

Ontario Influenza Bulletin

Early Winter Edition

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Introduction

This is the third installment in a series of four summary issues of the influenza bulletin. After the fourth summary, weekly issues of the bulletin will be produced and distributed. Again, thank you for your patience in waiting for the Ontario Influenza Bulletin to resume weekly publication. It is intended that every year the bulletin be issued weekly between September 1 and April 30, and bi-weekly from May through August.

The following issue covers the time period from October 31, 2004 to January 1, 2005. As such, it is a summary of influenza activity in Ontario for the months of November and December. Influenza activity in Ontario was low through both months and increased during the month of December. A similar pattern of activity was seen in the United States and Europe over the same period of time.

Influenza Activity in Ontario

Centre for Infectious Disease Prevention and Control Data

During the period of influenza surveillance between October 31, 2004 and January 1, 2005 (reporting weeks 45-53), a total of 105 laboratory-confirmed cases of influenza were reported (103 influenza A, 2 influenza B) by Ontario laboratories to the CIDPC. Throughout this period there were 190 cases of respiratory syncytial virus (RSV), 64 cases of parainfluenza, and 70 adenoviruses, all of which were laboratory-confirmed (Appendix 1). Including late reports, there were 183 influenza A, 5 influenza B, 249 RSV, 83 parainfluenza viruses and 105 adenoviruses that were laboratory-confirmed and reported to the CIDPC between August 22, 2004 and January 1, 2005.

Reportable Disease Information System

Between October 31, 2004 to January 1, 2005, 93 laboratory-confirmed sporadic cases of influenza A and 2 laboratory-confirmed sporadic cases of influenza B were reported to the Ministry of Health and Long-Term Care (MOHLTC) through

RDIS by Ontario's health units. The total number of cases of influenza A and B reported between September 1, 2004 and January 1, 2005 were 105 and 3 respectively (Appendix 2).

Respiratory Infection Outbreak Database (Source: Appendix D's-preliminary reports and E's-final reports)

From October 31, 2004 to January 1, 2005, 104 respiratory infection outbreaks were reported by Ontario's health units to the MOHLTC (Appendix 3). Of these, 23.1% (24/104) were outbreaks of influenza A. Additionally, 13.5% (14/104) of the outbreaks were due to other organisms (such as: adenovirus, enterovirus, rhinovirus, and *streptococcus pneumoniae*). The majority of respiratory infection outbreaks occurred in Long-Term Care Homes 79.8% (83/104).

Taken together, data from the CIDPC, RDIS, and Respiratory Infection Outbreak Database indicate low activity in Ontario during the period from October 31, 2004 to January 1, 2005,

Influenza Activity in Canada

A summary of influenza activity in Canada as reported in FluWatch is provided below. Additional and more comprehensive information on influenza activity in Canada along with definitions of influenza activity for the 2004/05 season can be found at PHAC's website:

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

Influenza activity in Canada was in low in November and increased slightly throughout the month of December, 2004 (Table 1). The number of patients with influenza-like illness (ILI) seen by sentinel physicians in Canada during November and December ranged from 10/1,000 office visits (weeks 46 and 47, ending Nov. 13 and 20) to 48/1,000 office visits (week 53, ending Jan.1). In Ontario, the number of patients with ILI seen by sentinel physicians ranged from 13/1,000 office visits (week 50, ending Dec. 11) to 54/1,000 office visits (week 53, ending Jan.1).

Table 1. Influenza Activity in Canada by province, November and December, 2004.

Month [2004]	Sporadic Activity*	Localized Activity*	Widespread Activity*
November	BC, AB, SK, ON, QC, NS, YK	BC, SK, AB, NS, ON (East, Central East, and Central West)	N/A
December	NF, PEI, NS, MB, NT, SK, BC, NB, AB, ON	AB, BC, SK, QC, NS, ON (East, Central East, and Central West)	BC, AB

* Note: Activity reported at least once in that month; activity is not constant for the whole month.

Strain Characterization

The majority 94.7% (90/95) of influenza viruses that were identified by the National Microbiology Lab between August 22, 2004 and January 1, 2005 were A/Fujian/411/02-like (H3N2); 4 B/Shanghai/361/02-like viruses and 1 B/Hong Kong/330/01-like virus have also been identified (Table 2).

NACI recommends that the trivalent vaccine for the 2004-2005 season in Canada contain A/New Caledonia/20/99 (N1H1)-like, A/Fujian/411/02 (H3N2)-like, and B/Shanghai/361/02-like virus antigens.

Table 2. Influenza strains identified by the National Microbiology Lab. (N = 95)

Strain	No. of Positive Identifications
	August 22, 2004 to January 1, 2005
A/Fujian/411/02-like	90 (94.7%)
B/Shanghai/361/02-like	4 (4.2%)
B/Hong Kong/330/01-like	1 (1.1%)

Please note that dates in the following sections may not correspond exactly due to differences in surveillance and reporting timeframes between international and Canadian agencies.

Activity in the United States

Activity was low in the month November and increased slightly towards the end of the month. In December, influenza activity continued to increase throughout the month with most of the increase coming in the Eastern United States.

Antigenic Characterization:

From October 3, 2004 to January 1, 2005, WHO and NREVSS laboratories in the United States isolated 1,369 influenza viruses, 1,128 (82.4%) were influenza A viruses and 241 (17.6%) were influenza B viruses. Four hundred six (36.0%) of the 1,128 influenza A viruses have been subtyped; 404 (99.5%) were influenza A (H3N2) and 2 (0.5%) were influenza A (H1N1) subtype.

CDC antigenically characterized 107 influenza viruses collected by U.S. laboratories between October 1, 2004 and January 1, 2005: eighty-five influenza A (H3N2) viruses and 22 influenza B viruses. All of the influenza A (H3N2) isolates were characterized as A/Fujian/411/2002-like (H3N2).

For information on activity in the United States please visit: <http://www.cdc.gov/flu/weekly/>

Europe

Influenza activity was low throughout November and increased slightly towards the end of the month with a greater number of countries reporting sporadic activity. Low influenza activity was reported in December with a gradual increase as the month progressed. Spain and Northern Ireland reported a higher level of 'intensity' than other countries during December.

Based on the (sub)typing data of all influenza virus detections from September 5, 2004 to January 2, 2005 (N=763; sentinel and non-sentinel data), 415 (54%) were A (not subtyped), 221 (29%) were A(H3) [84 of these were A(H3N2)], 53 (7%) were A(H1) [20 of these were A(H1N1)] and 74 (10%) were B.

Seven percent of all isolates (52/763) have been antigenically and/or genetically characterised: 27 A/Wellington/1/2004 (H3N2)-like viruses, 20 A/New Caledonia/20/99 (H1N1)-like viruses, three B/Jiangsu/10/2003-like viruses and two B/Hong Kong/330/2001-like viruses.

For information on influenza activity in Europe please visit: http://www.eiss.org/cgi-files/bulletin_v2.cgi

International

Worldwide levels of influenza activity were low through the month of November. Worldwide influenza activity remained low in December until slight increases were seen in most parts of the world at the end of the month.

For more information please visit the WHO's website for the weeks 45-53, 2004: <http://www.who.int/wer/2004/en/>

Appendix 1. Respiratory viruses isolated and reported to the CIDPC (2004/05 Season).

	Flu Isolates A and B†			Other Respiratory Viruses						
	(Total)‡	Influenza A† (Total)‡	Influenza B† (Total)‡	RSV† (Total)‡	PIV1† (Total)‡	PIV2† (Total)‡	PIV3† (Total)‡	PIV4† (Total)‡	Other PIVs† (Total)‡	Adenoviruses† (Total)‡
Week ending October 30, 2004 (week 44)	(8)	(6)	(2)	(32)	(4)	(3)	(9)	(1)	(1)	(22)
Week ending November 13, 2004 (week 46)	1 (9)	1 (7)	0 (2)	14 (46)	11 (15)	2 (5)	1 (10)	1 (2)	1 (2)	14 (36)
Week ending November 27, 2004 (week 48)	18 (27)	18 (25)	0 (2)	14 (60)	7 (22)	2 (7)	3 (13)	1(3)	0 (2)	8 (44)
Week ending December 11, 2004 (week 50)	19 (46)	19 (44)	0 (2)	44 (104)	8 (30)	4 (11)	4 (17)	1 (4)	0 (2)	18 (62)
Week ending December 25, 2004 (week 52)	36 (82)	35 (79)	1 (3)	74 (178)	7 (37)	1 (12)	6 (23)	2 (6)	0 (2)	19 (81)
Week ending January 1, 2005 (week 53)	31 (113)	30 (109)	1 (4)	44 (222)	2 (39)	0 (12)	0 (23)	0 (6)	0 (2)	11 (92)
Total (including late reports)	(188)	(183)	(5)	(249)	(40)	(12)	(23)	(6)	(2)	(105)

† Change from previous reporting period

‡ Accumulative totals from August 22, 2004

Appendix 2. Lab-Confirmed Cases of Influenza A and B by Health Unit, September 1, 2004 to January 1, 2005
(Source: RDIS)

Health Unit	Influenza Cases Reported through RDIS between September 1 and October 30, 2004 Influenza A Influenza B	Week ending November 13, 2004 (week 46) Influenza A Influenza B	Week ending November 27, 2004 (week 48) Influenza A Influenza B	Week ending December 11, 2004 (week 50) Influenza A Influenza B	Week ending December 25, 2004 (week 52) Influenza A Influenza B	Week ending January 1, 2005 (week 53)* Influenza A Influenza B	Total (From September 1, 2004) Influenza A Influenza B
Algoma							
Brant							
Chatham - Kent							
Durham					1		1
Eastern Ontario					26		26
Elgin - St. Thomas							
Grey-Bruce							
Haldimand-Norfolk			1	1			2
Halliburton KPR			1		1		2
Haldon							
Hamilton-Wentworth					2		2
Hastings - P.E.	1						1
Huron							
Kingston & FLA		1					1
Lambton							
Leeds - Grenville							
Middlesex-London							
Muskoka-Parry Sound							
Niagara							
Northwest							
North Bay							
Ottawa-Carleton	6			6	1		22
Oxford							
Peel	1			1	2		4
Perth							
Peterborough							
Porcupine							
Renfrew							
Simcoe							
Sudbury							
Timiskaming							
Thunder Bay							
Toronto	4						
Waterloo				4			19
Wel - Duf - Guelph							
Windsor - Essex							
York				2	24	1	26
Total	12	1	0	0	3	0	105
							3

* RDIS data was not transmitted during this week

Appendix 3. Respiratory Infection Outbreaks in Institutions from September 1, 2004 to January 1, 2005.

Respiratory Infection Outbreaks in Institutions		Week ending October 30, 2004 (week 44)	Week ending November 13, 2004 (week 46)†	Week ending November 27, 2004 (week 48)†	Week ending December 11, 2004 (week 50)†	Week ending December 25, 2004 (week 52)†	Week ending January 1, 2005 (week 53)†
Total Respiratory Infection Outbreaks in Institutions							
Influenza A outbreaks		(109)	9 (118)	15 (133)	22 (155)	36 (191)	22 (213)
Influenza A & other organisms		(3)	1 (4)	2 (6)	3 (9)	9 (18)	9 (27)
Influenza B		(0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Other organisms		(0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Unknown		(14)	5 (19)	1 (20)	4 (24)	2 (26)	2 (28)
Laboratory results pending		(56)	6 (62)	15 (77)	11 (88)	8 (96)	7 (103)
No specimen sent for laboratory testing		(26)	-3 (23)	-3 (20)	3 (23)	17 (40)	1 (41)
		(10)	0 (10)	0 (10)	1 (11)	0 (11)	3 (14)
Outbreaks by Onset Period							
Onset of illness in index case September 1/04 onward		(98)	9 (107)	15 (122)	22 (144)	36 (180)	22 (202)
Onset of illness in index case prior to September 1/04		(11)	0 (11)	0 (11)	0 (11)	0 (11)	0 (11)
Ongoing Outbreaks							
Influenza A		(53)	-11 (42)	-6 (36)	8 (44)	22 (66)	15 (81)
Influenza A & other organisms		(1)	1 (2)	2 (4)	0 (4)	7 (11)	9 (20)
Influenza B		(0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Other organisms		(0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Unknown		(2)	-2 (0)	0 (0)	1 (1)	1 (2)	1 (3)
Laboratory results pending		(18)	-4 (14)	-1 (13)	3 (16)	-3 (13)	1 (14)
No specimen sent for laboratory testing		(26)	-4 (22)	-4 (18)	3 (21)	17 (38)	1 (39)
		(6)	-2 (4)	-3 (1)	1 (2)	0 (2)	3 (5)
Categories and Types of Institutions							
LTCHs							
Nursing Home (NH), Home for the Aged (HFA)		(109)	9 (118)	15 (133)	22 (155)	36 (191)	22 (213)
Combined (e.g. NH/HFA, NH/Hospital)		(99)	9 (108)	12 (120)	18 (138)	32 (170)	12 (182)
Unspecified		(0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
		(0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Hospitals							
		(4)	0 (4)	0 (4)	2 (6)	2 (8)	1 (9)
Other*							
		(6)	0 (6)	3 (9)	2 (11)	2 (13)	9 (22)

† The first number in this column represents the change from the previous period. The cumulative total from September 1, 2004 is presented in brackets.
* Retirement Homes >10 beds, children's residences, facilities operated under the Developmental Services Act, etc.
Note: Negative values result from: Outbreaks being declared over; laboratory results; reclassification of institutions; deletions and corrective changes made to the database.