

		Ontario Influenza Bulletin	Ministry of Health and Long-Term Care Public Health Branch <i>Volume 5, Issue 20</i> <i>March 15, 2002</i>
			

Week #10: Week Ending March 9, 2002

Influenza Activity in Ontario

There were 131 cases of influenza A, and 147 cases of influenza B reported in the province for the week ending March 15, 2002. The reported upper respiratory isolates included: 87 respiratory syncytial virus (RSV), 2 parainfluenza type 1 (PIV1), 2 parainfluenza type 2 (PIV2), and 7 adenovirus (Table 1).

In Ontario, 17 more influenza A outbreaks, and one influenza B outbreak was reported, and were detected by either rapid testing or viral culture. Niagara Regional Health Unit reported the influenza B outbreak, which occurred at a nursing home. The following health units reported the influenza A outbreaks: Eastern, Leeds-Grenville-Lanark, Ottawa, Oxford, Perth, Simcoe, Thunder Bay, Timiskaming, Toronto, Waterloo, and Wellington-Dufferin-Guelph.

The total number of institutional outbreaks to-date in Ontario is 95 (Tables 1, 2, and 3).

** Correction: Porcupine Health Unit did not have an outbreak last week; it was Peterborough County-City Health unit.*

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 10, 2001	Week Ending March 9, 2002
	Season-to-date	Season-to-date
*Laboratory Surveillance (isolates) Total	552	943
Influenza A	313	566
Influenza B	239	457
Institutional Outbreaks	2	95
Other Respiratory Viruses		
RSV	1897	1599
PIV1	25	109
PIV2	7	97
PIV3	209	14
PIV4	23	14
Other PIVs	0	2
Adenoviruses	62	97

*Centre for Infectious Disease Prevention and Control, Health Canada; Reportable Disease Information System

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

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

Health Unit	Type of Institution & Number of Outbreaks**						Organism Identified
	LTCF	RH	Hospital		DCC	School	
			CC Unit	Other Units			
Algoma				3			Influenza A
Brant County	2						Influenza A
Chatham-Kent	1						Influenza A
Durham	1	1					Influenza A
Eastern Ontario	2			2			Influenza A
Haldimand-Norfolk	1						Influenza A
Hamilton	4						Influenza A
Hastings & Prince Edward	2						Influenza A
Kingston	1						Influenza A
Leeds, Grenville, Lanark	5		1				Influenza A
Middlesex-London	1						Influenza A
Niagara	1	1		1			Influenza A Influenza B
North Bay & District	1		1				Influenza A
Ottawa	14	1	2	3			Influenza A
Oxford	1						Influenza A
Peel	1	2					Influenza A
Perth	1						Influenza A
Peterborough	1	1					Influenza A
Renfrew County		1					Influenza A
Simcoe County	1	1					Influenza A
Thunder Bay	4						Influenza A
Timiskaming	1						Influenza A
Toronto	8	2	2	2	1		Influenza A
Waterloo	3	1	1	1			Influenza A Influenza B
Wellington, Dufferin, Guelph	3	1					Influenza A
Windsor-Essex	1					1	Influenza A Influenza B
Total	61	12	7	13	1	1	

*Public Health Units

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

Vaccine and Strain Characterization

No new strains were identified in Ontario this week. To-date, of the influenza samples sent for sub-typing to the National Microbiology Laboratory at Health Canada, 41 were A/Panama/2007/99(H3N2)-like isolates, 62 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 B/Hong Kong/22/01-like	2 1
New Brunswick	A/Panama/2007/99(H3N2)-like	6
Quebec	A/Panama/2007/99(H3N2)-like B/Sichuan/379/99-like	36 1
Ontario	A/Panama/2007/99(H3N2)-like B/Sichuan/379/99-like B/Hong Kong/22/01-like	41 2 62
Manitoba	A/Panama/2007/99(H3N2)-like	7
Saskatchewan	A/Panama/2007/99(H3N2)-like A/New Caledonia/20/99 (H1N2)-like	31 2
Alberta	A/Panama/2007/99(H3N2)-like A/New Caledonia/20/99 (H1N1)-like A/New Caledonia/20/99 (H1N2)-like B/Hong Kong/22/01-like	13 1 1 1
British Colombia	A/Panama/2007/99(H3N2)-like B/Sichuan/379/99-like	12 1
Yukon	A/Panama/2007/99(H3N2)-like	2
NorthWest Territories	0	0
Nunavut	0	0
		Total
	A/Panama/2007/99(H3N2)-like	152
	A/New Caledonia/20/99 (H1N1)-like	1
	A/New Caledonia/20/99 (H1N2)-like	3
	B/Sichuan/379/99-like	4
	B/Hong Kong/22/01-like	64

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Federal FluWatch Sentinel Physician Surveillance Activity in Ontario

The rate of influenza-like illness (ILI) reported through the Federal FluWatch system was 21 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 eight provinces and is widespread in PEI. Ontario and BC reported an increase in influenza A outbreaks, including 20 and 8 reported outbreaks in Long Term Care facilities respectively. Sentinel physicians reported 36 cases of influenza-like illness (ILI) per 1000 patient visits, which is the expected rate for this time of year. Health Canada received 2559 reports of laboratory tests for influenza: 373 (15%) were positive for influenza A and 100 (4%) were positive for influenza B. The National Microbiology Laboratory antigenically characterised 224 influenza isolates to date this season: 152 were A(H3N2); 4 were A (H1); 4 were B/Sichuan/379/99-like, and 64 were B/Hong Kong/22/01-like. Of the four A(H1) isolates identified antigenically, three were characterized by genetic analysis to be a new influenza A (H1N2) strain. The H1N2 strains were identified from specimens taken from one patient in Alberta and two patients in Saskatchewan during December 2001 and February 2002 respectively. 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 belong to the B/Victoria/02/87 lineage of influenza B viruses, which last circulated in Canada in the 1988-1989 season. 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 9 (February 24 – March 2, 2002), 463 (24.5%) of 1,886 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 2.9%, which is above the national baseline of 1.9%. The proportion of deaths attributed to pneumonia and influenza was 8.9%, which is above the epidemic threshold of 8.3% for week 9. Twelve state and territorial health departments reported widespread influenza activity, 25 reported regional activity, and 13 reported sporadic 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>>

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 Level by Health Unit Week Ending March 9, 2002

Northern Ontario

Southern Ontario

