

2011-2012 Influenza Surveillance Update of Current Status and Issues

April 24, 2012

Influenza activity in Middlesex-London:

From April 17 to 23, 2012, thirteen new cases of laboratory confirmed influenza (three influenza A and ten influenza B) were reported to the Middlesex-London Health Unit, which is similar to the fourteen cases reported in the previous report. All of the new cases were community cases and no new institutional cases of influenza were reported. Of the three new influenza A samples, two were typed as influenza A(H1N1)pdm09. Two new hospitalizations and no deaths were reported during this time period.

To date, there have been 33 influenza A cases and 51 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 six as influenza A (H1N1) 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 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 was similar to the previous week, and school absenteeism was decreased. Based on the available information, influenza activity in Middlesex London is similar to the previous report.

Provincial and National Influenza Activity:

Influenza: Based on testing at the Public Health Ontario laboratory from April 8 to 14, 71 of 331 samples tested for influenza B were positive, for a positivity rate of 21.5% which is higher than 15.2% reported the previous week. For influenza A, 20 of 334 samples tested positive, for a positivity rate of 6.0% which is higher than 3.4% reported the previous week. According to the latest Ontario Influenza Bulletin, 266 new laboratory-confirmed cases of influenza were reported across the province between April 8 and 14, compared to 124 the previous week. In total, 3,244 influenza cases have been reported in the province for the 2011-2012 surveillance season. The majority of the cases reported were influenza B, which accounts for 73.0% (2,369/3,244) of cases reported to date.

Provincially, seven new influenza outbreaks were reported between April 8 and 14 (two influenza A and five influenza B). In total, 93 institutional influenza outbreaks have been reported across the province this season, 68 of which were influenza B, 20 influenza A (all subtypes) and five combined influenza A and B.

Nationally, influenza activity continued to decline however, activity remains elevated in Ontario, the Atlantic Provinces, Alberta and British Columbia. The percent positivity for influenza A declined to 6.9% while the percent positivity for influenza B increased slightly to 12.0% compared to the previous week. Influenza B remained the predominant respiratory virus type circulating in provinces east of Saskatchewan.

Since the start of the season, the National Microbiology Lab has characterized 900 samples from across Canada with the following results: 163 Influenza A (H3N2)/Perth/16/2009-like and 19 showing reduced titers with antiserum produced against A/Perth/16/2009; 160 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 557 influenza B viruses characterized, 291 influenza B strains were antigenically related to the B/Brisbane/60/2008 strain, which also is a component of the 2011-2012 influenza vaccine. The other 266 (47.8%) 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 testing at the Public Health Ontario laboratory between April 8 and 14, human metapneumovirus (with a percent positivity of 19.7% - 12/61 samples) was the most notable respiratory pathogen identified other than influenza B. The percent positivity for coronavirus decreased to 9.8% from 26.8% in the previous week.

Appendix A Summary of Community Influenza Surveillance Indicators

Based on the available information, influenza activity in Middlesex London is similar to the previous report.

Indicator	Recent trends / data	Comments
Hospital emergency room reports regarding the percentage of patients with fever and respiratory illness	Similar	<p>From April 15 to 21, an average of 6.4% 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 similar to 6.5% from the previous week.</p> <p>The proportion was highest at the paediatric emergency department, where 16.3% of patients presented with a fever and respiratory symptoms. This value is slightly higher compared to 15.6% from the previous week. An increase was also observed at the urgent care centre, where the proportion of patients presenting with fever and respiratory symptoms increased from 3.9% last week to 6.3% this week.</p>
Absence reports from schools (i.e., absenteeism > 10%)	Lower	<p>From April 16 to 19, no elementary schools in the two main English language public school boards reported a 4-day average absenteeism exceeding 10%.</p>
Laboratory-confirmed cases	Similar	<p>From April 17 to 23, thirteen cases of influenza (three influenza A and ten B) were reported to the Health Unit. Two of the three influenza A samples was typed as influenza A(H1N1) pdm09.</p> <p>Since the beginning of the influenza surveillance season, 33 influenza A (nine influenza A H3, six influenza A pdm09, the remainder untyped) and 51 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	Similar	<p>From April 17 to 23, 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, 26 people with laboratory-confirmed influenza have been hospitalized. This total includes one hospitalization occurring between April 10 and 16 that was previously unreported.</p>
Deaths	Lower	<p>No deaths were reported from April 17 to 23, 2012.</p> <p>Since the start of the influenza surveillance season, five individuals with laboratory-confirmed influenza have died.</p>

<p>Long-term care facility outbreaks</p>	<p>Lower</p>	<p>From April 17 to 23, no new institutional outbreaks of influenza were reported.</p> <p>Since the beginning of the influenza surveillance season, five influenza outbreaks (three A and two B) have been reported.</p>
<p>Sentinel X-ray provider reports regarding newly identified bronchopneumonia cases</p>	<p>Similar</p>	<p>Between April 16 and 21, 4.0% of chest x-rays performed by the sentinel x-ray provider were newly diagnosed bronchopneumonia cases. This proportion is similar to 4.1% from the previous week.</p>
<p>Calls to Telehealth Ontario related to respiratory and influenza-like illness</p>	<p>None reported</p>	
<p>Percentage of influenza tests performed by the Ontario Public Health Laboratory that are positive from across the province</p>	<p>Higher</p>	<p>Based on provincial testing done by the Ontario Public Health Laboratory from April 8 to 14, 20 of 334 samples tested positive for influenza A for a positivity rate of 6.0%, which was 2.6% higher than the previous week. For influenza B, 71 of 331 samples tested positive, for a positivity rate of 21.5%, which was 6.3% higher than the previous week.</p>