

## **2011-2012 Influenza Surveillance Update of Current Status and Issues**

March 20, 2012

### **Influenza activity in Middlesex-London:**

Since the previous report, eleven cases of laboratory confirmed influenza (four influenza A and seven influenza B) were reported to the Middlesex-London Health Unit. This was higher than six cases of influenza reported the previous week. Of the four influenza A cases, one was typed as human influenza A (H3) and one was typed as influenza A pdm09. Two of the 11 laboratory-confirmed influenza cases (one influenza A and one influenza B) were residents of long-term care homes. Three of the 11 reported cases (27.3%) were hospitalized. To date, there have been 19 influenza A cases and 18 influenza B cases identified in Middlesex-London for the 2011-2012 influenza surveillance season. Nine of the influenza A samples have been typed as human influenza A (H3) and one as influenza A pdm09. One of the H3 samples has been strain typed as A/Perth/16/2009-like (H3N2) which is the H3N2 component for this year's influenza vaccine.

Since the previous report, two institutional outbreaks of influenza were reported; one influenza A and one influenza B. The overall proportion of patients presenting to London emergency departments and urgent care with fever and respiratory symptoms increased compared to the previous week, as did school absenteeism. Based on the available information, influenza activity in Middlesex London has increased since the previous report.

### **Provincial and National Influenza Activity:**

**Influenza:** Influenza activity across the province was higher this reporting week compared to the previous week. Based on testing at the Public Health Ontario laboratory from March 4 to 10, 155 of 461 samples tested for influenza B were positive, for a positivity rate of 33.6%. For influenza A, 29 of 463 samples tested positive, for a positivity rate of 6.3%. According to the latest Ontario Influenza Bulletin, 433 laboratory-confirmed cases of influenza were reported across the province between March 4 and 10, 2012. In total, 1,432 influenza cases have been reported to the province for the 2011-2012 surveillance season. The majority of the influenza cases reported were subtyped as influenza B, which accounts for 65.5% (938/1,432) of cases reported to date. Since the beginning of the surveillance season, 18 influenza B cases in Ontario have been reported with myositis (muscular inflammation causing severe leg pain), 14 of whom required hospitalization.

Provincially, six influenza B outbreaks were reported during this reporting period. In total, 39 institutional influenza outbreaks have been reported across the province this season, 28 of which were influenza B, 10 influenza A (all subtypes) and one combined influenza A and B.

Nationally, influenza activity continued to increase compared to the previous week. The percent positivity for influenza B detections continued to increase and has surpassed the percent positive for influenza A detections. The majority of influenza B detections (89%) were from Ontario and Quebec.

Since the start of the season, the National Microbiology Lab has characterized 532 samples from across Canada with the following results: 113 Influenza A (H3N2)/Perth/16/2009-like and eight showing reduced titers with antiserum produced against A/Perth/16/2009; 98 Influenza A/California/07/2009-like and one showing reduced titer with antiserum produced against A/California/07/2009. Both influenza A (H3N2)/Perth/16/2009 and A/California/07/2009 are components of the 2011-2012 influenza vaccine. Of the 312 influenza B viruses characterized, 167 influenza B strains were antigenically related to the strain B/Brisbane/60/2008, which also is a component of the 2011-2012 influenza vaccine. The other 145 (46.5%) influenza B viruses were antigenically related to B/Wisconsin/01/2010-like, which belongs to a different lineage than the influenza B strain that is in this year's vaccine.

**Other Respiratory Pathogens:** Provincially, the most notable circulating virus other than influenza B was Respiratory Syncytial Virus (RSV) with a percent positivity of 19.3% based on testing at the Public Health Ontario laboratory. Nationally, tests positive for RSV continued to decline to 14.5%.

## Appendix A

### Summary of Community Influenza Surveillance Indicators

Based on the available information, influenza activity in Middlesex London has increased since the previous report.

Indicator	Recent trends / data	Comments
<b>Hospital emergency room reports regarding the percentage of patients with fever and respiratory illness</b>	Higher	<p>From March 11 to 17, an average of 9.9% of patients at London Health Sciences Centre (LHSC) emergency departments and the St. Joseph's Health Care (SJHC) urgent care centre presented with a fever and respiratory symptoms. This value is higher compared to 8.9% from the previous week.</p> <p>The proportion was highest at the paediatric emergency department, where 28.0% of patients presented with a fever and respiratory symptoms. This value is higher compared to 25.7% from the previous week.</p>
<b>Absence reports from schools (i.e., absenteeism &gt; 10%)</b>	Higher	<p>From March 5 to 9, 20 elementary schools in one of the two main English language public school boards reported a 5-day average absenteeism exceeding 10%. This is higher than 10 schools from the previous week. However, this was the week preceding March Break, which might have contributed to a portion of the increased absenteeism.</p>
<b>Laboratory-confirmed cases</b>	Higher	<p>Eleven cases of influenza (four A and seven B) were reported to the Health Unit since the previous report. Two of the 11 cases were residents of long-term care homes (one influenza A and one influenza B).</p> <p>Since the beginning of the influenza surveillance season, 19 influenza A (nine influenza A H3, one influenza A pdm09, the remainder untyped) and 18 influenza B cases have been reported in Middlesex-London.</p>
<b>Hospitalizations</b>	Higher	<p>Three hospitalizations of individuals with lab confirmed influenza were reported to the Health Unit since the previous report.</p> <p>Since the start of the influenza surveillance season, 16 people with laboratory-confirmed influenza have been hospitalized.</p>
<b>Deaths</b>	None	<p>Since the previous report, no deaths have been reported among individuals with laboratory confirmed influenza.</p> <p>Since the start of the influenza surveillance season, one individual with laboratory-confirmed influenza has died.</p>

<b>Long-term care facility outbreaks</b>	Higher	Since the previous report, two institutional outbreaks of influenza have been identified. One was influenza A and the other was influenza B.
<b>Sentinel X-ray provider reports regarding newly identified bronchopneumonia cases</b>	Lower	From March 12 to 17, 2.5% of chest x-rays performed by the sentinel x-ray provider were newly diagnosed bronchopneumonia cases. This proportion is lower than 3.1% from the previous week.
<b>Calls to Telehealth Ontario related to respiratory and influenza-like illness</b>	None reported	
<b>Percentage of influenza tests performed by the Ontario Public Health Laboratory that are positive from across the province</b>	Higher	Based on provincial testing done by the Ontario Public Health Laboratory from March 4 to 10, 29 of 463 samples tested positive for influenza A for a positivity rate of 6.3%, which is 1.0% higher than the previous week. For influenza B, 155 of 461 samples tested positive, for a positivity rate of 33.6%, which is 20.4% higher than the previous week.