

2011-2012 Influenza Surveillance Update of Current Status and Issues

April 10, 2012

Influenza activity in Middlesex-London:

From April 3 to April 9, 2012, one new case of laboratory confirmed influenza B was reported to the Middlesex-London Health Unit. The number of reported cases is lower than the five cases of influenza reported the previous week. One new hospitalization and no deaths were reported during this time period.

To date, there have been 25 influenza A cases and 32 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. One influenza B sample was strain typed as B/Wisconsin/01/2010-like which is the strain that belongs to a different lineage than the influenza B strain that is in this year's 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, as did school absenteeism. Based on the available information, influenza activity in Middlesex London is lower compared to the previous report.

Provincial and National Influenza Activity:

Influenza: Influenza activity across the province was lower this reporting week compared to the previous week. Based on testing at the Public Health Ontario laboratory from March 25 to 31, 45 of 282 samples tested for influenza B were positive, for a positivity rate of 16.0%. For influenza A, 7 of 282 samples tested positive, for a positivity rate of 2.5%. According to the latest Ontario Influenza Bulletin, 314 new laboratory-confirmed cases of influenza were reported across the province between March 25 and 31, compared to 562 the previous week. In total, 2,840 influenza cases have been reported in the province for the 2011-2012 surveillance season. The majority of the influenza cases reported were influenza B, which accounts for 72.3% (2,054/2,840) of cases reported to date.

Provincially, three new influenza outbreaks were reported between March 25 and 31; all three were influenza B. In total, 72 institutional influenza outbreaks have been reported across the province this season, 51 of which were influenza B, 18 influenza A (all subtypes) and three combined influenza A and B.

Nationally, influenza activity has started to decline however, activity remains higher in Ontario, the Atlantic provinces and Alberta. The percent positivity for influenza A and B have declined compared to the previous week. Influenza B remained the predominant virus type circulating in Manitoba, Ontario and all of the Atlantic Provinces.

Since the start of the season, the National Microbiology Lab has characterized 820 samples from across Canada with the following results: 150 Influenza A (H3N2)/Perth/16/2009-like and 16 showing reduced titers with antiserum produced against A/Perth/16/2009; 142 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 511 influenza B viruses characterized, 267 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 244 (47.7%) 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) decreased from 15.0% positivity last week to 12.5% this week. Nationally, tests positive for RSV continued to decline to 8.7%.

Appendix A

Summary of Community Influenza Surveillance Indicators

Based on the available information, influenza activity in Middlesex London is lower compared to 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 April 1 to 7, an average of 6.7% 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 7.1% from the previous week.</p> <p>The proportion was highest at the paediatric emergency department, where 19.4% of patients presented with a fever and respiratory symptoms. This value is higher compared to 18.1% from the previous week.</p>
Absence reports from schools (i.e., absenteeism > 10%)	Lower	<p>From April 2 to 5, no elementary schools in one of the two main English language public school boards reported a 4-day average absenteeism exceeding 10%. This is lower than the previous week when three schools reported elevated absenteeism.</p>
Laboratory-confirmed cases	Lower	<p>From April 3 to 9, one case of influenza B was reported to the Health Unit.</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 32 influenza B cases have been reported in Middlesex-London. One influenza A has been strain typed as A/Perth/16/2009-like (H3N2) and one influenza B sample was strain typed as B/Wisconsin/01/2010-like</p>
Hospitalizations	Lower	<p>From April 3 to 9, one individual with laboratory-confirmed influenza was reported to the Health Unit as being hospitalized.</p> <p>Since the start of the influenza surveillance season, 22 people with laboratory-confirmed influenza have been hospitalized.</p>
Deaths	Lower	<p>No deaths were reported from April 3 to 9, 2012.</p> <p>Since the start of the influenza surveillance season, five individuals with laboratory-confirmed influenza have died.</p>

Long-term care facility outbreaks	None	<p>From April 3 to 10, 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	Higher	<p>From April 2 to 7, 3.9% of chest x-rays performed by the sentinel x-ray provider were newly diagnosed bronchopneumonia cases. This proportion is higher than 1.5% 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 25 to 31, 7 of 282 samples tested positive for influenza A for a positivity rate of 2.5%, which is lower compared to 8.1% the previous week. For influenza B, 45 of 282 samples tested positive, for a positivity rate of 16.0%, which is lower than 31.4% the previous week.</p>