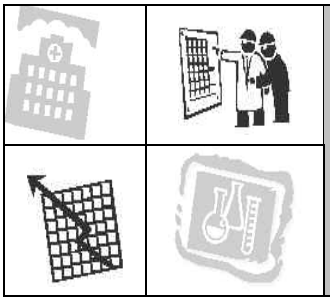

Ontario Influenza Bulletin

Ministry of Health and Long-Term Care

Public Health Branch

Volume 6, Issue 16
February 28, 2003

Week #8: Week Ending February 22, 2003

Influenza Activity in Ontario

There was influenza activity reported in the province for the week ending February 22, 2003. Twelve of the Ontario Public Health laboratories reported 16 influenza A cases during this surveillance period. The following upper respiratory isolates were also reported: 131 respiratory syncytial virus (RSV), 4 parainfluenza type 2 (PIV2), 4 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 February 23, 2002	Week Ending February 22, 2003
	Season to Date**	Season to Date***
***Laboratory Surveillance (isolates)Total**	**451**	**715**
Influenza A	238	711
Influenza B	213	4
Institutional Outbreaks	**51**	**14**
Other respiratory Viruses		
RSV	1405	1194
PIV1	104	106
PIV2	92	17
PIV3	13	273
PIV4	13	3
Other PIVs	2	1
Adenoviruses	77	103

*Centre for Infectious Disease Prevention and Control, Health Canada
** October 20, 2001- February 23, 2002
***Season to Date August 25, 2002 – February 22, 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	6	0
Elgin St. Thomas	2	0
Grey Bruce	13	0
Haldimand-Norfolk	5	0
Haliburton-Kawartha	7	0
Halton	24	0
Hamilton-Wentworth	60	0
Hastings, Prince Edward	4	0
Huron	7	0
Kingston, Frontenac, Lennox and Addington	5	0
Leeds	2	0
Middlesex-London	1	0
Muskoka-Parry Sound	5	0
Niagara	4	0
North Bay	6	0
Ottawa-Carlton	20	0
Oxford	16	0
Peel	94	0
Perth District	20	0
Peterborough	3	0
Renfrew	2	0
Simcoe	16	0
Sudbury	6	0
Wellington-Dufferin-Guelph	40	0
Windsor-Essex	1	0
Toronto	136	1
York Region	42	0
Waterloo	23	0
Total	**613**	**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	17.6	0	None
Eastern Ontario	Retirement Home	1	Influenza A	6.5	66.7	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 Panama	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 Panama	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
	Charitable Home for Aged	1	Influenza A	6.1	0.3	None Reported to Date
Timiskaming	Nursing Home	1	Influenza A	8.5	0	None
York	Long-Term Care Facility	1	Influenza A H1N2	21.2	4.9	1 case pneumonia 1 death

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 27 per 1,000 patients seen.

Laboratory Confirmations and Influenza Activity in the Rest of Canada
Widespread activity in British Columbia. Localized activity in Alberta, Quebec and one region in New Brunswick. Elsewhere in Canada, influenza activity is limited with eight provinces and territories reporting sporadic or no activity. During the week ending February 15 (week 07), sentinel physicians reported 27 cases of influenza-like illness (ILI) per 1000 patient visits, which is below the expected rate for this time of year. Health Canada received 1,861 reports of laboratory tests for influenza, including 109 (5.9%) influenza A detections and 17 (0.9%) influenza B detections. The National Microbiology Laboratory has antigenically characterised 200 influenza viruses to date; all viruses identified to date are closely related to the current vaccine strains. RSV detections are slightly above the mean percentage of tests positive for the previous nine years (22.7% of tests positive). To date this season, there have been 12 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 06, influenza activity was reported as widespread in 13 states; regional in 21 states and sporadic in 15 states. ILI accounted for 3.0% of patient visits to sentinel physicians (above the national baseline of 1.9%). Sentinel cities reported 7.6% of deaths attributed to pneumonia and influenza (below the epidemic threshold of 8.3% for this week). The CDC received 2,205 reports of influenza tests, including 459 (20.8%) positive for influenza: 179 A (unsubtyped), 27 A(H1), eight A(H3N2), and 245 influenza B. Since September 29, a total of 42,652 specimens have been tested for influenza; 2,564 (6.0%) were positive (937 influenza A and 1,627 influenza B). Of the 163 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
On 20 February 2003, WHO reported on two confirmed cases of avian influenza A (H5N1) infection, including one death, in a family who had recently returned to Hong Kong from a visit to relatives in Fujian Province, mainland China. WHO is continuing to monitor the situation through close contact with health authorities in Beijing and Hong Kong. To date, there is no evidence that the H5N1virus has spread beyond the affected family, therefore, the risk of transmission to Canada is considered remote at this time. As a precaution, the FluWatch surveillance network has been notified to promote awareness of the situation in Hong Kong and to look out for any severe cases of influenza in persons who recently travelled to Hong Kong or mainland China.
WHO also reported that an outbreak of acute respiratory syndrome which occurred earlier this month in Guangdong Province, China was due to atypical pneumonia probably caused by *chlamydia pneumoniae*. Tests are ongoing to rule out other respiratory viruses, including H5N1. WHO has recommended that vaccines to be used in the 2003/2004 season (northern hemisphere winter) contain the following: an A/New Caledonia/20/99(H1N1)-like virus and a B/Hong Kong/330/2001-like virus. The recommendation on the A(H3N2) component will be published on 14 March, 2003.

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 15), no more influenza isolates in Ontario were characterized at the Health Canada Winnipeg Laboratory.

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	12
	A/PANAMA/2007/99-like	2
	A(H1N2)	8
	B/Hong Kong/330/01-like	2
British Columbia	A/NewCaledonia/20/99-like	1
	A(H1N2)	2
	A/PANAMA/2007/99-like	2
	B/Hong Kong/330/01-like	6
New Brunswick	A(H1N2)	4
	B/Hong Kong/330/01-like	2
Newfoundland	A(H1N2)	1
Nova Scotia	A(H1N2)	5
	B/Hong Kong/330/01-like	2
Ontario	**A/PANAMA/2007/99-like**	**3**
	A(H1N2)	**120**

	B/Hong Kong/330/01-like	**2**
PEI	A(H1N2)	1
Quebec	A/NewCaledonia/20/99-like	2
	A/PANAMA/2007/99-like	3
	A(H1N2)	14
Saskatchewan	A(H1N2)	5
	A/PANAMA/2007/99-like	1
Total		**200**

*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

Infllluenza Activity by Health Unit
Week Ending February 22, 2003