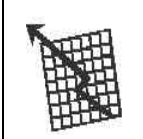


		Ontario Influenza Bulletin	Ministry of Health and Long-Term Care <i>Public Health Branch</i> <i>Volume 6, Issue 10</i> <i>January 17, 2003</i>
			

Week #2: Week Ending January 11, 2003

Influenza Activity in Ontario

There was influenza activity reported in the province for the week ending January 11, 2003. Twelve of the Ontario Public Health laboratories reported 126 influenza A cases during this surveillance period. The following upper respiratory isolates were also reported: 58 respiratory syncytial virus (RSV), 6 parainfluenza type 1 (PIV1), 3 parainfluenza type 2 (PIV2), 14 parainfluenza type 3 (PIV3), and 4 adenovirus (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 12, 2002	Week Ending January 11, 2003
	Season to Date**	Season to Date***
*Laboratory Surveillance (isolates)Total	23	486
Influenza A	13	486
Influenza B	10	0
Institutional Outbreaks	2	8
Other respiratory Viruses		
RSV	597	323
PIV1	92	74
PIV2	81	10
PIV3	5	205
PIV4	13	2
Other PIVs	2	0
Adenoviruses	47	65

*Centre for Infectious Disease Prevention and Control, Health Canada

** October 20, 2001- January 12, 2002

***Season to Date August 25, 2002 – January 11, 2003; consistency with Health Canada year round surveillance

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	6	0
Brant	2	0
Durham	24	0
Grey Bruce	1	0
Haldimand-Norfolk	5	0
Halton	16	0
Hamilton-Wentworth	50	0
Kingston, Frontenac, Lennox and Addington	1	0
Muskoka-Parry Sound	1	0
Niagara	1	0
North Bay	3	0
Ottawa-Carlton	12	0
Oxford	8	0
Peel	23	0
Perth District	6	0
Simcoe	2	0
Wellington-Dufferin-Guelph	17	0
Toronto	108	0
York Region	15	0
Waterloo	2	0
Total	305	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
Elgin St. Thomas	Long-Term Care Facility	1	Influenza A	8.0	4.3	None Reported to Date
Hastings & Prince Edward	Long-Term Care Facility	1	Influenza A	13.3	0	None Reported to Date
Middlesex-London	Nursing Home	1	Influenza A	34.5	0	None
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
York	Long-Term Care Facility	1	Influenza A	5.3	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 40 per 1,000 patients seen.

Laboratory Confirmations and Influenza Activity in the Rest of Canada

Laboratory detections increasing for influenza and RSV. Increased influenza activity reported in Quebec, Ontario, PEI, New Brunswick and Saskatchewan. Eight other provinces/territories reported no activity. During the week ending January 4 (week 01), sentinel physicians reported 40 cases of influenza-like illness (ILI) per 1000 patient visits, which is within the expected rate for this time of year. Health Canada received 1294 reports of laboratory tests for influenza; 160 (12.4%) influenza A detections were reported by Ontario, Quebec, New Brunswick and Saskatchewan, and 2 influenza B detections were reported by British Columbia and Quebec. 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 for this time of year, however, detections are increasing for RSV (20.0% of tests positive) while remaining at lower levels for parainfluenza viruses (3.9% of tests positive) and adenovirus (1.5% of tests positive). To date this season, there have been four reported outbreaks of laboratory-confirmed influenza in long term care facilities (LTCF).

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

Influenza Activity in the United States

During week 52, influenza activity was reported as regional in Kansas, Oklahoma, Tennessee, Texas and Virginia; and sporadic or none in 41 states (4 did not report). ILI accounted for 2.0% of patient visits to sentinel physicians (above the national baseline of 1.9%). Sentinel cities reported 7.4% of deaths attributed to pneumonia and influenza (below the epidemic threshold of 7.9% for this week). The CDC received 924 reports of influenza tests, including one positive test for influenza A(H1), 4 positive tests influenza A (unsubtyped) and 13 positive tests for influenza B. Since September 29, a total of 21,685 specimens have been tested for influenza; 273 (1.3%) were positive (75 influenza A and 198 influenza B). Of the 35 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 weeks 52, 2002 and 1, 2003, reports from the WHO and EISS indicate that influenza activity is increasing.. Influenza A is predominant in Germany and Egypt; influenza B is predominant in Belgium, France, Spain, Portugal, Czech Republic, Israel and Morocco; and both influenza A and B are being detected in Hong Kong and England. In recent weeks, most viruses identified have been 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 9), 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
	B/Hong Kong/330/01-like	1
Ontario	A/PANAMA/2007/99-like	1
	A(H1N2)	27
Quebec	A/PANAMA/2007/99-like	3
	A(H1N2)	1
Saskatchewan	A(H1N2)	1
Total		36

*Influenza and Respiratory Viruses Section
National Microbiology Laboratory (NML), PPHB
Canadian Sciences Centre for Human and Animal Health

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.

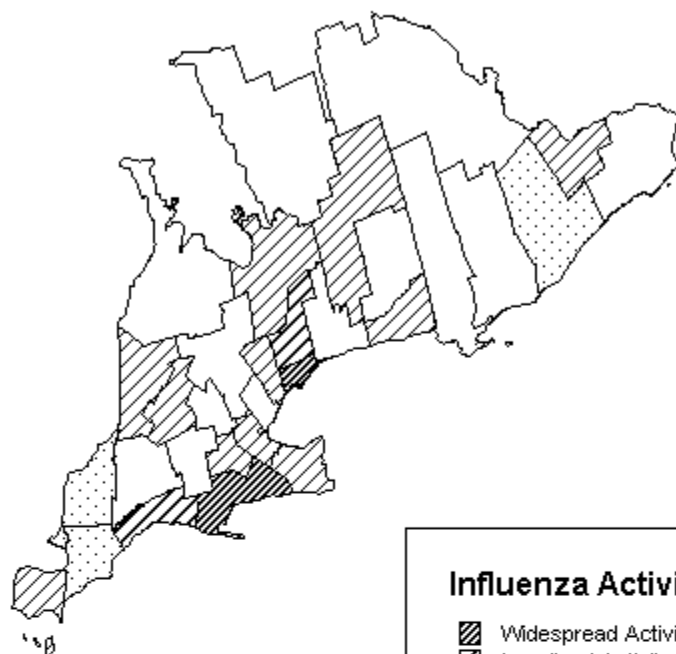
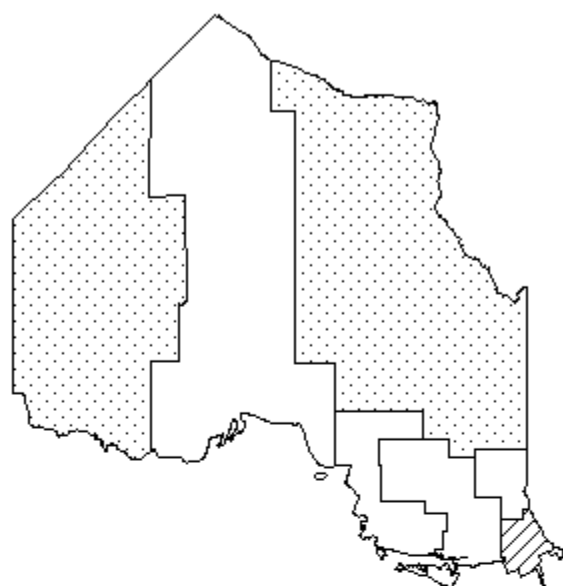
Influenza A(H1N2) are the majority of influenza strains identified thus far in Ontario. For influenza A (H1N2) virus, the hemagglutinin proteins of the H1 proteins is similar antigenically to the current vaccine strain A/NewCaledonia/20/99 (H1N1) and the N2 proteins is similar antigenically to the current 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 by Health Unit Week Ending January 11, 2003

Northern Ontario

Southern Ontario



Influenza Activity

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