

Ontario Influenza Bulletin

Early Spring Edition

Vol. 8, Issue 5 Weeks 12-13 (March 20 – April 2, 2005)

Introduction

The current issue of Ontario Influenza Bulletin summarizes influenza activity during weeks 12-13. It covers the time period from March 20 to April 2, 2005.

Influenza activity continued to be reported as widespread in most parts of Ontario, while the rest of the country continued to decrease and reported either localized, sporadic or no activity during weeks 12 to 13.

The proportion of positive influenza B isolates continued to increase during weeks 12 and 13 in Ontario and reached 167 in week 13, ending April 2, 2005. This number is almost three times more than the number of influenza A isolates reported in the same week.

(Source: Centre for Infectious Disease Prevention and Control (CIDPC); week ending April 2, 2005)

Influenza Activity in Ontario

During the period of influenza surveillance between March 20, 2005 and April 2, 2005 (reporting weeks 12-13), a total of 433 laboratory-confirmed cases of influenza were reported (155 influenza A, 278 influenza B) by Ontario laboratories to the CIDPC.

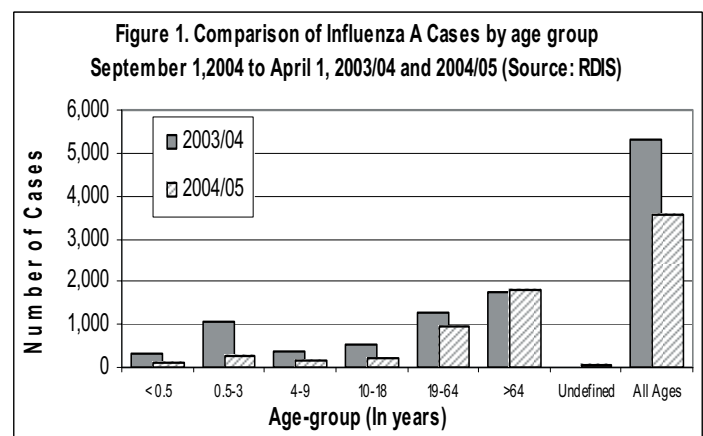
Throughout this period there were 216 cases of respiratory syncytial virus (RSV), 29 cases of para-influenza viruses (PIV) and 24 cases of adenoviruses, all of which were laboratory-confirmed (Appendix 1).

Including late reports, a total of 3,589 influenza A, 925 influenza B, 2,427 RSV, 221 parainfluenza viruses and 209 adenoviruses that were reported to the CIDPC between August 22, 2004 and April 2, 2005.

Reportable Disease Information System (RDIS)

Between March 20 and April 1, 2005, a total of 754 laboratory-confirmed sporadic cases of influenza A and 292 labora-

tory-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 April 1, 2005 were 3,555 and 688, respectively (Appendix 2). The total of influenza A for all age group is 67% of the total number of influenza A in same period of time in last season (Figure 1).



Institutional Respiratory Infection Outbreaks

From March 20 to April 2, 2005, 60 respiratory infection outbreaks were reported by Ontario's health units to the MOHLTC (Appendix 3). Of these, 33.3% (20/60) were outbreaks of influenza A. Additionally, 1.7% (1/60) of the outbreaks were due to other organisms such as enterovirus, rhinovirus, and respiratory syncytial virus. The majority (75%) of respiratory infection outbreaks occurred in Long-Term Care Homes (LTCHs) (45/60). (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 March 20 to April 2, 2005 than February 27 to March 19, 2005.

nfluenza Activity in Canada

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

Influenza activity in Canada decreased across the country except in Ontario and one region of Alberta during weeks 12 and 13, covering March 20 to April 2, 2005 (Table 1).

Ontario continued to report widespread influenza activity during weeks 12-13. All regions except South West reported widespread activity (Table 2).

The number of patients with influenza-like illness (ILI) seen by sentinel physicians in Canada from March 20 to April 2, 2005 ranged from 31/1,000 office visits (week 13, ending April 2, 2005) to 39/1,000 office visits (week 12, ending March 26, 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 36/1,000 office visits (week 13, ending April 2, 2005) to 42/1,000 office visits (week 12, ending March 26, 2005).

Table 1: Influenza activity in Canada by Province, March 20 to April 2, 2005

Province	Week ending March 26, 05	Week ending April 2, 05
Ontario	4	4
Newfoundland	3	1
Prince Edward Isl.	1 - 2	1
Nova Scotia	1	1
New Brunswick	3	1
Quebec	3	3
Manitoba	No Data	3 - 2
Saskatchewan	2	2
Alberta	4 -3 - 2	4 - 2
British Columbia	2	2

Table 2: Influenza activity in Ontario by Region, March 20 to April 2, 2005.

Region	Week ending March 26, 05	Week ending April 2, 05
Ontario	4	4
East	4	4
Central East	4	4
Central West	4	4
South West	3	3
North	4	4

- 1- No activity
- 2- Sporadic activity
- 3- Localized activity
- 4- Widespread activity

Strain Characterization

A total of 886 influenza viruses isolates were characterized by National Microbiology Lab between August 22, 2004 and April 2, 2005. Of these, 770 were identified as influenza A (H3N2), including 54.5% (420/770) of A/Fujian/411/02-like (H3N2) before the new variant, A/California/7/04-like viruses were reported. For the same period of time, 116 influenza B, (97 were B/Shanghai/361/02-like viruses and 19 B/Hong Kong/330/01-like viruses) were also identified (Table 3).

Table 3. Influenza strains identified by the National Microbiology Lab. August 22, 2004 to April 2, 2005

Strain	No. (%)
A/Fujian/411/02-like virus	420 (47.4)
A/California/7/04-like virus	350 (39.6)
B/Shanghai/361/02-like virus	97 (10.9)
B/Hong Kong/330/01-like virus	19 (2.1)

Activity in the United States

Influenza activity peaked in February and continued to decline during weeks 12 and 13 (March 20 to April 2, 2005). The CDC antigenically characterized 721 influenza viruses collected by U.S. laboratories between October 1, 2004 and April 2, 2005: 493 influenza A (H3N2) viruses, 6 influenza A (H1) viruses and 222 influenza B viruses.

Antigenic Characterization:

From October 3, 2004 to April 2, 2005, WHO and National Respiratory and Enteric Virus Surveillance System (NREVSS) laboratories in the United States isolated 20,816 influenza viruses, 16,350 (78.5%) were influenza A viruses and 4,466 (21.5.0%) were influenza B viruses. 5,233 (32%) of influenza A viruses were subtyped; 5,220 (99.8%) were influenza A (H3N2) and 13 (0.2%) 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 or was at baseline activity levels across Europe during week 12 and reached to low level of clinical influenza activity across most European countries in week 13, ending April 3, 2005.

Based on sub-typing of all influenza viruses detected from September 5, 2004 up to week 13, week ending April 3, 2005 (N=13,419; sentinel and non-sentinel data), 6469 (48%) were A (not subtyped), 4,250 (32%) were A(H3) [1,515 of

these were A(H3N2)], 707 (5%) were A(H1) [288 of these were A(H1N1) and two were A(H1N2)] and 1,993 (15%) were B.

A total number of 3,314 viruses (25% of all isolates) have been antigenically and/or genetically characterized: 1,352 A/Wellington/1/2004 (H3N2)-like viruses, 677 A/California/7/2004 (H3N2) like-viruses, 112 A/Fujian/411/2002 (H3N2) like-viruses, two A/Panama/2007/99 (H3N2) like-viruses, 652 A/New Caledonia/20/99 (H1N1)-like viruses, 254 B/Jiangsu/10/2003-like viruses and 265 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

Some north-eastern European countries reported a gradual increase in influenza activity. The rest of the world reported medium to low activity.

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, March 19 to April 2, 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 March 19, 2005 (Week 11)	[2996]	[2484]	[512]	[1662]	[86]	[19]	[50]	[15]	[3]	[224]
Week ending March 27, 2005 (week 12)	206 [3202]	95 [2579]	111 [623]	93 [1755]	4 [90]	0 [19]	8 [58]	0 [15]	0 [3]	12 [236]
Week ending April 2, 2005 (week 13)	227 [3429]	60 [2639]	167 [790]	123 [1878]	3 [93]	1 [20]	12 [70]	0 [15]	1 [4]	12 [248]
Number of late reports, from August 22, 2004 to April 2, 2005	[1085]	[950]	[135]	[549]	[9]	[5]	[4]	[1]	[0]	[48]
Total number of isolates, August 22, 2004 to April 2, 2005*	[4514]	[3589]	[925]	[2427]	[102]	[25]	[74]	[16]	[4]	[296]

[] Accumulative numbers from August 22, 2004

* Late reports are included

Appendix 2. Weekly Lab-Confirmed Cases of Influenza by Health unit, week 12-13 (Source: RDIS)

Health Unit	Week ending March 26, 2005 (week 12)				Week ending April 01, 2005 (week 13)			
	Influenza A		Influenza B		Influenza A		Influenza B	
Algoma	8	[53]	1	[3]		[53]		[3]
Brant		[35]		[2]	2	[37]	3	[5]
Chatham - Kent	2	[14]			2	[16]		
Durham	3	[99]	3	[21]	6	[105]	11	[32]
Eastern Ontario	3	[88]	5	[26]		[88]	1	[24]
Elgin - St. Thomas		[2]				[2]		
Grey-Bruce	7	[45]	4	[11]		[45]		[1]
Haldimand-Norfolk	4	[25]	3	[8]		[25]		[8]
Haliburton KPR	7	[84]	7	[27]	1	[85]	1	[28]
Halton	14	[155]	5	[31]	3	[158]	3	[34]
Hamilton-Wentworth		[8]		[1]	250	[258]	69	[70]
Hastings – P.E.	31	[83]	4	[13]	6	[89]	1	[14]
Huron	12	[38]	2	[2]	3	[41]		[2]
Kingston & FLA		[66]		[4]	9	[75]	3	[7]
Lambton	2	[3]				[3]		
Leeds - Grenville		[1]				[1]		
Middlesex-London		[3]			5	[8]		
Muskoka-Parry Sound	2	[75]			1	[76]	1	[1]
Niagara	2	[98]		[8]	9	[107]	10	[18]
Northwest		[9]			17	[26]	7	[7]
North Bay	8	[68]	1	[3]	2	[70]	2	[3]
Ottawa-Carleton		[197]		[9]		[197]		[9]
Oxford	2	[38]	1	[2]		[38]		[2]
Peel	41	[186]	20	[45]	24	[210]	11	[56]
Perth	11	[47]	4	[7]	3	[50]	2	[9]
Peterborough	3	[56]	2	[21]		[56]	1	[22]
Porcupine	6	[80]	1	[2]		[80]		[2]
Renfrew		[21]		[1]	1	[22]		[1]
Simcoe	54	[165]	16	[38]		[165]		[38]
Sudbury	12	[38]	2	[9]	6	[44]	2	[11]
Timiskaming		[34]			8	[42]		
Thunder Bay	5	[20]	2	[4]		[20]		[4]
Toronto	32	[567]	40	[157]	25	[592]	20	[177]
Waterloo	54	[200]	5	[24]	11	[211]	2	[26]
Wel - Duf - Guelph	3	[88]		[11]	9	[97]	5	[16]
Windsor - Essex	3	[20]		[1]		[20]		[1]
York	7	[330]	9	[45]	13	[343]	2	[47]
Total	338	[3139]	137	[533]	416	[3555]	155	[688]

[] Cumulative number from September 1,2004

Appendix 3. Respiratory infection outbreaks in Institutions from March 20 to April 2, 2005

Respiratory Infection Outbreaks in Institutions	Week ending March 26, 2005 (week 12)	Week ending April 2, 2005 (week 13)
Total Respiratory Infection Outbreaks in Institutions	32 [838]	28 [866]
Influenza A	11	9
Influenza A & B	2	0
Influenza A & other organism/s	0	1
Influenza B	5	5
Influenza B & other organism/s	0	0
Other organisms	0	1
No organism isolated	10	2
Laboratory results pending	4	10
No specimen sent for laboratory testing	0	0
Ongoing Outbreaks	25	26
Influenza A	8	8
Influenza A & B	1	0
Influenza A & other organism/s	0	1
Influenza B	5	5
Influenza B & other organism/s	0	0
Other organisms	0	0
No organism isolated	7	2
Laboratory results pending	4	10
No specimen sent for laboratory testing	0	0
Types of Institutions		
LTCHs	24	21
Hospitals	3	2
Other*	5	5

[] 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.