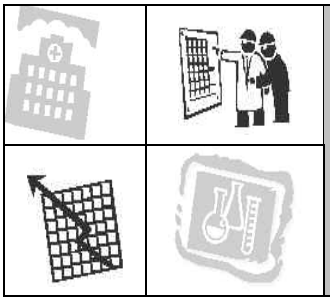

Ontario Influenza Bulletin

Ministry of Health and Long-Term Care

Public Health Branch

Volume 6, Issue 21
May 9, 2003

Week #18: Week Ending May 3, 2003

Influenza Activity in Ontario

There was influenza activity reported in the province for the week ending May 3, 2003. Ten of the Ontario Public Health laboratories reported 3 influenza A and 1 influenza B cases during this surveillance period. The following upper respiratory isolates were also reported: 8 respiratory syncytial virus (RSV), 1 parainfluenza type 1 (PIV1), 2 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 April 20, 2002 (week 16)	Week Ending May 3, 2003 (week 18)
	Season to Date**	Season to Date***
***Laboratory Surveillance (isolates)Total**	**1872**	**821**
Influenza A	1120	792
Influenza B	604	29
Institutional Outbreaks	**126**	**25**
Other respiratory Viruses		
RSV	1836	2006
PIV1	118	131
PIV2	104	19
PIV3	17	331
PIV4	14	5
Other PIVs	2	2
Adenoviruses	125	155

*Centre for Infectious Disease Prevention and Control, Health Canada
** October 20, 2001- April 20, 2002
***Season to Date August 25, 2002 – May 3, 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
Chatham-Kent	6	0
Durham	33	2
Eastern Ontario	8	6
Elgin St. Thomas	3	0
Grey Bruce	21	1
Haldimand-Norfolk	14	0
Haliburton-Kawartha	9	0
Halton	27	1
Hamilton-Wentworth	62	0
Hastings, Prince Edward	6	0
Huron	8	0
Kingston, Frontenac, Lennox and Addington	17	2
Lambton	8	0
Leeds	3	0
Middlesex-London	14	0
Muskoka-Parry Sound	8	0
Niagara	14	1
North Bay	8	1
Northwestern	2	0
Ottawa-Carlton	26	4
Oxford	21	0
Peel	110	8
Perth District	21	0
Peterborough	3	0
Porcupine	12	0
Renfrew	4	1
Simcoe	16	0
Sudbury	13	0
Wellington-Dufferin-Guelph	46	0
Windsor-Essex	4	0
Thunder Bay	4	7
Timiskaming	10	0
Toronto	155	16
York Region	47	0
Waterloo	27	0
Total	**801**	**50**

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
	Nursing Home	1	Influenza A	14.1	5.6	None
Eastern Ontario	Retirement Home	1	Influenza A	23.1	22.2	2 hospitalizations
Elgin St. Thomas	Home for the Aged	1	Influenza A	16.3	3.0	1 case pneumonia 1 death
Grey-Bruce	Retirement Home	1	Influenza A	40.8	16.7	1 hospitalization 1 case pneumonia
Hastings & Prince Edward	Nursing Home	1	Influenza A	16.0	0	2 hospitalizations 3 cases pneumonia
Hamilton	**Nursing Home**	1	Influenza A	**12.8**	**2.4**	**3 cases pneumonia 3 hospitalizations 2 deaths**
Lambton	Nursing Home	1	Influenza A	25.5	6.7	5 cases pneumonia 4 hospitalizations 3 deaths
Middlesex-London	Nursing Home	1	Influenza A Panama	34.5	0	None
	Retirement Home	1	Influenza A	22.7	2.9	None
	Combined Nursing Home and Retirement Home	1	Influenza A	15.6	5.3	1 hospitalization 1 death
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
Porcupine	Nursing Home	1	Influenza A	9.4	2.5	None
Thunderbay	**LTCF within Acute Care Hospital**	1	Influenza A	**26.9**	**9.6**	**4 hospitalizations**
Toronto	Nursing Home	3	Influenza A	12.2	0.5	None
			Influenza A	38.5	2.8	2 deaths 1 pneumonia
			Influenza A	6.6	0.5	None Reported to Date
	Public Home for Aged	1	Influenza A	10.6	0.3	1 hospitalization
	Hospital	1	Influenza A	47.6	0.5	None
Timiskaming	Nursing Home	1	Influenza A	8.5	0	None
Wellington-Dufferin-Guelph	Nursing Home	1	Influenza A	2.3	0	None Reported to Date
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 14 per 1,000 patients seen.

Laboratory Confirmations and Influenza Activity in the Rest of Canada
The Yukon and parts of Manitoba and Ontario report localized activity. During the week ending May 3 (week 18), sentinel physicians reported 14 cases of influenza-like illness (ILI) per 1000 patient visits, which is at the expected value for this time of year. Health Canada received 913 reports of laboratory tests for influenza, including 36 (3.9%) influenza A detections and 18 (2.0%) influenza B detections. The National Microbiology Laboratory has antigenically characterised 442 influenza viruses to date; all viruses identified to date are closely related to the current vaccine strains. Other respiratory virus detections are within the expected range for this time of year. To date this season, there have been 41 reported outbreaks of laboratory-confirmed influenza in long term care facilities (LTCF). *SARS:* As of May 7, 2003, 146 probable and 183 suspect SARS cases have been reported to Health Canada. Of the 329 probable and suspect SARS cases identified to date, most (73%, 239 of 329) have been discharged from hospital or have recovered at home. An additional 18 of the 329 (6%) suspect and probable cases are currently stable or recovering

at home. Starting May 13, Health Canada will be providing in depth SARS Epi-Updates on a weekly basis, however the number of cases will continue to be reported on a daily basis.

Source: **Health Canada Website on SARS :** <http://www.hc-sc.gc.ca/pphb-dgspsp/sars-sras/index.html>

Influenza Activity in the United States
During week 17, influenza activity was reported as regional in three states and sporadic in 32 states. Twelve states reported no activity. ILI accounted for 0.8% of patient visits to sentinel physicians (below the national baseline of 1.9%). Sentinel cities reported 7.6% of deaths attributed to pneumonia and influenza (below the epidemic threshold of 7.8% for this week). The CDC received 453 reports of influenza tests, including 11 (2.4%) positive for influenza: one A (unsubtyped), seven A(H3N2), and three influenza B. Since September 29, a total of 89,429 specimens have been tested for influenza; 10,339 (11.6%) were positive (5,808 influenza A and 4,531 influenza B). Of the 542 viruses antigenically characterized to date, 7/91 (8%) of influenza A (H3N2) isolates and 1/222 (<0.5%) of influenza B isolates showed reduced titres to current vaccine strains.

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

Influenza Activity in the World
The Fraser Health Authority and the BC Centre for Disease Control (BCCDC) have confirmed that 21 people linked to the China Airlines flights from New Delhi to Vancouver via Taiwan on 19 April have been released from isolation. Influenza has been identified in a number of the specimens that were tested. Fifteen people in this group had traveled on the 19 April flight and had developed fever and cough shortly after arrival in BC. They became suspect SARS cases because Taiwan is considered a SARS-affected area by the World Health Organization; however, they had only spent one hour at Taipei airport. Six household contacts became ill with fever and a cough shortly after contact with their ill relatives. Eight of the 11 persons in this group on whom laboratory specimens were received for testing have tested positive for influenza A virus. None of the specimens tested positive for the human coronavirus believed to cause SARS. Most European countries did not report influenza activity levels to EISS for week 18. The few that did reported either no influenza activity or sporadic activity.

Source: EISS (Europe): <http://www.eiss.org/cgi-files/bulletin_v2.cgi>
And
WHO: <http://oms2.b3e.jussieu.fr/flunet/news.html>
And
WHO press release: <http://www.who.int/csr/don/2003_04_03a/en/>

Vaccine and Strain Characterization
Since the last flu bulletin (volume 6 issue 20), one more influenza isolates in Ontario was characterized at the Health Canada Winnipeg Laboratory (Table 4). This were identified as influenza A/NewCaledonia/20/99-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	39
	A/PANAMA/2007/99-like	7
	A(H1N2)	32
	B/Hong Kong/330/01-like	38
British Columbia	A/NewCaledonia/20/99-like	11
	A(H1N2)	19
	A/PANAMA/2007/99-like	6
	B/Hong Kong/330/01-like	17
Manitoba	A(H1N2)	7
	B/Hong Kong/330/01-like	2
New Brunswick	A(H1N2)	4
	A/PANAMA/2007/99-like	3
	B/Hong Kong/330/01-like	5
Newfoundland	A(H1N2)	7
	A/NewCaledonia/20/99-like	1
	B/Hong Kong/330/01-like	6
Nova Scotia	A(H1N2)	5
	B/Hong Kong/330/01-like	2
Ontario	**A/PANAMA/2007/99-like**	**14**
	A/NewCaledonia/20/99-like	**6**
	A(H1N2)	**133**
	B/Hong Kong/330/01-like	**7**
PEI	A(H1N2)	2

Quebec	A/NewCaledonia/20/99-like	3
	A/PANAMA/2007/99-like	3
	A(H1N2)	24
	B/Hong Kong/330/01-like	3
Saskatchewan	A(H1N2)	13
	A/NewCaledonia/20/99-like	4
	A/PANAMA/2007/99-like	2
	B/Hong Kong/330/01-like	16
Yukon	A(H1N2)	1
Total		**437**

*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
WeekEnding May 3, 2003