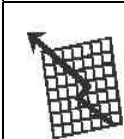


		Ontario Influenza Bulletin	Ministry of Health and Long-Term Care Public Health Branch <i>Volume 5, Issue 21</i> <i>March 22, 2002</i>
			

Week #11: Week Ending March 16, 2002

Influenza Activity in Ontario

There were 99 cases of influenza A, and 38 cases of influenza B reported in the province for the week ending March 16, 2002. The reported upper respiratory isolates included: 55 respiratory syncytial virus (RSV), 3 parainfluenza type 1 (PIV1), 3 parainfluenza type 2 (PIV2), 1 parainfluenza type 3 (PIV3), and 5 adenovirus (Table 1).

In Ontario, 31 more outbreaks were reported. Specifically, there were 27 influenza A outbreaks, 3 influenza B outbreaks, and one outbreak involving both influenza A and influenza B, and were detected by either rapid testing or viral culture. Eastern Ontario Health Unit reported two outbreaks at public schools: one involved influenza B, and the other school involved both influenza A and B. Toronto Public Health reported two influenza B outbreaks, one occurred at a day-care centre, and the other occurred at a hospital. The following health units reported influenza A outbreaks: Algoma, Brant County, Eastern Ontario, Haldimand-Norfolk, Hamilton, Kingston, Middlesex-London, Niagara, North Bay, Peel, Renfrew County, Sudbury & District, Thunder Bay, and Toronto. In addition, the influenza A nursing home outbreak reported in week #9 by Chatham-Kent Health Unit, also involves influenza B.

The total number of institutional outbreaks to-date in Ontario is 126 (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 March 17, 2001	Week Ending March 16, 2002
	Season-to-date	Season-to-date
*Laboratory Surveillance (isolates) Total	644	1160
Influenza A	347	665
Influenza B	297	495
Institutional Outbreaks	2	126
Other Respiratory Viruses		
RSV	1978	1654
PIV1	26	112
PIV2	8	100
PIV3	229	15
PIV4	25	14
Other PIVs	1	2
Adenoviruses	67	102

*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	
			CC Unit	Other Units			
Algoma	2	2		3			Influenza A
Brant County	2	3					Influenza A
Chatham-Kent	1						Influenza A Influenza B
Durham	1	1					Influenza A
Eastern Ontario	3			2		2 2	Influenza A Influenza B
Haldimand-Norfolk	2						Influenza A
Hamilton	6						Influenza A
Hastings & Prince Edward	2						Influenza A
Kingston	3						Influenza A
Leeds, Grenville, Lanark	5		1				Influenza A
Middlesex-London	2		1				Influenza A
Niagara	1 1	1		1			Influenza A Influenza B
North Bay & District	2		1				Influenza A
Ottawa	14	1	2	3			Influenza A
Oxford	1						Influenza A
Peel	1	2		1			Influenza A
Perth	1						Influenza A
Peterborough	1	1					Influenza A
Renfrew County	1	1					Influenza A
Simcoe County	1	1					Influenza A
Sudbury & District	1						Influenza A
Thunder Bay	6						Influenza A
Timiskaming	1						Influenza A
Toronto	9	4	2	2 1	1 1		Influenza A Influenza B
Waterloo	3	1	1	1 1			Influenza A Influenza B
Wellington, Dufferin, Guelph	3	1					Influenza A
Windsor-Essex	1					1	Influenza A Influenza B
Total	77	19	8	15	2	5	

*Public Health Units

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

Vaccine and Strain Characterization

(Up to March 12, 2002) In Ontario, of the influenza samples sent for sub-typing to the National Microbiology Laboratory at Health Canada, 58 were A/Panama/2007/99(H3N2)-like isolates, 68 were B/Hong Kong/22/01-like isolates, and 2 were B/Sichuan/379/99-like (Table 4).

The A/Panama/2007/99(H3N2)-like strain and B/Sichuan/379/99-like strain, is included in this year's vaccine, and the B/Hong Kong/22/01-like strain belongs to the B/Victoria/504/2000 lineage, which is not included in this year's vaccine. The B/Hong Kong/22/01-like virus is a new antigenic variant of the B/Victoria/504/2000-like virus, which was an epidemic strain during the 1988 - 1989 flu season.

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	2
Prince Edward Island	0	0
Nova Scotia	A/Panama/2007/99(H3N2)-like	2
	B/Hong Kong/22/01-like	1
New Brunswick	A/Panama/2007/99(H3N2)-like	6
Quebec	A/Panama/2007/99(H3N2)-like	42
	B/Sichuan/379/99-like	1
	B/Hong Kong/22/01-like	2
Ontario	A/Panama/2007/99(H3N2)-like	58
	B/Sichuan/379/99-like	2
	B/Hong Kong/22/01-like	68
Manitoba	A/Panama/2007/99(H3N2)-like	7
	A/New Caledonia/20/99 (H1N2)-like	2
Saskatchewan	A/Panama/2007/99(H3N2)-like	31
	A/New Caledonia/20/99 (H1N2)-like	2
Alberta	A/Panama/2007/99(H3N2)-like	14
	A/New Caledonia/20/99 (H1N1)-like	1
	A/New Caledonia/20/99 (H1N2)-like	1
	B/Hong Kong/22/01-like	1
British Columbia	A/Panama/2007/99(H3N2)-like	20
	B/Sichuan/379/99-like	1
Yukon	A/Panama/2007/99(H3N2)-like	2
NorthWest Territories	0	0
Nunavut	0	0
		Total
	A/Panama/2007/99(H3N2)-like	184
	A/New Caledonia/20/99 (H1N1)-like	1
	A/New Caledonia/20/99 (H1N2)-like	5
	B/Sichuan/379/99-like	4
	B/Hong Kong/22/01-like	72

*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 34 per 1,000 patients seen.

Laboratory Confirmations and Influenza Activity in the Rest of Canada

Influenza activity is at the level of localised in regions of nine provinces; no regions reported widespread activity. Ontario reported 18 outbreaks in long-term care facilities (LTCFs) and 3 in hospitals which is a decrease from the previous week; Alberta and Nova Scotia reported an increase in influenza outbreaks in LTCFs and schools. Sentinel physicians reported 31 cases of influenza-like illness (ILI) per 1000 patient visits, which is the expected rate for this time of year. Health Canada received 2180 reports of laboratory tests for influenza: 343 (16%) were positive for influenza A and 156 (7%) were positive for influenza B. The National Microbiology Laboratory antigenically characterised 266 influenza isolates to date this season: 184 were A(H3N2); 6 were A(H1); 4 were B/Sichuan/379/99-like, and 72 were B/Hong Kong/22/01-like (see pie chart). Of the six A(H1) isolates identified antigenically, five 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 the 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 10 (March 3-9, 2002), 448 (23.5%) of 1,905 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 2.3%, which is above the national baseline of 1.9%. The proportion of deaths attributed to pneumonia and influenza was 8.8%, which is above the epidemic threshold of 8.3% for week 10. Twelve state and territorial health departments reported widespread influenza activity, 27 reported regional activity, 10 reported sporadic activity, and 1 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>