Ontario Influenza Bulletin

Ministry of Health and Long-Term Care

Public Health Branch

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Week #6: Week Ending February 8, 2003

Influenza Activity in Ontario

There was influenza activity reported in the province for the week ending February 8, 2003. Twelve of the Ontario Public Health laboratories reported 30 influenza A cases during this surveillance period. The following upper respiratory isolates were also reported: 110 respiratory syncytial virus (RSV), 1 parainfluenza type 1 (PIV1), 2 parainfluenza type 2 (PIV2), 4 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 9, 2002	Week Ending February 8, 2003
	Season to Date**	Season to Date***
***Laboratory Surveillance (isolates)Total**	**183**	**677**
Influenza A	98	676
Influenza B	85	1
Institutional Outbreaks	**15**	**12**
Other respiratory Viruses		
RSV	1141	845
PIV1	101	100
PIV2	91	16
PIV3	9	264
PIV4	13	2
Other PIVs	2	1
Adenoviruses	69	92

*Centre for Infectious Disease Prevention and Control, Health Canada
** October 20, 2001- February 9, 2002
***Season to Date August 25, 2002 – February 8, 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	32	1
Eastern Ontario	4	0
Elgin St. Thomas	2	0
Grey Bruce	13	0
Haldimand-Norfolk	5	0
Haliburton-Kawartha	5	0
Halton	24	0
Hamilton-Wentworth	58	0
Huron	7	0
Kingston, Frontenac, Lennox and Addington	5	0
Leeds	1	0
Middlesex-London	1	0
Muskoka-Parry Sound	4	0
Niagara	4	0
North Bay	6	0
Ottawa-Carlton	20	0
Oxford	16	0
Peel	72	0
Perth District	19	0
Peterborough	3	0
Renfrew	2	0
Simcoe	16	0
Sudbury	4	0
Wellington-Dufferin-Guelph	36	0
Windsor-Essex	1	0
Toronto	136	1
York Region	41	0
Waterloo	23	0
Total	**571**	**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
Chatham Kent	Facility Operating Under Developmental Services Act	1	Influenza A	11.8	0	None Reported to Date
Elgin St. Thomas	Long-Term Care Facility	1	Influenza A	8.0	4.3	1 death
Hastings & Prince Edward	Nursing Home	1	Influenza A	16.0	0	2 hospitalizations 3 cases pneumonia
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	25.2	0	3 deaths 2 hospitalizations 1 case pneumonia
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	38.5	2.8	2 deaths 1 pneumonia
Timiskaming	Nursing Home	1	Influenza A	6.5	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 36 per 1,000 patients seen.

Laboratory Confirmations and Influenza Activity in the Rest of Canada
Localized activity in areas of Ontario, New Brunswick, British Columbia and Quebec. Elsewhere in Canada, influenza activity is limited with ten provinces and territories reporting sporadic or no activity. During the week ending February 1 (week 05), sentinel physicians reported 36 cases of influenza-like illness (ILI) per 1000 patient visits, which is below the expected rate for this time of year. Health Canada received 1,404 reports of laboratory tests for influenza; 104 (7.4%) influenza A detections were reported by all provinces except Manitoba and NF; 16 (1.1%) influenza B detections were reported by Nova Scotia, New Brunswick, Quebec, Alberta and BC. The National Microbiology Laboratory has antigenically characterised 136 influenza viruses to date; all viruses identified are closely related to the current vaccine strains. Parainfluenza and adenovirus detections are within expected levels for this time of year (2.2% and 1.7% of tests positive, respectively). RSV detections are slightly above the mean percentage of tests positive for the previous nine years (25.4% of tests positive). To date this season, there have been nine reported outbreaks of laboratory-confirmed influenza in long term care facilities (LTCF), all have been in Ontario.

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

Influenza Activity in the United States
During week 04, influenza activity was reported as widespread in Missouri, Texas and Virginia; regional in 14 states; sporadic in 32 states and none in one state. ILI accounted for 2.6% of patient visits to sentinel physicians (above the national baseline of 1.9%). Sentinel cities reported 7.3% of deaths attributed to pneumonia and influenza (below the epidemic threshold of 8.2% for this week). The CDC received 1,475 reports of influenza tests, including 21 positive tests for influenza A(H1), three positive tests for A(H3N2), 59 positive tests influenza A (unsubtyped) and 65 positive tests for influenza B. Since September 29, a total of 33,901 specimens have been tested for influenza; 1,195 (3.5%) were positive (375 influenza A and 820 influenza B). Of the 77 viruses antigenically characterized to date, all are are closely related to the current vaccine strains.

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

Influenza Activity in the World
During week 05, the WHO reported an increase in influenza activity in Europe but with limited spread. Outbreaks associated with influenza B, affecting mostly children and young adults, were reported for the Czech Republic, Finland, France, Israel, Russian Federation and Spain. As well, EISS reports widespread activity in Czech Republic, France and Germany due to influenza A. Influenza B is predominating in England. In other countries worldwide, WHO reports that indicators for influenza-like illness activity have increased overall but remain at low levels. 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 13), 19 more influenza isolates in Ontario were characterized at the Health Canada Winnipeg Laboratory (Table 4). Seventeen were identified as influenza A (H1N2) virus, and the hemagglutinin proteins of the influenza A (H1N2) viruses, 1 was identified as influenza A(H3N2), A/Panama/2007/99-like, and 1 was identified as 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	4
	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
	B/Hong Kong/330/01-like	1
Nova Scotia	A(H1N2)	1
Ontario	**A/PANAMA/2007/99-like**	**3**
	A(H1N2)	**109**
	B/Hong Kong/330/01-like	**2**
Quebec	A/PANAMA/2007/99-like	3
	A(H1N2)	3
Saskatchewan	A(H1N2)	1
Total		**136**

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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 by Health Unit
Week Ending February 8, 2003