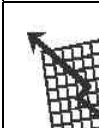


		Ontario Influenza Bulletin	Ministry of Health and Long-Term Care Public Health Branch <i>Volume 5, Issue 24 April 12, 2002</i>
			

Week #14: Week Ending April 6, 2002

Influenza Activity in Ontario

There were 60 cases of influenza A, and 7 cases of influenza B reported in the province for the week April 6, 2002. The reported upper respiratory isolates included: 36 respiratory syncytial virus (RSV), 3 parainfluenza type 1 (PIV1), 1 parainfluenza type 2 (PIV2), 1 parainfluenza type 3 (PIV3), and 5 adenovirus (Table 1).

In Ontario, 19 more outbreaks were reported, specifically, there were 17 influenza A outbreaks, and 2 influenza B outbreaks, and were detected by either rapid testing or viral culture. Algoma Health Unit reported the season's first outbreak at a prison facility, involving influenza A. The following health units reported additional influenza A outbreaks: Brant County, Durham, Hamilton, Kingston, Middlesex-London, Niagara, North Bay, Perth, Renfrew County, Simcoe County, and York Region. The following health units reported the influenza B outbreaks: Chatham-Kent, and Durham.

Due to a temporary transmission delay with RDIS, all data from the Health Units has not been updated in Table 2. The data in Table 2 is accurate only up until week #10.

The total number of institutional outbreaks to-date in Ontario is 190 (Tables 1, 2, and 3).

Table 1. Comparison of Influenza Activity for the 2000-01 and 2001-02 Influenza Surveillance Seasons

Indicator	2000-01 Season	2001-02 Season
	Week Ending April 7, 2001	Week Ending April 6, 2002
	Season-to-date	Season-to-date
*Laboratory Surveillance (isolates) Total	801	1544
Influenza A	388	969
Influenza B	413	575
Institutional Outbreaks	6	190
Other Respiratory Viruses		
RSV	2170	1778
PIV1	34	117
PIV2	12	101
PIV3	295	16
PIV4	25	14
Other PIVs	1	2
Adenoviruses	76	117

*Centre for Infectious Disease Prevention and Control, Health Canada

Table 2. Season-to-date Influenza Cases by Health Unit as Reported Through RDIS, 2001-02*++

Health Unit	Number of Lab-Confirmed Influenza Cases**	
	Type A	Type B
Algoma	3	2
Brant County	4	0
Bruce-Grey	1	4
Chatham-Kent	1	0
Durham	13	16
Eastern Ontario	32	3
Halton	3	10
Hamilton-Wentworth	43	22
Huron	0	6
Kingston	15	4
Lambton	1	0
Leeds, Grenville, Lanark	27	0
Middlesex-London	3	0
Niagara	19	50
North Bay & District	28	1
Ottawa	176	5
Oxford	1	0
Peel	14	14
Perth	40	24
Peterborough	3	2
Porcupine	11	4
Simcoe	8	4
Thunder Bay	3	0
Toronto	81	50
Waterloo	5	12
Wellington, Dufferin, Guelph	3	12
Windsor-Essex	0	5
York	5	19
Total	543	269

*Reportable Disease Information System

**Public Health Units

++Due to a transmission delay with RDIS, the data is current up to week #10

Table 3. Season-to-date Institutional Influenza Outbreaks by Health Unit in Ontario, 2001-02

Health Unit	Type of Institution & Number of Outbreaks*							Organism(s) Identified
	LTCF	RH	Hospital		DCC	School	Other	
			CC Unit	Other Units				
Algoma	3	2		3			1**	Influenza A
Brant County	4	4						Influenza A
Chatham-Kent	1		1					Influenza A Influenza B
Durham	2 1	1						Influenza A Influenza B
Eastern Ontario	4			2		2 2		Influenza A Influenza B
Grey-Bruce	1							Influenza A
Halton	1							Influenza A
Haldimand-Norfolk	3							Influenza A
Hamilton	9							Influenza A
Hastings & Prince Edward	2							Influenza A
Huron County	2							Influenza A
Kingston	8	2						Influenza A
Lambton	2							Influenza A
Leeds, Grenville, Lanark	6		1	1				Influenza A
Middlesex-London	2		3	1				Influenza A
Muskoka-Parry Sound	1							Influenza B
Niagara	5 2	1		1				Influenza A Influenza B
North Bay & District	4		2					Influenza A
Ottawa	14 1	1	2	3				Influenza A Influenza B
Oxford	1 1							Influenza A Influenza B
Peel	2	2		2				Influenza A
Perth	2							Influenza A
Peterborough	2	1						Influenza A
Renfrew County	4	1						Influenza A
Simcoe County	2	1	1	1				Influenza A
Sudbury & District	2							Influenza A
Thunder Bay	9							Influenza A
Timiskaming	1							Influenza A
Toronto	13	4	2	2 1	1 1			Influenza A Influenza B
Waterloo	3	1	1	1 1				Influenza A Influenza B
Wellington, Dufferin, Guelph	4 1	1 1						Influenza A Influenza B
Windsor-Essex	1					1		Influenza A Influenza B
York Region		1						Influenza A
Total	126	24	13	19	2	5	1	

*Sub-headings: LTCF (long-term care facility), RH (retirement home), CC (chronic care), DCC (day-care centre)

**Prison facility

Vaccine and Strain Characterization

(Up to April 3, 2002) In Ontario, of the influenza samples sent for sub-typing to the National Microbiology Laboratory at Health Canada, 61 were A/Panama/2007/99(H3N2)-like isolates, 73 were B/Hong Kong/22/01-like isolates, and 2 were B/Sichuan/379/99-like (Table 4).

The B/Hong Kong/22/01-like viruses are antigenically different from current vaccine strains and the current vaccine is expected to provide limited cross-protection against these viruses. The A(H3N2), A(H1) and B/Sichuan/379/99-like viruses are similar to the current vaccine strains.

This year's influenza vaccine B component provides protection mainly against B/Yamagata/16/88-like viruses, but as several studies have shown, this strain also provides some protection against the B/Victoria/504/2000-like viruses. The type A strains identified in Canada, and in Ontario, are included in the current season's vaccine.

Table 4. Season-to-date Strain Identification and Characterization In Canada, 2001-02*

Province/Territory	Strain Characterization	# of Strains Identified-to-date
Newfoundland	A/Panama/2007/99(H3N2)-like	9
Prince Edward Island	A/Panama/2007/99(H3N2)-like	4
Nova Scotia	A/Panama/2007/99(H3N2)-like	9
	B/Hong Kong/22/01-like	1
New Brunswick	A/Panama/2007/99(H3N2)-like	6
Quebec	A/Panama/2007/99(H3N2)-like	47
	B/Sichuan/379/99-like	1
	B/Hong Kong/22/01-like	2
Ontario	A/Panama/2007/99(H3N2)-like	61
	B/Sichuan/379/99-like	2
	B/Hong Kong/22/01-like	73
Manitoba	A/Panama/2007/99(H3N2)-like	7
	(H1N2)-like	2
Saskatchewan	A/Panama/2007/99(H3N2)-like	31
	(H1N2)-like	2
Alberta	A/Panama/2007/99(H3N2)-like	29
	A/New Caledonia/20/99 (H1N1)-like	1
	(H1N2)-like	1
	B/Hong Kong/22/01-like	9
British Columbia	A/Panama/2007/99(H3N2)-like	22
	B/Sichuan/379/99-like	1
Yukon	A/Panama/2007/99(H3N2)-like	2
NorthWest Territories	0	0
Nunavut	(H1N2)-like	1
	A/Panama/2007/99(H3N2)-like	1
		Total
	A/Panama/2007/99(H3N2)-like	228
	A/New Caledonia/20/99 (H1N1)-like	1
	(H1N2)-like	5
	B/Sichuan/379/99-like	4
	B/Hong Kong/22/01-like	85

*Respiratory Viruses Section, National Microbiology Laboratory (NML), PPHB, Health Canada

Federal FluWatch Sentinel Physician Surveillance Activity in Ontario

The rate of influenza-like illness (ILI) reported through the Federal FluWatch system was 19 per 1,000 patients seen.

Laboratory Confirmations and Influenza Activity in the Rest of Canada

Regions of Nova Scotia and Saskatchewan reported widespread influenza activity and regions of five other provinces reported localized activity. Alberta and Saskatchewan continue to report an increase in influenza outbreaks in institutions and schools. Ontario reported eight outbreaks in long-term care facilities (LTCFs) and two outbreaks in hospitals, which is a decline from the weekly numbers reported for the past month. Sentinel physicians reported 25 cases of influenza-like illness (ILI) per 1000 patient visits, which is the expected rate for this time of year (see graph). Health Canada received 1740 reports of laboratory tests for influenza: 409 (24%) were positive for influenza A and 44 (3%) were positive for influenza B. The National Microbiology Laboratory antigenically characterized 323 influenza isolates to date this season: 228 were A(H3N2); 6 were A(H1); 4 were B/Sichuan/379/99-like, and 85 were B/Hong Kong/22/01-like. Of the 6 A(H1) isolates identified antigenically, 5 were characterized by genetic analysis to be a new influenza A(H1N2) strain. The H1N2 strains were identified from specimens taken since December 2001 from patients in Alberta (1), Saskatchewan (2) and Manitoba (2). The majority of B/Hong Kong/22/01-like viruses were identified from specimens taken in Ontario. The B/Hong Kong/22/01-like viruses are antigenically different from current vaccine strains and the current vaccine is expected to provide limited cross-protection against these viruses. The A(H3N2), A(H1) and B/Sichuan/379/99-like viruses are similar to the current vaccine strains.

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

Influenza Activity in the United States

During week 13 (March 24 - 30, 2002), 190 (14.1%) of 1,344 respiratory specimens tested by World Health Organization (WHO) and National Respiratory Virus Surveillance System (NREVSS) laboratories were positive for influenza. The overall proportion of patient visits to sentinel physicians for influenza-like illness (ILI) was 1.6%, which is below the national baseline of 1.9%. The proportion of deaths attributed to pneumonia and influenza was 8.6%, which is above the epidemic threshold of 8.1% for week 13. One state and territorial health department reported widespread influenza activity, 13 reported regional activity, 29 reported sporadic activity, and 3 reported no influenza activity.

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

Influenza Activity in the World

No new information reported since the last Bulletin.

Source: WHO, Communicable Disease Surveillance and Response: <[http://www.who.int.emc/diseases/flu/country.html](http://www.who.int/emc/diseases/flu/country.html)>

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>