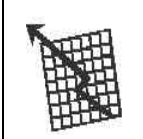


		Ontario Influenza Bulletin	Ministry of Health and Long-Term Care Public Health Branch <i>Volume 6, Issue 13 February 7, 2003</i>
			

Week #5: Week Ending February 1, 2003

Influenza Activity in Ontario

There was influenza activity reported in the province for the week ending February 1, 2003. Thirteen of the Ontario Public Health laboratories reported 22 influenza A cases during this surveillance period. The following upper respiratory isolates were also reported: 101 respiratory syncytial virus (RSV), 4 parainfluenza type 1 (PIV1), 6 parainfluenza type 3 (PIV3), and 3 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 February 2, 2002	Week Ending February 1, 2003
	Season to Date**	Season to Date***
*Laboratory Surveillance (isolates)Total	58	641
Influenza A	29	640
Influenza B	29	1
Institutional Outbreaks	11	10
Other respiratory Viruses		
RSV	823	701
PIV1	100	99
PIV2	87	14
PIV3	9	257
PIV4	13	2
Other PIVs	2	1
Adenoviruses	62	88

*Centre for Infectious Disease Prevention and Control, Health Canada

** October 20, 2001- February 2, 2002

***Season to Date August 25, 2002 – February 1, 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	5	0
Durham	33	1
Eastern Ontario	1	0
Elgin St. Thomas	2	0
Grey Bruce	10	0
Haldimand-Norfolk	5	0
Haliburton-Kawartha	5	0
Halton	24	0
Hamilton-Wentworth	57	0
Huron	7	0
Kingston, Frontenac, Lennox and Addington	5	0
Leeds	1	0
Middlesex-London	1	0
Muskoka-Parry Sound	1	0
Niagara	4	0
North Bay	5	0
Ottawa-Carlton	18	0
Oxford	16	0
Peel	42	0
Perth District	19	0
Renfrew	1	0
Simcoe	16	0
Sudbury	1	0
Wellington-Dufferin-Guelph	36	0
Windsor-Essex	1	0
Toronto	133	1
York Region	37	0
Waterloo	23	0
Total	515	2

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	1 death
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	2	Influenza A	4.8	2.0	None
			Influenza A	1.3	0	None Reported to Date
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	2	Influenza A	12.2	0.5	None
			Influenza A	N/A	N/A	2 deaths
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.

**The second Toronto outbreak occurred in week 52 but PHB was not aware of it until this week.

Federal FluWatch Sentinel Physician Surveillance Activity in Ontario

The rate of influenza-like illness (ILI) reported through the Federal FluWatch system was 15 per 1,000 patients seen.

Laboratory Confirmations and Influenza Activity in the Rest of Canada

Widespread activity in the south west of Ontario; localized influenza activity in the east of Ontario, Quebec and PEI. Elsewhere in Canada, influenza activity is limited with ten provinces and territories reporting sporadic or no activity. During the week ending January 25 (week 04), sentinel physicians reported 15 cases of influenza-like illness (ILI) per 1000 patient visits, which is below the expected rate for this time of year. Health Canada received 1482 reports of laboratory tests for influenza; 85 (5.7%) influenza A

detections were reported by all provinces except Manitoba and BC; three influenza B were detected in Nova Scotia, Quebec and Ontario. The National Microbiology Laboratory has antigenically characterized 113 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 for RSV (20.4 % of tests positive), parainfluenza viruses (3.5% of tests positive) and adenovirus (1.3% of tests positive). To date this season, there have been eight reported outbreaks of laboratory-confirmed influenza in long term care facilities (LTCF).

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

Influenza Activity in the United States

During week 03, influenza activity was reported as widespread in Missouri, North Carolina and Texas; regional in 11 states; and sporadic or none in 34 states (two states did not report). ILI accounted for 1.5% of patient visits to sentinel physicians (below the national baseline of 1.9%). Sentinel cities reported 7.5% of deaths attributed to pneumonia and influenza (below the epidemic threshold of 8.1% for this week). The CDC received 1414 reports of influenza tests, including ten positive tests for influenza A(H1), three positive tests for A(H3N2), 23 positive tests influenza A (unsubtyped) and 114 positive tests for influenza B. Since September 29, a total of 30,942 specimens have been tested for influenza; 950 (3.1%) were positive (241 influenza A and 709 influenza B). Of the 62 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 04, the WHO reported a several outbreaks of influenza B and sporadic detection of influenza A in Finland. Indicators for influenza-like illness activity have remained at low levels, however the Russian Federation and Hong Kong reported increased levels of influenza A (H3N2) activity. During the same week, EISS reported that two networks had regional activity, three networks had localized activity and eight networks had sporadic activity (six others had no influenza activity). Influenza B was predominant, particularly in southwest Europe. Germany and Ireland reported that influenza A was dominant while Norway, Belgium, Denmark and Czech Republic reported co-circulation of influenza A and B. All viruses characterized to date are closely related to the 2002-2003 vaccine strains. Clinical activity was low in all networks.

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 12) no additional influenza virus for Ontario were characterized at the Health Canada Winnipeg Laboratory (Table 4).

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

Province/Territory	Strain Characterization	# of Strains Identified-to-date
Alberta	A/NewCaledonia/20/99-like	1
	A/PANAMA/2007/99-like	1
	A(H1N2)	2
British Columbia	A/PANAMA/2007/99-like	1
	B/Hong Kong/330/01-like	1
New Brunswick	A(H1N2)	4
Nova Scotia	A(H1N2)	1
Ontario	A/PANAMA/2007/99-like	2
	A(H1N2)	92
	B/Hong Kong/330/01-like	1
Quebec	A/PANAMA/2007/99-like	3
	A(H1N2)	3
Saskatchewan	A(H1N2)	1
Total		113

*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.

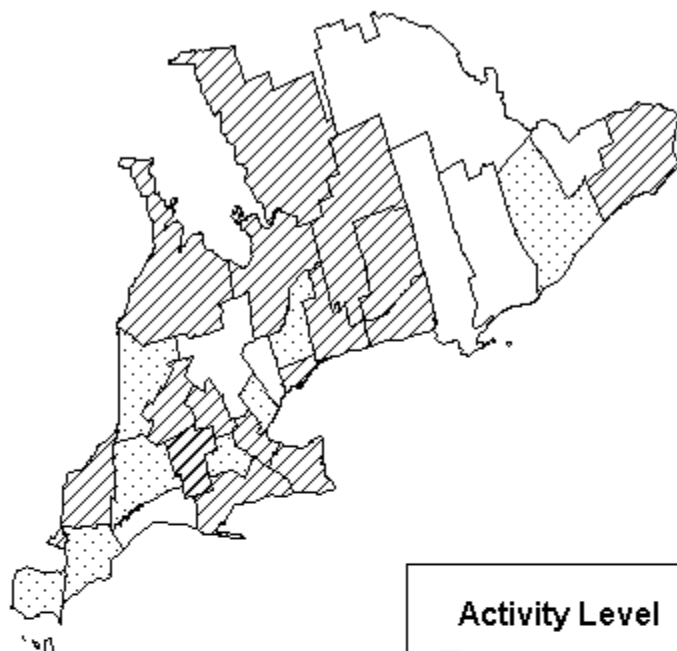
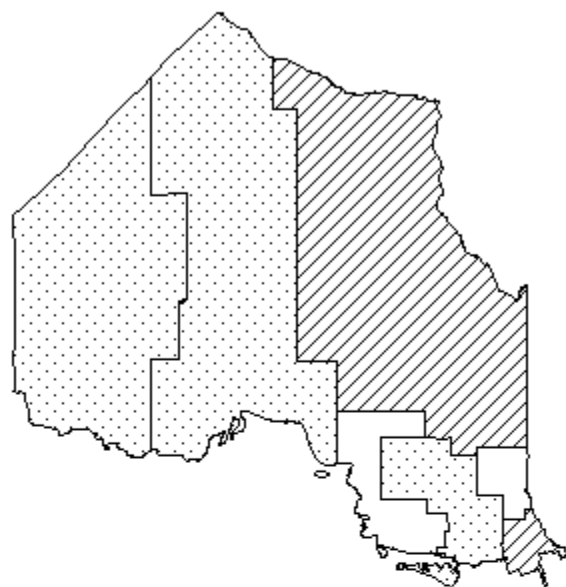
Influenza A(H1N2) are the majority of influenza strains identified thus far in Ontario. For influenza A (H1N2) virus, the hemagglutinin proteins of the H1 proteins is similar antigenically to the current vaccine strain A/NewCaledonia/20/99 (H1N1) and the N2 proteins is similar antigenically to the current 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 Level by Health Unit Week Ending February 1, 2003

Northern Ontario

Southern Ontario



Activity Level

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