BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN

2012-13: Number 14, Week 6

February 3 to 9, 2013

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 declining after peak

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Summary

In week 6 (February 3 to 9, 2013), most indicators suggest that the peak of influenza activity in BC has passed. The proportion of patients with influenza-like illness among those presenting to sentinel physicians decreased and fell within the expected range for this time of year. The proportion of medical visits with an influenza diagnosis continued to decrease, with most regions at or approaching seasonal norms, though some variation exists. Less than a third of the respiratory specimens tested at the BC Public Health Microbiology & Reference Laboratory were positive for influenza, predominantly A/H3N2. Among other viruses, respiratory syncytial virus continued to be the most common detection. The number of long-term care facility lab-confirmed influenza outbreaks continued to decline in the past few weeks. Compared to previous weeks, at the BC Children's and Women's Health Centre Laboratory, the influenza-positive percentage declined. The proportion of consultations for influenza-like illness at BC Children's Hospital emergency room, however, remained somewhat elevated.

Report disseminated February 14, 2013
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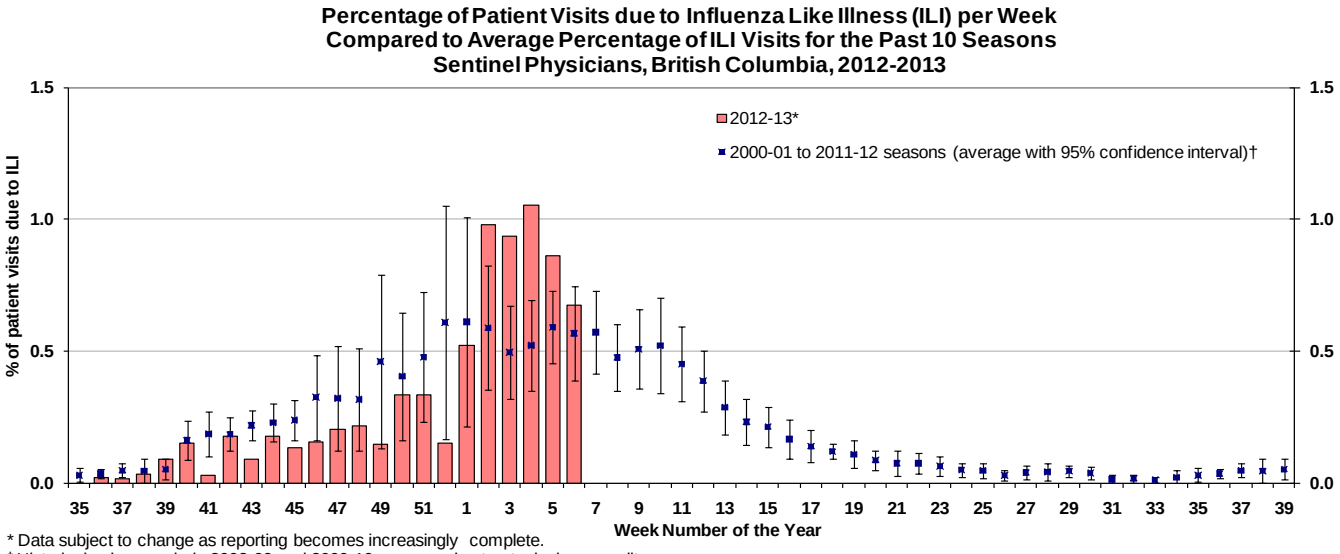
British Columbia

Sentinel Physicians

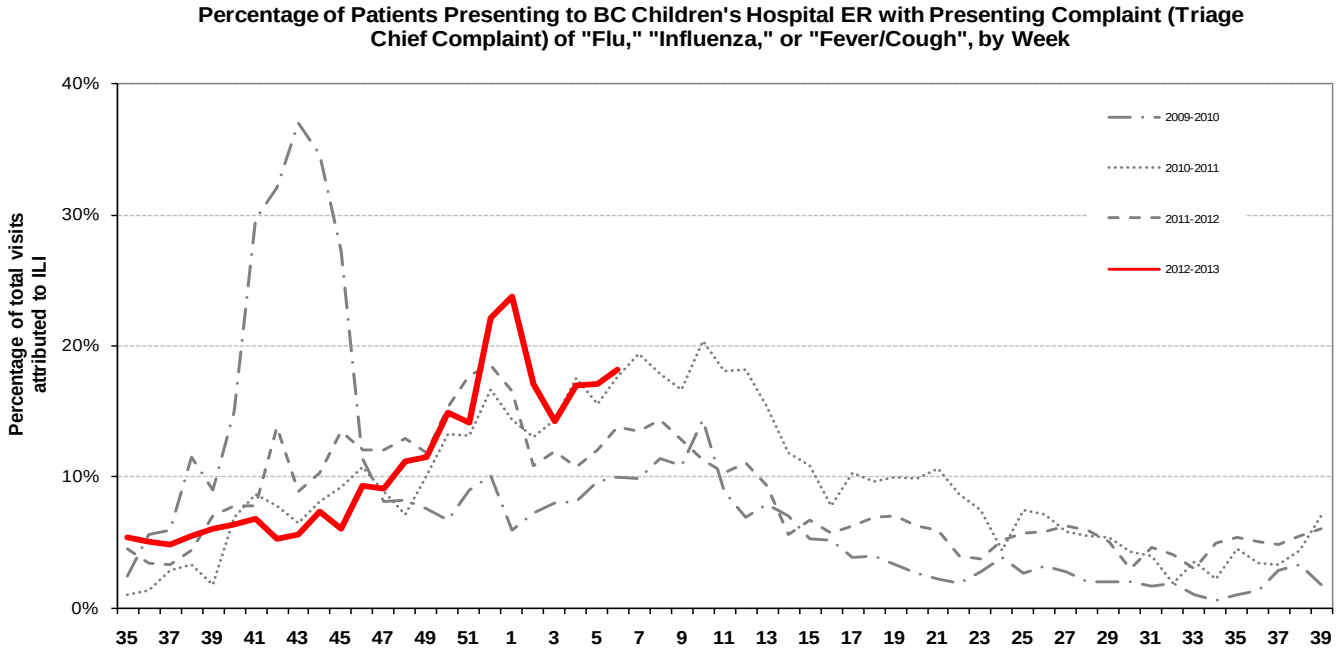
In week 6, the proportion of patients with influenza-like illness (ILI) among those presenting to sentinel physicians continued to decrease (0.67%), and is now within the expected range for this time of year, suggesting that the peak of activity may have passed. To date, 59% of sentinel physician sites have reported for week 6.



* 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 proportion of BC Children's Hospital ER visits attributed to "fever and cough" or flu-like illness was 18.1% in week 6, slightly higher than the previous week, and near the upper range seen in recent previous seasons.

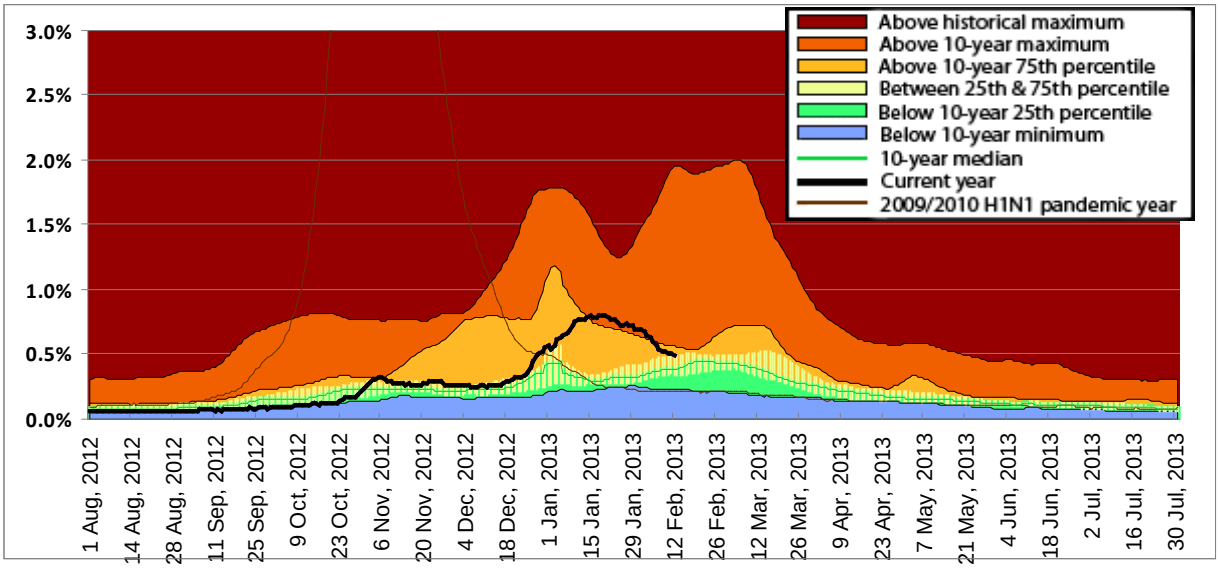


Source: BCCH Admitting, discharge, transfer database, ADT
Note: Data from 2010-11 and 2011-12 is based on new system (Triage Chief Complaint) not directly comparable to data for 2009-10. In bulletins before week 9 of 2011-12 season, data is based on old system.

Medical Services Plan

During week 6, influenza illness as a proportion of all submitted BC Medical Services Plan (MSP) claims continued to decline compared to the past few weeks at the provincial level and within each Health Authority, with variability in the level of illness proportions across HAs. With most regions at or approaching seasonal norms, this trend further suggests that the peak of activity has passed in the province.

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 1 August 2012 corresponds to sentinel ILI week 31; Data current to 12 February 2013.

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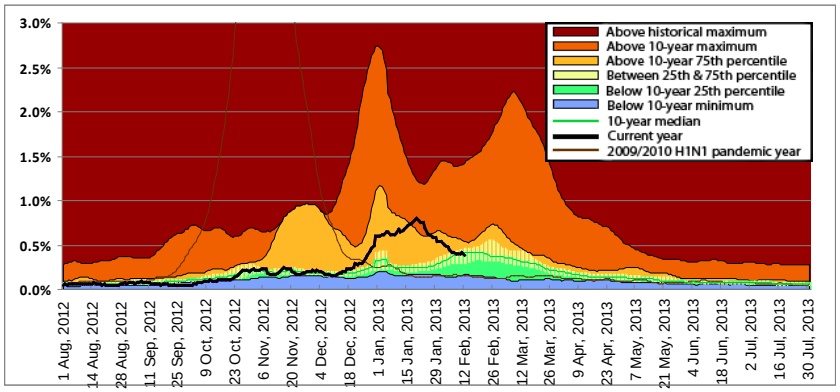
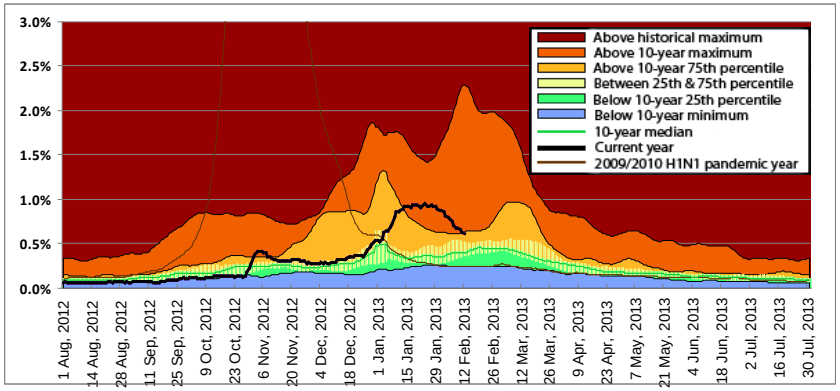
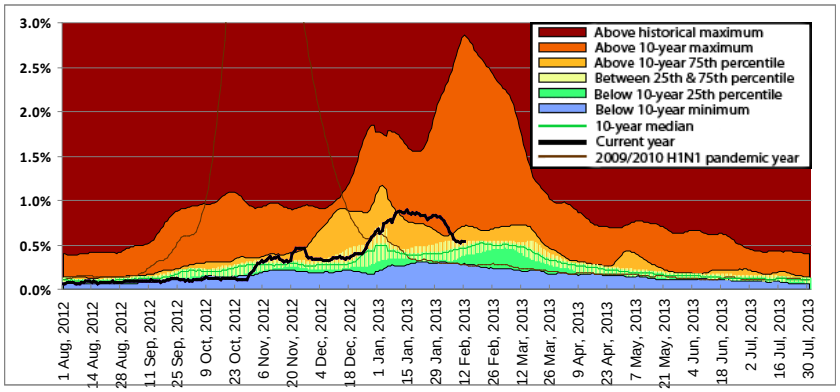
Interior



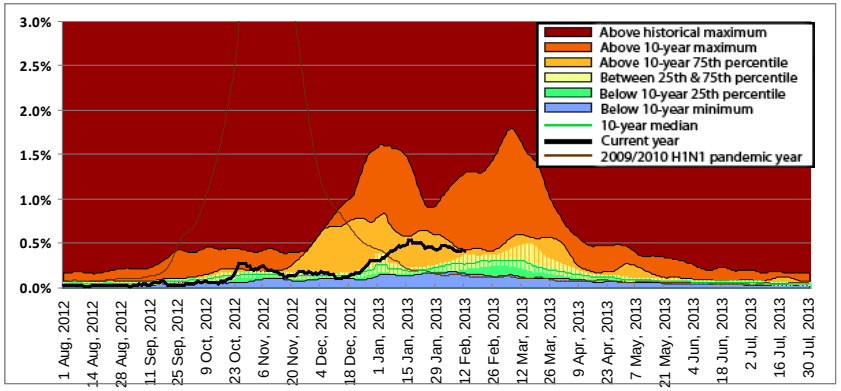
Fraser



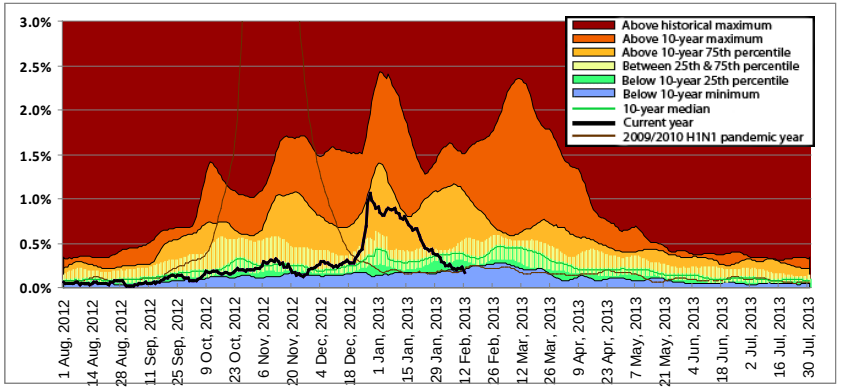
Vancouver Coastal



Vancouver Island



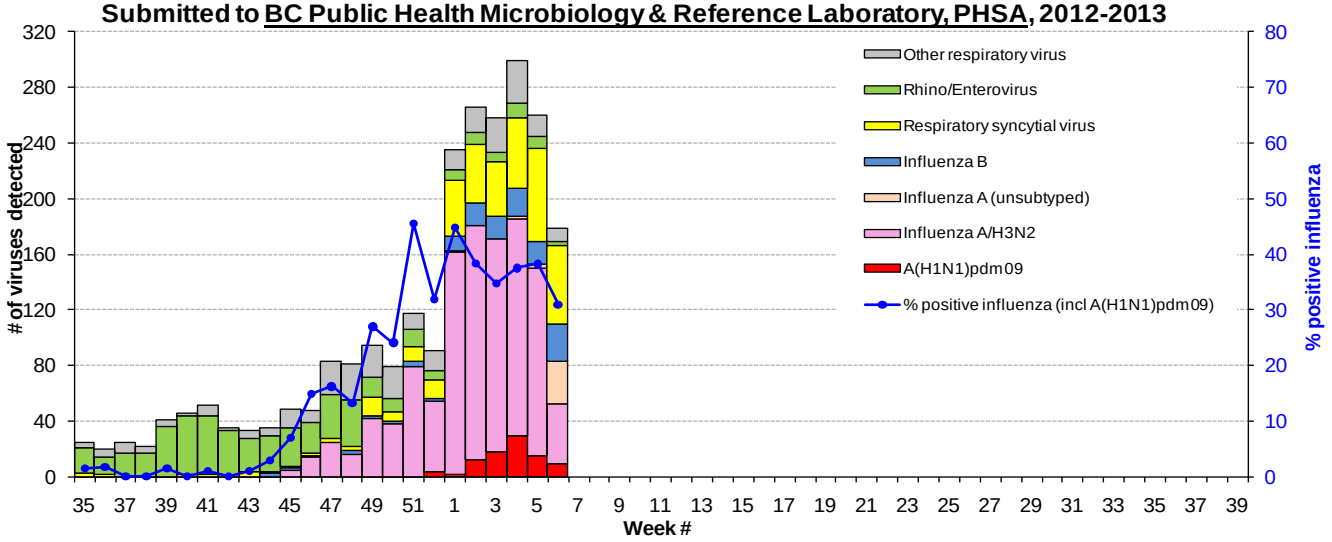
Northern



Laboratory Reports

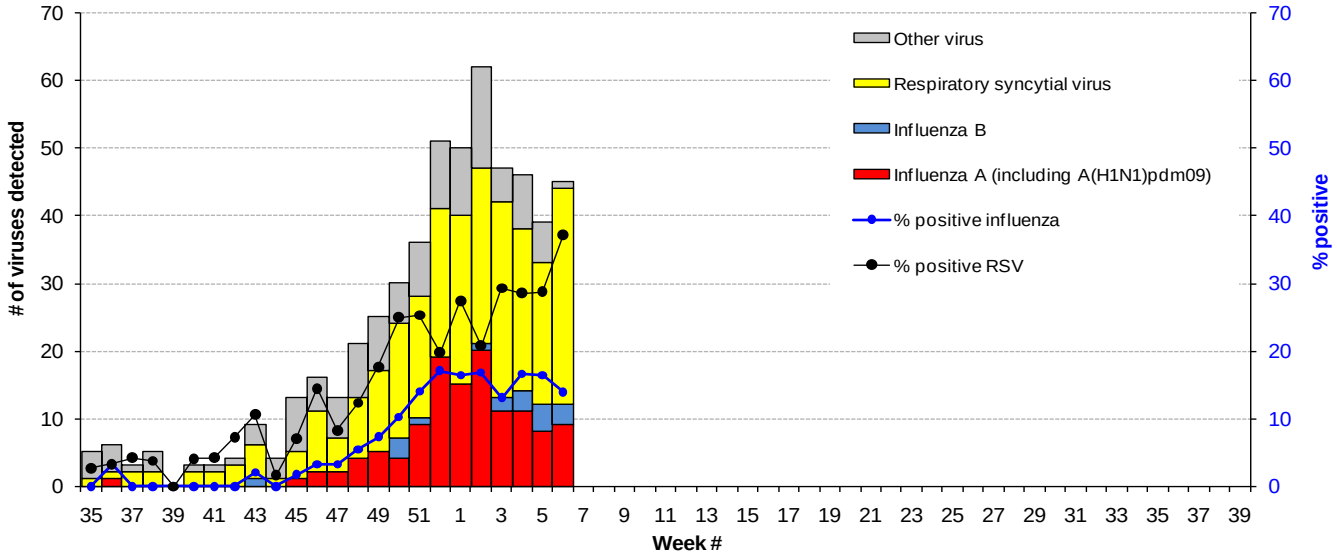
In week 6, the volume of specimens submitted for influenza testing and the influenza positive rate decreased compared to the previous week with an increasing proportion of influenza B. During this period, three hundred and fifty-six specimens were tested at the BC Public Health Microbiology & Reference Laboratory, PHSA. Among them, 110 (30.9%) were positive for influenza, including 83 influenza A from all Health Authorities except Northern [44 A/H3N2, 9 A(H1N1)pdm09, 30 A (subtype pending)], and 27 influenza B from all Health Authorities but Interior. Among other respiratory viruses, RSV continued to be the most common detection (56/356, 16%). Due to recent high laboratory volumes, only a subset of submitted specimens (303) were further tested for other viruses, indicating sporadic detections of these viruses.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Public Health Microbiology & Reference Laboratory, PHSA, 2012-2013



In week 6, BC Children's and Women's Health Centre Laboratory tested 86 respiratory specimens, of which 12 (14%) were positive for influenza viruses, including 9 influenza A (un-subtyped) and 3 influenza B. RSV (32/86, 37.2%) remained the most common detection. Human metapneumovirus was also sporadically detected.

Influenza and Other Virus Detections Among Respiratory Specimens Submitted to BC Children's and Women's Health Centre Laboratory, 2012-2013

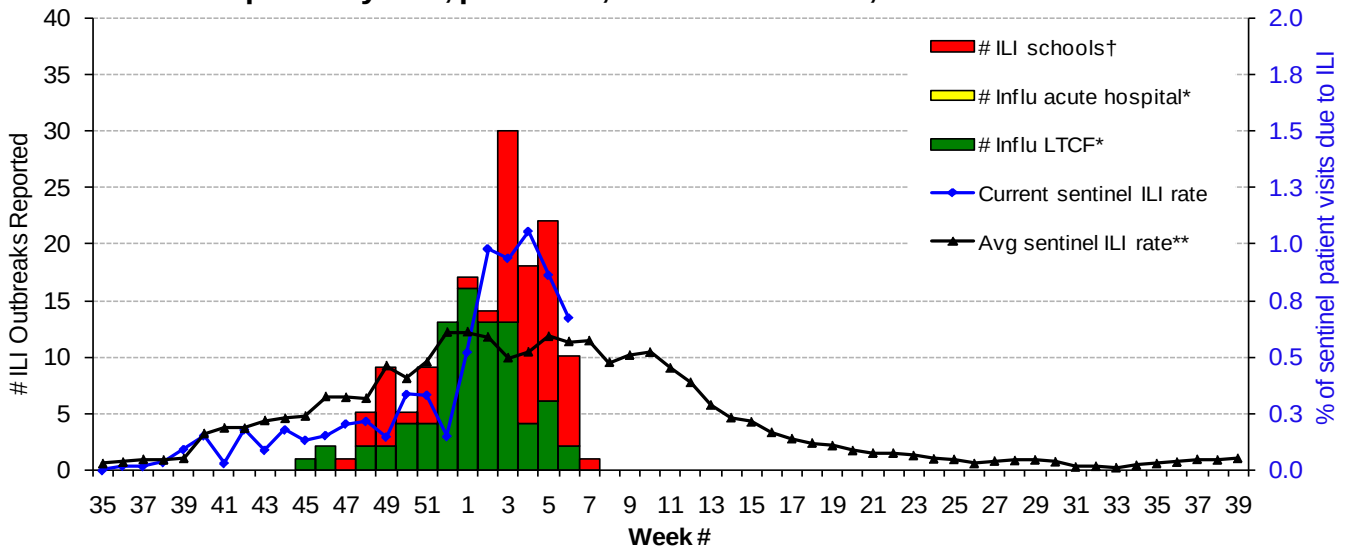


Data provided by Virology Department at Children's & Women's Health Centre of BC

ILI Outbreaks

The number of outbreaks reported from long-term care facilities (LTCF) continued to decline in week 6. During this period, five ILI outbreaks were reported from LTCF, including two lab-confirmed influenza A in Fraser and Vancouver Island Health Authorities, one parainfluenza in Fraser, and two with negative or pending lab result. Eight school ILI outbreaks (unknown pathogen) were further reported in week 6. In the beginning of week 7, one school ILI outbreak (unknown pathogen) and one lab-confirmed LTCF RSV outbreak have been reported. To date, 82 lab-confirmed influenza outbreaks have been reported from LTCFs in BC in the current season (since week 40, 30 September 2012): 35 in Fraser, 21 in Interior, 10 in Vancouver Coastal, 10 in Vancouver Island, and 6 in Northern Health Authority.

Number of Influenza and Influenza-Like Illness (ILI) Outbreaks Reported, Compared to Current Sentinel ILI Rate and Average Sentinel ILI Rate for past 10 years, per Week, British Columbia, 2012-2013 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.

FluWatch

In week 5 (27 January to 2 February 2013), many regions across Canada continued to report widespread and localized influenza activity. The percentage of laboratory detections positive for influenza was similar to the previous week; most influenza viruses detected were influenza A (97.3%), predominantly A/H3N2 among those subtyped. The percentage of tests positive for RSV increased sharply. The ILI consultation rate increased and remains above the expected range for this time of year. The number of LTCF outbreaks continued to decrease, while the number of paediatric influenza-associated hospitalizations increased. www.phac-aspc.gc.ca/fluwatch/

National Microbiology Laboratory (NML): Strain Characterization

From September 1, 2012 to Feb. 7, 2013, 425 isolates were collected from provincial and hospital labs and characterized at the NML as follows:

297 A/Victoria/361/2011-like (H3N2)¶ from NFLD, PEI, NS, NB, QUE, ONT, MAN, SASK, ALTA and BC;
56 A/California/07/2009-like [A(H1N1)pdm09]* from NB, QUE, ONT and SASK;
14 B/Brisbane/60/2008-like** from QUE, ONT, MAN, and SASK;
58 B/Wisconsin/01/2010-like† from NB, QUE, ONT, SASK and BC;

¶ indicates a strain match to the recommended H3N2 component for the 2012-2013 northern hemisphere influenza vaccine
† belongs to the B Yamagata lineage, and is the recommended influenza B component for the 2012-2013 northern hemisphere influenza vaccine.
* indicates a strain match to the recommended H1N1 component for the 2012-2013 northern hemisphere influenza vaccine.
** belongs to the B Victoria lineage, which was the recommended influenza B component for the 2011-2012 northern hemisphere influenza vaccine.

NML: Antiviral Resistance
From September 1, 2012 to February 8, 2013, drug susceptibility testing was performed at the NML for influenza A/H3N2 (oseltamivir: 285; zanamivir: 285; amantadine: 495), A(H1N1)pdm09 (oseltamivir: 52; zanamivir: 51; amantadine: 50), and influenza B isolates (oseltamivir: 60; zanamivir: 60). The results indicated that all isolates were sensitive to oseltamivir and zanamivir, while all influenza A isolates were resistant to amantadine.

INTERNATIONAL

USA: during week 5 (27January to 2 February 2013), influenza activity remained elevated in the United States but decreased in most areas. The proportion of deaths attributed to pneumonia and influenza declined slightly from 9.4% to 9.0% compared to the previous week, still remaining above the epidemic threshold of 7.4%. The proportion of outpatient visits for influenza-like illness continued to decrease but remained above the national baseline of 2.2%. The percentage of specimens testing positive continued to decline; 2,362(23.3%) influenza viruses were detected, including 73.7% influenza A viruses (predominantly A/H3N2 among those subtyped), and 26.3% influenza B. The US CDC's weekly influenza surveillance report is available at: www.cdc.gov/flu/weekly. Across **Europe** (ECDC report to 3 February 2013), influenza activity in most countries continued to increase. The proportions of influenza-positive sentinel specimens continued to increase, reaching 55%. Influenza A (51%) and B (49%) continued to co-circulate. Among influenza-positive specimens subtyped, the percentage of A(H1N1)pdm09 continued to increase (64%).
http://ecdc.europa.eu/en/publications/Publications/Forms/ECDC_DispForm.aspx?ID=1050.
No updated international report has been issued by the **WHO** since 1 February 2013.
www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html

Novel Coronavirus: the United Kingdom (UK) Health Protection Agency (HPA) announced a new confirmed case of novel coronavirus (NCoV) on 13 February 2013. This is a family contact of the 10th case, a UK resident who developed symptoms of illness on January 26, 2013. Both are receiving intensive care in hospital. Epidemiological investigation indicated that while case 10 had a history of travel to Saudi Arabia and Pakistan, case 11 had no history of travel outside the UK, suggesting likely human-to-human transmission. This most recent finding of likely human-to-human transmission does not alter the WHO assessment of low overall risk to the community, but reinforces the importance of surveillance and infection control precautions in the care of SARI (severe acute respiratory illness) patients. Further information is available at the following links:

www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/NovelCoronavirus2012/

www.who.int/csr/don/2013_02_13/en/index.html

WHO Recommendations for 2012-13 Northern Hemisphere Influenza Vaccine
On 23 February 2012, the WHO announced the recommended strain components for the 2012-13 northern hemisphere vaccine:

A/California/7/2009 (H1N1)pdm09 virus
A/Victoria/361/2011 (H3N2)-like virus*
B/Wisconsin/1/2010 (Yamagata lineage)-like virus*

* these two of the three recommended components are different from the northern hemisphere seasonal TIV vaccines produced and administered in 2010-11 and 2011-2012. For further details, see:
www.who.int/influenza/vaccines/virus/recommendations/2012_13_north/en/index.html

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
A(H1N1)pdm09: 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/EHSPHL/Epidemiology/CD/fluupdate.pdf
USA Weekly Surveillance reports: www.cdc.gov/flu/weekly/
European Influenza Surveillance Scheme: ecdc.europa.eu/EN/HEALTHTOPICS/SEASONAL_INFLUENZA/EPIDEMIOLOGICAL_DATA/Pages/Weekly_Influenza_Surveillance_Overview.aspx
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

version: 26 Oct 2011

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

Reporting Information

Health unit/medical health officer notified? ☐ *Yes* ☐ *No*

Person Reporting: _____ Title: _____

Contact Phone: _____ Email: _____

Health Authority: _____ HSDA: _____

Full Facility Name: _____

Is this report:

☐ First Notification *(complete section **B** below; Section **D** if available)*

☐ Update *(complete section **C** below; Section **D** if available)*

☐ Outbreak Over *(complete section **C** below; Section **D** if available)*

B

First Notification

Type of facility: ☐ LTCF ☐ Acute Care Hospital ☐ Senior's Residence

(if ward or wing, please specify name/number: _____)

☐ Workplace ☐ School (grades:) ☐ Other (_____)

Date of onset of first case of ILI (dd/mm/yyyy): DD / MMM / YYYY

Numbers to date	Residents/Students	Staff
Total		
With ILI		
Hospitalized		
Died		

C

Update AND Outbreak Declared Over

Date of onset for most recent case of ILI (dd/mm/yyyy): DD / MMM / YYYY

If over, date outbreak declared over (dd/mm/yyyy): DD / MMM / YYYY

Numbers to date	Residents/Students	Staff
Total		
With ILI		
Hospitalized		
Died		

D

Laboratory Information

Specimen(s) submitted? ☐ Yes (location: _____) ☐ No ☐ Don't know

If yes, organism identified? ☐ Yes (specify: _____) ☐ No ☐ Don't know

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