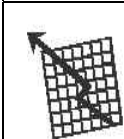


		Ontario Influenza Bulletin	Ministry of Health and Long-Term Care
			Public Health Branch <i>Volume 5, Issue 26 April 26, 2002</i>

Final issue of the *Ontario Influenza Bulletin*, for the 2001– 2002 influenza season.

A summary report of the season's activity will be published in an upcoming 2002 issue of PHERO. Ontario's Ministry of Health, Public Health Branch, would like to thank the staff of public health units, regional public health laboratories, the Centre for Infectious Disease Prevention and Control, Health Canada, and sentinel physicians for their diligent data reporting. Influenza surveillance will resume in the Fall of 2002.

Week #16: Week Ending April 20, 2002

Influenza Activity in Ontario

There were 53 cases of influenza A, and 9 cases of influenza B reported in the province for the week April 20, 2002. The reported upper respiratory isolates included: 26 respiratory syncytial virus (RSV), 3 parainfluenza type 2 (PIV2), 1 parainfluenza type 3 (PIV3), and 3 adenovirus (Table 1).

In Ontario, institutional outbreaks continue to decline as influenza season ends. Only 7 outbreaks were reported, and were detected by either rapid testing or viral culture. The following health units reported influenza A outbreaks: Middlesex-London, Muskoka-Parry Sound, North Bay, Simcoe County, and Toronto.

Correction: Due to a reporting error from Kingston Health Unit, their revised total to-date is 6 outbreaks, which is lower than what had been recorded. This revision has been reflected in Table 1 and Table 3.

The total number of institutional outbreaks to-date in Ontario is 198 (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 28, 2001	Week Ending April 20, 2002
	Season-to-date	Season-to-date
Laboratory Surveillance (isolates) Total	852	1872
Influenza A	400	1120
Influenza B	452	604
Institutional Outbreaks	9	198
Other Respiratory Viruses		
RSV	2246	1836
PIV1	38	118
PIV2	13	104
PIV3	346	17
PIV4	24	14
Other PIVs	3	2
Adenoviruses	78	125

*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 of 2002;
The revised RDIS data will be published in the 2002 *PHERO* summary report.**

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							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	4							Influenza A
Hamilton	9							Influenza A
Hastings & Prince Edward	3							Influenza A
Huron County	2							Influenza A
Kingston	4	2						Influenza A
Lambton	2							Influenza A
Leeds, Grenville, Lanark	6		1	1				Influenza A
Middlesex-London	3		3	1				Influenza A
Muskoka-Parry Sound	1 1		1					Influenza A Influenza B
Niagara	5 2	1		1				Influenza A Influenza B
North Bay & District	4		2					Influenza A
Ottawa	12 1	1	2	2				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	3	1	1	1				Influenza A
Sudbury & District	2							Influenza A
Thunder Bay	9			1				Influenza A
Timiskaming	1							Influenza A
Toronto	17	4	2	2 1	1 1			Influenza A Influenza B
Waterloo	5	1	1	2 1				Influenza A Influenza B
Wellington, Dufferin, Guelph	5 1	1 1						Influenza A Influenza B
Windsor-Essex	2					1		Influenza A Influenza B
York Region		1						Influenza A
Total	134	24	13	19	2	5	1	

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

Vaccine and Strain Characterization

(From October 4, 2001 – April 18, 2002) In Ontario, of the influenza samples sent for sub-typing to the National Microbiology Laboratory at Health Canada, 64 were A/Panama/2007/99(H3N2)-like isolates, 82 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	14
Prince Edward Island	A/Panama/2007/99(H3N2)-like	4
Nova Scotia	A/Panama/2007/99(H3N2)-like	16
	B/Hong Kong/22/01-like	1
New Brunswick	A/Panama/2007/99(H3N2)-like	8
Quebec	A/Panama/2007/99(H3N2)-like	50
	B/Sichuan/379/99-like	1
	B/Hong Kong/22/01-like	4
Ontario	A/Panama/2007/99(H3N2)-like	64
	B/Sichuan/379/99-like	2
	B/Hong Kong/22/01-like	82
Manitoba	A/Panama/2007/99(H3N2)-like	8
	(H1N2)-like	2
Saskatchewan	A/Panama/2007/99(H3N2)-like	37
	(H1N2)-like	2
Alberta	A/Panama/2007/99(H3N2)-like	33
	A/New Caledonia/20/99 (H1N1)-like	1
	(H1N2)-like	5
	B/Hong Kong/22/01-like	10
British Columbia	A/Panama/2007/99(H3N2)-like	44
	B/Sichuan/379/99-like	1
	B/Hong Kong/22/01-like	4
Yukon	A/Panama/2007/99(H3N2)-like	2
NorthWest Territories	0	0
Nunavut	A/Panama/2007/99(H3N2)-like	5
		Total
	A/Panama/2007/99(H3N2)-like	286
	A/New Caledonia/20/99 (H1N1)-like	1
	(H1N2)-like	9
	B/Sichuan/379/99-like	4
	B/Hong Kong/22/01-like	103

*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 by the Federal FluWatch system declined to 8 per 1,000 patients seen.

Laboratory Confirmations and Influenza Activity in the Rest of Canada

Regions of Nova Scotia reported widespread influenza activity and regions of Ontario, Manitoba, Saskatchewan, Alberta and British Columbia reported localized activity. In general the number of reported outbreaks is declining. Sentinel physicians reported 24 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 1697 reports of laboratory tests for influenza: 307 (18%) were positive for influenza A and 16 (1%) were positive for influenza B. The National Microbiology Laboratory antigenically characterized 323 influenza isolates to date this season: 228 were A(H3N2); six were A(H1); four were B/Sichuan/379/99-like, and 85 were B/Hong Kong/22/01-like. 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 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 15 (April 7-13, 2002), 55 (8.3%) of 666 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 0.8%, which is below the national baseline of 1.9%. The proportion of deaths attributed to pneumonia and influenza was 7.6%, which is below the epidemic threshold of 8.0% for week 15. One state and territorial health department reported widespread influenza activity, 3 reported regional activity, 37 reported sporadic activity, and 7 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 issue #23 (week # 13) of the *Ontario Influenza 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 for issues 1 – 26 for the 2001 – 2002 season, or back issues of the *Ontario Influenza Bulletin*:

<http://www.gov.on.ca/MOH/english/program/pubhealth/flu_bul/flubul_mn.html>