



Written by Travis Hottes

Number 2: Weeks 44 to 46
Oct 26 – Nov 15, 2008

Sporadic Influenza Activity in BC

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Highlights

During weeks 44 to 46 (Oct 26 – Nov 15, 2008), BC laboratories reported two positive respiratory specimens for influenza A (one in week 45 and one in week 46). No influenza outbreaks were reported, and the rate of ILI visits to physicians in weeks 44 to 46 was lower than average for this time of year.

Please remember to notify BCCDC if an outbreak of ILI occurs in your region, by emailing ilioutbreak@bccdc.ca. Please also remember to complete the outbreak report form (a copy is found at the end of this report).

Sentinel Physicians

Based on the historic range for this time of year, the rate of ILI visits to sentinel physicians was lower than expected in all three weeks. In weeks 44 to 46, the proportion of all patient visits due to ILI was

0.08%, 0.07%, and 0.10%, respectively. (See graph and table on page 4.)

ILI Outbreaks

Since the start of the season (Sept 28), specimens have been submitted to BCCDC Laboratory Services in relation to 12 ILI outbreak investigations. Rhino/enterovirus was identified in 6 of the investigations; no pathogen was identified in the other 6 investigations. (See graph on page 5.)

Laboratory Reports

During weeks 44 to 46 (Oct 26 – Nov 15), BCCDC Laboratory Services tested 116 respiratory specimens. Influenza A was identified in two specimens (both from Vancouver Island Health Authority). Nine specimens tested positive for rhino/enterovirus, 5 for RSV, 3 for parainfluenza, and 1 for adenovirus.

During weeks 44 to 46 (Oct 26 – Nov 15), Children's and Women's Health Centre Laboratory tested 144 respiratory specimens. Twenty-three specimens tested positive for RSV, 7 for adenovirus, and 2 for parainfluenza. (See graphs on page 6.)

Oseltamivir Resistance

During the 2007-08 season, oseltamivir resistance was identified among circulating A/H1N1 viruses worldwide. Testing of A/H1N1 isolates in Canada indicated that 26% were resistant to oseltamivir. To date (Nov 20, 2008), there is no change to the recommended use of neuraminidase inhibitors in Canada, as previously specified in the July 2008 Statement on Influenza published by the National Advisory Committee on Immunization (CCDR 15 July 2008 Vol 34 ACS-3). A national expert group



will continue to monitor surveillance information through the season and provide updated recommendations as appropriate.

Health care providers using oseltamivir are advised to regularly consult surveillance updates and stay informed about influenza activity and resistance patterns throughout the season.

CANADA

Flu Watch

During weeks 44 to 46 (Oct 26 – Nov 15), sporadic activity was reported in BC, Alberta, Ontario, and Quebec. No outbreaks in LTCFs have been reported in Canada since week 36 of last season (Aug 31 – Sept 6). Since August 24, 2008 provincial/territorial laboratories have detected 33 cases of influenza, 21 influenza A and 12 influenza B. The national rate of ILI visits to sentinel physicians (8, 11, and 13 cases per 1,000 visits during weeks 44, 45, and 46 respectively) is lower than expected for this time of the season.

<http://www.phac-aspc.gc.ca/fluwatch/>

National Microbiology Laboratory

Between Sept 1 and Nov 21 six influenza isolates from provincial and hospital labs have been characterized at the National Microbiology Laboratory (NML): one A/Brisbane/59/07(H1N1)-like* from Nova Scotia, two A/Brisbane/10/07(H3N2)-like*—one from BC and one from Ontario, two B/Florida/04/06(Yamagata)-like*—one from Alberta and one from Ontario, and one B/Malaysia/2506/04(Victoria)-like from Alberta. The recommended components of the 2008-09 northern hemisphere vaccine are A/Brisbane/59/07(H1N1)-like virus, A/Brisbane/10/07(H3N2)-like virus, and B/Florida/04/06(Yamagata)-like virus.

* indicates a strain match to the vaccine component.

Antiviral Resistance

Drug susceptibility testing showed that the H1N1 isolate was sensitive to amantadine but

resistant to oseltamivir and that one of the H3N2 isolates was resistant to amantadine but sensitive to oseltamivir (the other has not yet been tested for antiviral resistance). All three influenza B viruses were found to be sensitive to oseltamivir.

INTERNATIONAL

A low level of Influenza activity was reported during weeks 44 and 45 in the United States. In week 45 (Nov 2 - 8), localized activity was reported in one state (Hawaii), and sporadic activity was reported in 15 states and Puerto Rico. The rate of ILI visits to sentinel physicians was below national baseline levels. For information about influenza surveillance indicators in the United States, please visit: <http://www.cdc.gov/flu/weekly/>.

Low levels of influenza activity in Europe were reported during weeks 44 to 46. Since week 40 of this season, 15 countries (of the 26 providing data) have reported sporadic laboratory-confirmed cases of influenza. Of the 192 influenza virus detections in Europe since the start of the season (week 40), 171 (89%) were influenza A, and of those subtyped, 83% were A/H3. For more information, please visit: <http://www.eiss.org>.

The WHO has published a summary of the 2007-08 influenza activity around the world. The report can be accessed at: <http://www.who.int/wer/2008/wer8341/en/index.html>.

Avian Influenza

No new cases of human H5N1 AI have been reported by the WHO since Sept 10, 2008. Since 2003, the WHO has confirmed 387 human AI cases and 245 deaths. Indonesia has reported the highest number of AI cases since 2003 (137 cases, 112 deaths). For more information on human avian influenza cases please visit:

http://www.who.int/csr/disease/avian_influenza/.



For further information on confirmed avian influenza outbreaks in poultry, please visit: http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm.

Vaccine Composition

This year's (2008-09) influenza vaccine contains the following virus antigens:

- A/Brisbane/59/2007(H1N1)-like
- A/Brisbane/10/2007(H3N2)-like
Note: A/Uruguay/716/2007(H3N2) is antigenically equivalent to A/Brisbane/10/2007(H3N2) and may be included by vaccine producers.
- B/Florida/04/2006(Yamagata lineage)-like

Activity Level Definitions

Sporadic influenza activity: sporadically occurring ILI and laboratory-confirmed influenza during previous 4 weeks, with no outbreaks.

Localized influenza activity: as for sporadic activity, but with ILI outbreaks in schools and worksites, or laboratory-confirmed influenza outbreaks in residential institutions occurring in less than 50% of the influenza surveillance regions during the week of reporting.

Widespread influenza activity: as for localized activity, but with outbreaks occurring in greater than or equal to 50% of the influenza surveillance regions during the week of reporting.

Contact Us:

Epidemiology Services

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List of Acronyms

AI: Avian Influenza
FHA: Fraser Health Authority
HPAI: Highly Pathogenic Avian Influenza
HSDA: Health Service Delivery Area
IHA: Interior Health Authority
ILI: Influenza-Like Illness
LTCF: Long Term Care Facility
NHA: Northern Health Authority
NML: National Microbiological Laboratory
OIE: World Organization for Animal Health
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:

<http://www.phac-aspc.gc.ca/fluwatch/>

NACI Statement on Influenza Vaccination for the 2008-09 Season: <http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/08vol34/acs-3/index-eng.php>

Washington State Flu Updates:

<http://www.doh.wa.gov/ehsphl/epidemiology/CD/H TML/FluUpdate.htm>

USA Weekly Surveillance reports:

<http://www.cdc.gov/flu/weekly/>

European Influenza Surveillance Scheme:

<http://www.eiss.org/index.cgi>

WHO – Global Influenza Programme:

<http://www.who.int/csr/disease/influenza/mission/>

WHO – Weekly Epidemiological Record:

<http://www.who.int/wer/en/>

Influenza Centre (Australia):

<http://www.influenzacentre.org/>

2. Avian Influenza Web Sites

World Health Organization – Avian Influenza:

http://www.who.int/csr/disease/avian_influenza/en/

World Organization for Animal Health:

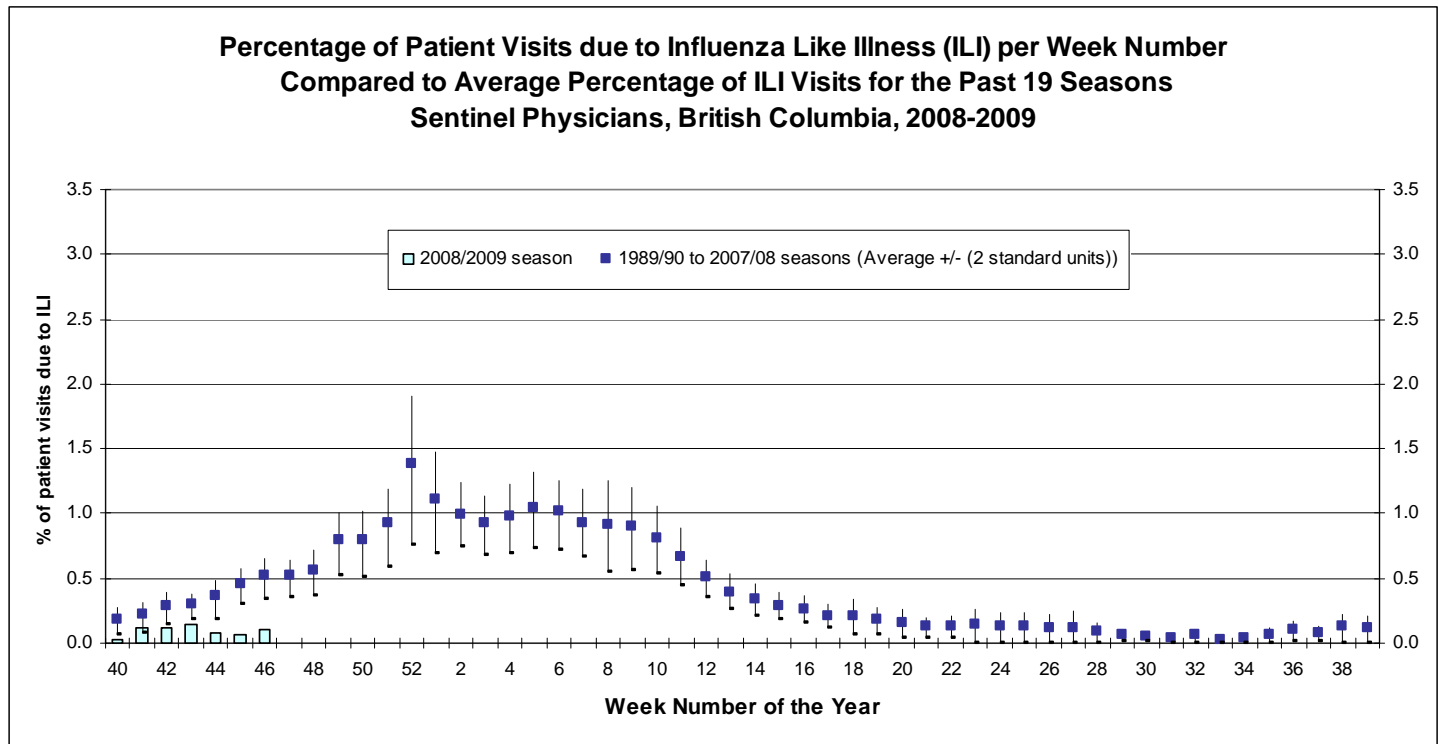
http://www.oie.int/eng/en_index.htm

3. This Report On-line

<http://www.bccdc.org/content.php?item=35>



WEEKLY ILI



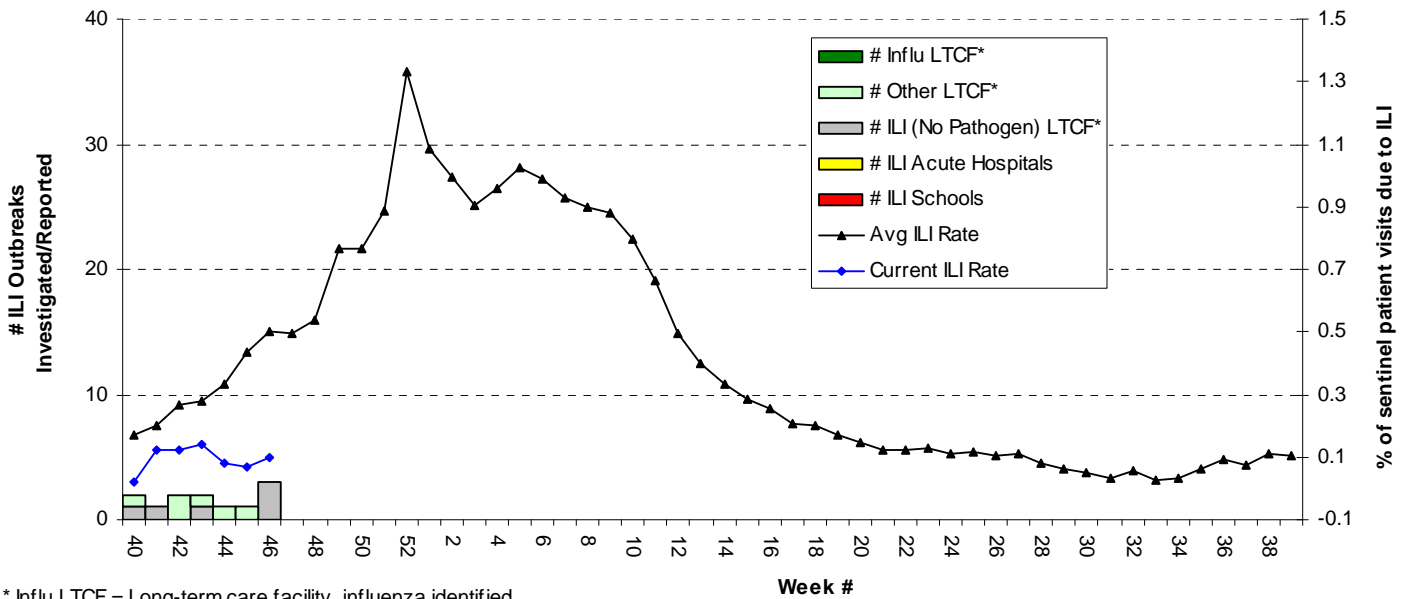
INFLUENZA-LIKE ILLNESS BY HEALTH AUTHORITY

HEALTH AUTHORITY	Week 44 Oct 26 – Nov 1			Week 45 Nov 2 – 8			Week 46 Nov 9 – 15		
	ILI Visits	Total Visits	% ILI	ILI Visits	Total Visits	% ILI	ILI Visits	Total Visits	% ILI
	Fraser	2	2,662	0.08%	2	2,559	0.08%	3	2,530
Interior	0	592	0.00%	0	680	0.00%	2	585	0.34%
Northern	1	350	0.29%	2	363	0.55%	0	301	0.00%
Vancouver Coastal	1	1,522	0.07%	1	1,709	0.06%	1	1,623	0.06%
Vancouver Island	2	2,077	0.10%	0	2,193	0.00%	1	1,796	0.06%
BC Total	6	7,203	0.08%	5	7,504	0.07%	7	6,835	0.10%



ILI OUTBREAKS

Number of Influenza-Like Illness (ILI) Outbreaks Investigated or Reported, Compared to Current ILI Rate and Average ILI Rate for past 19 years, per Week British Columbia, 2008-2009



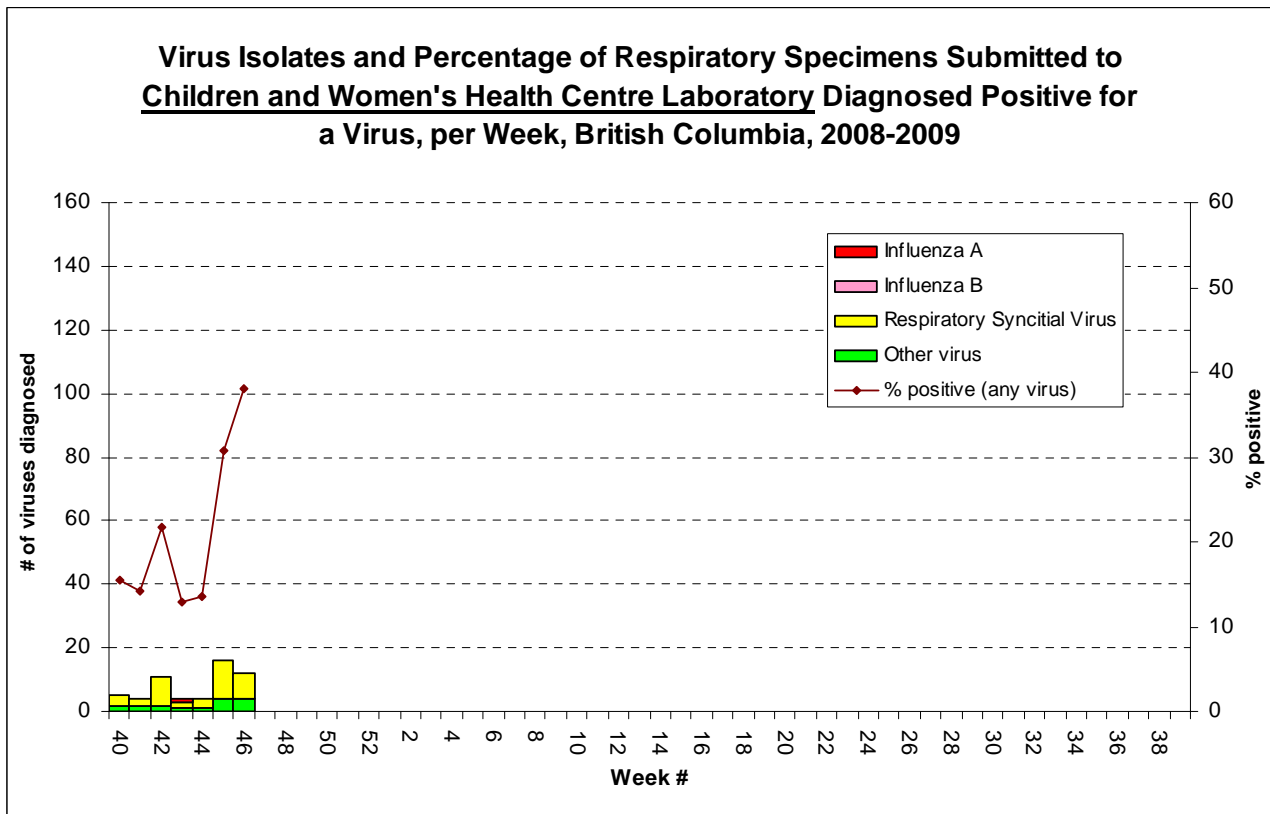
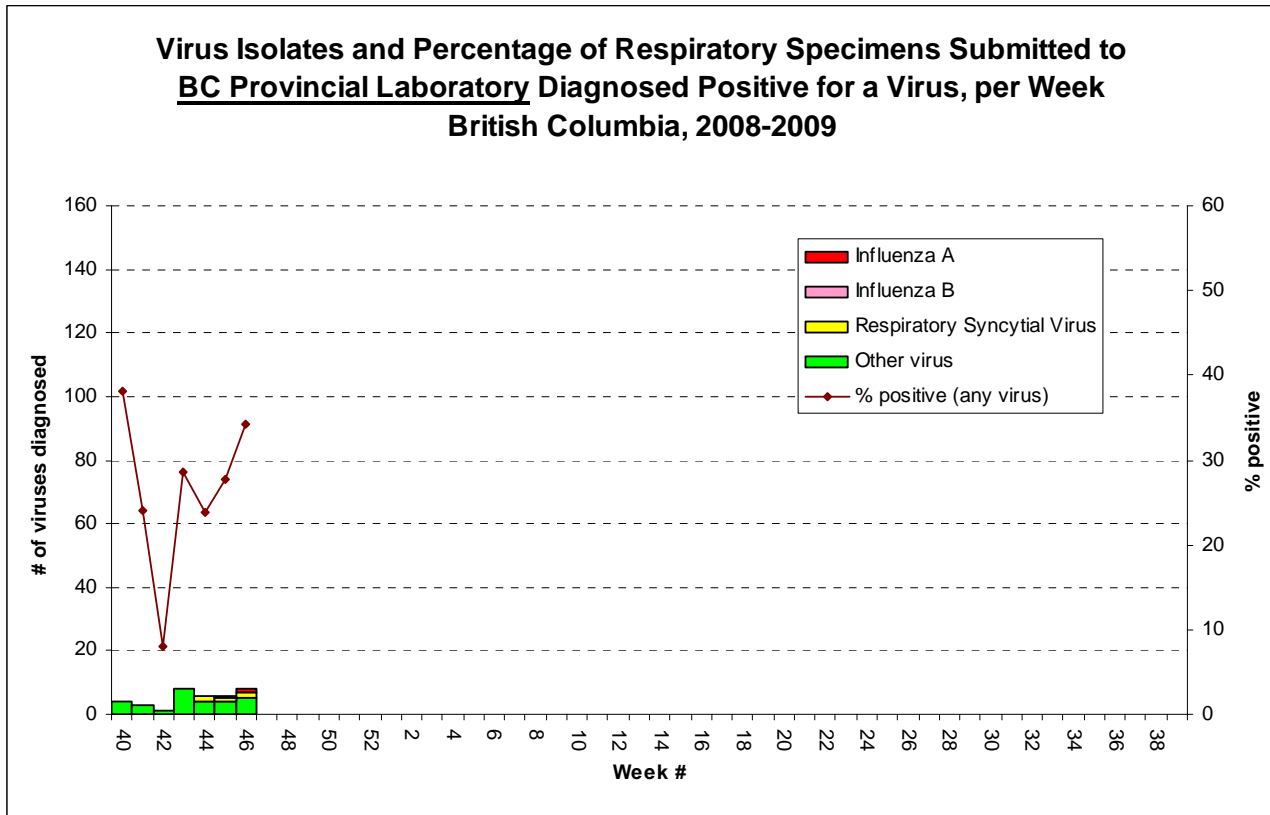
* Influenza LTF = Long-term care facility, influenza identified

* Other LTF = Long-term care facility, other pathogen identified (including RSV, parainfluenza, adenovirus, and rhino/enterovirus)

* ILI (No Pathogen) LTF = Long-term care facility, no pathogen identified



LABORATORY SUMMARY





Influenza-Like Illness (ILI) Outbreak Summary Report Form

Please complete and email to ilioutbreak@bccdc.ca or fax to (604) 660-0197

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.

SECTION A: Reporting Information

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*)

SECTION 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): _____ / _____ / _____

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

SECTION C: Update AND Outbreak Declared Over

Date of onset for most recent case of ILI (dd/mm/yyyy): _____ / _____ / _____

If over, date outbreak declared over (dd/mm/yyyy): _____ / _____ / _____

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

SECTION D: Laboratory Information

Specimen(s) submitted? Yes (location: _____) No Don't know
 If yes, organism identified? Yes (specify: _____) No Don't know