
2018-2019 Community Influenza Surveillance Report

Update of Current Status

April 17th, 2019

Overall Assessment

Compared to earlier in the season, the circulation of influenza appears to be starting to decline in the Middlesex-London region, although cases continue to be reported from both the City of London and Middlesex County.

Analysis and Action

The influenza season continues in the Middlesex-London region and elsewhere in Ontario. Regardless of the level of local influenza activity, there are a number of easy-to-follow steps that residents can take to avoid becoming sick throughout the year. While washing your hands with soap and warm water, or using an alcohol-based hand sanitizer, remain effective ways of preventing many illnesses, including influenza, local residents should also cover their coughs and sneezes, clean and disinfect high-touch surfaces frequently, and stay home when they feel sick.

Details of Current Local Activity

Between April 7th and April 13th, there were 18 laboratory-confirmed cases of influenza A and one influenza B case reported to the Health Unit, among whom there were 12 hospitalizations and one death.

Since September 1, 2018, there have been 467 laboratory-confirmed influenza A cases and five cases of influenza B reported to the Health Unit. Among these cases there have been 235 hospitalizations and 20 deaths. Over this time period there have also been 34 influenza A outbreaks and one influenza B outbreak declared in hospitals, long-term care facilities, and retirement homes.

Appendix A provides additional details about laboratory-based influenza activity indicators for the current reporting week, as well as other local indicators of respiratory illness. A graph showing all 472 laboratory-confirmed cases by week of illness onset is provided at the end of this report in Appendix B.

Provincial and National Comparison

In this week's *Ontario Respiratory Pathogen Bulletin*, Public Health Ontario states that influenza activity across the province was similar when compared to what had been reported the previous week. Influenza A activity across Ontario is moderate, while influenza B activity remains low. Among the influenza A specimens that have been subtyped this season, 61.8% have been the A(H1N1)pdm09 strain. However, influenza A (H3) cases have been increasing compared to earlier in the season, and accounted for 90.9% of influenza A samples subtyped in the most recent week.

In this week's *FluWatch*, the Public Health Agency of Canada reports that to date this season, the most common influenza virus identified is influenza A, with 77% of subtyped specimens being the A(H1N1)pdm09 strain. The majority (83%) of influenza A(H1N1)pdm09 cases have been among those under the age of 65 years, while 57% of all influenza A(H3N2) cases have been among those 65 years of age and over.

Both *FluWatch* and the *Ontario Respiratory Pathogen Bulletin* have reported additional mid-season vaccine effectiveness estimates recently released by the Canadian Sentinel Practitioner Surveillance Network (SPSN). The SPSN analysis finds that the 2018-19 seasonal influenza vaccine is effective against influenza A(H1N1)pdm09, but offers very limited protection against influenza A(H3N2).

- The latest *Ontario Respiratory Pathogen Bulletin*, issued by Public Health Ontario (PHO), is available at <http://www.publichealthontario.ca/en/ServicesAndTools/SurveillanceServices/Pages/Ontario-Respiratory-Virus-Bulletin.aspx>
- The latest *FluWatch* report, issued by the Public Health Agency of Canada (PHAC), is available at <http://www.phac-aspc.gc.ca/fluwatch/>
- Additional vaccine effectiveness estimates, released by the Canadian Sentinel Practitioner Surveillance Network (SPSN), are available at http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Publications/Epid/Influenza%20and%20Respiratory/SPSN_V_E_By_Year_Table.pdf

Appendix A

Summary of Community Influenza Surveillance Indicators for Middlesex-London April 7th to April 13th, 2019

Table 1: Summary of laboratory-based influenza activity indicators, Middlesex-London and Ontario, 2018-2019 influenza surveillance season

Indicator	Reporting Period	Number Reported: <i>Current Reporting Period</i>	Number Reported: <i>Year to Date (from September 1, 2018)</i>	Recent Trends
Laboratory-confirmed cases^{1,4}	Apr. 7-13 (week 15) ²	Influenza A – 18 cases Influenza B – 1 case	Influenza A – 467 cases Influenza B – 5 cases	Influenza A: Higher than the previous week (Mar. 31-Apr. 6) when 17 cases were reported. Influenza B: Higher than the previous week (Mar. 31-Apr. 6) when no cases were reported.
Influenza sub-types¹	Apr. 7-13	Influenza A (H3) – 2 cases Influenza A (H1N1)pdm09 – 0 cases Influenza A not yet subtyped – 16 cases Influenza B not yet subtyped – 1 case	Influenza A (H3) – 31 cases Influenza A (H1N1)pdm09 – 54 cases Influenza A not yet subtyped – 382 cases Influenza B not yet subtyped – 5 cases	
Hospitalizations^{1,5}	Apr. 7-13	12	235	Higher than the previous week (Mar. 31-Apr. 6) when five hospitalizations were reported.
Deaths^{1,5}	Apr. 7-13	1	20	Same as the previous week (Mar. 31-Apr. 6) when one death was reported.
Influenza outbreaks in long-term care homes/retirement homes/acute care	Apr. 7-13	Influenza A – 2 outbreaks Influenza B – 0 outbreaks	Influenza A – 34 outbreaks Influenza B – 1 outbreak	Influenza A: Same as the previous week (Mar. 31-Apr. 6) when two outbreaks were reported. Influenza B: Lower than the previous week (Mar. 31-Apr. 6) when one outbreak was reported.
Percentage of samples that are positive for influenza (Ontario)³	Mar. 31-Apr. 6 (week 14) ²	Influenza A – 15.9% positivity Influenza B – 0.4% positivity	N/A	Influenza A: Higher than 12.5% positivity reported the previous week (Mar. 24-30). Influenza B: Same as 0.4% positivity reported the previous week (Mar. 24-30).

Notes:

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

2 Weekly influenza monitoring often uses numbered weeks from 1 to 52 weeks per year. A reference week calendar can be found at <https://www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/fluwatch-weeks-calendar.html>

3 Public Health Ontario, Ontario Respiratory Pathogen Bulletin 2018-2019

4 The week cases are reported to the Health Unit may not be the same as week of illness onset.

5 The week hospitalizations and deaths are reported to the Health Unit may not be the same as the week in which they occurred, or the same as the week of illness onset.

Table 2: Summary of community-based respiratory illness indicators, Middlesex-London, 2018-2019 influenza surveillance season

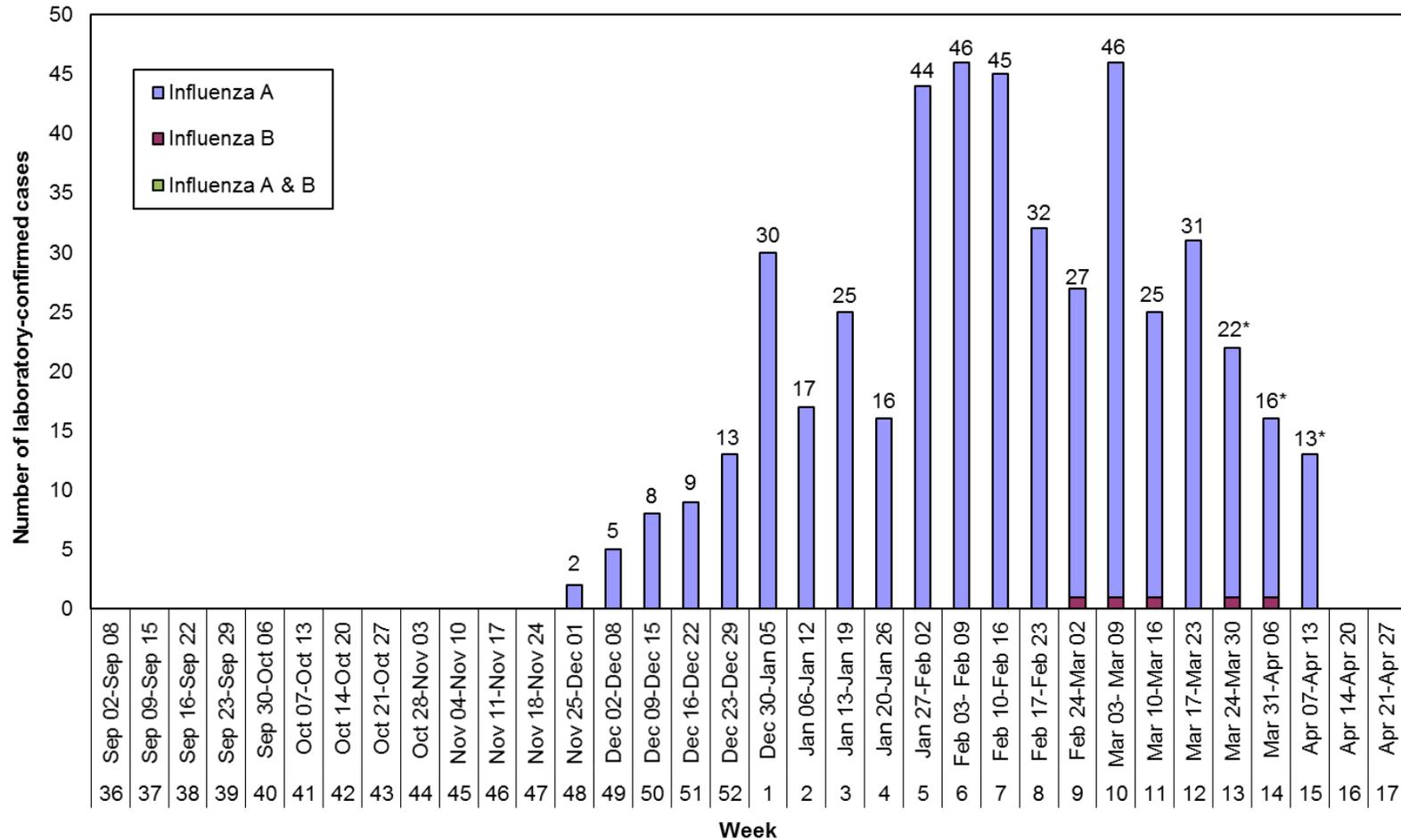
Indicator	Reporting Period	Number Reported: <i>Current Reporting Period</i>	Recent Trends
Hospital emergency room reports regarding the percentage of patients with fever and respiratory illness	Apr. 7-13	An average of 7.9% of patients presented with fever and respiratory symptoms. The proportion was highest at the pediatric emergency department, where 20.1% of patients presented with a fever and respiratory symptoms.	Similar to 7.6% reported the previous week (Mar. 31-Apr. 6). Lower than 20.9% reported the previous week (Mar. 31-Apr. 6).
Absence reports from elementary schools (i.e., absenteeism > 10%)	Apr. 8-12	Twenty-four elementary schools from one school board reported average absenteeism (due to all causes) exceeding 10%.	Lower than the previous week (Apr. 1-5) when 31 elementary schools reported increased absenteeism.

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

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

Appendix B

Laboratory-confirmed influenza cases, by influenza date† Middlesex-London 2018-2019 influenza season (N=472)



Source: Middlesex-London Health Unit internal influenza case tracking database, extracted April 16, 2019.

† 'Influenza date' is the earliest of: symptom onset date, specimen collection date, and reported date. As a result, the weekly counts shown in this section differ from those provided in other sections of this report.

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