

2011-2012 Influenza Surveillance Update of Current Status and Issues

March 27, 2012

Influenza activity in Middlesex-London:

From March 20 to 26, 2012, 14 new cases of laboratory confirmed influenza (six influenza A and eight influenza B) were reported to the Middlesex-London Health Unit. This was higher than the nine cases of influenza reported the previous week. Of the six influenza A cases, two were typed as influenza A pdm09 and the remaining were not subtyped. Two new hospitalizations and two deaths were reported during this reporting period. Five of the 14 laboratory-confirmed influenza cases were residents of long-term care settings.

To date, there have been 25 influenza A cases and 26 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, one institutional outbreak of influenza A was reported in a facility that was also experiencing a previously reported outbreak in another area of the facility. The overall proportion of patients presenting to London emergency departments and urgent care with fever and respiratory symptoms decreased compared to the previous week. School absenteeism is also lower than the week prior to March Break. Based on the available information, influenza activity in Middlesex London has increased 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 11 to 17, 155 of 461 samples tested for influenza B were positive, for a positivity rate of 35.8%. For influenza A, 39 of 464 samples tested positive, for a positivity rate of 8.4%. According to the latest Ontario Influenza Bulletin, 511 new laboratory-confirmed cases of influenza were reported across the province between March 11 and 17, 2012. In total, 1,942 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 69.6% (1,352/1,942) of cases reported to date. Since the beginning of the surveillance season, 33 influenza B cases in Ontario have been reported with myositis (muscular inflammation causing severe leg pain), 23 of whom required hospitalization.

Provincially, seven new influenza outbreaks were reported between March 11 and 17; five were influenza A, one was influenza B, and one was a combined influenza A and B outbreak. In total, 56 institutional influenza outbreaks have been reported across the province this season, 36 of which were influenza B, 17 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 except British Columbia.

Since the start of the season, the National Microbiology Lab has characterized 629 samples from across Canada with the following results: 130 Influenza A (H3N2)/Perth/16/2009-like and 16 showing reduced titers with antiserum produced against A/Perth/16/2009; 110 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 372 influenza B viruses characterized, 203 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 169 (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) declined to 8.6% positivity, a decrease of 10.7% compared to the previous week. Nationally, tests positive for RSV continued to decline to 10.9%.

Appendix A Summary of Community Influenza Surveillance Indicators

Based on the available information, influenza activity in Middlesex London has increased 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 18 to 24, an average of 8.6% 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 9.9% from the previous week.</p> <p>The proportion was highest at the paediatric emergency department, where 24.3% of patients presented with a fever and respiratory symptoms. This value is lower compared to 28.0% from the previous week.</p>
Absence reports from schools (i.e., absenteeism > 10%)	Lower	<p>From March 19 to 23, two elementary schools in the two main English language public school boards reported a 5-day average absenteeism exceeding 10%. This is much lower than 20 schools from the week preceding March Break.</p>
Laboratory-confirmed cases	Higher	<p>From March 20 to 26, 14 cases of influenza (six A and eight B) were reported to the Health Unit. Five of the 14 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 26 influenza B cases have been reported in Middlesex-London.</p>
Hospitalizations	Lower	<p>From March 20 to 26, 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, 19 people with laboratory-confirmed influenza have been hospitalized.</p>
Deaths	Higher	<p>From March 20 to 26, two deaths were reported among individuals with laboratory confirmed influenza.</p> <p>Since the start of the influenza surveillance season, three individuals with laboratory-confirmed influenza have died.</p>

Long-term care facility outbreaks	Lower	From March 20 to 26, one institutional outbreak of influenza A has been identified in an institutional setting that reported an outbreak of influenza A the previous week in a different area of the facility.
Sentinel X-ray provider reports regarding newly identified bronchopneumonia cases	Lower	From March 19 to 24, 2.2% of chest x-rays performed by the sentinel x-ray provider were newly diagnosed bronchopneumonia cases. This proportion is lower than 2.5% from the previous week.
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	Higher	Based on provincial testing done by the Ontario Public Health Laboratory from March 11 to 17, 39 of 464 samples tested positive for influenza A for a positivity rate of 8.4%, which is 2.1% higher than the previous week. For influenza B, 165 of 461 samples tested positive, for a positivity rate of 35.8%, which is 2.2% higher than the previous week.