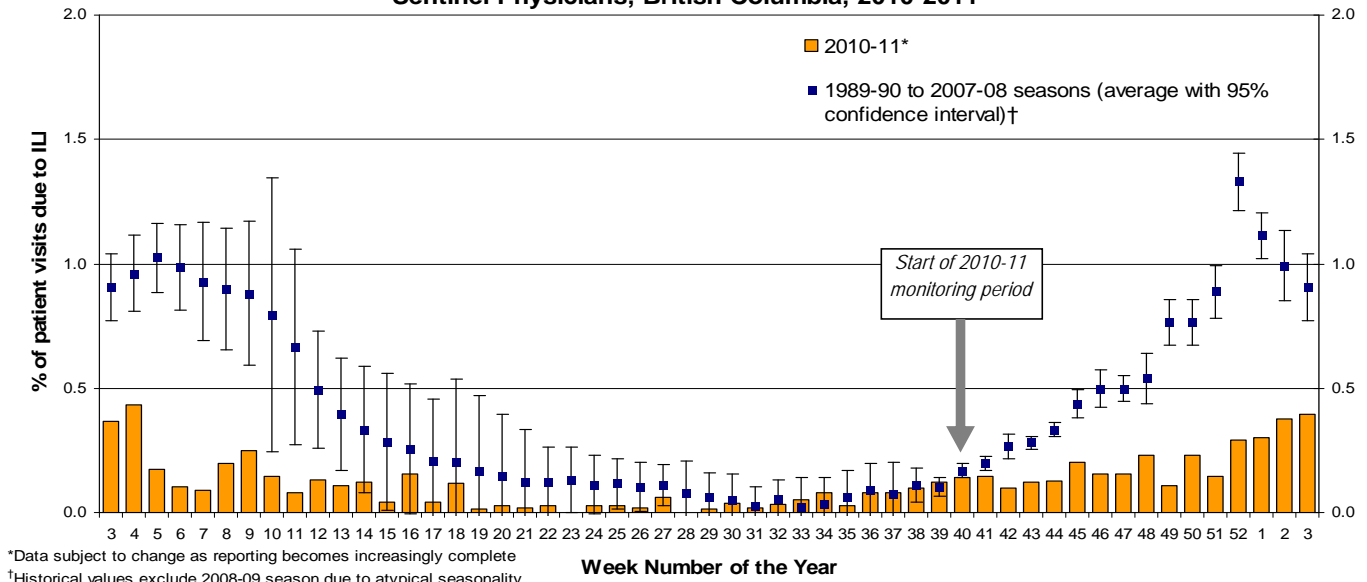
January 16 to 22, 2011

British Columbia

Sentinel Physicians

During week 3, ~ 0.4% of patients presenting to sentinel physicians had ILI, which is slightly higher than last week but still below the expected range for this time of year. Fifty-two percent (24/46) of sentinel physician sites have reported to-date for week 3.

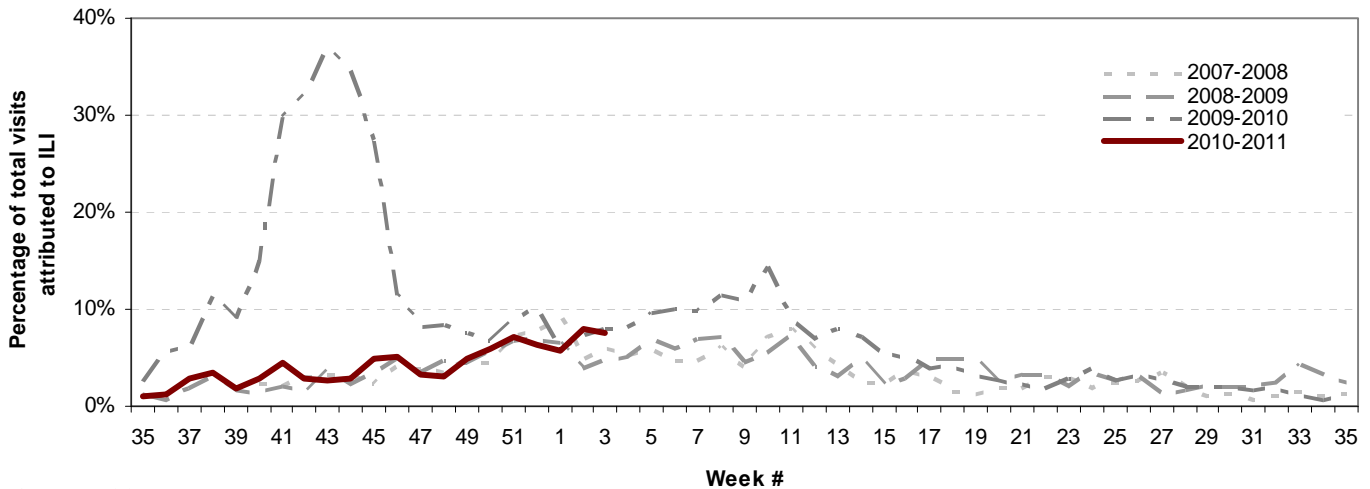
Percentage of Patient Visits due to Influenza Like Illness (ILI) per Week Compared to Average Percentage of ILI Visits for the Past 19 Seasons Sentinel Physicians, British Columbia, 2010-2011



BC Children's Hospital Emergency Room

The percentage of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness increased slightly from 5.8% in week 1 to 7.6% towards the end of week 3 and is slightly above the levels observed in 2007-08 and 2008-09 but similar to 2009-10 season.

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

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

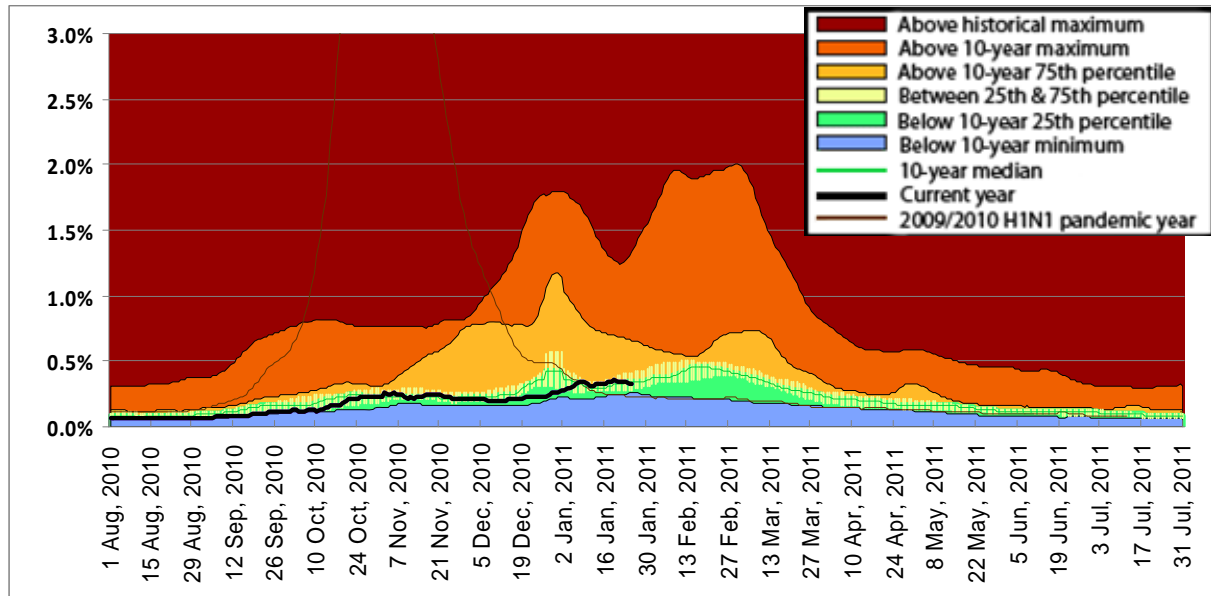
2010-11: Number 10, Week 3

January 16 to 22, 2011

Medical Services Plan

Influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims also showed slight increase being at or above 10-year medians provincially and in Vancouver Coastal, Fraser and Vancouver Island HAs while being below the 10-year median in Interior and Northern. 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).

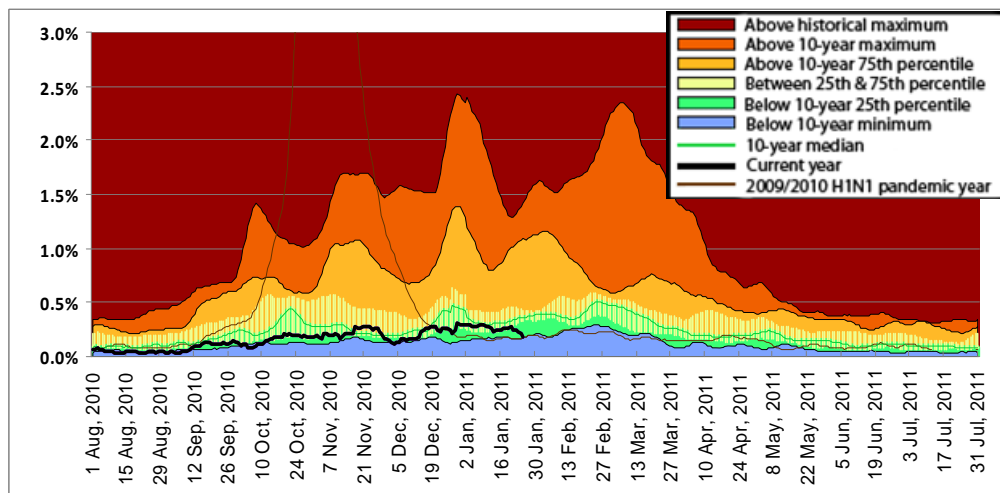
Influenza Illness Claims* British Columbia



* 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 Health Services

Notes: MSP week beginning 16 Jan 2010 corresponds to sentinel ILI week 03.
Data current to Jan 25, 2011

Northern

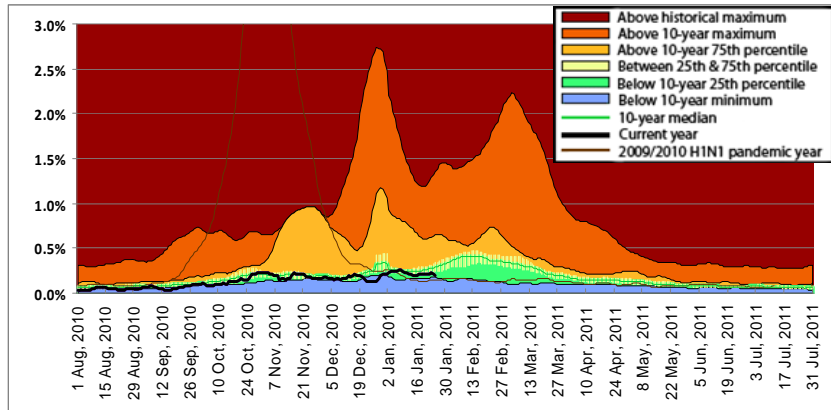


BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

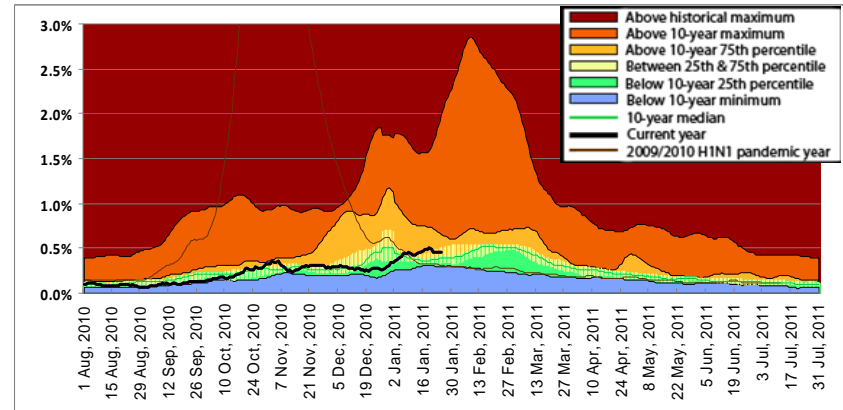
2010-11: Number 10, Week 3

January 16 to 22, 2011

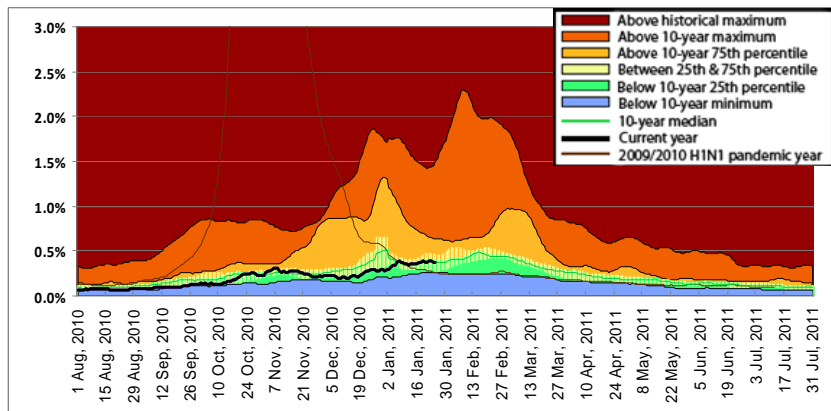
Interior



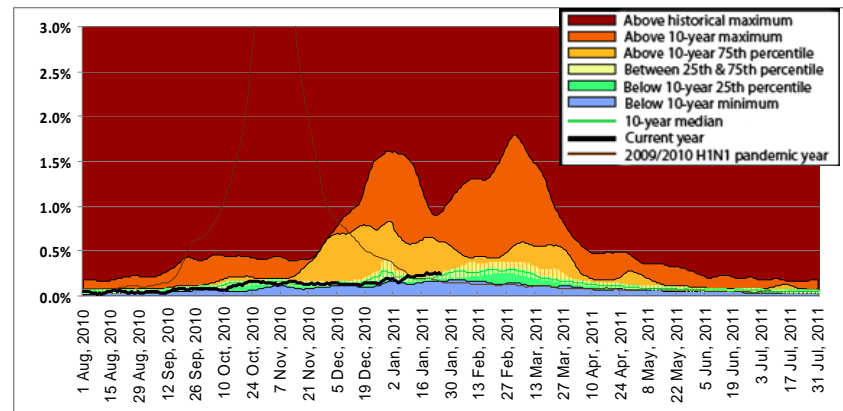
Vancouver Coastal



Fraser



Vancouver Island



BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

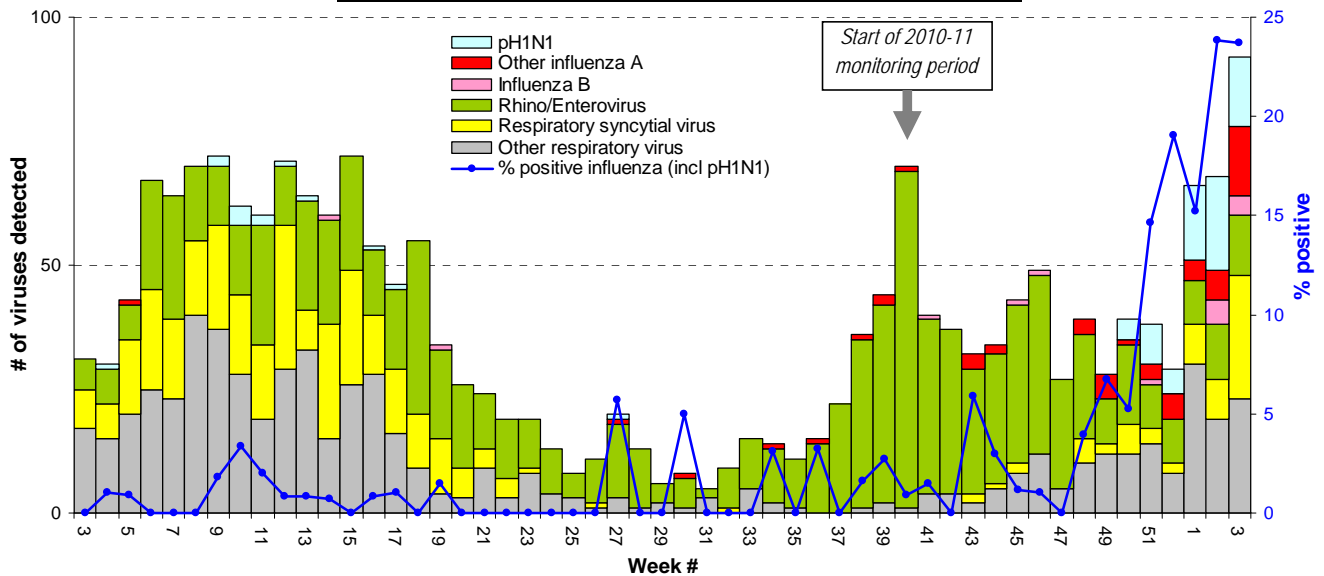
2010-11: Number 10, Week 3

January 16 to 22, 2011

Laboratory Reports

One hundred and seventy-three respiratory specimens were tested at the BC Public Health Microbiology & Reference Laboratory in week 3. Influenza was detected in 41 (24%) submitted specimens. Fourteen of these (8% of submitted specimens) were pandemic A/H1N1, 14 (8%) were A/H3N2, 9 (5%) were unsubtype A, and 4 (2%) were type B. There were sporadic detections of influenza A/H3N2 viruses from all health authorities. Pandemic A/H1N1 was also detected sporadically from all health authorities except Northern Health. During this week, of 173 specimens tested for other respiratory viruses, 25 (14%) were positive for RSV, 12 (7%) for rhino/enterovirus, and 8 (5%) for parainfluenza. Other respiratory viruses were also sporadically detected.

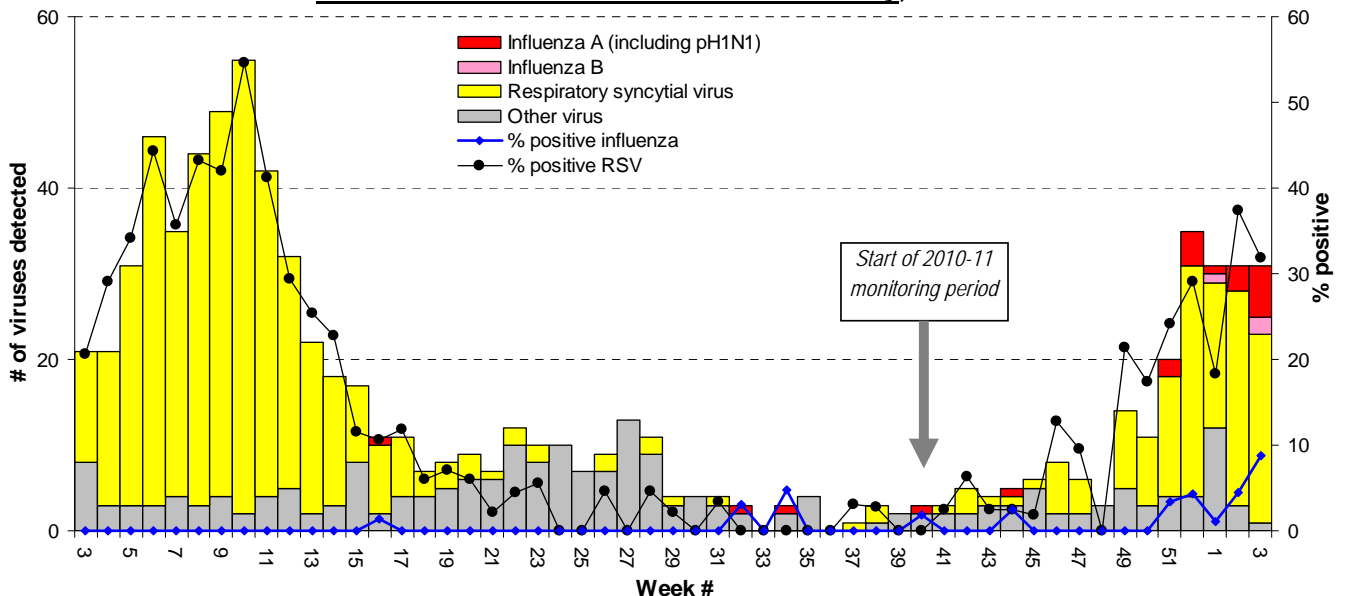
Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Public Health Microbiology & Reference Laboratory PHSA, 2010-2011



Before week 14 testing for other viruses was performed on a subset of specimens.

During week 3, BC Children's and Women's Health Centre Laboratory tested 69 respiratory specimens. Six (8.7%) were positive for influenza A and 2 (2.9%) were positive for type B. Twenty two specimens (31.9%) 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

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

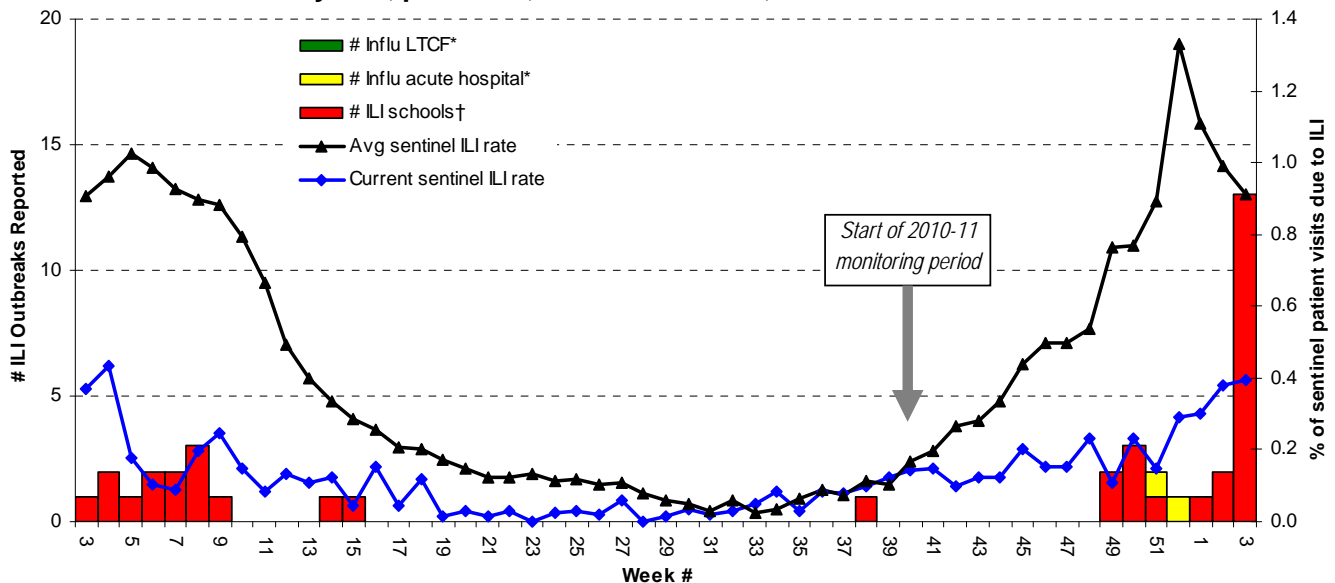
2010-11: Number 10, Week 3

January 16 to 22, 2011

ILI Outbreaks

During week 3, thirteen new ILI outbreaks were reported from schools in all Health Authorities except Vancouver Island. None of these outbreaks was lab confirmed. One long term care facility (LTCF) ILI outbreak with laboratory confirmed RSV detection was reported in Fraser HA. Lab testing confirmed that one school outbreak in Northern HA (beginning in week 2 but reported in week 3) was due to influenza A/H3N2.

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 week 2 ending January 15, 2011, influenza activity in Canada had decreased across the country. The influenza-like illness (ILI) consultation rate remained within the expected range for this time of year. One thousand six hundred and forty-eight specimens (23.1% in week 1) tested positive for influenza, a slight decrease from the previous week (25.5%): 404 A/H3N2, 1141 unsubtype influenza A, 74 pandemic H1N1, and 29 influenza B. Specimens were reported from all provinces but influenza A activity was mainly concentrated in ON, QC and AB. During week 2, 19 new paediatric hospitalizations and 77 new adult hospitalizations related to influenza were reported through IMPACT and CNISP networks. This is a decrease over previous weeks. In Ontario, during week 2, 667 influenza laboratory confirmed cases were detected with 28% positivity; a decrease from the previous week. The overall ILI consultation rate has decreased from 52/1,000 patient visits in Week 1 to 44/1,000 patient visits in Week 2. In Quebec during week 1, 712 (25%) of 2867 tested specimens were positive for influenza. www.phac-aspc.gc.ca/fluwatch/

National Microbiology Laboratory (NML): Strain Characterization

Between September 1, 2010 and January 19, 2011, one hundred and thirty-six influenza isolates were collected from provincial and hospital labs and characterized at the NML:

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

21 A/California/07/2009 (H1N1)-like* from ON, AB & BC;

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

1 B/Florida/04/2006-like (Yamagata lineage)-like[‡] from 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

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 10, Week 3

January 16 to 22, 2011

NML: Antiviral Resistance

Drug susceptibility testing at the NML between September 1, 2010 and January 20, 2011 indicated that all but one A/H3N2 and all pandemic H1N1 isolates were resistant to amantadine. All the isolates (81 A/H3N2, 21 pandemic H1N1, 21 type B) tested for zanamivir and oseltamivir resistance showed susceptibility.

For your information, an updated influenza antiviral guidance document entitled "The Use of Antiviral Drugs for Influenza: Guidance for Practitioners, 2010-11" has been posted on the Association of Medical Microbiology and Infectious Disease, Canada (AMMI Canada) website available at the following link: www.ammi.ca/index.php. This document is also available on the Public Health Agency of Canada FightFlu.ca website at: www.fightflu.ca/health_professionals-eng.html

INTERNATIONAL

Northern Hemisphere: During week 2 ending January 15, 2011, influenza activity had increased in the United States www.cdc.gov/flu/weekly/. One thousand two hundred and eighty-six specimens (out of 4,983, or 25.9%) tested positive for influenza in week 2: 173 pandemic H1N1, 487 A/H3, 432 untyped influenza A, and 196 type B. The proportion of ILINet physician visits for ILI was 2.9%, which was above 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.

Updates from WHO are pending. As of January 20, the United Kingdom reported declining flu activity, with pH1N1 and type B remaining as the predominant strains. Rates of ILI consultations in England, Scotland, Wales, and Northern Ireland have dropped from previous week. In other European countries such as France, Portugal, the Netherlands, and Denmark, numbers of pandemic H1N1 related hospitalizations and deaths and type B cases have increased. Overall in Europe, pH1N1 remains the dominant strain, co-circulating with A/H3N2 and type B. In North Africa and the Middle East, several countries reported increases in influenza activity. Morocco, Algeria, and Tunisia reported modestly higher levels of influenza, mainly type B, in the last 2

to 3 weeks. Circulation of pandemic H1N1 was reported in Egypt, associated with 122 deaths since October. Iran and Pakistan also had a steady increase in influenza, mainly pandemic H1N1. In North Asia (including Mongolia, northern China, the Republic of Korea, and Japan) slight increases in respiratory disease activity were reported in recent weeks. The increase in activity was associated with A/H3N2 in Mongolia and northern China, but had peaked in late December. Japan had earlier detections of A/H3N2 but pandemic H1N1 has become the predominant virus. The Republic of Korea reported mainly pandemic H1N1 circulation.

http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1287147913271
www.who.int/csr/disease/influenza/2011_01_14_GIP_surveillance/en/index.html

Avian Influenza: As of January 20, 2011, one new human case of A/H5N1 was reported. A 1-year-old male with exposure to poultry developed symptoms on January 12 and was hospitalized on January 13. He is in stable condition. More details and a complete tally of A/H5N1 detections can be found at the links below:

www.who.int/csr/don/2011_01_12/en/index.html
www.who.int/csr/disease/avian_influenza/en/

WHO Recommendations for 2010-11 Northern Hemisphere Influenza Vaccine

On February 18, 2010 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

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2010-11: Number 10, Week 3

January 16 to 22, 2011

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

