

2011-2012 Influenza Surveillance Update of Current Status and Issues

April 3, 2012

Influenza activity in Middlesex-London:

From March 27 to April 2, 2012, five new cases of laboratory confirmed influenza were reported to the Middlesex-London Health Unit, all of which were influenza B. None of the five cases were residents of long-term care settings. The number of reported cases was lower than the 14 cases of influenza reported the previous week. Two new hospitalizations and two deaths were reported during this reporting period.

To date, there have been 25 influenza A cases and 31 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 three 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, no new institutional outbreaks of influenza have been reported to the Middlesex-London Health Unit. The overall proportion of patients presenting to London emergency departments and urgent care with fever and respiratory symptoms decreased compared to the previous week, while school absenteeism was similar compared to the previous week. Based on the available information, influenza activity in Middlesex London has decreased slightly 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 18 to 24, 139 of 442 samples tested for influenza B were positive, for a positivity rate of 31.4%. For influenza A, 36 of 443 samples tested positive, for a positivity rate of 8.1%. According to the latest Ontario Influenza Bulletin, 562 new laboratory-confirmed cases of influenza were reported across the province between March 18 and 24, 2012. In total, 2,518 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 71.7% (1,806/2,518) of cases reported to date. Since the beginning of the surveillance season, 52 influenza B cases in Ontario have been reported with myositis (muscular inflammation causing severe leg pain), 34 of whom required hospitalization.

Provincially, three new influenza outbreaks were reported between March 18 and 24; all three were influenza B. In total, 69 institutional influenza outbreaks have been reported across the province this season, 48 of which were influenza B, 18 influenza A (all subtypes) and three combined influenza A and B.

Nationally, influenza activity continued to increase compared to the previous week. Higher levels of activity were observed in Ontario, the Prairies and the Atlantic provinces compared to the remaining regions of the country. The percent positivity for influenza B detections continued to increase in all regions of Canada while the proportion positive for influenza A continued to decline.

Since the start of the season, the National Microbiology Lab has characterized 745 samples from across Canada with the following results: 144 Influenza A (H3N2)/Perth/16/2009-like and 8 showing reduced titers with antiserum produced against A/Perth/16/2009; 125 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 467 influenza B viruses characterized, 255 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 212 (45.4%) 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: Based on province-wide testing at the Public Health Ontario laboratory, tests for Respiratory Syncytial Virus (RSV) increased to 15.0% positivity, an increase of 6.4% compared to the previous week. Nationally, tests positive for RSV continued to decline to 9.6%.

Appendix A

Summary of Community Influenza Surveillance Indicators

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

Indicator	Recent trends / data	Comments
Hospital emergency room reports regarding the percentage of patients with fever and respiratory illness	Lower	<p>From March 25 to 31, an average of 7.1% 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 lower compared to 8.6% from the previous week.</p> <p>The proportion was highest at the paediatric emergency department, where 18.1% of patients presented with a fever and respiratory symptoms. This value is lower compared to 24.3% from the previous week.</p>
Absence reports from schools (i.e., absenteeism > 10%)	Similar	<p>From March 26 to 30, three elementary schools in one of the two main English language public school boards reported a 5-day average absenteeism exceeding 10%. This is similar to last week when two schools reported elevated absenteeism.</p>
Laboratory-confirmed cases	Lower	<p>From March 27 to April 2, five cases of influenza, all B, were reported to the Health Unit. None of these cases were residents of long-term care settings.</p> <p>Since the beginning of the influenza surveillance season, 25 influenza A (nine influenza A H3, three influenza A pdm09, the remainder untyped) and 31 influenza B cases have been reported in Middlesex-London.</p>
Hospitalizations	Same	<p>From March 27 to April 2, two individuals with laboratory-confirmed influenza were reported to the Health Unit as being hospitalized.</p> <p>Since the start of the influenza surveillance season, 21 people with laboratory-confirmed influenza have been hospitalized.</p>
Deaths	Same	<p>From March 27 to April 2, two deaths were reported among individuals with laboratory confirmed influenza.</p> <p>Since the start of the influenza surveillance season, five individuals with laboratory-confirmed influenza have died.</p>

Long-term care facility outbreaks	Lower	<p>From March 27 to April 2, no institutional outbreaks of influenza were reported.</p> <p>Since the beginning of the influenza surveillance season, three influenza outbreaks (two A and one B) have been reported.</p>
Sentinel X-ray provider reports regarding newly identified bronchopneumonia cases	Lower	<p>From March 26 to 30, 1.5% of chest x-rays performed by the sentinel x-ray provider were newly diagnosed bronchopneumonia cases. This proportion is lower than 2.2% from the previous week.</p>
Calls to Telehealth Ontario related to respiratory and influenza-like illness	None reported	
Percentage of influenza tests performed by the Ontario Public Health Laboratory that are positive from across the province	Lower	<p>Based on provincial testing done by the Ontario Public Health Laboratory from March 18 to 24, 36 of 443 samples tested positive for influenza A for a positivity rate of 8.1%, which is 0.3% lower than the previous week. For influenza B, 139 of 442 samples tested positive, for a positivity rate of 31.4%, which is 4.4% lower than the previous week.</p>