

		Ontario Influenza Bulletin	Ministry of Health and Long-Term Care Public Health Branch <i>Volume 7, Issue 10, 2003</i>
			

Week #01: Week Ending January 03, 2004

Influenza Activity in Ontario

Widespread influenza activity was still being reported in all the health regions of the province during the week ending January 03, 2004. Confirmed influenza cases and institutional influenza outbreaks were reported in all the health regions during this period. However, during this surveillance period the Ontario laboratories reported 519 influenza A isolations to the Center for Infectious Disease Prevention and Control (CIDPC), Health Canada, which is 438 (45.8%) less than those reported during the previous week. Also reported during this season-to-date, were other respiratory isolates and detections as shown in Table 1. Health units reported 916 cases of confirmed influenza A cases and two influenza B cases through the Reportable Diseases Information System (RDIS) (Table 2). Twenty-four influenza-related deaths have been reported through RDIS since October 27, 2003 (Table 3). There were 96 respiratory infection outbreaks reported during this surveillance period; 58 (60.4%) of which were due to influenza A (Table 4). The rate of influenza-like illness (ILI) reported by sentinel physicians in Ontario was lower during week 52 and week 1 when compared to the earlier weeks during the season (Chart 1), however, they are much higher than the rates reported during the last season. The distribution of the outbreaks by type of institution is shown in Table 4 while the distribution of the influenza A cases reported to date by health region is shown in Chart 2.

Table 1.

Indicator	2002-03 Season Week Ending January 04, 2003 (week 1) Season to Date**	2003-04 Season Week Ending January 03, 2004 (week1) Season to Date***
CIDPC Laboratory Surveillance (Flu isolates)Total	360	2958
Influenza A	360	2949
Influenza B	0	9
Other respiratory Viruses		
RSV	323	237
PIV1	74	171
PIV2	10	103
PIV3	205	75
PIV4	2	5
Other PIVs	0	2
Adenoviruses	65	59
% of Flu tests that are positive	9.6%	18.9%
No. of ILI Visits to Sentinel Physicians (ILI Rate/1000 patients seen for all reasons)	26	83.5
+ Institutional <u>Influenza</u> Outbreaks	6	243†
+ Institutional Respiratory Infection Outbreaks	6	346

Consistent with Health Canada year round surveillance periods (only for Laboratory Surveillance Data)

+ October 27, 2003 - December 27, 2003 ¶ = includes 1 combined FluA & RSV

Season to Date; August 24, 2002 - January 03, 2003 *Season to Date; August 24, 2003 - January 03, 2004

Note: 16 public health and hospital laboratories in the Province report to the CIDPC

Table 2. Week Ending January 03, 2004 Influenza Cases in Ontario Reported Through the Reportable Disease Information System (RDIS), 2003-2004 Season (September 1, 2003 to January 03, 2004)

Health Unit	Influenza A		Flu B Season- to-date	Flu A Change (Week 01-Week 52)
	Week 52	Week 01		
Algoma	9	47		38
Brant	1	3		2
Chatham-Kent	7	10		3
Durham Region	46	140		94
Grey-Bruce	37	45		8
Eastern Ontario	10	19		9
Elgin	1	4		3
Haliburton-Kawartha	76	92		16
Halton	70	70	1	0
Haldimand-Norfolk	11	26	1	15
Hamilton-Wentworth	290	322		32
Hastings-Prince Edward	23	23		0
Huron	14	20		6
Kingston-Frontenac	49	49		0
Lambton	0	0		0
Leeds-Grenville	6	8		2
Middlesex-London	50	50		0
Muskoka -Parry Sound	27	57		30
Niagara	78	111		33
North Bay	14	55		41
Northwestern	0	0		0
Ottawa-Carleton	30	142		112
Oxford	7	8		1
Peel	177	251	1	74
Peterborough	79	92		13
Perth	20	38		18
Renfrew	2	6		4
Porcupine	41	71		30
Simcoe	65	106	1	41
Sudbury	43	106		63
Thunder Bay	3	5		2
Timiskaming	0	0		0
Toronto	155	308		153
Waterloo	19	79		60
Wellington-Dufferin	31	40		9
Windsor-Essex	0	0		0
York Region	17	24		7
Total	1511	2,427	4	

***916 new cases of influenza A and 2 cases of influenza B were reported during Week 01**

(Based on 2001 Provincial Population Estimate)

PROVINCIAL INFLUENZA CASES PER 100,000 (September 1-January 03, 2004) = 21.3/100,000

PROVINCIAL INFLUENZA CASES PER 100,000 (September 1,2002-January04,2003) =0.6/100,000

Influenza-related Deaths reported through RDIS for Sept. 1- January 03, 2004						
Age	Gender	Agent/org	Flu Vaccine	Oubreak Related	HU	Cause of Death
8	F	Flu A	Yes	No	Halton	Underlying
11	M	Flu A	Yes	No	Peterborough	Unknown
14	F	Flu A	Yes	No	Ottawa	Contributed
38	M	Flu A	Yes	No	Algoma	Incidental
39	M	Flu A	UK	No	Simcoe	Contributed
54	F	Flu A	UK	Uncertain	Niagara	Unknown
61	F	Flu A	-	-	Sudbury	Contributed
64	F	Flu A	-	-	Algoma	Contributed
64	F	Flu A	UK	No	Simcoe	Contributed

74	M	Flu A	Yes	Uncertain	Niagara	Contributed
78	F	Flu A	UK	-	Halton	Underlying
80	M	Flu A	No	Uncertain	Niagara	Contributed
81	F	Flu A	UK	No	Halton	Contributed
82	F	Flu A	Yes	Yes	Waterloo	Contributed
83	M	Flu A	UK	No	Simcoe	Contributed
84	M	Flu A	Yes	Yes	Grey-Bruce	Underlying
86	M	Flu A	Yes		Peel	Contributed
87	M	Flu A	Yes	Yes	Algoma	??
87	M	Flu A	-	No	York Region	Underlying
88	F	Flu A	UK	No	Porcupine	Contributed
88	F	Flu A	Yes	No	Toronto	Contributed
90	M	Flu A	Yes	Yes	Toronto	Contributed
93	M	Flu A	Yes	Yes	Eastern Ontario	??
98	F	Flu A	Yes	Yes	Haliburton	Contributed

Federal FluWatch Sentinel Physician Surveillance Activity in Ontario

During Week 01, the overall rate of influenza-like illness (ILI) reported through the Federal FluWatch system were 83.5 ILI patients seen per 1,000 patients that were seen by the sentinel physicians for all reasons, including ILI. The ILI patients rates among children were lower than those that were observed during the previous weeks.

Canada: December 28, 2003 to January 3, 2004 (Week 01)

Widespread activity reported in Ontario, Quebec, Newfoundland and the Fraser region of British Columbia. Elsewhere, influenza activity is localized in areas of the Atlantic provinces and Manitoba. Across Canada, during the week ending January 3 (week 01), sentinel physicians reported 36 cases of influenza-like illness (ILI) per 1000 patient visits, which is within the expected range for this time of year.

Laboratory Confirmations

Health Canada received 3,295 reports of laboratory tests for influenza, including 807 (24%) influenza A detections and no influenza B detections.

Source: http://www.hc-sc.gc.ca/pphb-dgspsp/fluwatch/03-04/w44_03/index.html#top

Strain Characterization

The National Microbiology Laboratory has antigenetically characterized 456 influenza viruses to date; 429 (94%) A/Fujian/411/02(H3N2)-like, 25 (6%) A/Panama/2007/99(H3N2)-like, 1 (0.3%) A/NewCaledonia/20/99(H1N1)-like and 1 (0.3%) H1N2. Detections of other respiratory viruses are at or below the expected range for this time of year.

All the 209 influenza viruses submitted by the Ontario laboratories were characterized as A/Fujian/411/02(H3N2)-like

Source: *National Microbiology Laboratory (NML), Population and Public Health Branch (PPHB)*

United States: Centre for Disease Control and Prevention (CDC): Summary

During the week ending January 3, 2004, widespread or regional activity was reported by 47 US states. ILI visits accounted for 6.2% of patient visits to sentinel physicians, which is above the national baseline of 2.5%. Sentinel cities reported 9.4% of deaths attributable to pneumonia and influenza, which is above the epidemic threshold of 8.0% for this week. A total of 454 influenza A(H3N2) isolates have been characterized to date; 98 (21.6%) were antigenically similar to the vaccine strain A/Panama/2007/99 and 356 (78.4%) were similar to the new drift variant A/Fujian/411/2002.

The CDC advises that for details of the 2003-04 influenza season in the US to date, with details on severe illness and deaths, to see: MMWR: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5249a1.htm>

CDC: <http://www.cdc.gov/ncidod/diseases/flu/weekly.htm>

International:

For week 01, **EISS** has reported widespread activity in Denmark, France, Norway and Switzerland, with a significant increase in Switzerland.

Source: **EISS:** <http://www.eiss.org>

WHO: In weeks 51 and 52, influenza activity associated with A/Fujian/411/2002-like viruses continued to increase in some countries in central and eastern Europe, but declined in many western European countries. Sporadic activity of influenza A(H3N2) and B was reported in some countries/regions in Africa (Algeria and Madagascar) and Asia (Hong Kong SAR, Japan and Thailand).

Avian Influenza A(H5N1)

An avian influenza A(H5N1) outbreak, reported 16 December 2003, on a chicken farm in the Republic of Korea spread to 14 other farms, with 18 others under surveillance. About 2500 serum samples were collected from persons in contact with suspect infected animals and nearby residents. About 70 of these were tested by RT-PCR and all were negative. More than 1000 persons exposed to

the virus were given antivirals and some 1500 other individuals were vaccinated. WHO also reported that an outbreak of the highly pathogenic H5N1 avian influenza was detected in southern Viet Nam in the beginning of January. Japan is also experiencing an outbreak in poultry caused by the H5N1 virus.

In response to these developments, WHO has initiated a series of activities which include support to national authorities in investigating the outbreaks and enhanced surveillance activities in Asia. WHO has also initiated the development of candidates and reagents for vaccine production, and antigenic and genetic assessments of the H5N1 strain to provide up-to-date diagnostic tests to national influenza centres.

Source: WHO Influenza Update: <http://www.who.int/csr/don/2004_01_07/en/>

SARS:

Heightened surveillance for SARS in Asia has resulted in the detection of one confirmed and one suspected case of SARS, for whom epidemiological and laboratory investigations are pending. As of 8 January, the confirmed case had recovered and the suspected case was in stable condition with no evidence of illness in any contacts. The WHO notes that given the symptoms of SARS may mimic those of other respiratory diseases, many of which are more common in winter, it is likely that numerous other suspected cases will be reported over the coming weeks.

WHO SARS Update: <http://www.who.int/csr/don/2004_01_08/en/>

Table 4.									
Institutional Influenza Outbreaks by Health Unit in Ontario, 2003-2004 for Week 01									
						Complications in Resident Cases			
Health Unit	Institution Type	Organism	Total Number Residents	# Ill Residents	RAR	# Cases with Pneumonia	# of Cases Hospitalized	# of Deaths Related to Outbreak	SAR
Ottawa - Carleton	NH	Flu A	192	21	10.9	0	0	0	0
Peel	NH	Flu A	154	11	7.1	0	0	0	0
Niagara	RH	Flu A	110	8	7.3	0	1	0	0
Wellington-Dufferin	NH	Flu A	136	15	11	0	0	0	0
Hastings	RH	Flu A	35	6	17.1	1	2	0	0
Renfrew	NH	Flu A	176	8	4.5	0	0	0	1.2
Algoma	HFA	Flu A	103	2	1.9	2	1	0	0
North Bay	NH	Flu A	61	16	26.2	0	0	0	0
Chatham-Kent	NH	Flu A	215	6	2.8	0	0	0	0
York	NH/HFA	Flu A	200	5	2.5	0	0	0	0
Toronto	NH	Flu A	122	11	9	0	0	0	0
Toronto	NH/RH	Flu A	256	3	1.2	0	0	0	0
Haldimand-Norfolk	NH	Flu A	54	5	9.3	0	0	0	0
Halton	Other	Flu A	70	4	5.7	0	2	1	0
Hamilton	NH	Flu A	148	5	3.4	0	0	0	0
Eastern Ontario	NH	Flu A	109	20	18.3	0	1	0	8.5
Eastern Ontario	NH	Flu A	59	8	13.6	0	1	1	1.4
Eastern Ontario	NH	Flu A	87	11	12.6	0	0	0	N/A
Eastern Ontario	NH	Flu A	56	12	21	0	0	0	1.3
Hastings	NH	Flu A	87	14	16.1	0	0	0	1.1
Leeds, Grenville	NH	Flu A	60	24	40	0	4	0	3.1
Ottawa	HFA	Flu A	190	12	6.3	0	0	0	0
Renfrew	NH	Flu A	75	2	2.7	1	0	0	2.5
Sudbury	RH	Flu A	121	25	20.7	3	3	0	6
Timiskaming	ACH	Flu A	16	5	31.3	0	0	1	18.2
Chatham-Kent	RH	Flu A	176	11	6.3	0	0	0	1.3
Huron	NH	Flu A	33	4	12.1	0	0	0	N/A
Lambton	NH	Flu A	59	11	18.6	0	0	0	1.7
Middlesex-London	NH	Flu A	394	9	2.3	0	0	0	0.6

Middlesex-London	NH	Flu A	112	6	5.4	0	1	0	N/A
Peel	Other	Flu A	135	4	3	0	0	0	0
Toronto	HFA	Flu A	302	13	4.3	0	2	1	2.8
Toronto	NH	Flu A	106	19	17.9	0	0	0	0
Toronto	RH	Flu A	56	8	14.3	1	0	0	6.7
Wellington-Dufferin	NH	Flu A	80	6	7.5	0	0	0	0
Wellington-Dufferin	NH	Flu A	72	8	11.1	0	0	0	1.3
Ottawa	NH	Flu A	218	2	0.9	0	0	0	0
Ottawa	NH	Flu A	96	4	4.2	0	0	0	0
Algoma	ACH/NH	Flu A	58	2	3.4	0	2	0	0
Algoma	HFA	Flu A	194	1	0.5	0	0	0	N/A
Algoma	ACH	Flu A	55	N/A	N/A	0	0	0	N/A
Elgin-St. Thomas	NH	Flu A	58	21	36.2	1	2	1	1.5
Middlesex-London	RH	Flu A	100	10	10	N/A	0	2	N/A
Middlesex-London	CCH	Flu A	400	55	13.8	2	2	0	N/A
Oxford	NH	Flu A	96	7	7.3	0	0	0	0
Oxford	HFA	Flu A	211	6	2.8	0	0	N/A	N/A
Perth	ACH/CCH	Flu A	15	5	33.3	0	0	0	3
Peel	LTCF	Flu A	139	6	4.3	0	0	0	0.6
York	NH/HFA	Flu A	140	20	14.3	0	2	0	5.6
Toronto	CCH	Flu A	500	2	0.4	1	0	0	0
Middlesex-London	RH	Flu A	75	3	4	2	3	0	0
Middlesex-London	RH	Flu A	81	2	2.5	0	0	0	0
Hamilton	RH	Flu A	68	12	17.6	0	1	0	0
Ottawa	RH	Flu A	124	6	4.8	0	1	0	2.3
North Bay	ACH	Flu A	N/A	2	N/A	N/A	N/A	N/A	0
Toronto	CCH	Flu A	249	3	1.2	0	0	0	0
Toronto	RH	Flu A and RSV	71	6	8.5	0	0	0	1.7

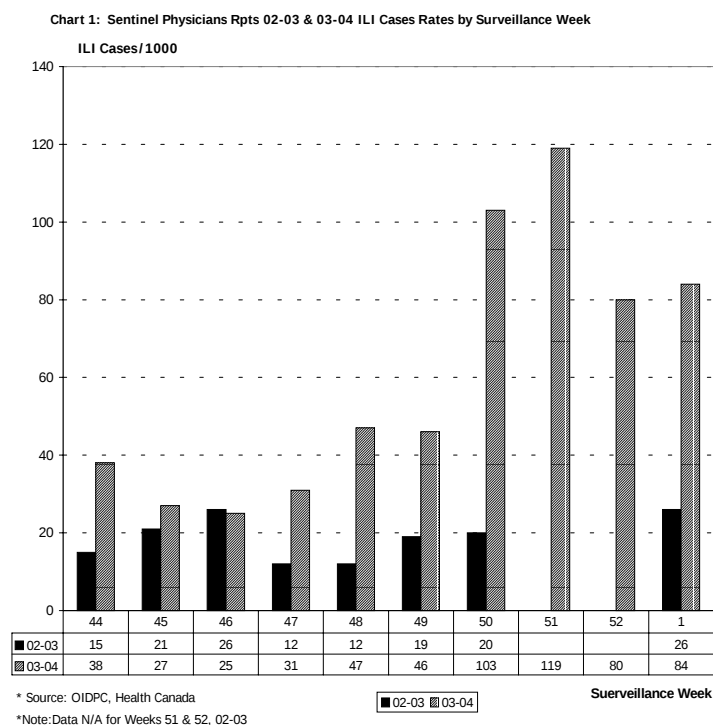
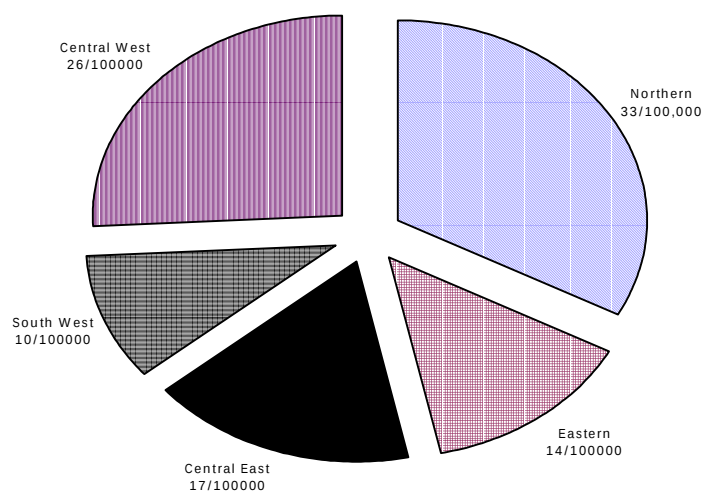


Chart 2: Regional Distribution of Influenza Cases 2003-04 (Sept. 01-January 3, 2004)



* Source: RDIS, Public Health Branch

Visit the Ministry of Health and Long-Term Care website weekly for the current issue, or back issues, of the Ontario Influenza Bulletin: http://www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu_03/flubul_mn.html

**Influenza Activity Level by Health Unit
Week Ending January 3, 2004**

