Ontario
Ministry of
Health and Long-Term Care

Ontario Influenza Bulletin

Mid-Spring Edition Vol. 8, Issue 7 Weeks 16-17 (April 17 – April 30, 2005)

Introduction

The current issue of Ontario Influenza Bulletin summarizes influenza activity during weeks 16-17. It covers the time period of April 17 to April 30, 2005.

Influenza activity continued to decline in Ontario; however two regions continued to report widespread activity in week 16 and only one region reported widespread activity in week 17. The rest of the country experienced decreased activity and reported localized, sporadic or no activity during weeks 16 to 17.

The number of influenza type B detected (as opposed to influenza A) was predominant during week 16 and 17 in Ontario and reached 55 lab-confirmed influenza B isolates in week 16, ending April 23, 2005. This number is double number of influenza A isolates reported in the same week (Appendix 1).

Influenza Activity in Ontario

During the period of influenza surveillance between April 17 and April 30, 2005 (reporting weeks 16 - 17), a total of 104 laboratory-confirmed cases of influenza were reported (32 influenza A, 72 influenza B) by Ontario laboratories to the Centre for Infectious Disease Prevention and Control (CIDPC).

Throughout this period there were 93 reports of respiratory syncytial virus (RSV), 97 cases of para- influenza virus (PIV) and 19 cases of adenoviruses, all of which were laboratory-confirmed (Appendix 1).

Including late reports, a total of 3,806 influenza A, 1,239 influenza B, 2,747 RSV, 379 PIV and 333 adenoviruses were reported to the CIDPC between August 22, 2004 and April 30, 2005.

Vaccination Status of Health Care Workers (HCWs)

Annual vaccination in autumn of people at high risk and of people capable of transmitting influenza to those at high risk is the single most important measure for reducing the impact of influenza. On November 1st, 1999, the Ministry of Health and Long-Term Care (MOHLTC) issued influenza Surveillance and Prevention Protocol to Ontario nursing homes for the aged. As well, In July 2000, the minister approved an influenza Surveillance Protocol for public hospitals, developed jointly by the Ontario Medical Association, Ontario Hospital Association and MOHLTC. The main requirement of the protocols is that each facility has a policy to address influenza surveillance, prevention (including annual immunization), and outbreak control. Under both protocols, influenza vaccine coverage rates from Long-Term Care Homes (LTCHs) and public hospitals are to be reported to the local medical officer of health by December 1st of each year.

Table 1: Vaccination Status of Health Care Workers as of November 15, 2004

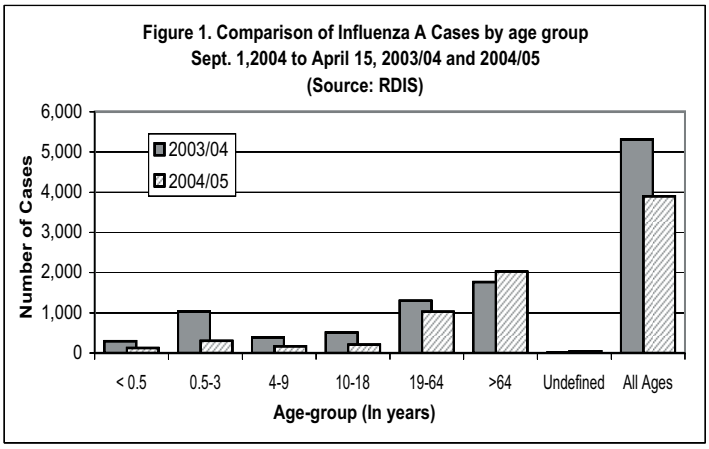
	LTCHs N=576		Hospitals N=170
	Residents	Staff	Staff
Median	95%	82.8%	52.9%
Range	56.5 -100%	23.3-100%	19.9-96.3%

Reportable Disease Information System (RDIS)

Between April 16 and April 29, 2005, a total of 117 laboratory-confirmed sporadic cases of influenza A and 153 laboratory-confirmed sporadic cases of influenza B were reported to the Ministry of Health and Long-Term Care (MOHLTC) through RDIS by 27 of Ontario's health units.

Please note that two more health units (Sudbury and North Bay) were excluded from RDIS as of April 18, 2005. Three other health units (Northwestern, Wellington – Dufferin – Guelph and Brant) were excluded from RDIS as of April 25, 2005. These five health units (Total of 9) have been reporting to iPHIS as of the date above (Appendix 2a).

The total number of lab-confirmed cases of influenza A and B reported between September 1, 2004 and April 29, 2005 were 4,018 and 1,150, respectively (Appendix 2b). The total number of influenza A is more than two thirds (75.2%) of the total number of influenza A cases for all age groups in same period of time in last season (Figure 1).



Institutional Respiratory Infection Outbreaks

From April 16 to April 29, 2005, 28 respiratory infection outbreaks were reported by Ontario's health units to the MOHLTC (Appendix 3). Of these, 21.4% (6/28) were identified as influenza A. Additionally, 15.4% (4/28) of the outbreaks were due to influenza B. Note that the lab results for 32.1% of outbreaks were pending by end of week 17. The majority (82.1%) of respiratory infection outbreaks occurred in Long-Term Care Homes (23/28).
(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 17 to April 30, 2005 than from April 3 to April 16, 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 16 and 17, covering April 17 to April 30, 2005 (Table 2).

Table 2: Influenza activity in Canada by Province, April 17 to April 30, 2005 (Weeks 16 to 17).

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	1	1
New Brunswick	1	1
Quebec	**2**	**2**
Manitoba	**3 - 2**	**3 - 2- 1**
Saskatchewan	**2**	**2**
Alberta	**2 - 1**	**2 - 1**
British Columbia	**3 - 2**	**2 - 1**

Widespread influenza activity was reported from Central East and Central West regions in Ontario during week 16, week ending April 23, 2005. Influenza activity changed to localized in Ontario during week 16 and 17, since only two and one regions reported widespread activity in weeks 16 and 17 respectively (Table 3).

Table 3: Influenza activity in Ontario by Region, April 17 to April 30, 2005 (Weeks 16 to 17).

Region	Week ending April 23, 2005	Week ending April 30, 2005
Ontario	4 - 3	4 - 3
East	**3**	**3**
Central East	**4**	**4**
Central West	**4**	**3**
South West	**3**	**3**
North	**3**	**3**

The number of patients with influenza-like illness (ILI) seen by sentinel physicians in Canada from April 17 to April 30, 2005 ranged from 16/1,000 office visits (week 17, ending April 30, 2005) to 17/1,000 office visits (week 16, ending April 23, 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 15/1,000 office visits (week 17 ending April 30) to 21/1,000 office visits (week 16, ending April 23).

Strain Characterization

A total of 1,030 influenza viruses were characterized by National Microbiology Lab between August 22, 2004 and April 30, 2005. Of these, 854 cases were identified as influenza A (H3N2), including 49.2% (420/854) of A/Fujian/411/02-like before the new variant, A/California/7/04 was reported. Since February 17, 2005 340 isolates were identified as A/California/7/04.

For the same period of time 176 influenza B isolates, (145 were B/Shanghai/361/02-like viruses and 31 B/Hong Kong/330/01-like viruses) were also identified (Table 4).

Table 4: Influenza strain identified by the NML August 22, 2004 to April 30, 2005

Strain	No. (%)
A/Fujian/411/02-like virus	514 (49.9)
A/California/7/04-like virus	340 (33.0)
B/Shanghai/361/02-like virus	145 (14.1)
B/Hong Kong/330/01-like virus	31 (3.0)

Activity in the United States

Influenza activity peaked in early February and continued to decline during weeks 16 and 17 (April 16 to April 30, 2005). The CDC antigenically characterized 802 influenza isolates collected by U.S. laboratories between October 1, 2004 and April 30, 2005: 540 influenza A (H3N2) viruses, 6 influenza A (H1) viruses and 256 influenza B viruses.

Antigenic Characterization:

From October 3, 2004 to April 30, 2005, WHO and National Respiratory and Enteric Virus Surveillance System (NREVSS) laboratories in the United States isolated 22,074 influenza viruses, 16,887 (76.5%) were influenza A viruses and 5,187 (23.5%) were influenza B viruses. Five thousand five hundred and fifty-four (32.9%) of influenza A viruses were subtyped; 5,538 (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 16 and low levels of activity were reported by all European countries. Only Norway reported regional activity during week 16, although declining activity also indicated the end of the flu season in this country.

Based on sub-typing of all influenza viruses detected from September 5, 2004 up to week 16, ending April 24, 2005 (N=14,183; sentinel and non-sentinel data), 6,622 (46.7%) were A (not sub-typed), 4,470 (31.5%) were A(H3) [1,609 of these were A(H3N2)], 747 (5.3%) were A(H1) [312 of these were A(H1N1) and two as A(H1N2)] and 2,344 (16.5%) were B.
A total number of 4,083 viruses (28.8% of all isolates) have been antigenically and/or genetically characterized: 1,226 A/Wellington/1/2004 (H3N2)-like viruses, 1,263 A/California /7/2004 (H3N2) like-viruses, 112 A/Fujian/411/2002 (H3N2) like-viruses, two A/Panama/2007/99 (H3N2) like-viruses, 765 A/New Caledonia/20/99 (H1N1)-like viruses, 401 B/Jiangsu/10/2003-like viruses and 314 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 16 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 17 to April 30, 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 16, 2005 (Week 15)	**[3710]**	**[2739]**	**[971]**	**[2041]**	**[106]**	**[22]**	**[103]**	**[15]**	**[4]**	**[262]**
Week ending April 23, 2005 (week 16)	82 [3792]	27 [2766]	55 [1026]	65 [2106]	2 [108]	1 [23]	47 [150]	0 [15]	0 [4]	12 [274]
Week ending April 30, 2005 (week 17)	22 [3814]	5 [2771]	17 [1043]	28 [2134]	9 [117]	1 [24]	37 [187]	0 [15]	0 [4]	7 [281]
Number of late reports,from August 22,2004 to April 30, 2005	[1231]	[1035]	[196]	[613]	[15]	[5]	[11]	[1]	[0]	[52]
Total number of isolates, August 22, 2004 to April 30, 2005*	[5045]	[3806]	[1239]	[2747]	[132]	[29]	[198]	[16]	[4]	[333]

[ ] Accumulative numbers from August 22, 2004

* Late reports are included

Appendix 2a. Weekly Lab-Confirmed Cases of Influenza by Health unit, week 16 - 17 (Source: iPHIS)

Health Unit	Week ending April 23, 2005 (week 16)			Week ending April 30, 2005 (week 17)		
	Not classified±	Influenza A	Influenza B	Not classified±	Influenza A	Influenza B
Algoma		0	0		0	0
Grey-Bruce*		1 [46]	[11]		2 [48]	1 [12]
Simcoe - Muskoka*		1 [166]	1 [39]		1 [167]	[39]
Thunder Bay		0	0		0	0
Sudbury+		[46]	1 [14]		[46]	1 [15]
North Bay - Parry Sound+		[82]	[4]	2	[82]	[4]
Northwestern		0	0		0	0
Wellington - Dufferin - Guelph		0	0		0	0
Brant		0	0		0	0

[ ] Cumulative number from September 1,2004 + Reporting to iPHIS from April 18, 2005

* Reporting to iPHIS from April 1, 2005

± Type of influenza (ie A vs B) not reported

Please note that these data are preliminary and subject to change

Appendix 2b. Weekly Lab-Confirmed Cases of Influenza by Health unit, week 16 - 17 (Source: RDIS)

Health Unit	Week ending April 22, 2005 (week 16)		Week ending April 29, 2005 (week 17)	
	Influenza A	Influenza B	Influenza A	Influenza B
Algoma*	[53]	[3]	[53]	[3]
Brant±	[58]	[11]	[58]	[11]
Chatham - Kent	[48]	2 [3]	[48]	[3]
Durham	3 [112]	9 [52]	[112]	2 [54]
Eastern Ontario	[89]	[25]	[89]	1 [26]
Elgin - St. Thomas	[5]		[5]	
Grey-Bruce*	[45]	[11]	[45]	[11]
Haldimand-Norfolk	1 [32]	[10]	[32]	[10]
Haliburton KPR	1 [90]	2 [43]	[90]	3 [46]
Halton	3 [168]	4 [60]	2 [170]	12 [72]
Hamilton-Wentworth	1 [274]	2 [99]	1 [275]	7 [106]
Hasting – P.E.	[94]	1 [18]	[94]	1 [19]
Huron	[44]	1 [4]	2 [46]	1 [5]
Kingston & FLA	[82]	[13]	[82]	[13]
Lambton	12 [31]	7 [7]	[31]	[7]
Leeds - Grenville	5 [29]	1 [9]	[29]	[9]
Middlesex-London	11 [19]	2 [2]	[19]	[2]
Muskoka-Parry Sound**	**[76]**	**[1]**	**[76]**	**[1]**
Niagara	[111]	2 [25]	2 [113]	[25]
Northwest±	[32]	[8]	[32]	[8]
North Bay - Parry Sound+	[82]	[4]	[82]	[4]
Ottawa-Carleton	[222]	2 [39]	[222]	5 [44]
Oxford	2 [40]	1 [3]	[40]	[3]
Peel	13 [267]	29 [129]	6 [273]	12 [141]
Perth	[54]	1 [11]	1 [55]	2 [13]
Peterborough	[58]	2 [27]	[58]	1 [28]
Porcupine	2 [82]	[2]	2 [84]	4 [6]
Renfrew	[23]	[2]	[23]	[2]
Simcoe - Muskoka*	[165]	[38]	[165]	[38]
Sudbury+	[46]	[13]	[46]	[13]
Timiskaming	[45]	[1]	[45]	[1]
Thunder Bay*	[20]	[4]	[20]	[4]
Toronto	1 [624]	14 [271]	5 [629]	6 [277]
Waterloo	3 [231]	1 [38]	[231]	[38]
Wel - Duf - Guelph±	[98]	[19]	[98]	[19]
Windsor - Essex	10 [30]	8 [9]	[30]	1 [10]
York	12 [402]	6 [77]	16 [418]	1 [78]
Total	**80 [3981]**	**94 [1091]**	**37 [4018]**	**59 [1150]**

[ ] Cumulative number from September 1,2004 * Reporting to iPHIS from April 1, 2005 +Reporting to iPHIS from April 18, 2005

** No longer exists as of April 1, 2005 ±Reporting to iPHIS from April 25, 2005

Appendix 3. Respiratory infection outbreaks in Institutions from April 16 to 29, 2005

Respiratory Infection Outbreaks in Institutions	Week ending April 22 ,2005 (week 16)		Week ending April 29, 2005 (week 17)	
Total Respiratory Infection Outbreaks in Institutions	**16**	**[903]**	**12**	**[915]**
Influenza A	3		3	
Influenza A & B	0		0	
Influenza A & other organism/s	0		0	
Influenza B	3		1	
Influenza B & other organism/s	0		0	
Other organisms	1		1	
No organism isolated	3		4	
Laboratory results pending	6		3	
No specimen sent for laboratory testing	0		0	
Ongoing Outbreaks	**14**		**11**	
Influenza A	3		2	
Influenza A & B	0		0	
Influenza A & other organism/s	0		0	
Influenza B	3		1	
Influenza B & other organism/s	0		0	
Other organisms	1		1	
No organism isolated	1		4	
Laboratory results pending	6		3	
No specimen sent for laboratory testing	0		0	
Types of Institutions				
LTCHs	13		10	
Hospitals	2		1	
Other*	1		1	

[ ] The number represents the total number of Institutional Oubreaks 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.