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|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <b>Ontario<br/>Influenza<br/>Bulletin</b> | <b>Ministry of Health and<br/>Long-Term Care</b><br><br><b>Public Health Branch</b><br><br><i>Volume 6, Issue 8<br/>December 20, 2002</i> |
|  |  |                                           |                                                                                                                                           |

**Week #50: Week Ending December 14, 2002**

**Influenza Activity in Ontario**

There was influenza activity reported in the province for the week ending December 14, 2002. Five of the Ontario Public Health laboratories reported 39 influenza A cases during this surveillance period. The following upper respiratory isolates were also reported: 32 respiratory syncytial virus (RSV), 6 parainfluenza type 1 (PIV1), 2 parainfluenza type 2 (PIV2), 8 parainfluenza type 3 (PIV3), and 5 adenovirus (Table 1).

**Table 1. Comparison of Influenza Activity in Ontario for the 2001-02 and 2002-03 Influenza Surveillance Seasons**

| Indicator                                            | 2001-02 Season                | 2002-03 Season                |
|------------------------------------------------------|-------------------------------|-------------------------------|
|                                                      | Week Ending December 15, 2001 | Week Ending December 14, 2002 |
|                                                      | Season to Date**              | Season to Date***             |
| <b>*Laboratory Surveillance (isolates)Total</b>      | <b>11</b>                     | <b>67</b>                     |
| Influenza A                                          | 11                            | 67                            |
| Influenza B                                          | 0                             | 0                             |
| <b>vNo. of Visits to Sentinel Physicians for ILI</b> | <b>24</b>                     | <b>20</b>                     |
| <b>Institutional Outbreaks</b>                       | <b>2</b>                      | <b>3</b>                      |
| Other respiratory Viruses                            |                               |                               |
| RSV                                                  | 135                           | 169                           |
| PIV1                                                 | 75                            | 52                            |
| PIV2                                                 | 59                            | 9                             |
| PIV3                                                 | 4                             | 164                           |
| PIV4                                                 | 12                            | 2                             |
| Other PIVs                                           | 2                             | 0                             |
| Adenoviruses                                         | 28                            | 49                            |

\*Centre for Infectious Disease Prevention and Control, Health Canada

\*\* October 20, 2001- December 15, 2001

\*\*\*Season to Date August 25, 2002 – December 14, 2002; consistency with Health Canada year round surveillance

vFluWatch Sentinel Physician Program, Rate per 1000 patients seen

**Table 2. Season to Date Influenza Cases in Ontario Reported Through the Reportable Disease Information System (RDIS), 2002-2003**

| Health Unit         | Number of Lab-Confirmed Influenza Cases |          |
|---------------------|-----------------------------------------|----------|
|                     | Type A                                  | Type B   |
| Durham              | 1                                       | 0        |
| Halton              | 5                                       | 0        |
| Hamilton-Wentworth  | 1                                       | 0        |
| Muskoka-Parry Sound | 1                                       | 0        |
| Ottawa              | 2                                       | 0        |
| Peel                | 1                                       | 0        |
| Perth District      | 1                                       | 0        |
| Toronto             | 5                                       | 0        |
| York Region         | 4                                       | 0        |
| <b>Total</b>        | <b>21</b>                               | <b>0</b> |

Note: 2 additional cases of influenza A were reported by Peel Regional prior to August 25, 2002.

**Table 3. Season-to-date Institutional Influenza Outbreaks by Health Unit in Ontario, 2002-2003**

| Health Unit     | Type of Institution     | # of Outbreaks | Organism Identified | RAR (%) | SAR (%) | Complications         |
|-----------------|-------------------------|----------------|---------------------|---------|---------|-----------------------|
| Peel Regional * | Long-Term Care Facility | 1              | Influenza A         | 20.9    | 8.3     | 1 death               |
| Perth District  | Long-term Care Facility | 1              | Influenza A         | 40.4    | 11.3    | None reported to date |
| Oxford County   | Long-term Care Facility | 1              | Influenza A         | 2.4     | 2.0     | None reported to date |

RAR: Resident Attack Rate (# of residents ill/total number of residents)

SAR: Staff Attack Rate (# of staff ill/total number of staff)

\*The outbreak within Peel Regional began prior to week 35 but into week 41 and thus has been included in the 2002-2003 season.

### **Federal FluWatch Sentinel Physician Surveillance Activity in Ontario**

The rate of influenza-like illness (ILI) reported through the Federal FluWatch system was 20 per 1,000 patients seen.

### **Laboratory Confirmations and Influenza Activity in the Rest of Canada**

During the week ending December 7 (week 49), regions of Ontario reported sporadic and localised activity, while 12 provinces/territories reported no activity. Sentinel physicians reported 20 cases of influenza-like illness (ILI) per 1000 patient visits, which is within the expected rate for this time of year. Health Canada received 984 reports of laboratory tests for influenza: 14 (1.4%) were positive for influenza A, all were detected in Ontario. The National Microbiology Laboratory has antigenically characterised an additional 7 influenza viruses, all of which were identified as the H1N2 reassortment virus that circulated during the 2001-2002 season and is covered by the H1N1 and H3N2 components of the current season's vaccine. Detection of other respiratory viruses circulating in the Canadian population remains within expected levels for RSV (7.6% of tests positive), adenovirus (3.3% of tests positive) and parainfluenza viruses (5.7% of tests positive). To date this season, there have been two reported outbreaks of laboratory-confirmed influenza in a long term care facility (LTCF), the second outbreak was reported by Ontario this week.

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

### **Influenza Activity in the United States**

During week 48, influenza activity was reported as regional in Colorado, Tennessee and Texas and sporadic or none in 46 states (one state did not report). ILI accounted for 1.4% of patient visits to sentinel physicians, below the national baseline of 1.9%. Sentinel cities reported 7.1% of deaths attributed to pneumonia and influenza, below the epidemic threshold of 7.5% for this week. The CDC received 519 reports of influenza tests; 3 were positive for influenza A and 4 were positive for influenza B. Of the 3 positive influenza A virus specimens, one was A(H1) and two were not subtyped. Since September 29, a total of 10,691 specimens have been tested for influenza; 55 (0.5%) were positive (24 influenza A and 31 influenza B). All of the eleven viruses that have been antigenically characterized to date are covered by the 2002-2003 northern hemisphere vaccine.

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

### **Influenza Activity in the World**

During week 49, reports to the European Influenza Surveillance Scheme (EISS) and WHO FluNet indicate low influenza activity in Europe and worldwide with sporadic isolations of influenza viruses but increased clinical activity in Portugal, Spain and France, where influenza B infections are predominating. All virus isolations reported to date are covered by the 2002-2003 vaccine. A WHO update on an outbreak of ILI in the Democratic Republic of Congo indicates that preliminary results of blood testing suggest recent infection with influenza A (H3N2). However, results from further testing to characterize the virus are pending.

Source: WHO, <<http://oms2.b3e.jussieu.fr/flunet/news.html>>

And EISS (Europe): <[http://www.eiss.org/cgi-files/bulletin\\_v2.cgi](http://www.eiss.org/cgi-files/bulletin_v2.cgi)>

### Vaccine and Strain Characterization

No influenza strains have been identified for the week ending December 14, 2002.

**Table 4. Season-to-date Strain Identification and Characterization in Canada, 2002-2003\***

| Province/Territory | Strain Characterization      | # of Strains Identified-to-date |
|--------------------|------------------------------|---------------------------------|
| Alberta            | A/PANAMA/2007/99-like        | 1                               |
| <b>Ontario</b>     | <b>A/PANAMA/2007/99-like</b> | <b>1</b>                        |
|                    | <b>A(H1N2)</b>               | <b>7</b>                        |
| Quebec             | A/PANAMA/2007/99-like        | 3                               |
| <b>Total</b>       |                              | <b>12</b>                       |

\*Influenza and Respiratory Viruses Section  
National Microbiology Laboratory (NML), PPHB  
Canadian Sciences Centre for Human and Animal Health

### Influenza Vaccine Components and Protection for the 2002/03 Season

The National Advisory Committee on Immunization (NACI) recommended that the trivalent vaccine for the 2002-03 season contain an A/Panama/2007/99 (H3N2)-like virus, an A/New Caledonia/20/99 (H1N1)-like virus, and either B/Hong Kong/330/2001-like virus or B/Shangdong/7/97-like antigens.

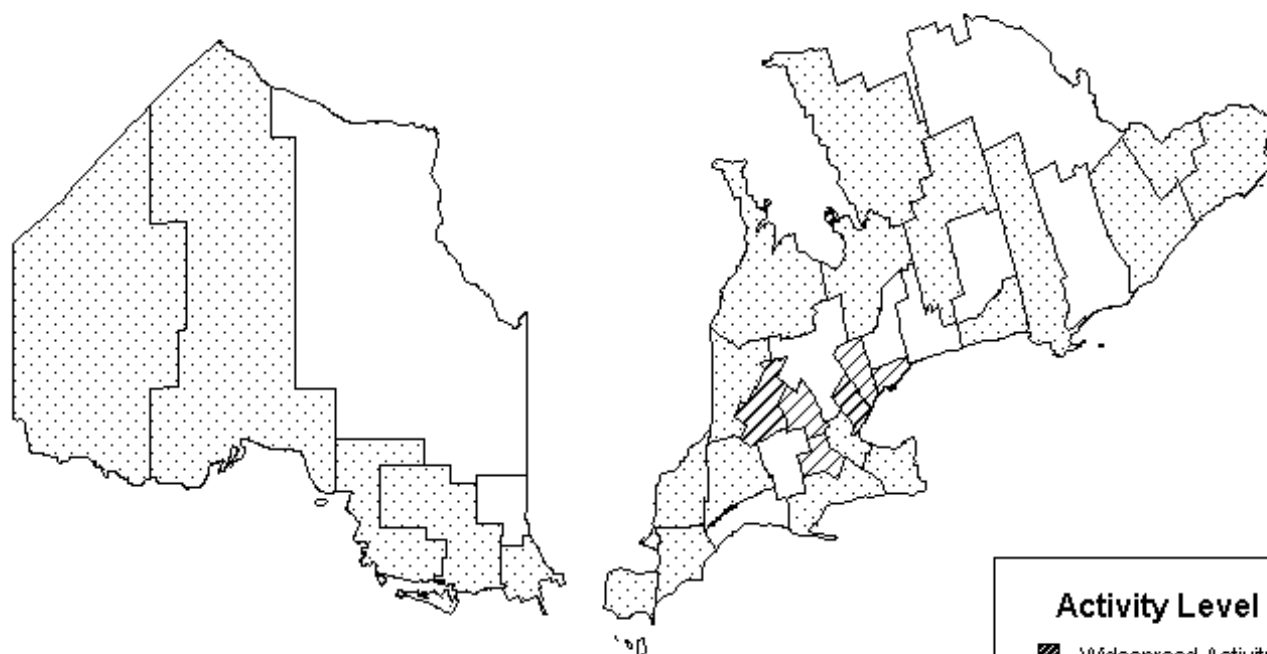
Influenza A(H1N2) are the majority of influenza strains identified thus far in Ontario. For influenza A (H1N2) virus, the hemagglutinin proteins of the H1 proteins is similar antigenically to the current vaccine strain A/NewCaledonia/20/99 (H1N1) and the N2 proteins is similar antigenically to the current strain A/Panama/2007/99(H3N2). Therefore, current vaccine strains will provide good protection against the H1N2 strain.

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](http://www.gov.on.ca/MOH/english/program/pubhealth/flu_bul/flubul_mn.html)

# Influenza Activity Level by Health Unit Week Ending December 14, 2002

Northern Ontario

Southern Ontario



## Activity Level

- Widespread Activity
- Localized Activity
- Sporadic Activity
- No Activity
- No Data