Ontario Influenza Bulletin

Ministry of Health and Long-Term Care

Public Health Branch

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Week #02: Week Ending January 10, 2004

Influenza Activity in Ontario

Influenza activity is gradually decreasing in Ontario based on some of the indicators reported to the Ministry during the week ending January 10, 2004. The Ontario laboratories reported 343 influenza A and four influenza B isolations to the Center for Infectious Disease Prevention and Control (CIDPC), Health Canada when compared to 519 influenza A isolations that were 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 have reported 785 cases of confirmed influenza A cases and six influenza B cases through the Reportable Diseases Information System (RDIS) season-to-date (Table 2). Fifty-four influenza-related deaths have been reported through RDIS since October 27, 2003 (Table 3). There were 53 respiratory infection outbreaks reported by the health units to the Ministry during this surveillance period when compared to 96 which were reported during Week 1; a decrease of 45%. Twenty-seven (50.0%) of the reported outbreaks were due to influenza A (Table 4). The rate of influenza like illness (ILI) reported by sentinel physicians in Ontario was 79.5/1,000 (Chart 1). 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 week of onset of a case is shown in Chart 2.

Table 1.

Indicator	2002-03 Season Week Ending January 11, 2003 (week 2) Season to Date**	2003-04 Season Week Ending January 10, 2004 (week2) Season to Date***
CIDPC Laboratory Surveillance (Flu isolates)Total	**486**	**3628**
Influenza A	486	3615
Influenza B	0	13
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	20.6%	22.7
No. of ILI Visits to Sentinel Physicians (ILI Rate/1000 patients seen for all reasons)	**40%**	**79.5**
+Institutional Influenza Outbreaks	**8**	**270**
+Institutional Respiratory Infection Outbreaks	**8**	**399**

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

+ October 27, 2003 - January 10, 2004

**Season to Date; August 24, 2002 - January 11, 2003 ***Season to Date; August 24, 2003 - January 10, 2004

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

Table 2. Week Ending January 10, 2004 Influenza Cases in Ontario Reported Through the Reportable Disease Information System (RDIS), 2003-2004 (September 1, 2003 to January 10, 2004)

Health Unit	Influenza A		Flu A Change (Week 02-Week 01)	Type B Season-to-Date
	Week 01	Week 02		
Algoma	47	124	77	
Brant	3	3	0	
Chatham-Kent	10	16	6	
Durham Region	140	140	0	
Eastern Ontario	19	29	10	
Elgin-St. Thomas	4	6	2	
Grey-Bruce	45	73	28	
Haldimand-Norfolk	26	34	8	1
Haliburton-Kawartha	92	101	9	
Halton Region	70	111	41	1
Hamilton City	322	382	60	
Hastings-Prince Edward	23	69	46	
Huron	20	23	3	
Kingston-Frontenac	49	49	0	
Lambton	0	0	0	
Leeds-Grenville	8	12	4	
Middlesex-London	50	61	11	
Muskoka-Parry Sound	57	60	3	
Niagara Region	111	162	51	
North Bay	55	70	15	
Northwestern	0	0	0	
Ottawa-Carleton	142	183	41	
Oxford	8	8	0	
Peel Region	251	309	58	1
Perth	38	45	7	
Peterborough	92	96	4	
Porcupine	71	91	20	
Renfrew	6	10	4	
Simcoe County	106	162	56	1
Sudbury	106	145	39	
Thunder Bay	5	21	16	
Timiskaming	0	0	0	
Toronto City	308	427	119	1
Waterloo Region	79	110	31	
Wellington-Dufferin	40	40	0	
Windsor-Essex	0	0	0	
York Region	24	40	16	1
	2,427	3,212	785	6

***785 new cases of influenza A and 2 cases of influenza B were reported during Week 02**

(Based on 2001 Provincial Population Estimate)
PROVINCIAL INFLUENZA CASES PER 100,000 (September 1-January 10, 2004) = 28.2/100,000
PROVINCIAL INFLUENZA CASES PER 100,000 **(September 1,2002-January11,2003) =2.7/100,000**

Table 3: Influenza-related Deaths reported through RDIS for Sept. 1- January 10, 2004

Health Unit	Age	Sex	Flu Vacc. Status	Organism	Risk Factor	Outbreak Related?	Influenza Role in Cause of Death
ALGOMA	87	M	Yes	Flu A	*	Yes	Incidental
ALGOMA	38	M	Yes	Flu A	Underlying medical condition	No	Incidental
ALGOMA	64	F	*	Flu A	*	No	Contributory
ALGOMA	74	M	*	Flu A	Unknown	No	Contributory
ALGOMA	89	F	Yes	Flu A	Unknown	Yes	Contributory
ALGOMA	87	F	Yes	Flu A	Underlying medical condition	Yes	Contributory
ALGOMA	97	F	*	Flu A	*	Yes	Contributory
ALGOMA	76	M	*	Flu A	Unknown	No	Contributory
ALGOMA	75	M	Yes	Flu A	Unknown	*	Contributory

ALGOMA	42	M	*	Flu A	Unknown	No	Unknown
BRUCE-GREY	84	M	Yes	Flu A	*	Yes	Underlying
EASTERN	93	M	Yes	Flu A	*	Yes	Unknown
EASTERN	84	F	Yes	Flu A	*	Yes	Incidental
ELGIN-ST.	89	F	Yes	Flu A	*	Yes	Contributory
ELGIN-ST.	90	F	*	Flu A	*	Yes	Contributory
HALIBURTON	98	F	Yes	Flu A	*	Yes	Contributory
HALIBURTON	88	M	No	Flu A	Underlying medical condition	No	Contributory
HALTON	8	F	Yes	Flu A	Underlying medical condition	*	Underlying
HALTON	78	F	*	Flu A	Underlying medical condition	*	Underlying
HALTON	85	F	Yes	Flu A	Underlying medical condition	*	Underlying
HAMILTON	91	M	Yes	Flu A	Underlying medical condition	No	Contributory
HAMILTON	82	M	Unknown	Flu A	Underlying medical condition	No	Contributory
NIAGARA	88	M	Yes	Flu A	Unknown	Yes	Contributory
NIAGARA	80	M	No	Flu A	Unknown	Unspecified	Contributory
NIAGARA	54	F	Unknown	Flu A	Unknown	Unspecified	Unknown
NIAGARA	74	M	No	Flu A	Unknown	Unspecified	Contributory
NORTH BAY	92	M	Yes	Flu A	Unknown	Yes	*
NORTH BAY	72	M	Yes	Flu A	Close contact	Yes	*
OTTAWA	14	F	Yes	Flu A	*	No	Contributory
PEEL	86	M	Yes	Flu A	Underlying medical condition	No	Contributory
PEEL	78	F	Unknown	Flu A	Unknown	*	Unknown
PETERBOROUGH	11	M	Yes	Flu A	Unknown	No	Unknown
PETERBOROUGH	93	M	No	Flu A	Unknown	No	Incidental
PETERBOROUGH	76	M	*	Flu A	*	*	*
PORCUPINE	88	F	Unknown	Flu A	Unknown	No	Contributory
PORCUPINE	81	F	Unknown	Flu A	Unknown	No	Contributory
SIMCOE	39	M	Unknown	Flu A	Underlying medical condition	No	Incidental
SIMCOE	83	M	Unknown	Flu A	Unknown	No	Contributory
SIMCOE	64	F	Unknown	Flu A	Unknown	No	Incidental
SUDBURY	61	F	*	Flu A	*	*	Contributory
SUDBURY	83	F	Yes	Flu A	*	Yes	Contributory
SUDBURY	75	F	Yes	Flu A	*	Yes	Underlying
SUDBURY	81	M	Unknown	Flu A	*	No	Unknown
TORONTO	88	F	Yes	Flu A	*	No	Contributory
TORONTO	90	M	Yes	Flu A	*	Yes	Contributory
TORONTO	88	F	Yes	Flu A	*	Yes	Contributory
WATERLOO	81	F	*	Flu A	*	*	Contributory
WATERLOO	82	F	Yes	Flu A	Unknown	Yes	Contributory
WATERLOO	90	M	Yes	Flu A	Unknown	Yes	Contributory
WATERLOO	90	M	*	Flu A	Unknown	Yes	Contributory
WATERLOO	82	F	Yes	Flu A	Unknown	Yes	Underlying
WATERLOO	87	M	Unknown	Flu A	Unknown	No	Contributory
YORK REGION	87	M	*	Flu A	Travel outside	No	Underlying
YORK REGION	94	F	Yes	Flu A	Unknown	Yes	Underlying
Notes: * = Missing data							

NOTE: RDIS Reporting is usually incomplete for the reporting week. Hence, numbers may change as health units transmit more reports to the Public Health Division of the Ministry of Health and Long Term Care

Federal FluWatch Sentinel Physician Surveillance Activity in Ontario

During Week 02, the overall rate of influenza-like illness (ILI) reported through the Federal FluWatch system were 79.5 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 continue to decrease when compared to those that were observed during the previous weeks.

Canada: December 28, 2003 to January 10, 2004 (Week 02): Widespread influenza activity continues in Newfoundland, Quebec and Ontario. Elsewhere, activity is localized in areas of the Atlantic provinces and central regions of Manitoba. Across Canada, during the week ending January 10 (week 02), sentinel physicians reported 40 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 3,500 reports of laboratory tests for influenza, including 642 (18%) influenza A detections and 4 (0.1%) influenza B detections.

Strain Characterization:

As of January 7, 2004, the National Microbiology Laboratory antigenically characterized 456 influenza viruses, all (100%) were influenza A viruses, including 429 (94%) A/Fujian/411/02(H3N2)-like, 25 (5%) A/Panama/2007/99(H3N2)-like, 1 (0.3%) A/NewCaledonia/20/99(H1N1)-like and 1 (0.3%) H1N2. Health Canada indicates that detections of other respiratory viruses are at or below the expected range for this time of year. Current data in Canada, the U.S. and globally indicate that the impact of A/Fujian is still within the expected range observed for previous severe flu seasons. **All the 209 (100%) of the 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 10, 2004, widespread or regional activity was reported by 44 US states. ILI visits accounted for 2.8% of patient visits to sentinel physicians, which is above the national baseline of 2.5%. Sentinel cities reported 10.2% of deaths attributable to pneumonia and influenza, which is above the epidemic threshold of 8.1% for this week. A total of 511 influenza A(H3N2) isolates have been characterized to date; 98 (19.2%) were antigenically similar to the vaccine strain A/Panama/2007/99 and 413 (80.84%) were similar to the new drift variant A/Fujian/411/2002.
***Source*: CDC:** http://www.cdc.gov/ncidod/diseases/flu/weekly.htm

International: WHO: Influenza activity associated with A/Fujian/411/2002-like viruses continued to be widespread in some parts of Europe (Croatia, Denmark, Finland, France, Norway and Switzerland) but is levelling off in some central and eastern European countries. ***Sources*: WHO Influenza Update:** http://www.who.int/csr/don/2004_01_13a/en/ **and EISS:** http://www.eiss.org

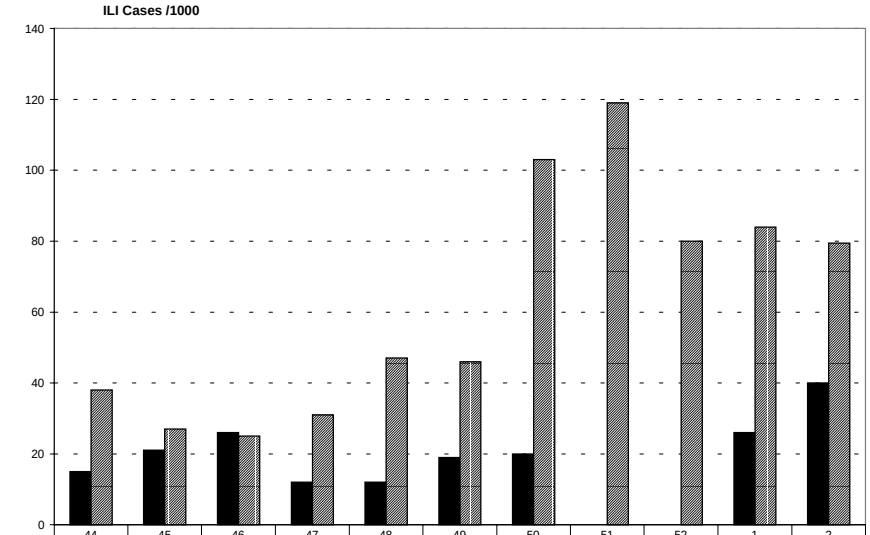
Avian influenza: By the end of Week 2, WHO reported three human cases of laboratory confirmed avian influenza A(H5N1), including two children and one adult from Hanoi, Viet Nam. Partial sequencing of the virus identified only avian genes indicating that the virus has not yet acquired human genes and as such is less likely to spread amongst humans. There was no evidence of human-to-human spread. Outbreaks of influenza H5N1 affecting animals only, were reported in at least two southern provinces of Viet Nam, Republic of Korea and Japan. Outside of Viet Nam, there has been no evidence of H5N1 in humans. (see WHO H5N1 update).
***Sources*: WHO H5N1 Update:** http://www.who.int/csr/don/2004_01_14/en/
Avian Influenza Fact Sheet: http://www.who.int/csr/don/2004_01_15/en/

SARS: The last official update was posted by WHO on January 8, 2004, reporting one confirmed SARS case (now recovered) and one suspected case of SARS (currently in stable condition). Epidemiological and laboratory investigations are still pending on the second case.
Source: **WHO SARS Update:** http://www.who.int/csr/don/2004_01_08/en/

Table 4. Institutional Influenza Outbreaks by Health Unit, Ontario, 2003-2004 for Week 02

						Complications			
Health Unit	**Institution Type**	**Organism**	**Total # of Residents**	**# Ill Residents**	**RAR**	**# Cases with Pneumonia**	**# Cases Hospitalized**	**# Deaths Cases**	**SAR**
Haldimand	NH	**Flu A**	100	6	6	0	0	0	4
Algoma	NH	**Flu A**	64	5	7.8	0	1	0	0
Timiskaming	NH	**Flu A**	99	7	7.1	0	0	0	2.5
Oxford	NH	**Flu A**	76	10	13.2	0	0	0	0
Eastern Ontario	RH	**Flu A**	35	8	22.9	5	5		21.4
Perth	RH	**Flu A**	68	8	11.8	0	0	0	0
Niagara	HFA	**Flu A**	220	5	2.3	0	0	0	0
Ottawa - Carleton	RH	**Flu A**	68	7	10.3	0	0	0	0
Algoma	RH	**Flu A**	24	1	4.2	0	1	1	0
North Bay	RH	**Flu A**	100	23	23	1	4	0	6.7
Sudbury	RH	**Flu A**	75	2	2.7	1	2	0	0
Thunder Bay	HFA	**Flu A**	150	2	1.3		0	0	0
Toronto	NH	**Flu A**	241	21	8.7	0	0	0	0
Kingston	HFA	**Flu A**	243	6	2.5	0	0	0	0
Sudbury	ACH/NH	**Flu A**	35	5	14.3	0	5	0	1.1
Chatham-Kent	RH	**Flu A**	62	4	6.5	1	0	0	2.9
Niagara	NH	**Flu A**	195	4	2.1	0	0	0	0
Huron	NH	**Flu A**	73	3	4.1	0	1	0	0
Windsor-Essex	NH	**Flu A**	116	7	5.2	0	0	0	0
Toronto	ACH	**Flu A**	24	4	16.7	0	0	0	3.1
Haliburton,	Other	**Flu A**	89	12	13.5	1	1	0	0
Toronto	HFA	**Flu A**	84	7	8.3	1	1	0	1.5
Ottawa - Carleton	ACH	**Flu A**	22	3	13.6	0		0	1.3
North Bay	NH	**Flu A**	148	8	5.4	0	0	0	0
Peel	**Other**	**Flu A**	**124**	**??**		**0**	**1**	**0**	0
Toronto	Other	**Flu A**	170	14	8.2	0	3	0	0
Toronto	**Hospital**	**Flu A**	**??**	**9**		**0**	**2**	**0**	0

Cart 1: Sentinel Physicians Rpts 02-03 & 03-04 ILI Cases by Surveillance Week

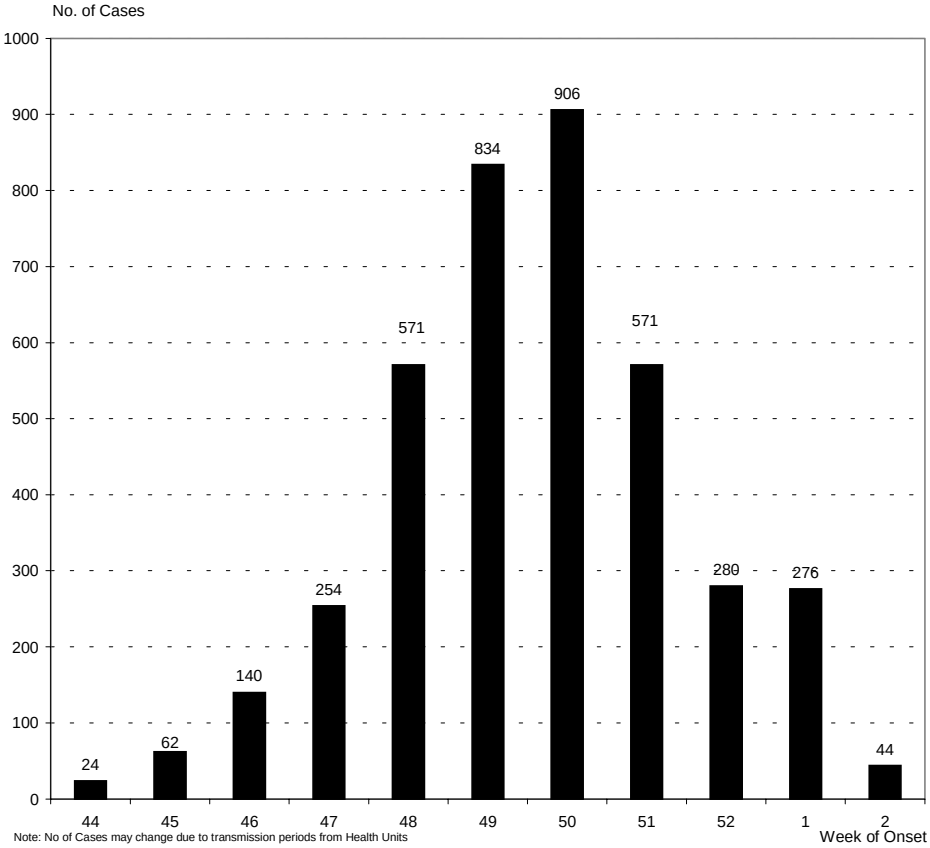


	44	45	46	47	48	49	50	51	52	1	2
02-03	15	21	26	12	12	19	20			26	40
03-04	38	27	25	31	47	46	103	119	80	84	79.5

* Source : OIDPC, Health Canada

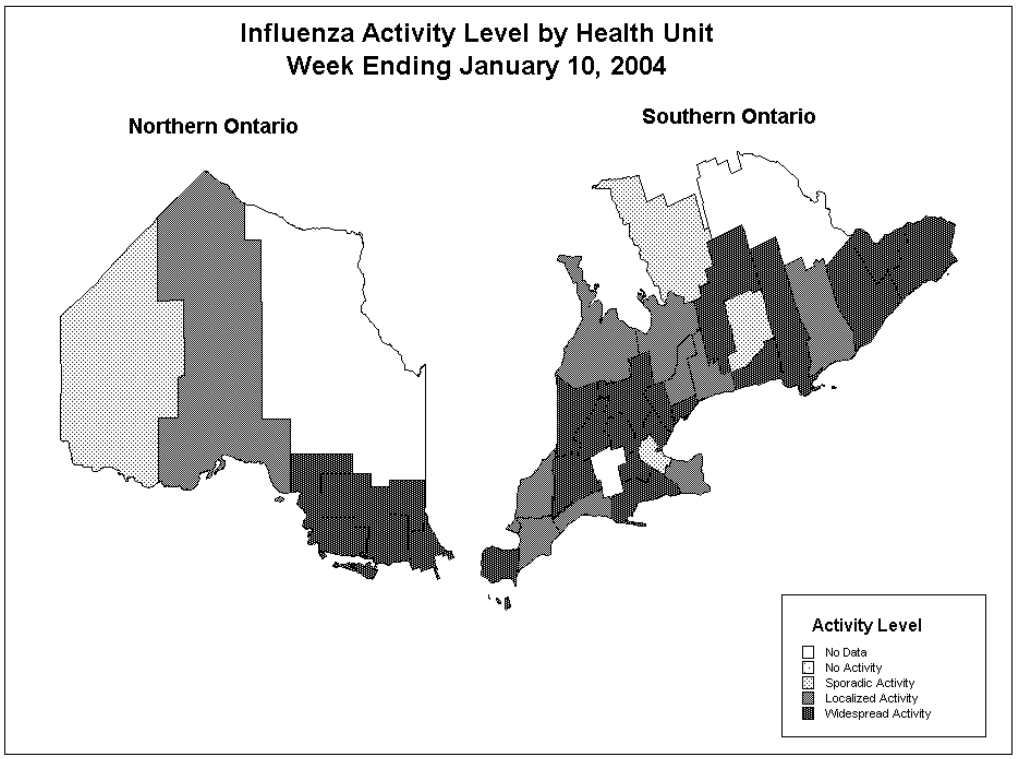
Note: Data for Wks 51 & 52, 0203 not available

Chart 2: No of Laboratory Confirmed Influenza Cases by Week of Onset, Ontario
(2003-2004 Season)



Note: No of Cases may change due to transmission periods from Health Units

* Source: RDIS, Public Health Branch



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