

Week #1: Week Ending January 4, 2003

Influenza Activity in Ontario

There was influenza activity reported in the province for the week ending January 4, 2003. Nine of the Ontario Public Health laboratories reported 122 influenza A cases during this surveillance period. The following upper respiratory isolates were also reported: 55 respiratory syncytial virus (RSV), 5 parainfluenza type 1 (PIV1), and 11 parainfluenza type 3 (PIV3) (Table 1).

Table 1. Comparison of Influenza Activity in Ontario for the 2001-02 and 2002-03 Influenza Surveillance Seasons

Indicator	2001-02 Season	2002-03 Season
	Week Ending January 5, 2002	Week Ending January 4, 2003
	Season to Date**	Season to Date***
*Laboratory Surveillance (isolates)Total	16	360
Influenza A	13	360
Influenza B	3	0
vNo. of Visits to Sentinel Physicians for ILI	30	26
Institutional Outbreaks	2	6
Other respiratory Viruses		
RSV	312	323
PIV1	81	74
PIV2	69	10
PIV3	5	205
PIV4	12	2
Other PIVs	2	0
Adenoviruses	36	65

*Centre for Infectious Disease Prevention and Control, Health Canada

** October 20, 2001- January 5, 2002

***Season to Date August 25, 2002 – January 4, 2003; consistency with Health Canada year round surveillance

vFluWatch Sentinel Physician Program, Rate per 1000 patients seen

Table 2. Season to Date Influenza Cases in Ontario Reported Through the Reportable Disease Information System (RDIS), 2002-2003

Health Unit	Number of Lab-Confirmed Influenza Cases	
	Type A	Type B
Algoma	1	0
Brant	1	0
Durham	2	0
Grey Bruce	1	0
Halton	7	0
Hamilton-Wentworth	16	0
Kingston, Frontenac, Lennox and Addington	1	0
Muskoka-Parry Sound	1	0
Ottawa-Carlton	3	0
Peel	6	0
Perth District	1	0
Wellington-Dufferin-Guelph	1	0
Toronto	17	0
York Region	7	0
Waterloo	2	0
Total	67	0

Note: 2 additional cases of influenza A were reported by Peel Regional prior to August 25, 2002.

**Table 3. Season-to-date Institutional Influenza Outbreaks by Health Unit in Ontario, 2002-2003
(August 25, 2002 – Present)**

Health Unit	Type of Institution	# of Outbreaks	Organism Identified	RAR (%)	SAR (%)	Complications
Hastings & Prince Edward	Long-Term Care Facility	1	Influenza A	13.3	0	None Reported to Date
Middlesex-London	Nursing Home	1	Influenza A	8.3	0	None Reported to Date
Oxford County	Nursing Home	1	Influenza A	4.8	2.0	None
Peel Regional *	Long-Term Care Facility	1	Influenza A	20.9	8.3	1 death
Perth District	Long-term Care Facility	1	Influenza A	40.4	11.3	None
Toronto	Nursing Home	1	Influenza A	7.3	0	None Reported to Date

RAR: Resident Attack Rate (# of residents ill/total number of residents)

SAR: Staff Attack Rate (# of staff ill/total number of staff)

*The outbreak within Peel Regional began prior to week 35 but into week 41 and thus has been included in the 2002-2003 season.

Federal FluWatch Sentinel Physician Surveillance Activity in Ontario

The rate of influenza-like illness (ILI) reported through the Federal FluWatch system was 26 per 1,000 patients seen.

Laboratory Confirmations and Influenza Activity in the Rest of Canada

Sporadic activity reported for regions of British Columbia; 17% and 15% of lab tests positive for influenza in Ontario and Quebec, respectively. Seven other provinces/territories reported no activity and three provinces/territories did not report. During the week ending December 28 (week 52), sentinel physicians reported 26 cases of influenza-like illness (ILI) per 1000 patient visits, which is below the expected rate for this time of year. Health Canada received 1270 reports of laboratory tests for influenza; 122/1270 (9.6%) positive tests for influenza A were reported by Ontario, Quebec and Alberta. However laboratory reporting is incomplete for week 52. The National Microbiology Laboratory has antigenically characterized 23 influenza viruses to date; all viruses identified are closely related to the current vaccine strains. Detection of other respiratory viruses circulating in the Canadian population is within expected levels. However, detections continue to increase for RSV (16.0% of tests positive) while continuing at low levels for parainfluenza viruses (4.2% of tests positive) and adenovirus (1.6% of tests positive). To date this season, there have been four reported outbreaks of laboratory-confirmed influenza in long term care facilities (LTCF), one of which occurred in Ontario during week 52 (see graph).

Source: Health Canada, FluWatch: <<http://www.hc-sc.gc.ca/pphb-dgsp/fluwatch/index.html>>

Influenza Activity in the United States

During week 51, influenza activity was reported as widespread in Texas, regional in Arkansas, Kansas, Massachusetts, Oklahoma and Virginia; and sporadic or none in 41 states (3 did not report). ILI accounted for 1.6% of patient visits to sentinel physicians (below the national baseline of 1.9%). Sentinel cities reported 7.0% of deaths attributed to pneumonia and influenza (below the epidemic threshold of 7.8% for this week). The CDC received 1301 reports of influenza tests, including 4 positive tests for influenza A (unsubtyped) and 6 positive tests for influenza B. Since September 29, a total of 19,817 specimens have been tested for influenza; 142 (0.7%) were positive (42 influenza A and 100 influenza B). Of the 24 viruses antigenically characterized to date, all are covered by the 2002-2003 northern hemisphere vaccine.

Source: Centers for Disease Control and Prevention: <<http://www.cdc.gov/ncidod/diseases/flu/weekly.htm>>

Influenza Activity in the World

During week 52, reports from the WHO and EISS indicate that influenza activity remains at low levels in most countries. However clinical and virological reporting was incomplete due to the reduced reporting over the Christmas holidays. Sporadic isolations of influenza viruses were reported in France, Spain, and Hong Kong. In recent weeks, the most viruses isolated have been identified as influenza A(H3N2) and B, with a predominance of influenza B. Influenza A(H1) viruses have been isolated sporadically in France and the Russian Federation. All viruses characterized to date are closely related to the 2002-2003 vaccine strains.

Source: WHO, <<http://oms2.b3e.jussieu.fr/flunet/news.html>>

And EISS (Europe): <http://www.eiss.org/cgi-files/bulletin_v2.cgi>

Vaccine and Strain Characterization

Since the last flu bulletin (volume 6 issue 8), 10 more influenza A isolates in Ontario were characterized at the Health Canada Winnipeg Laboratory (Table 4). They were identified as influenza A (H1N2) virus, and the hemagglutinin proteins of the influenza A (H1N2) viruses.

Table 4. Season-to-date Strain Identification and Characterization in Canada, 2002-2003*

Province/Territory	Strain Characterization	# of Strains Identified-to-date
Alberta	A/PANAMA/2007/99-like	1
British Columbia	A/PANAMA/2007/99-like	1
Ontario	A/PANAMA/2007/99-like	1
	A(H1N2)	17
Quebec	A/PANAMA/2007/99-like	3
Total		23

*Influenza and Respiratory Viruses Section
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Influenza Vaccine Components and Protection for the 2002/03 Season

The National Advisory Committee on Immunization (NACI) recommended that the trivalent vaccine for the 2002-03 season contain an A/Panama/2007/99 (H3N2)-like virus, an A/New Caledonia/20/99 (H1N1)-like virus, and either B/Hong Kong/330/2001-like virus or B/Shangdong/7/97-like antigens.

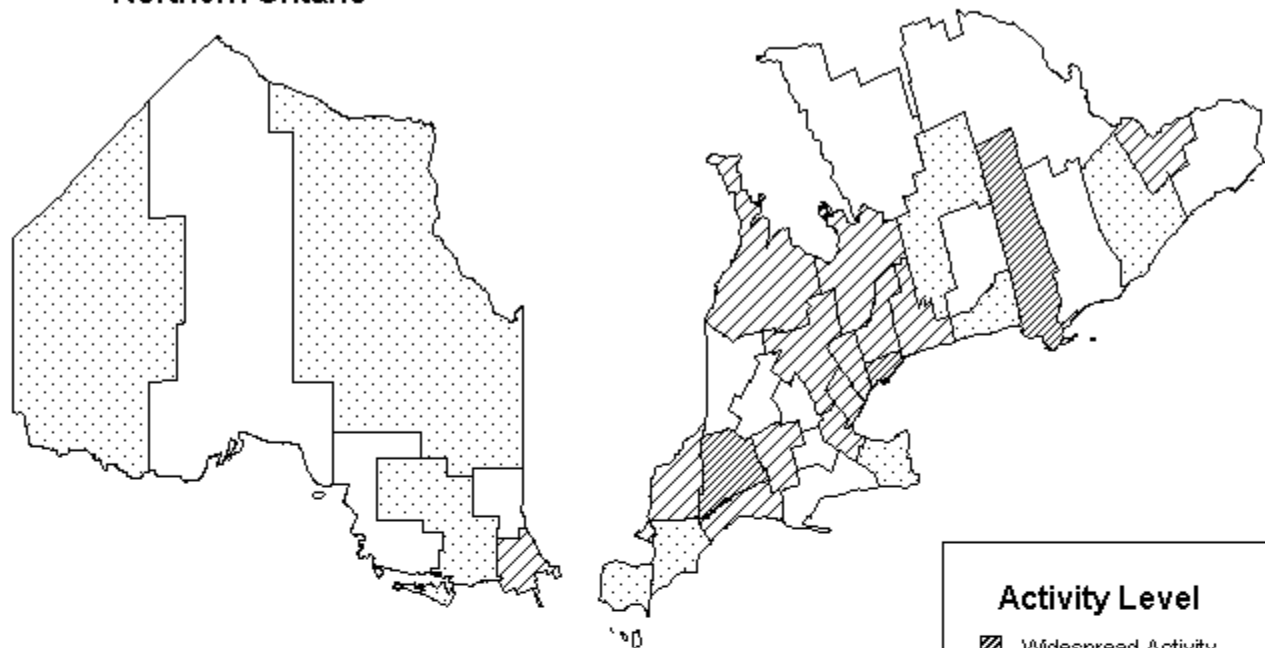
Influenza A(H1N2) are the majority of influenza strains identified thus far in Ontario. For influenza A (H1N2) virus, the hemagglutinin proteins of the H1 proteins is similar antigenically to the current vaccine strain A/NewCaledonia/20/99 (H1N1) and the N2 proteins is similar antigenically to the current strain A/Panama/2007/99(H3N2). Therefore, current vaccine strains will provide good protection against the H1N2 strain.

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.gov.on.ca/MOH/english/program/pubhealth/flu_bul/flubul_mn.html

Influenza Activity Level by Health Unit Week Ending January 4, 2003

Northern Ontario

Southern Ontario



Activity Level

- Widespread Activity
- Localized Activity
- Sporadic Activity
- No Activity
- No Data