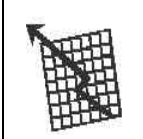


		Ontario Influenza Bulletin	Ministry of Health and Long-Term Care Public Health Branch <i>Volume 6, Issue 12</i> <i>January 31, 2003</i>
			

Week #4: Week Ending January 25, 2003

Influenza Activity in Ontario

There was influenza activity reported in the province for the week ending January 25, 2003. Fourteen of the Ontario Public Health laboratories reported 41 influenza A and 1 influenza B cases during this surveillance period. The following upper respiratory isolates were also reported: 81 respiratory syncytial virus (RSV), 11 parainfluenza type 1 (PIV1), 9 parainfluenza type 3 (PIV3), and 6 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 26, 2002	Week Ending January 25, 2003
	Season to Date**	Season to Date***
*Laboratory Surveillance (isolates)Total	58	614
Influenza A	29	613
Influenza B	29	1
Institutional Outbreaks	4	9
Other respiratory Viruses		
RSV	823	590
PIV1	100	95
PIV2	87	14
PIV3	9	251
PIV4	13	2
Other PIVs	2	1
Adenoviruses	62	84

*Centre for Infectious Disease Prevention and Control, Health Canada

** October 20, 2001- January 26, 2002

***Season to Date August 25, 2002 – January 25, 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	30	0
Elgin St. Thomas	2	0
Grey Bruce	4	0
Haldimand-Norfolk	6	0
Haliburton-Kawartha	4	0
Halton	24	0
Hamilton-Wentworth	53	0
Huron	7	0
Kingston, Frontenac, Lennox and Addington	4	0
Middlesex-London	1	0
Muskoka-Parry Sound	1	0
Niagara	4	0
North Bay	4	0
Ottawa-Carlton	17	0
Oxford	16	0
Peel	39	0
Perth District	19	0
Renfrew	1	0
Simcoe	2	0
Sudbury	1	0
Wellington-Dufferin-Guelph	22	0
Windsor-Essex	1	0
Toronto	125	0
York Region	36	0
Waterloo	23	0
Total	457	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	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	1	Influenza A	12.2	0.5	None
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 16 per 1,000 patients seen.

Laboratory Confirmations and Influenza Activity in the Rest of Canada

Localized influenza activity in Quebec and central and southwest Ontario. Elsewhere in Canada, influenza activity is limited with ten provinces and territories reporting sporadic or no activity. One territory did not report. During the week ending January 18 (week 03), sentinel physicians reported 16 cases of influenza-like illness (ILI) per 1000 patient visits, which is below the expected rate for this time of year. Health Canada received 1299 reports of laboratory tests for influenza; 112 (8.6%) influenza A detections were reported by Ontario, Quebec, PEI, New Brunswick, and Alberta; one influenza B was detected in Quebec. The National Microbiology Laboratory has antigenically characterized 63 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 (19.0 % of tests positive), parainfluenza viruses (3.5% of tests positive) and adenovirus (1.6% of tests positive). To

date this season, there have been eight reported outbreaks of laboratory-confirmed influenza in long term care facilities (LTCF), one of which occurred in Ontario this week.

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

Influenza Activity in the United States

During week 02, influenza activity was reported as regional in Arkansas, Kansas, Nebraska, Missouri, Oklahoma, New York, Tennessee, Texas and Virginia; sporadic or none in 40 states (one State did not report). ILI accounted for 1.6% of patient visits to sentinel physicians (below the national baseline of 1.9%). Sentinel cities reported 7.3% of deaths attributed to pneumonia and influenza (below the epidemic threshold of 8.1% for this week). The CDC received 1213 reports of influenza tests, including one positive test for influenza A(H1), one positive test for A(H3N2), 23 positive tests influenza A (unsubtyped) and 42 positive tests for influenza B. Since September 29, a total of 27,861 specimens have been tested for influenza; 614 (2.2%) were positive (164 influenza A and 450 influenza B). Of the 48 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 03, the WHO reported a local outbreak 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 one network had regional activity, three networks had localized activity and nine networks had sporadic activity (seven others had no influenza activity). Influenza B was predominant, particularly in southwest Europe. Germany, Ireland and Switzerland reported that influenza A was dominant while Norway 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 11), 43 more influenza isolates in Ontario were characterized at the Health Canada Winnipeg Laboratory (Table 4). They were identified as 41 influenza A (H1N2) virus, and the hemagglutinin proteins of the influenza A (H1N2) viruses, 1 influenza A(H3N2), A/Panama/2007/99-like, and 1 influenza B, B/HongKong/330/01-like.

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/flu_bul_mn.html

Influenza Activity by Health Unit Week Ending January 25, 2003

Northern Ontario

Southern Ontario

