

Ontario Influenza Bulletin

http://www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu_03/flubul_mn.html

Summer Summary Edition

Vol. 7, Issue 28 Weeks 19-36 (May 2 to August 31, 2004)

Introduction

The objective of the Ontario Influenza Bulletin is to provide information to public health units and health care providers on influenza activity in Ontario, Canada, and the rest of the world. The majority of the information in the bulletin pertains to Canada, with a focus on Ontario.

On the issue of timeliness, it was intended that the Ontario Influenza Bulletin be issued on a bi-weekly basis from the end of April until the fall, at which time publication and distribution of weekly issues would resume. Unfortunately, this did not occur. In order to provide the information for the time period between May 2 and January 28, four summary issues will be provided. These four issues will cover the surveillance periods from May 2 to August 31, September 1 to October 30, October 31, 2004 to January 1, 2005, and January 2 to January 28, 2005. The information for all of these issues will be presented using bi-weekly reporting periods following Health Canada's classification of weeks. It is hoped that the influenza bulletin will be issued on a weekly and, more importantly, timely basis starting in February, 2005.

The current issue is intended to inform readers of influenza activity in Ontario over the late spring and summer. Although the figures present cumulative tallies for Ontario for the 2003-04 season, it is not intended that this issue will take the place of the "Summary Report of the 2003-04 Ontario Influenza and Respiratory Infection Outbreak Surveillance Season". The 2003-04 summary report will be published in an upcoming issue of the Public Health and Epidemiology Report Ontario.

Reporting Periods

Since year-round reporting of respiratory infection outbreaks in Ontario was announced in October, 2003 a 'start' date for year-round surveillance has been established as September 1, with the end date being August 31. This allows for a reset of counts to take place, and will be used when reporting

Reportable Disease Information System (RDIS) data and respiratory infection outbreak information. The Public Health Agency of Canada (PHAC) ended its 2003/04 year August 21, the end of week 34. Therefore, data collected from the Centre for Infectious Disease Prevention and Control (CIDPC) will be reported using the August 24, 2003 to August 21, 2004 timeframe.

Influenza Activity in Ontario

Centre for Infectious Disease Prevention and Control Data

During the influenza surveillance period between May 2 and August 21, 2004, a total of 21 laboratory confirmed cases of influenza were identified (15 influenza A, and 6 influenza B) by Ontario laboratories and reported to the CIDPC. During this period there were 103 cases of respiratory syncytial virus (RSV), 244 cases of parainfluenza virus (PIV) and 49 adenoviruses, all of which were laboratory confirmed. Overall, the number of confirmed cases of respiratory viruses was low throughout this period of reporting (Appendix 1).

Reportable Disease Information System

From May 1 until August 31, 2004, only 14 sporadic cases of laboratory-confirmed influenza A and 2 cases of influenza B were reported by the health units via RDIS, indicating minimal influenza activity (Appendix 2). There were 154 deaths due to sporadic cases of influenza (153 influenza A and 1 influenza B) reported through RDIS between September 1, 2003 and August 31, 2004.

Respiratory Infection Outbreak Database (Source: Appendix D's and E's)

Ontario's health units reported over 100 institutional respiratory infection outbreaks to the Ministry of Health and Long-Term Care from May 2 to August 31, 2004 (Appendix 3). Only four of these outbreaks were attributable to influenza A, and two were attributable to influenza B. The vast majority of outbreaks occurred in Long-Term Care Homes (LTCHs).

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 can be found at the PHAC's website:

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

As noted in Table 1, influenza activity in Canada was low throughout the summer months of 2004. In Ontario, the level of influenza activity was also low. It should be noted that activity levels reported to Health Canada for Ontario were based on fewer health unit reports over the summer than usual. Additionally, since schools were out for July and August one of the sources used to determine influenza activity was not available.

The number of patients with influenza-like illness seen by sentinel physicians between May 2004 and August 2004 ranged from 3/1,000 office visits (week 32, ending August 7) to 11/1,000 office visits (week 24, ending June 12).

Table 1. Influenza Activity in Canada by province, May through August

Month [2004]	Sporadic Activity*	Localized Activity*
May	B.C., AB, ON	AB
June	B.C., AB, YT, ON	ON (North)
July	B.C., ON	N/A
August	B.C., ON	ON (East)

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

Strain Characterization

The majority of influenza viruses that were identified by the National Microbiology Lab between August 23, 2003 and August 21, 2004 were A/Fujian/411/02-like, and B/Sichuan/379/99-like (Table 2).

Table 2. Influenza strains identified by the National Microbiology Lab. (N = 845)

Strain	No. of Positive Identifications
	August 23, 2003 to August 21, 2004
A/Fujian/411/02-like	776 (91.83%)
B/Sichuan/379/99-like	33 (3.90%)
A/Panama/2007/99(H3N2)-like	25 (2.96%)
B/Hong Kong/330/01-like	7 (0.83%)
A/New Caledonia/20/99(H1N1)-like	3 (0.36%)
H1N2	1 (0.12%)

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

Each year the U.S. Centers for Disease Control and Prevention (CDC) produces a weekly report on influenza activity from the beginning of October through to the end of May. Influenza activity levels in the U.S were low in May, 2004 and were not reported for June, July, or August, 2004.

Antigenic Characterization:

From May through September, 2004, five influenza A (H3N2) viruses and 31 influenza B viruses were collected and antigenically characterized by the CDC. All five influenza A (H3N2) viruses were characterized as A/Fujian/411/02-like. For information on activity in the United States please visit:

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

Europe

No information was reported by the European Influenza Surveillance Scheme from May 2 through August 31, 2004. For information on influenza activity in Europe please visit:

http://www.eiss.org/cgi-files/bulletin_v2.cgi

International

Influenza activity remained low in most parts of the world in weeks 29-35, except in Hong Kong Special Administrative Region of China (Hong Kong SAR). Influenza activity in Hong Kong remained 'moderate' from week 29, with a considerable number of viruses detected each week (184 viruses detected in week 34 and 147 in week 35). Most of the isolated viruses were influenza A/H3N2.

The above synopsis is reproduced from the WHO's website <http://www.who.int/wer/2004/en/> for the weeks 29-35, 2004.

For additional information on international influenza activity please visit:

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

Avian Influenza

Beginning in late June 2004, new fatal outbreaks of H5N1 among poultry were reported by several countries in Asia: Cambodia, China, Indonesia, Malaysia (first-time reports), Thailand, and Vietnam.

The new outbreaks of H5N1 in poultry in Asia were followed by renewed sporadic reporting of human cases of H5N1 infection in Vietnam and Thailand beginning in August, 2004.

For more information please visit:

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

Appendix 1. Respiratory viruses isolated and reported to the CIDPC by Ontario laboratories (2003/04 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 May 1, 2004 (Week 18)	(4,514)	(4,473)	(41)	(2,325)	(259)	(155)	(390)	(6)	(21)	(170)
Week ending May 15, 2004 (week 20)	9 (4,523)	6 (4,479)	3 (44)	55 (2,380)	1 (260)	0 (155)	71 (461)	0 (6)	0 (21)	12 (182)
Week ending May 29, 2004 (week 22)	5 (4,528)	3 (4,482)	2 (46)	11 (2,391)	4 (264)	0 (155)	59 (520)	0 (6)	2 (23)	9 (191)
Week ending June 12, 2004 (week 24)	2 (4,530)	2 (4,484)	0 (46)	7 (2,398)	2 (266)	0 (155)	45 (565)	0 (6)	1 (24)	8 (199)
Week ending June 26, 2004 (week 26)	2 (4,532)	1 (4,485)	1 (47)	7 (2,405)	1 (267)	0 (155)	20 (585)	0 (6)	1 (25)	5 (204)
Week ending July 10, 2004 (week 28)	1 (4,533)	1 (4,486)	0 (47)	8 (2,413)	0 (267)	0 (155)	16 (601)	0 (6)	0 (25)	5 (209)
Week ending July 24, 2004 (week 30)	0 (4,533)	0 (4,486)	0 (47)	12 (2,425)	0 (267)	0 (155)	7 (608)	0 (6)	0 (25)	4 (213)
Week ending August 7, 2004 (week 32)	1 (4,534)	1 (4,487)	0 (47)	3 (2,428)	2 (269)	0 (155)	6 (614)	1 (7)	0 (25)	2 (215)
Week ending August 21, 2004 (week 34)	1 (4,535)	1 (4,488)	0 (47)	0 (2,428)	2 (271)	0 (155)	3 (617)	0 (7)	0 (25)	4 (219)
Total number of isolates May 2, 2004 to August 21, 2004	21	15	6	103	12	0	227	1	4	49

† Change from previous 2 week period

‡ Accumulative totals from August 24, 2003

Appendix 2. Lab-Confirmed Sporadic Cases of Influenza A and B by Health Unit, September 1, 2003 to August 31, 2004 (Source: RDIS)

Health Unit	Cases of Influenza Reported to RDIS between September 1, 2003 and April 30, 2004		Week ending May 15, 2004 (week 20)		Week ending May 29, 2004 (week 22)		Week ending June 12, 2004 (week 24)		Week ending June 26, 2004 (week 26)		Week ending July 10, 2004 (week 28)		Week ending July 24, 2004 (week 30)		Week ending August 7, 2004 (week 32)		Week ending August 21, 2004 (week 34)		Week ending September 4, 2004 (week 36)*		Total Number of Cases Reported May 1 to August 31, 2004		Total Number of Cases Reported September 1, 2003 to August 31, 2004	
	Influenza A	Influenza B	Influenza A	Influenza B	Influenza A	Influenza B	Influenza A	Influenza B	Influenza A	Influenza B	Influenza A	Influenza B	Influenza A	Influenza B	Influenza A	Influenza B	Influenza A	Influenza B	Influenza A	Influenza B	Influenza A	Influenza B	Influenza A and B	
Algoma	136	0																					136	
Brant	40	0																					40	
Chatham - Kent	35	0																					35	
Durham	177	1					1															1	179	
Eastern Ontario	61	0																					61	
Elgin - St. Thomas	15	0																					15	
Grey-Bruce	93	0		1																		1	94	
Haldimand-Norfolk	60	1																					61	
Haliburton KPR	115	1																					116	
Halton	221	2																					223	
Hamilton-Wentworth	415	2																				1	418	
Hastings - P.E.	199	0		1																		1	200	
Huron	41	0		1																		1	42	
Kingston & FLA	96	2															1						99	
Lambton	45	0																					45	
Leeds - Grenville	18	0																					18	
Middlesex-London	217	0																					217	
Muskoka-Parry Sound	85	0																					85	
Niagara	201	0																					201	
Northwest	34	0																					34	
North Bay	114	0																					114	
Ottawa-Carleton	235	3																		3		3	241	
Oxford	40	0																					40	
Peel	552	5																					557	
Perth	81	0																					81	
Peterborough	100	0																					100	
Porcupine	94	2																				1	97	
Renfrew	37	0					1																37	
Simcoe	246	2								1											1		250	
Sudbury	184	0																					184	
Timiskaming	44	0																					44	
Thunder Bay	31	0																					31	
Toronto	597	9															1					3	609	
Walterloo	153	0																					153	
Well - Duf - Guelph	139	0																					139	
Windsor - Essex	23	0		1																		1	23	
York	319	5					1																325	
Total	5,293	35		4			1	1	1	1			2		1		1		4		14	2	5,344	

* Only cases of influenza reported on or before August 31, are reported here.

Appendix 3. Respiratory Infection Outbreaks in Institutions from October 27, 2003 to August 31, 2004.

Respiratory Infection Outbreaks in Institutions										
	Week ending May 1, 2004 (week 18)†	Week ending May 15, 2004 (week 20)‡	Week ending May 29, 2004 (week 22)‡	Week ending June 12, 2004 (week 24)‡	Week ending June 26, 2004 (week 26)‡	Week ending July 10, 2004 (week 28)‡	Week ending July 24, 2004 (week 30)‡	Week ending August 7, 2004 (week 32)*‡	Week ending August 21, 2004 (week 34)‡	Week ending September 4, 2004 (week 36)**‡
Total Respiratory Infection Outbreaks in Institutions										
Influenza A outbreaks	(784)	15 (799)	19 (818)	12 (830)	19 (849)	19 (868)	10 (878)	7 (885)	11 (896)	6 (902)
Flu A & other organisms	(380)	1 (381)	0 (381)	-1 (380)	1 (381)	3 (384)	0 (384)	-1 (383)	0 (383)	1 (384)
Influenza B	(7)	0 (7)	0 (7)	0 (7)	0 (7)	0 (7)	0 (7)	0 (7)	0 (7)	0 (7)
Other organisms	(2)	0 (2)	0 (2)	1 (3)	1 (4)	0 (4)	0 (4)	0 (4)	0 (4)	0 (4)
Unknown	(83)	4 (87)	8 (95)	5 (100)	3 (103)	8 (111)	9 (120)	6 (126)	0 (126)	6 (132)
Laboratory results pending	(281)	5 (286)	16 (302)	8 (310)	17 (327)	11 (338)	0 (338)	9 (347)	9 (356)	-1 (355)
No specimen sent for laboratory testing	(29)	5 (34)	-5 (29)	-2 (27)	-8 (19)	-3 (16)	2 (18)	-7 (11)	2 (13)	0 (13)
	(2)	0 (2)	0 (2)	1 (3)	5 (8)	0 (8)	-1 (7)	0 (7)	0 (7)	0 (7)
Outbreaks by Onset Period										
Onset of illness in index case October 27/03 onward	(768)	15 (783)	19 (802)	12 (814)	19 (833)	18 (851)	10 (861)	7 (868)	11 (879)	6 (885)
Onset of illness in index case prior to October 27/03	(16)	0 (16)	0 (16)	0 (16)	0 (16)	1 (17)	0 (17)	0 (17)	0 (17)	0 (17)
Ongoing Outbreaks										
Influenza A	(87)	-14 (73)	-3 (70)	-9 (61)	-9 (52)	-3 (49)	-9 (40)	-13 (27)	8 (35)	-9 (26)
Influenza A & other organisms	(17)	-2 (15)	0 (15)	-2 (13)	-6 (7)	0 (7)	0 (7)	-1 (6)	0 (6)	0 (6)
Influenza B	(0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Other organisms	(1)	-1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Unknown	(10)	-6 (4)	2 (6)	1 (7)	-1 (6)	-2 (4)	0 (4)	-3 (1)	0 (1)	0 (1)
Laboratory results pending	(32)	-9 (23)	2 (25)	-9 (16)	-1 (15)	0 (15)	-3 (12)	-3 (9)	6 (15)	-8 (7)
No specimen sent for laboratory testing	(27)	4 (31)	-7 (24)	0 (24)	-5 (19)	0 (19)	-4 (15)	-5 (10)	2 (12)	-1 (11)
	(0)	0 (0)	0 (0)	1 (1)	4 (5)	-1 (4)	-2 (2)	-1 (1)	0 (1)	0 (1)
Categories and Types of Institutions										
LTCs										
Nursing Home (NH), Home for the Aged (HFA)	(541)	14 (555)	10 (565)	18 (583)	16 (599)	16 (615)	9 (624)	52 (676)	10 (686)	6 (692)
Combined (e.g. NH/HFA, NH/Hospital)	(42)	0 (42)	9 (51)	0 (51)	-1 (50)	1 (51)	0 (51)	-31 (20)	0 (20)	0 (20)
Unspecified	(7)	0 (7)	0 (7)	-5 (2)	0 (2)	0 (2)	0 (2)	-2 (0)	0 (0)	0 (0)
Hospitals	(60)	0 (60)	0 (60)	0 (60)	1 (61)	0 (61)	0 (61)	-3 (58)	1 (59)	0 (59)
Other (Retirement Homes >10 beds, children's residences, etc.)	(134)	1 (135)	0 (135)	-1 (134)	3 (137)	2 (139)	1 (140)	-9 (131)	0 (131)	0 (131)

* During weeks 31 and 32 reported institution types and categories were cross-referenced with MOH-LTC Institution Master Numbering System database in order to ensure accurate categorization.

** Only respiratory infection outbreaks reported on or before August 31 are recorded here.

† The data in this column represents the cumulative totals from October 27, 2003 to May 1, 2004 and acts as a baseline for the rest of the table.

‡ The first number in this column represents the change from the previous two week period. The cumulative total from October 27, 2003 is presented in brackets.

Note: Negative values result from: Outbreaks being declared over, laboratory results, reclassification of institutions, deletions and corrective changes made to the database.