
2013-2014 Influenza Surveillance Report Update of Current Status and Issues June 2, 2014

Current Local Activity

Between May 26th and June 1st, the level of influenza activity in Middlesex-London was lower compared to the previous week; in fact, no new laboratory-confirmed cases of influenza were reported this past week. Since September 1st, 2013, a total of 204 laboratory-confirmed influenza A cases, 201 influenza B cases, and two influenza A and B co-infections have been reported to the Health Unit. A graph showing all 407 laboratory-confirmed cases by week is provided in Appendix B at the end of this report.

To date, the majority (51.1%) of laboratory-confirmed influenza cases reported in Middlesex-London have been among adults between the ages of 20 and 64. Children under the age of five years and seniors 65 years of age and older are over-represented among laboratory-confirmed influenza cases, relative to their representation in the general population. Children under five years of age represent only 5.5% of the general population in Middlesex-London, but account for 10.3% of confirmed influenza cases; similarly, people 65 years of age and older represent 14.8% of the general population, but account for 30.7% of cases.

Hospitalizations and Deaths

No hospitalizations or deaths of people with laboratory confirmed influenza were reported this past week. Since September 1st, 2013, there have been 207 hospitalizations among the 407 people with laboratory-confirmed influenza (50.9%). Of those hospitalized, 101 people had influenza A (48.8%), 104 people had influenza B (50.2%) and two people were infected with both influenza A and B (1.0%).

Since September 1st, 2013, there have been 17 deaths among those in London and Middlesex County who had laboratory-confirmed influenza.

Current Outbreak Activity

No outbreaks due to influenza were declared between May 26th and June 1st. In total, there have been 21 outbreaks this season; influenza A has been identified in seven outbreaks, while influenza B has been identified in 14 outbreaks. Influenza A(H1N1)pdm09 was identified in two of the seven influenza A outbreaks and influenza B/Massachusetts/02/12-like was identified in one of the 14 influenza B outbreaks.

Influenza Immunization

The influenza immunization status is known for 363 of the 407 (89.2%) reported cases; of these, 248 people were 64 years of age and under, and 115 were 65 years of age and over. Among those who were 64 years of age and under, 38 (15.3%) received their influenza immunization this influenza season and 210 (84.7%) did not. Among those who were 65 years of age and older, 82 (71.3%) received their influenza immunization this influenza season and 33 (28.7%) did not. The [National Advisory Committee on Immunization](#) (NACI) states "In the elderly, vaccine effectiveness is about half of that of healthy adults and varies depending on the outcome and the study population. Systematic reviews have also demonstrated that influenza vaccine decreases the incidence of pneumonia, hospital admissions and deaths in the elderly and reduces exacerbations in persons with chronic obstructive pulmonary disease."

Current Provincial Activity

Overall influenza activity across Ontario was lower compared to the previous week. Between May 18th and May 24th, 21 cases of influenza A and 77 cases of influenza B were reported from multiple regions of the province. The percent positivity for all influenza types was 8.9% which is lower compared to the 11.1% positivity reported the previous week. In total, 9,783 laboratory-confirmed influenza cases have been reported across the province since September 1st, 2013. The latest *Ontario Respiratory Virus Bulletin* from Public Health Ontario can be accessed at:

<http://www.publichealthontario.ca/en/ServicesAndTools/SurveillanceServices/Pages/Ontario-Respiratory-Virus-Bulletin.aspx>.

Current National Influenza Strain Typing

In Canada, 2,052 influenza virus samples (114 influenza A(H3N2), 1,367 influenza A(H1N1)pdm09 and 571 influenza B) have been antigenically characterized since the beginning of the current influenza season. Of the 2,052 influenza samples, nearly all (98.7%) matched the components of the 2013/2014 influenza vaccine. The components of the 2013/2014 influenza vaccine are: A/California/7/2009 (H1N1) pdm09-like virus, A/Victoria/361/2011b (H3N2) virus, and a B/Massachusetts/2/2012-like virus. The latest *FluWatch* from the Public Health Agency of Canada can be accessed through the following link: <http://www.phac-aspc.gc.ca/fluwatch/>.

The current and previous editions of the Middlesex-London Health Unit *Community Influenza Surveillance Report* are available on the Health Unit's website at <https://www.healthunit.com/influenza-surveillance>.

Appendix A
Summary of Community Influenza Surveillance Indicators for Middlesex-London
June 2, 2014

The level of influenza activity in Middlesex-London is lower compared to the previous week.

Indicator	Reporting Period	Current Week	Year to Date (from September 1, 2013)	Recent Trends
Laboratory information				
Laboratory-confirmed cases¹	May 26-June 1	Influenza A – 0 cases Influenza B – 0 cases Influenza A & B – 0 cases	Influenza A – 204 cases Influenza B – 201 cases Influenza A & B – 2 cases	No laboratory-confirmed influenza cases were reported between May 26 th and June 1 st . Four cases were reported in the previous <i>Community Influenza Surveillance Report</i> issued May 26 th , 2014.
Influenza Subtypes¹	May 26-June 1	1 -Influenza A(H1N1) pdm 09	41 of 42 (97.6%) of subtyped influenza A samples were influenza A(H1N1) pdm09 One of 41 (2.4%) of subtyped influenza A samples was influenza A(H3) Two influenza B samples were subtyped as B/Massachusetts/02/12-like	Almost all influenza A strains subtyped to date have been influenza A(H1N1)pdm09. Influenza B strains subtyped to date have been B/Massachusetts/02/12-like
Hospitalizations¹	May 26-June 1	0	206	No hospitalizations in people with laboratory-confirmed influenza were reported between May 26 th and June 1 st .
Deaths¹	May 26-June 1	0	17	To date, 17 deaths have been reported among individuals in Middlesex-London with laboratory-confirmed influenza.
Influenza outbreaks in long-term care homes/retirement homes/acute care	May 26-June 1	Influenza A – 0 outbreaks Influenza B – 0 outbreaks	Influenza A – 7 outbreaks Influenza B – 14 outbreaks	There were no influenza outbreaks declared in facilities during this past reporting period.
Percentage of samples that are positive for influenza (Ontario)²	May 18-24	Influenza A: 2.7% positivity Influenza B: 6.3% positivity	N/A	Influenza A: Slightly higher compared to the 1.6% reported the previous week. Influenza B: Lower compared to the 9.5% positivity reported the previous week.

Indicator	Reporting Period	Current Week	Recent Trends
Other Community Surveillance Indicators			
Hospital emergency room reports regarding the percentage of patients with fever and respiratory illness	May 25-31	Data not available.	Data not available.
Absence reports from elementary schools (i.e., absenteeism > 10%)	May 26-30	Between May 26 th and 30 th , one elementary school from one school board reported a five-day average absenteeism rate exceeding 10%.	The number of schools reporting absenteeism exceeding 10% was unchanged from the previous week.
Sentinel X-ray provider reports regarding newly identified bronchopneumonia cases	May 26-31	From May 26 th to 31 st , 4.4% of chest x-rays performed were newly diagnosed bronchopneumonia cases.	The proportion of newly diagnosed bronchopneumonia cases was comparable to the 4.2% reported the previous week.

Notes:

1 Numbers are subject to change week by week due to the retrospective nature of reporting.

2 Public Health Ontario, Ontario Respiratory Virus Bulletin 2013-2014, retrieved from

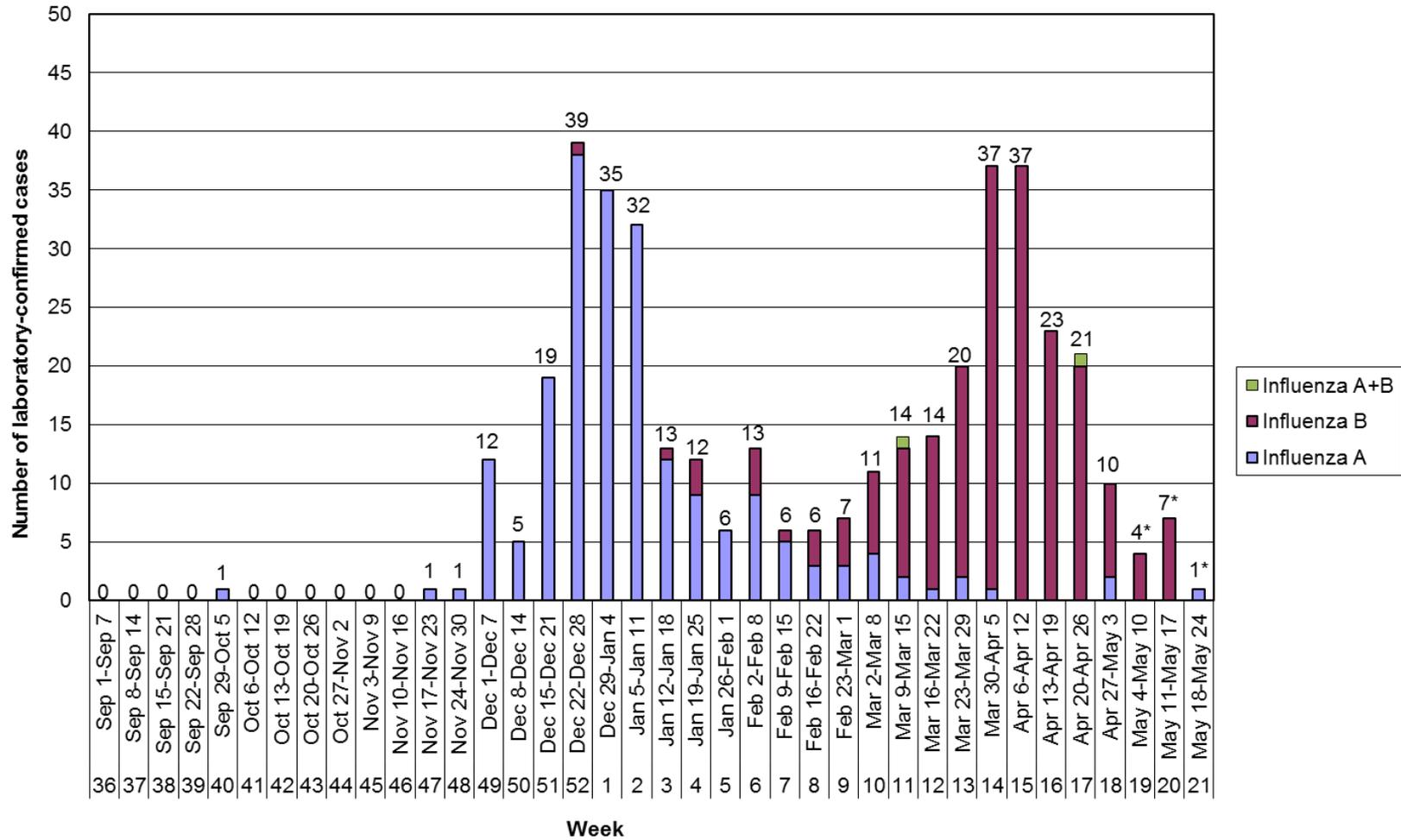
<http://www.publichealthontario.ca/en/ServicesAndTools/SurveillanceServices/Pages/Ontario-Respiratory-Virus-Bulletin.aspx>

The Middlesex-London Health Unit gratefully acknowledges the contributions of the following community partners who provide data for this report:

London Health Sciences Centre
London X-Ray Associates
St. Joseph's Health Care London
Thames Valley District School Board

**Appendix B
June 2, 2014**

**Laboratory-confirmed influenza cases, by influenza date†
Middlesex-London 2013-2014 influenza season (N=407)**



† 'Influenza date' is the earliest of: symptom onset date, specimen collection date, and reported date.

* Counts may be incomplete and are subject to change, due to the retrospective nature of reporting.

Source: Middlesex-London Health Unit internal influenza case tracking database, extracted June 2, 2014.