

Ontario Influenza Bulletin

Early Spring Edition

Vol. 8, Issue 6 Weeks 14-15 (April 3 – April 16, 2005)

Introduction

The current issue of Ontario Influenza Bulletin summarizes influenza activity during weeks 14-15. It covers the time period of April 3 to April 16, 2005.

Influenza activity started to decline in Ontario; however three regions continued to report widespread activity in week 14 and two regions reported widespread activity in week 15. The rest of the country experienced decreased activity and reported localized, sporadic or no activity during weeks 14 to 15.

The proportion of influenza type B detected (as opposed to influenza A) was predominant during week 14 and 15 in Ontario and reached 115 positive influenza B isolates in week 14, ending April 9, 2005.

Influenza Activity in Ontario

During the period of influenza surveillance between April 3 and April 16, 2005 (reporting weeks 14-15), a total of 281 laboratory-confirmed cases of influenza were reported (100 influenza A, 181 influenza B) by Ontario laboratories to the Centre for Infectious Disease Prevention and Control (CIDPC).

Throughout this period there were 163 cases of respiratory syncytial virus (RSV), 48 cases of para-influenza virus (PIV) and 14 cases of adenoviruses, all of which were laboratory-confirmed (Appendix 1).

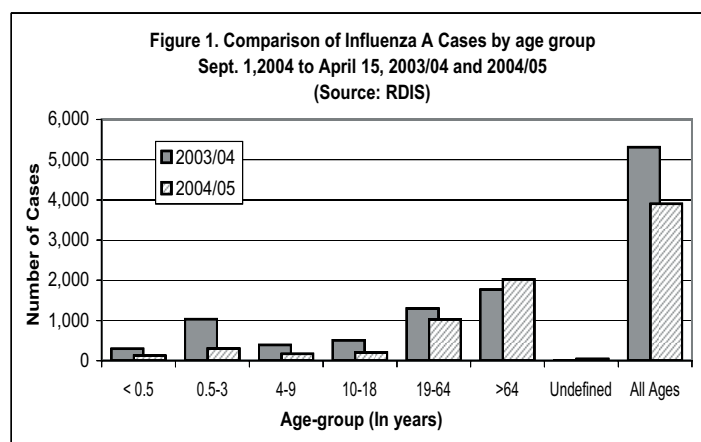
Including late reports, a total of 3,770 influenza A, 1,153 influenza B, 2,625 RSV, 281 PIV and 311 adenoviruses were reported to the CIDPC between August 22, 2004 and April 16, 2005.

Reportable Disease Information System (RDIS)

Between April 2 and April 15, 2005, a total of 762 laboratory-confirmed sporadic cases of influenza A and 309 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. Please note that four health units including Algoma, Grey – Bruce, Simcoe - Muskoka and Thunder Bay were excluded from RDIS. These four health units have been reporting to iPHIS as of April 1, 2005.

The total number of cases of influenza A and B reported between September 1, 2004 and April 15, 2005 were 3,732 and 997, respectively (Appendix 2). The total number of influenza is more than two thirds (73.5%) of the total number of cases for all age groups in same period of time in last season (Figure 1).



Institutional Respiratory Infection Outbreaks

From April 3 to April 15, 2005, 21 respiratory infection outbreaks were reported by Ontario's health units to the MOHLTC (Appendix 3). Of these, 28.6% (6/21) were outbreaks of influenza A. Additionally, 19% (4/21) of the outbreaks were due to influenza B. Note that the results for 24% of outbreaks were pending by end of week 15. The majority (80.9%) of respiratory infection outbreaks occurred in Long-Term Care Homes (17/21).

(Source: Appendix D's-preliminary reports and E's-final reports)

Taken together, data from the CIDPC, RDIS, and Respiratory Infection Outbreak Database indicated comparatively lower activity in Ontario during the period from April 3 to April 16, 2005 than from March 20 to April 2, 2005.

Influenza Activity in Canada

A summary of influenza activity in Canada as reported in FluWatch is provided below.

Influenza activity continued to decrease across the country during weeks 14 and 15, covering April 3 to April 16, 2005 (Table 1).

Widespread influenza activity were reported from East, Central East and Central West regions in Ontario during week 14, week ending April 9, 2005. Influenza activity changed to localized in Ontario during week 15, since only two regions reported widespread activity (Table 2).

The number of patients with influenza-like illness (ILI) seen by sentinel physicians in Canada from April 3 to April 16, 2005 ranged from 14/1,000 office visits (week 15, ending April 16, 2005) to 16/1,000 office visits (week 14, ending April 9, 2005). Additional information on influenza activity in Canada can be found at:

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

In Ontario, the number of patients with ILI seen by sentinel physicians ranged from 20/1,000 office visits (week 14 ending April 9) to 27/1,000 office visits (week 15, ending April 16).

Table 1: Influenza activity in Canada by Province, April 3 to April 16, 2005.

Province	Week ending April 9, 2005	Week ending April 16, 2005
Ontario	4 - 3	4 - 3
Newfoundland	1	1
Prince Edward Isl.	1	1
Nova Scotia	3	1
New Brunswick	1	3
Quebec	3	3
Manitoba	3 - 2 - 1	3 - 2 - 1
Saskatchewan	2	2
Alberta	3 - 2	3 - 2 - 1
British Columbia	2	2

Table 2: Influenza activity in Ontario by Region, April 3 to April 16, 2005 (Weeks 14 to 15).

Region	Week ending April 9, 2005	Week ending April 16, 2005
Ontario	4 - 3	4 - 3
East	4	4
Central East	4	4
Central West	4	3
South West	3	3
North	3	3

Strain Characterization

A total of 991 influenza viruses were characterized by National Microbiology Lab between August 22, 2004 and April 16, 2005. Of these, 840 cases were identified as influenza A (H3N2), including 50% (420/840) of A/Fujian/411/02-like before the new variant, A/California/7/04 was reported. Since February 17, 2005 328 isolates were identified as A/California/7/04.

For the same period of time 151 influenza B isolates, (126 were B/Shanghai/361/02-like viruses and 25 B/Hong Kong/330/01-like viruses) were also identified (Table 2).

Table 2. Influenza strain identified by the National Microbiology Lab. August 22, 2004 to April 16, 2005

Strain	No. (%)
A/Fujian/411/02-like virus	512 (51.6)
A/California/7/04-like virus	328 (33.2)
B/Shanghai/361/02-like virus	126 (12.7)
B/Hong Kong/330/01-like virus	25 (2.5)

Activity in the United States

Influenza activity peaked in early February and continued to decline during weeks 14 and 15 (April 3 to April 16, 2005).

The CDC antigenically characterized 755 influenza viruses collected by U.S. laboratories between October 1, 2004 and April 16, 2005: 510 influenza A (H3N2) viruses, 6 influenza A (H1) viruses and 239 influenza B viruses.

Antigenic Characterization:

From October 3, 2004 to February 26, 2005, WHO and National Respiratory and Enteric Virus Surveillance System (NREVSS) laboratories in the United States isolated 21,699 influenza viruses, 16,740 (77.1%) were influenza A viruses and 4,959 (22.9%) were influenza B viruses. Five thousand four hundred and seventy nine (32.7%) of influenza A viruses were subtyped; 5,463 (99.7%) were influenza A (H3N2) and 16 (0.3%) were influenza A (H1N1) subtype.

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

Activity in Europe

Influenza activity decreased across Europe during week 14 and activity fell for most of Europe, except for Latvia and Norway during week 15, ending April 17, 2005.

Based on sub-typing of all influenza viruses detected from September 5, 2004 up to week 15, ending April 17, 2005 (N=13,991; sentinel and non-sentinel data), 6,601 (47%)

were A (not subtyped), 4,592 (33%) were A(H3) [1,560 of these were A(H3N2)], 734 (5%) were A(H1) [295 of these were A(H1N1) and two as A(H1N2)] and 2,264 (16%) were B.

A total number of 3,786 viruses (27% of all isolates) have been antigenically and/or genetically characterized: 1,450 A/Wellington/1/2004 (H3N2)-like viruses, 829 A/California/7/2004 (H3N2) like-viruses, 111 A/Fujian/411/2002 (H3N2) like-viruses, two A/Panama/2007/99 (H3N2) like-viruses, 739 A/New Caledonia/20/99 (H1N1)-like viruses, 350 B/Ji-

angsu/10/2003-like viruses and 303 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

Activity at the International Level

Influenza activity continued to decline during weeks 14 and 15 in most parts of the world.

For more information please visit the WHO's website: <http://www.who.int/wer/2005/en/>

Appendix 1. Respiratory viruses isolated and reported to the CIDPC, April 3 to April 16, 2005 (2004/05 Season)

Organism Time interval	Influenza Viruses			Other Respiratory Viruses						
	A & B	A	B	RSV	PIV1	PIV2	PIV3	PIV4	Other PIVs	Adenoviruses
Total until April 2, 2005 (Week 13)	[3429]	[2639]	[790]	[1878]	[93]	[20]	[70]	[15]	[4]	[248]
Week ending April 9, 2005 (week 14)	183 [3612]	68 [2707]	115 [905]	101 [1979]	4 [97]	2 [22]	9 [79]	0 [15]	0 [4]	6 [254]
Week ending April 16, 2005 (week 15)	98 [3710]	32 [2739]	66 [971]	62 [2041]	9 [106]	0 [22]	24 [103]	0 [15]	0 [4]	8 [262]
Number of late reports, from August 22, 2004 to April 16, 2005	[1213]	[1031]	[182]	[584]	[13]	[5]	[12]	[1]	[0]	[49]
Total number of isolates, August 22, 2004 to April 16, 2005*	[4923]	[3770]	[1153]	[2625]	[119]	[27]	[115]	[16]	[4]	[311]

[] Accumulative numbers from August 22, 2004

* Late reports are included

Appendix 2. Weekly Lab-Confirmed Cases of Influenza by Health unit, week 14-15 (Source: RDIS)

Health Unit	Week ending April 8, 2005 (week 14)				Week ending April 15, 2005 (week 15)			
	Influenza A		Influenza B		Influenza A		Influenza B	
Algoma*	[53]		[3]		[53]		[3]	
Brant	21	[58]	2	[7]	[58]		4	[11]
Chatham - Kent	7	[34]	1	[1]	14	[48]	[1]	
Durham	4	[109]	11	[43]	[109]		[43]	
Eastern Ontario	[88]		1	[25]	1	[89]	[25]	
Elgin - St. Thomas	3	[5]			[5]			
Grey-Bruce*	[45]		10	[11]	[45]		[11]	
Haldimand-Norfolk	4	[29]	[8]		2	[31]	2	[10]
Haliburton KPR	4	[89]	12	[40]	[89]		5	[45]
Halton	4	[162]	16	[50]	[165]		6	[56]
Hamilton-Wentworth	[258]		[70]		15	[273]	27	[97]
Hastings – P.E.	4	[93]	2	[16]	1	[94]	1	[17]
Huron	[41]		1	[3]	3	[44]	[3]	
Kingston & FLA	1	[76]	4	[11]	6	[82]	2	[13]
Lambton	[3]				16	[19]		
Leeds - Grenville	23	[24]	8	[8]	[24]		[8]	
Middlesex-London	[8]				[8]			
Muskoka-Parry Sound**	[76]		[1]		[76]		[1]	
Niagara	1	[108]	3	[21]	3	[111]	2	[23]
Northwest	12	[82]	1	[8]	[32]		[8]	
North Bay - Parry Sound	6	[32]	1	[4]	[82]		[4]	
Ottawa-Carleton	[197]		[9]		25	[222]	28	[37]
Oxford	[38]		[2]		[38]		[2]	
Peel	16	[226]	25	[81]	28	[254]	19	[100]
Perth	2	[52]	[9]		2	[54]	1	[10]
Peterborough	1	[57]	3	[25]	1	[58]	[25]	
Porcupine	[80]		[2]		[80]		[2]	
Renfrew	[22]		1	[2]	1	[23]	[2]	
Simcoe - Muskoka*	[165]		[38]		[165]		[38]	
Sudbury	2	[46]	2	[13]	[46]		[13]	
Timiskaming	[20]				[45]			
Thunder Bay*	1	[43]	[4]		[20]		[4]	
Toronto	22	[614]	65	[242]	9	[623]	15	[257]
Waterloo	13	[224]	9	[35]	4	[228]	2	[37]
Wel - Duf - Guelph	1	[98]	3	[19]	[98]		[19]	
Windsor - Essex	[20]		[1]		[20]		[1]	
York	14	[357]	17	[64]	33	[390]	7	[71]
Total	593	[3732]	188	[876]	169	[3901]	121	[997]

[] Cumulative number from September 1, 2004

* Reporting to iPHIS from April 1, 2005

** No longer exists as of April 1, 2005

Appendix 3. Respiratory Infection Outbreaks in Institutions from April 3 to 15, 2005

Respiratory Infection Outbreaks in Institutions	Week ending April 9 ,2005 (week 14)	Week ending April 15,2005 (week 15)
Total Respiratory Infection Outbreaks in Institutions	11 [877]	10 [887]
Influenza A	4	2
Influenza A & B	1	0
Influenza A & other organism/s	0	0
Influenza B	1	3
Influenza B & other organism/s	0	0
Other organisms	1	0
No organism isolated	3	1
Laboratory results pending	1	4
No specimen sent for laboratory testing	0	0
Ongoing Outbreaks	9	10
Influenza A	3	2
Influenza A & B	1	0
Influenza A & other organism/s	0	0
Influenza B	1	3
Influenza B & other organism/s	0	0
Other organisms	1	0
No organism isolated	2	1
Laboratory results pending	1	4
No specimen sent for laboratory testing	0	0
Types of Institutions		
LTCHs	8	9
Hospitals	1	0
Other*	2	1

[] The number represents the total number of Institutional Outbreaks from the beginning of this season, September 1, 2004 to date indicated.

* Retirement Homes > 10 beds, children's residences, facilities operated under the *Developmental Services Act* etc.