



December 3, 2006 to December 9, 2006 (Week 49)

Localized influenza activity in Alberta and Ontario; no activity in the rest of the country

During week 49, localized influenza activity was reported in all regions of Alberta and in one region of Ontario. Sporadic influenza activity was reported in several regions (in the West, Ontario and Quebec) while the rest of the country reported no activity (see map). In week 49, 93 (4%) of the 2,302 specimens tested for influenza virus were positive and all but 2 were influenza A (see table). Most (98%) of the influenza detections this season have been influenza A. The ILI consultation rate decreased from 30 per 1,000 patient visits in week 48 to 25 per 1,000 patient visits in week 49, which is within the expected range for this week (see ILI graph). During week 49, the sentinel response rate was 75%. Eleven new outbreaks of ILI were reported in schools in Alberta this week.

Note that over the last several weeks, the percent positive for Respiratory Syncytial Virus (RSV) detections has continued to increase from 7.8% in week 44 to 23.9% in week 49.

Antigenic Characterization:

The National Microbiology Laboratory (NML) has characterized 33 influenza viruses for the 2006-2007 influenza season: 19 (58%) A/Wisconsin/67/05(H3N2)-like viruses (from Ontario), 13 (39%) A/New Caledonia/20/99(H1N1)-like viruses (from Alberta and British Columbia), and one (3%) B/Malaysia/2506/04-like virus (from Ontario) (see pie chart). All three strains are included in the composition of the 2006-2007 Canadian influenza vaccine.

Antiviral Resistance:

Since the start of the season, the NML has tested 20 influenza A isolates (12 H1N1, 8 H3N2) for amantadine resistance of which 3 (15% - all H3N2) were resistant (see recommendation below). None of the 20 influenza A isolates tested were found to be resistant to oseltamivir.

Influenza-associated Paediatric Hospitalizations :

No new laboratory-confirmed influenza-associated paediatric hospitalizations were reported through the Immunization Monitoring Program Active (IMPACT) network.

International:

CDC: During week 48, a low level of influenza activity was reported in the United States. The proportion of patient visits to sentinel providers for influenza-like illness (ILI) and the proportion of deaths attributed to pneumonia and influenza were below baseline levels. Of the 2,441 specimens tested for influenza virus in week 48, 106 (4.3%) were positive. Twenty-nine (27.4%) of the positive specimens were influenza B viruses. Since October 1, 2006 CDC has antigenically characterized 27 influenza viruses: 10 A/New Caledonia/20/99-like, 6 B/Victoria lineage, and 11 B/Yamagata lineage. <<http://www.cdc.gov/flu/weekly/fluactivity.htm>>

EISS: During week 49, clinical influenza activity remained at baseline levels in Europe, however, in the last three weeks, the number of laboratory confirmed cases have been increasing in Europe as a whole. So far this season, 92% of the virus isolates were influenza A. Detections of RSV have also been increasing in a number of European countries. <http://www.eiss.org/cgi-files/bulletin_v2.cgi>



Recommendation for the Use of Amantadine for Treatment and Prevention of Influenza

The Public Health Agency of Canada does not recommend the use of amantadine for treatment or prevention of influenza for the 2006-2007 season. This recommendation will be revisited if new information becomes available. For further information: http://www.phac-aspc.gc.ca/media/nr-rp/2006/20061101-amantadine_e.htm

**Total number of influenza tests performed and number of positive tests
by province/territory of testing laboratory, Canada, 2006-2007**

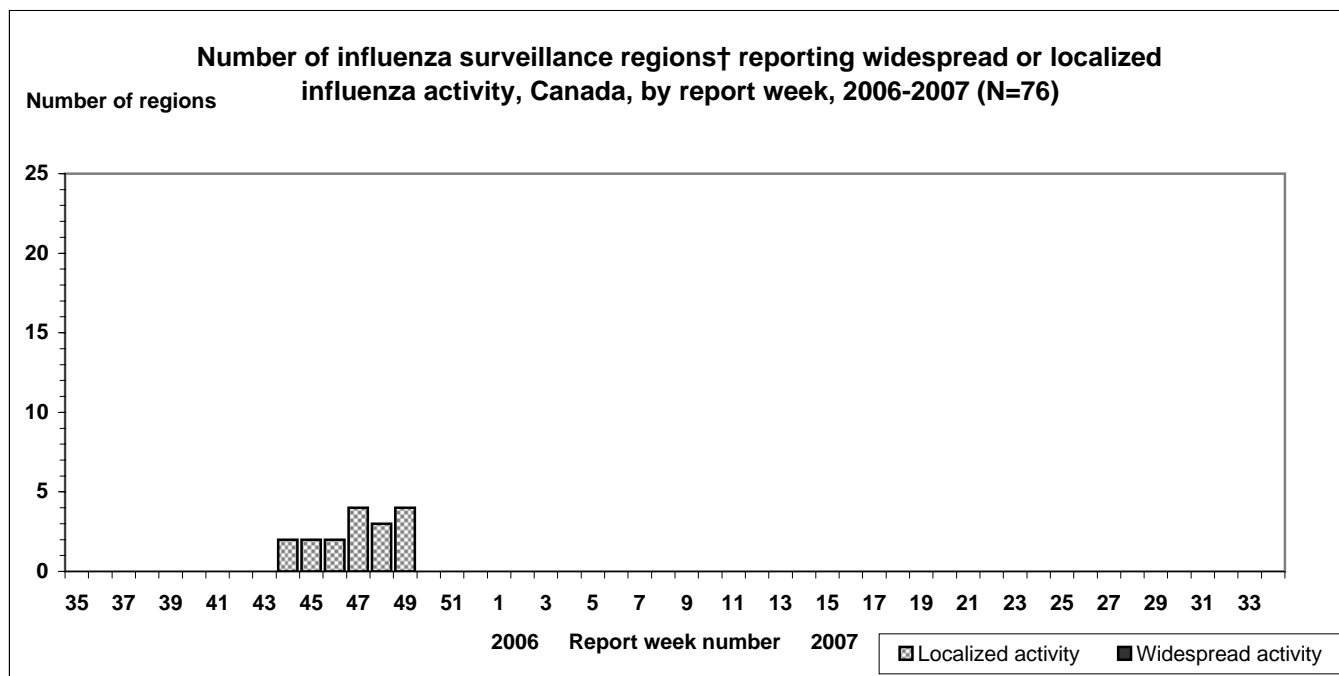
Province of reporting laboratories	Report Period: December 3, 2006 to December 9, 2006				Season to Date: August 27, 2006 to December 9, 2006			
	Total # of influenza tests	# of positive tests			Total # of influenza tests	# of positive tests		
		Influenza A	Influenza B	Total		Influenza A	Influenza B	Total
NL	13	0	0	0	84	0	0	0
PE	2	0	0	0	12	0	0	0
NS	24	0	0	0	237	0	0	0
NB	23	0	0	0	244	0	0	0
QC	443	3	0	3	3819	6	0	6
ON	792	8	2	10	6631	21	4	25
MB	53	0	0	0	564	0	0	0
SK	146	0	0	0	1634	3	0	3
AB	708	70	0	70	5977	151	1	152
BC	98	10	0	10	926	19	0	19
Canada	2302	91	2	93	20128	200	5	205

Specimens from NT, YT, and NU are sent to reference laboratories in other provinces.

Note: Cumulative data includes updates to previous weeks; due to reporting delays, the sum of weekly report totals do not add up to cumulative totals.

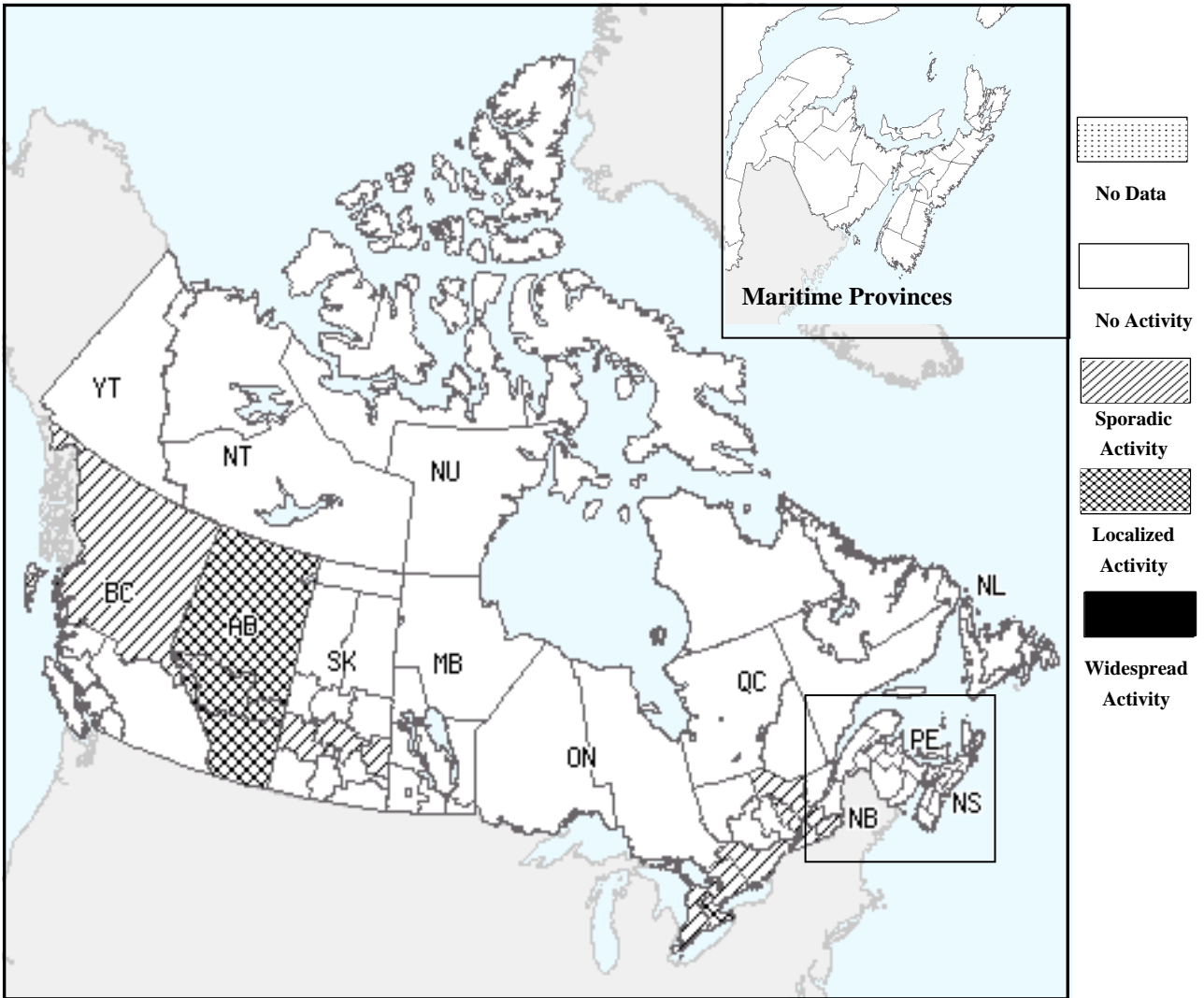
Abbreviations: Newfoundland/Labrador (NL), Prince Edward Island (PE), New Brunswick (NB), Nova Scotia (NS), Quebec (QC), Ontario (ON), Manitoba (MB), Saskatchewan (SK), Alberta (AB), British Columbia (BC), Yukon (YT), Northwest Territories (NT), Nunavut (NU)

Respiratory virus laboratory detections in Canada, by geographic regions, are available weekly on the following website:
<<http://www.phac-aspc.gc.ca/bid-bmi/dsd-dsm/rvdi-divr/index.html>>

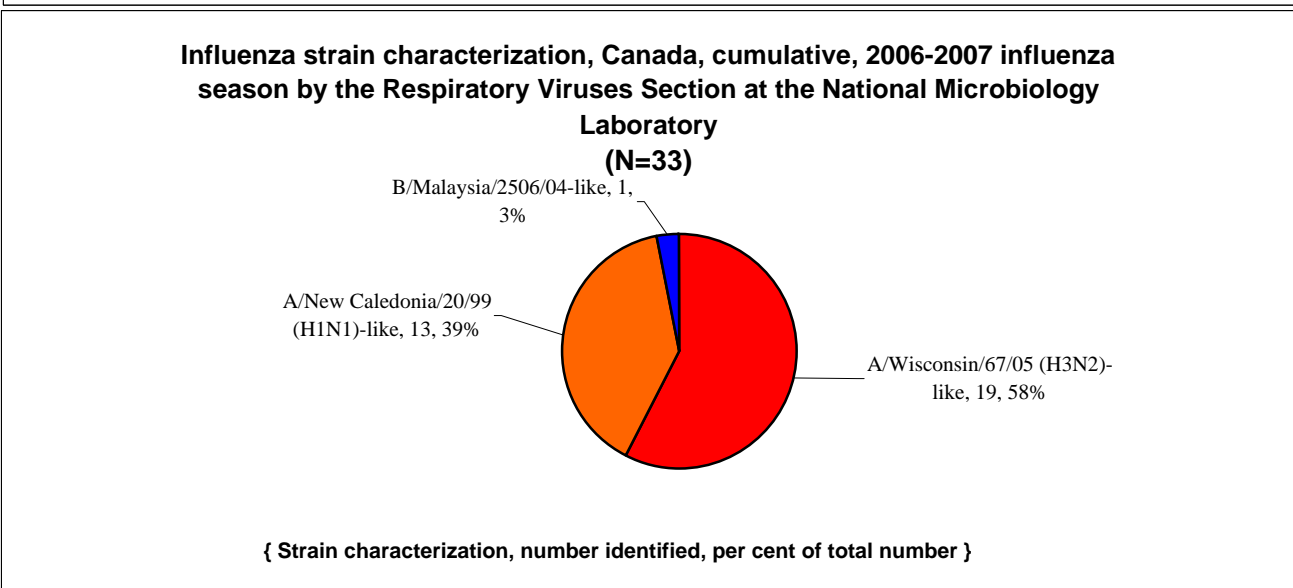
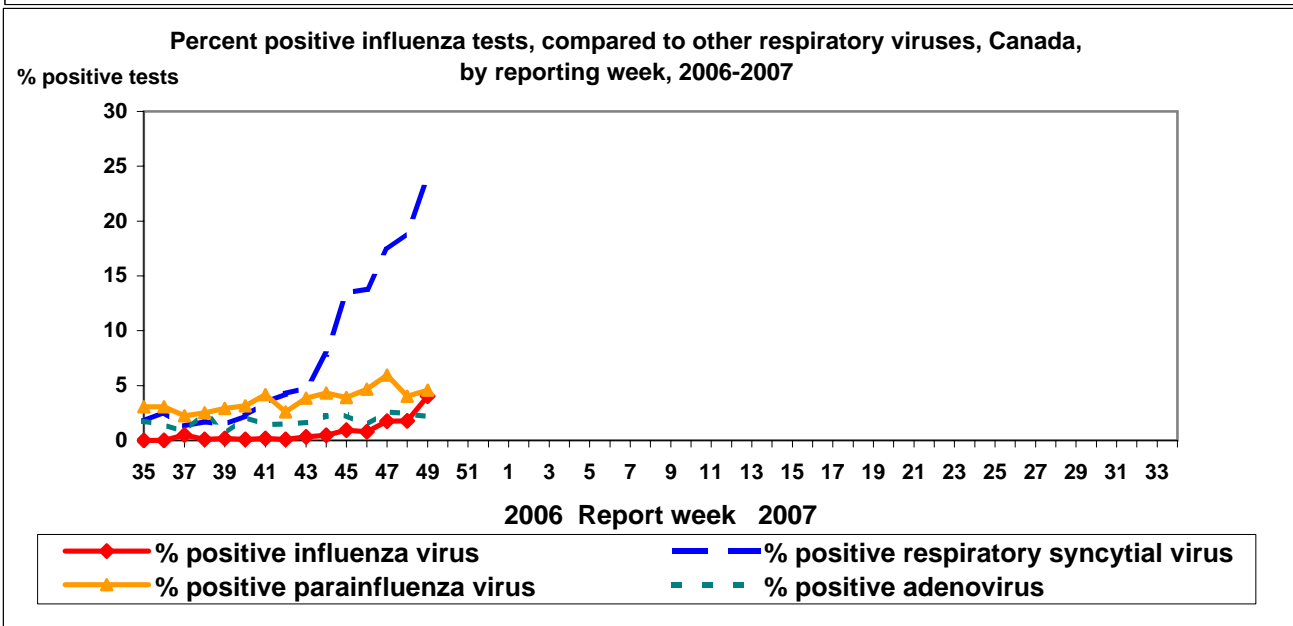
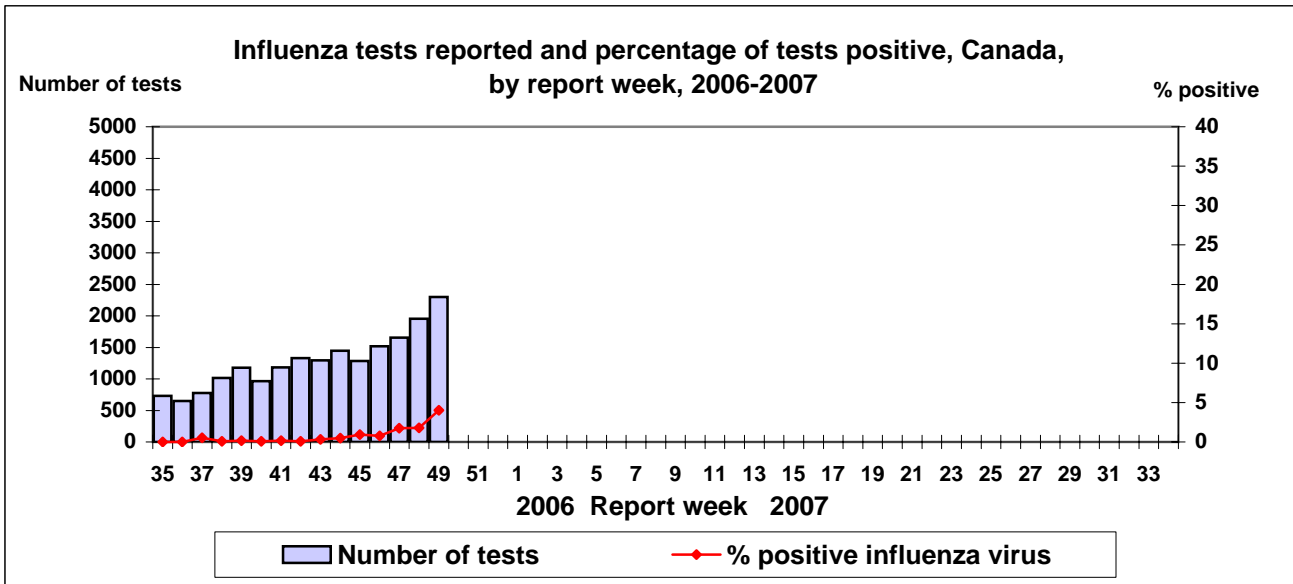


† sub-regions within the province or territory as defined by the provincial/territorial epidemiologist. Graph may change as late returns come in.

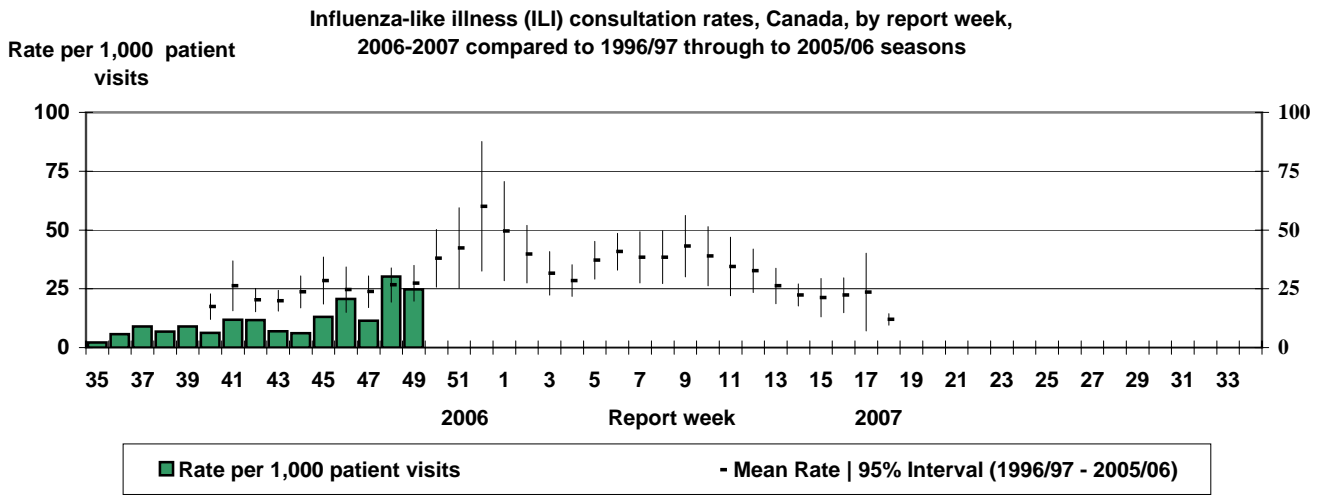
**Influenza Activity Level by Provincial and Territorial Influenza Surveillance Regions,
Canada; December 3, 2006 to December 9, 2006 (Week 49)**



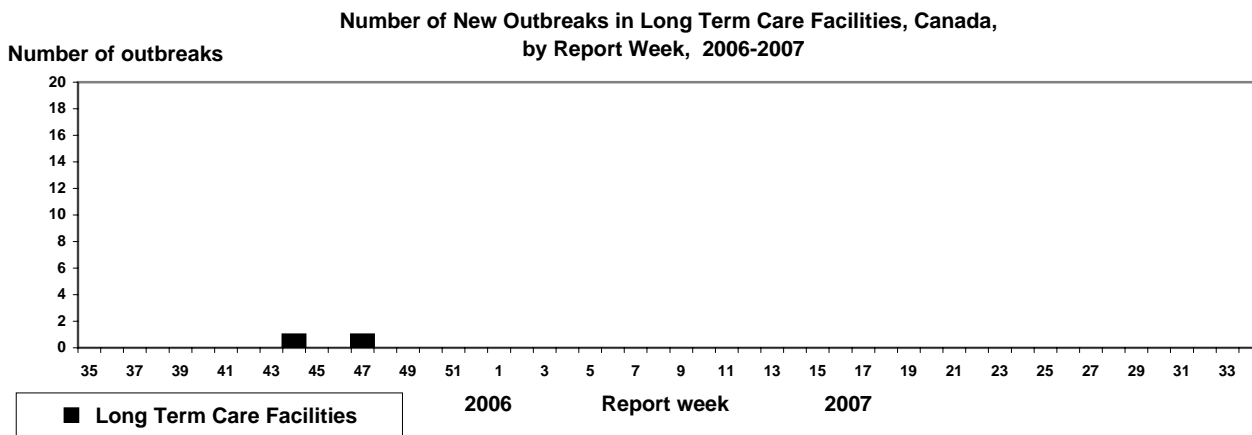
Note: Influenza activity levels, as represented on this map, are assigned and reported by Provincial and Territorial Ministries of Health, **based on laboratory confirmations, sentinel ILI rates (see graphs and tables) and outbreaks**. Please refer to detailed definitions on the last page. For areas where no data is reported, late reports from these provinces and territories will appear on the FluWatch website. Select single maps by report week to get this updated information. <<http://dsol-smed.hc-sc.gc.ca/dsol-smed/fluwatch/fluwatch.phtml?lang=e>>



NACI recommends that the trivalent vaccine for the 2006-2007 season in Canada contain A/New Caledonia/20/99 (H1N1)-like, A/Wisconsin/67/05 (H3N2)-like, and B/Malaysia/2506/04-like virus antigens.



Note: No data available for mean rate in previous years for weeks 19 to 39 (1996-1997 through 2002-2003 seasons).



FluWatch reports include data and information from five main sources: laboratory reports of positive influenza tests in Canada; sentinel physician reporting of influenza-like illness (ILI); provincial/territorial assessment of influenza activity based on various indicators, including laboratory surveillance, ILI reporting, school and work site absenteeism, and outbreaks; influenza-associated pediatric hospitalizations; WHO and other international reports of influenza activity. The map shows influenza activity in the "influenza surveillance regions" † within each jurisdiction, as determined by the provincial/territorial epidemiologists.

ILI definitions for the 2006-2007 season

ILI in the general population: Acute onset of respiratory illness with fever and cough and with one or more of the following - sore throat, arthralgia, myalgia, or prostration which could be due to influenza virus. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.

Definitions of ILI/Influenza outbreaks for the 2006-2007 season

Schools and work sites: greater than 10% absenteeism on any day most likely due to ILI

Residential institutions: two or more cases of ILI within a seven-day period, **including at least one laboratory confirmed case.**

Institutional outbreaks should be reported within 24 hours of identification.

Influenza Activity levels are defined as:

1 = No activity: i.e. no laboratory-confirmed influenza detections during the past four weeks, however, sporadically occurring ILI may be reported

2 = Sporadic: sporadically occurring **ILI and lab confirmed influenza*** with **NO outbreaks** detected within the influenza surveillance region†

3 = Localized: sporadically occurring **ILI and lab confirmed influenza*** together with **outbreaks of ILI** in schools and worksites or laboratory confirmed influenza in residential institutions occurring in less than 50% of the influenza surveillance region(s)†

4 = Widespread: sporadically occurring **ILI and lab confirmed influenza*** together with **outbreaks of ILI** in schools and worksites or laboratory confirmed influenza in residential institutions occurring in **greater than or equal to 50% of the influenza surveillance region(s)†**

* confirmation of influenza within the surveillance region at any time within the prior four weeks

† sub-regions within the province or territory as defined by the provincial/territorial epidemiologist

We would like to thank all the Fluwatch surveillance partners who are participating in this year's influenza surveillance program.

This report is available on the Public Health Agency website at the following address: <http://www.phac-aspc.gc.ca/fluwatch/index.html>

Ce rapport est disponible dans les deux langues officielles. Pour en recevoir un exemplaire dans l'autre langue chaque semaine, veuillez communiquer avec Estelle Arseneault, Division de l'immunisation et des infections respiratoires au (613) 952-8484