Ontario Influenza Bulletin

Ministry of Health and Long-Term Care

Public Health Branch

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Week #07: Week Ending February 14, 2004

Influenza Activity in Ontario

Influenza activity in Ontario remained at low levels during the week ending February 14, 2004 (see map). None of the 28 health units that reported on influenza activity reported widespread influenza activity, while 12 (43%) reported either sporadic activity or no activity (13 or 46%) and only 3 (11%) health units reported localized influenza activity. Of the 707 influenza tests that Ontario laboratories carried out, there were 18 (2.5%) positive influenza isolations, (17 Flu A and 1 Flu B), reported to the Centre for Infectious Disease Prevention and Control (CIDPC), Health Canada. These laboratories reported 4,411 influenza A and 14 influenza B isolates during this season (Table 1). Also reported during this season to date, are other respiratory isolates and detections shown in Table 1. Health units reported 115 cases of laboratory-confirmed influenza A cases and 10 influenza B cases through the Reportable Diseases Information System (RDIS) during this surveillance week (Table 2). The overall rate of influenza-like illness (ILI) reported by sentinel physicians in Ontario continued to drop this week to 23.2/1,000. To date, 112 (111 Flu A, 1 Flu B) influenza-related deaths have been reported in the province through RDIS since September 1, 2003. Table 3 shows data on respiratory infection outbreaks in institutions reported to the Ministry by health units from October 27, 2003 to February 14, 2004. These include 16 respiratory infection outbreaks in institutions that met the provincial surveillance case definition and were reported during this surveillance period. One outbreak was positive for influenza A (Table 4). Of the 318 influenza isolates submitted by Ontario laboratories to the National Microbiological Laboratory (NML) for strain characterization this season, 310 (97.5%) have been A/Fujian/411/02-like while the rest were type B (2 B/Hong Kong/330/01-like and 6 B/Sichuan/379/99-like) (Table 5).

Table 1.

Indicator	2002-03 Season Week Ending February 8, 2003 (week 6) Season to Date**	2003-04 Season Week Ending February 14, 2004 (week6) Season to Date***
CIDPC Laboratory Surveillance (Flu isolates)Total	**694**	**4425**
Influenza A	691	4411
Influenza B	3	14
Other respiratory Viruses		
RSV	1003	839
PIV1	101	227
PIV2	17	144
PIV3	268	132
PIV4	3	6
Other PIVs	1	4
Adenoviruses	96	113
***% of Flu tests that were positive**	**2.7**	**2.5**
+No. of ILI Visits to Sentinel Physicians (ILI Rate/1000 patients seen for all reasons)	**27**	**23**

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

+ October 27, 2003 – February 7, 2004. *% of positive cases based on the total specimens submitted for the surveillance week.
**Season to Date: August 24, 2002 – February 15, 2003. ***Season to Date: August 24, 2003 – February 14, 2004.
Note: 16 public health and hospital laboratories in the Province report to the CIDPC.

Table 2. Week Ending February 14, 2004 Influenza Cases in Ontario Reported Through the Reportable Disease Information System (RDIS), 2003-2004 (September 1, 2003 to February 14, 2004)

Health Unit	Flu A Week 7 (Ending Feb. 14)	Flu A Week 6 (Ending Feb. 7)	Flu A Change (Week 06-Week 05)	Flu B (Season-to-date)
Algoma	136	136	0	
Brant	38	35	3	
Chatham-Kent	32	30	2	
Durham Region	176	173	3	1
Eastern Ontario	52	50	2	
Elgin-St. Thomas	16	16	0	
Grey-Bruce	89	89	0	
Haldimand-Norfolk Region	54	54	0	1
Haliburton-Kawartha	114	113	1	1
Halton Region	215	215	0	1
Hamilton City	414	414	0	
Hastings-Prince Edward	201	201	0	
Huron	42	42	0	
Kingston-Frontenac	94	94	0	
Lambton	33	33	0	
Leeds-Grenville	14	14	0	
Middlesex-London	79	73	6	
Muskoka-Parry Sound	85	84	1	
Niagara Region	199	199	0	
North Bay	83	83	0	
Northwestern	0	0	0	
Ottawa-Carleton	235	226	9	
Oxford	38	38	0	
Peel Region	484	459	25	2
Perth	49	49	0	
Peterborough	101	102	-1	
Porcupine	94	94	0	
Renfrew	36	19	17	
Simcoe County	226	226	0	1
Sudbury	184	184	0	
Thunder Bay	28	28	0	
Timiskaming	28	28	0	
Toronto City	549	543	6	1
Waterloo Region	150	149	1	
Wellington-Dufferin	119	119	0	
Windsor-Essex	21	21	0	
York Region	283	243	40	2
Province	**4,791**	**4,676**	**115**	10

* 115 new cases of influenza A and 1 case of influenza B were reported during Week 07.

(Based on 2001 Provincial Population Estimate)
PROVINCIAL INFLUENZA CASES PER 100,000 (September 1, 2003-February 14, 2004) = 42.1/100,000.
PROVINCIAL INFLUENZA CASES PER 100,000 **(September 1,2002-February 15,2003) =5.2/100,000.**

NOTE: RDIS Reporting is usually incomplete for the reporting week. Hence, numbers may change as more reports are received.

Table 3: Respiratory Infection Outbreaks in Institutions October 27, 2003 –February 14, 2004

Indicator	2003-04 Season Week Ending February 14, 2004 (week 7) Season to Date
Respiratory Infection Outbreaks in Institutions	
Total Respiratory Infection Outbreaks in Institutions	**593**
No. of Outbreaks meeting Provincial Surveillance Case Definition	**588**
No. of Outbreaks not meeting Provincial Surveillance Case Definition	**5**
Influenza A Outbreaks	**366**
Flu A & other organisms	**7**
Other Organisms	30
Influenza B	0
No organism detected	156
Laboratory Results pending ("N/A" or "NA")	29
***Declared Over**	**464**
Influenza A	302
Flu A & other Organisms	7
Other Organisms	30
Laboratory Results pending ("N/A" or "NA")	2
No organism detected	123
Onset of illness in index case October 27/03 – Feb. 14, 2004	450
Onset of illness in index case prior to October 27/03	14
****Ongoing Outbreaks**	**124**
Influenza A	64
Other organisms	0
Laboratory Results pending ("N/A" or "NA")	27
No Organism detected	33
Categories & Types of Institutions	
LTCS NH/HFA	**403**
Combined (e.g. NH/HFA, NH/Hospital)	**6**
Unspecified) "Separate "/"Combined"LTCFs (Type Unavailable)	**8**
Hospitals (ACH, CCH, Psychiatric)	**47**
Other (Retirement Homes, Children's Residences/Development Act Institutions, Jail)	**122**
No Data	**2**

*** Declared over respiratory infection outbreaks = Appendix E (Final Report) has been received by the Ministry.**
**** Ongoing respiratory infection outbreak = Appendix E not yet received or outbreak onset is recent and is still active.**

Table 4. Institutional Influenza Outbreaks by Health Unit, Ontario, 2003-2004 for Week 07

						Complications			
Health Unit	**Institution Type**	**Organism**	**Total # of Residents**	**# Ill Residents**	**RAR**	**# Cases with Pneumonia**	**# Cases Hospitalized**	**# Deaths Cases**	**SAR**
Oxford	ACH	**Flu A**	55	4	7.3	0	4**	0	2.9

RAR: Resident Attack Rate (# of residents ill/total number of residents)*100
SAR: Staff Attack Rate (# of staff ill/total number of staff)*100 ** Cases were patients during a hospital outbreak
NH = nursing home, RH= retirement home; Combined facility consists of 2 or more types of institutions e.g. a NH section and a retirement home (RH) section; CCH = chronic care hospital; ACH= Acute Care Hospital; LTCF = long term care facility

Note: The institutional respiratory infection and influenza outbreaks reported in the Bulletin are those that meet the Provincial Surveillance Case Definition and have onset dates which might fall within the surveillance week.

Federal FluWatch Sentinel Physician Surveillance Activity in Ontario
During Week 07 the overall rate of influenza-like illness (ILI) reported for Ontario through the Federal FluWatch system was 23.2 ILI patients seen per 1,000 patients that were seen by the sentinel physicians for all reasons, including ILI. This is the lowest rate reported since the surveillance season began in October, 2003. The ILI patient rates among all age groups continued to decrease during this surveillance period.

Canada: Summary for Week 7
During Week 7, influenza activity was widespread in Quebec, while most provinces in the country reported either sporadic or no activity**.** Across Canada, during the week ending February 14 (week 07), sentinel physicians reported 32 cases of ILI per 1000 patient visits, which is within the expected range for this time of year.

Laboratory Confirmations:
Health Canada received 2,977 reports of laboratory tests for influenza, including 356 (11.96%) influenza A detections and 5 influenza B detections.
Source: www.hc-sc.gc.ca/english/media/releases/2003/flu_statement.htm

Strain Characterization:
The National Microbiology Laboratory (NML) reported on strain characterization completed on influenza isolates submitted from October 1, 2003 to February 9, 2004 (Table 5). The Ontario laboratories have submitted a total of 318 viruses which were characterized as shown in Table 5.

Table 5. Strain Characterization Completed on Influenza Isolates in Canada

	Influenza Virus						
Province/Territory	**Type A(H1N1) *A/New Caledonia/20/99-like**	**Type A(H3N2)**		**Type A(H1N2)**	**Type B**		**TOTAL**
		A/Panama/2007/99-like	**A/Fujian/411/02-like**		**Hong Kong/330/01-like**	**Sichuan/379/99-like**	
Newfoundland			9				9
Prince Edward Island			5				5
Nova Scotia			21	1			22
New Brunswick			5				5
Quebec			33				33
Manitoba			15				15
Saskatchewan		14	44				58
Alberta		6	58				64
British Columbia	1	5	106				112
Yukon			2				2
North West Territory			2				2
Nunavut			6				6
ONTARIO			310		2	6	318
Total	1	25	616	1	2	6	651

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

Avian Flu and SARS: Health Canada Updated Information on SARS/Avian Flu (H5N1)
On its Respiratory Infections website, Health Canada continues to provide updated reports on SARS- and Avian Flu (H5N1)- affected areas. Links are provided on: Travel Health Advisories, the latest official WHO update information on Avian Influenza, WHO avian influenza fact sheet and Q&A's and SARS information for health professionals. This information is updated regularly and is intended for information and national recommendations.
Source: **http://www.hc-sc.gc.ca/pphb-dgspsp/fluwatch/index.html**
http://www.hc-sc.gc.ca/pphb-dgspsp/h5n1/index.html
http://www.hc-sc.gc.ca/pphb-dgspsp/tmp-pmv/pub_e.html
http://www.hc-sc.gc.ca/english/diseases/flu/avian.html

United States: Centers for Disease Control and Prevention (CDC): Influenza Summary Update Week ending February 14, 2004 (Week 6)

During the week ending February 14, 2004, influenza activity remained low. The percentage of patient visits for influenza-like illness (ILI) remained below the national baseline (2.5%). Mortality due to pneumonia and influenza (P&I) continued to decline (8.6%), but remained above the epidemic threshold for week 6 (8.3%). Twenty-seven (2.0%) of 1,328 specimens collected from throughout the United States tested positive for influenza. There were no reports of widespread influenza activity from state and territorial epidemiologists during week 6. Two states reported regional activity, and 11 states reported local activity. Thirty-three states, New York City, the District of Columbia, and Guam reported sporadic activity, and 4 states reported no activity.

Sources: CDC: http://www.cdc.gov/flu/weekly/ and www.cdc.gov/flu/protect/preventing.htm

International: WHO: **Avian influenza A(H5N1)**

The WHO regularly updates the situation (human) in the Asian countries that have had laboratory-confirmed human cases of H5N1.

WHO Guidelines for Global Surveillance of Influenza A/H5.
A summary of reporting requirements to WHO are set out in a table which provides an overview of the reporting requirements to WHO that are detailed in the *WHO guidelines for global surveillance of influenza A/H5.* The WHO has provided complete information at its website in specific sections and annexes on various aspects of this public health issue.
http://www.who.int/csr/disease/avian_influenza/guidelines/globalsurveillance/en/.

The WHO Overview of the Global Situation:
In responding to the present situation, WHO emphasizes three strategic goals: to avert an influenza pandemic, to control the present human outbreaks and prevent further spread, and to conduct the research needed for better preparedness and response, including the rapid development of an H5N1 vaccine for humans.

The WHO indicates that the epidemiology of influenza A(H5N1) in the affected countries remains incompletely described, **but the confirmed human infections have occurred in geographical areas with recognized avian disease, and many of the patients reported direct physical contact with ill or dead chickens**. However, WHO states that it will be important to conduct case-control studies in Thailand and Viet Nam to define specific risk factors for infection and allow for the development of strong, evidence-based public health interventions.

Further information, including progress reports and technical guidelines, on all these issues is available at the WHO avian influenza web site: http:// www.who.int/csr/disease/avian_influenza/en/

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 February 14, 2004