

**2013-2014 Influenza Surveillance Report
Update of Current Status and Issues
March 31, 2014**

Current Local Activity

Between March 24th and 30th, the level of influenza activity in Middlesex-London was higher than the previous week, with 23 new laboratory-confirmed cases of influenza reported, including two deaths, one of the individuals died earlier in the season, but had not been reported to the Health Unit until last week. The number of influenza cases reported last week is higher than the eight cases reported the previous week (March 17th to 23rd). Of the new cases reported last week, three were identified as having influenza A (one of which was the late report) and 20 had influenza B. Since September 1st, 2013, a total of 199 laboratory-confirmed influenza A cases, 52 influenza B cases, and one influenza A and B co-infection have been reported to the Health Unit. A graph showing all 252 laboratory-confirmed cases by week is provided in Appendix B at the end of this report. Currently, 41 of 199 influenza A samples have been subtyped, and 40 were found to be influenza A(H1N1)pdm09. This is the same strain that circulated during the 2009 pandemic and which is also a component of the 2013/2014 influenza vaccine. One sample of influenza B was typed, and found to be B/Massachusetts/02/12-like, which is also a component of the 2013/2014 influenza vaccine.

To date, the majority (58.3%) 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 13.9% of confirmed influenza cases. Similarly, people 65 year of age and older represent 14.8% of the general population, but account for 20.6% of cases.

Hospitalizations and Deaths

Of the 23 new laboratory-confirmed influenza cases identified between March 24th and 30th, 15 were hospitalized; two had influenza A (one of which was the late report) and 13 had influenza B. Since September 1st, 2013, there have been 129 hospitalizations among the 252 people with laboratory-confirmed influenza (51.2%). Of those hospitalized, 99 people had influenza A (76.7%), 29 people had influenza B (22.5%) and one person was infected with both influenza A and B (0.8%).

As noted above, two deaths were reported among local residents with laboratory-confirmed influenza, one of whom was ill earlier in the season. Since September 1st, there have been nine deaths among those in London and Middlesex County who had laboratory-confirmed influenza.

Current Outbreak Activity

Between March 24th and 30th, there were three new facility outbreaks declared where influenza B was identified, for a total of 10 outbreaks this season. Influenza A has been identified in seven outbreaks, while influenza B has been identified in three outbreaks. Influenza A(H1N1)pdm09 was identified in two of the seven influenza A outbreaks.

Influenza Immunization

The influenza immunization status is known for 220 of the 252 reported cases. Among those cases with known immunization status, 171 (77.7%) were not immunized with this year's seasonal influenza vaccine.

Influenza vaccinations for unvaccinated individuals six months of age and over are still available at the Middlesex-London Health Unit's walk-in Immunization Clinic at 50 King Street in London on Mondays and Fridays from 10:00 a.m. to 4:00 p.m. and Wednesdays from 10:00 a.m. to 7:00 p.m. Clinics also take place at the Kenwick Mall in Strathroy from 3:30 p.m. to 7:30 p.m. on the first Tuesday of each month. The next Strathroy clinic will take place on Tuesday, April 1st.

Influenza vaccinations are also available at some health care providers' offices and participating pharmacies. To find a free flu shot clinic near you, visit the Ministry of Health and Long-Term Care's "Find a Flu Shot Clinic" web page at:

<http://health.gov.on.ca/en/public/programs/publichealth/flu/finder.aspx>.

Current Provincial Activity

Overall influenza activity across Ontario was slightly higher compared to the previous week. Between March 16th and 22nd, 2014, 64 cases of influenza A and 269 cases of influenza B were reported from multiple regions of the province. The percent positivity for all influenza types was 15.6%, which is slightly higher than the 13.3% positivity reported the previous week. In total, 6,681 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 through the following link:
<http://www.publichealthontario.ca/en/ServicesAndTools/SurveillanceServices/Pages/Ontario-Respiratory-Virus-Bulletin.aspx>.

Current National Influenza Strain Typing

In Canada, 1,586 influenza virus samples (76 influenza A(H3N2), 1,227 influenza A(H1N1)pdm09 and 283 influenza B) have been antigenically characterized since the beginning of the current season. Of the 1,586 influenza samples, nearly all (99.0%) 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 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>.

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Appendix A
Summary of Community Influenza Surveillance Indicators for Middlesex-London
March 31, 2014

The level of influenza activity in Middlesex-London is higher than last week.

Indicator	Reporting Period	Current Week	Year to Date (from September 1, 2013)	Recent Trends
Laboratory information				
Laboratory-confirmed cases¹	Mar. 24-30	Influenza A – 3 cases Influenza B – 20 cases	Influenza A – 199 cases Influenza B – 52 cases Influenza A & B – 1 case	<p>The 23 laboratory-confirmed influenza cases reported between March 24th and 30th are more than the eight new cases reported in the previous <i>Community Influenza Surveillance Report</i> issued March 24th, 2014.</p> <p>Three laboratory-confirmed influenza A cases were reported between March 24th and 30th (one of which was a late report), which is higher than the previous week when no influenza A cases were reported.</p> <p>The 20 influenza B cases reported between March 24th and 30th is higher compared to the previous week, when seven cases of influenza B were reported.</p>
Influenza Subtypes¹	Mar. 24-30		<p>40 of 41 cases (97.6%) of subtyped influenza A samples were influenza A(H1N1) pdm09</p> <p>One of 41 cases (2.4%) of subtyped influenza A samples were influenza A(H3)</p> <p>One influenza B subtyped was B/Massachusetts/02/12-like</p>	Almost all influenza A strains subtyped to date have been influenza A(H1N1)pdm09.
Hospitalizations¹	Mar. 24-30	15	129	Between March 24 th and 30 th , 15 people with laboratory-confirmed influenza were hospitalized; two were identified as having influenza A and 13 had influenza B.
Deaths¹	Mar. 24-30	2	9	To date, nine deaths have been reported among individuals with laboratory-confirmed influenza.
Influenza outbreaks in long-term care homes/retirement homes/acute care	Mar. 24-30	3	10	The three facility outbreaks declared between March 24 th and 30 th where influenza B was identified is higher than the previous week, when no influenza-related outbreaks were identified.
Percentage of samples that are positive for influenza (Ontario)²	Mar. 16-22	Influenza A: 3.4% positivity Influenza B: 12.2% positivity	N/A	Influenza A: Similar to 3.5% reported the previous week. Influenza B: Higher than the 9.8% 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	Mar. 23-29	Between March 23 rd and 29 th , an average of 9.4% of patients at London Health Sciences Centre (LHSC) Emergency Departments and the St. Joseph's Health Care (SJHC) Urgent Care Centre presented with fever and respiratory symptoms. The proportion was highest at the paediatric emergency department, where 23.2% of patients presented with a fever and respiratory symptoms.	The percentage of patients presenting to hospital emergency departments with fever and respiratory symptoms from all LHSC sites and SJHC combined was comparable to the 9.6% reported the previous week. The percentage of patients presenting with fever and respiratory symptoms at the paediatric emergency department continues to be elevated, and was higher compared to the 22.2% reported the previous week.
Absence reports from elementary schools (i.e., absenteeism > 10%)	Mar. 24-28	Data not available.	Data not available.
Sentinel X-ray provider reports regarding newly identified bronchopneumonia cases	Mar. 24-29	From March 24 th to 29 th , 8.3% of chest x-rays performed were newly diagnosed bronchopneumonia cases	The proportion of newly diagnosed bronchopneumonia cases was higher compared to the 7.0% 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

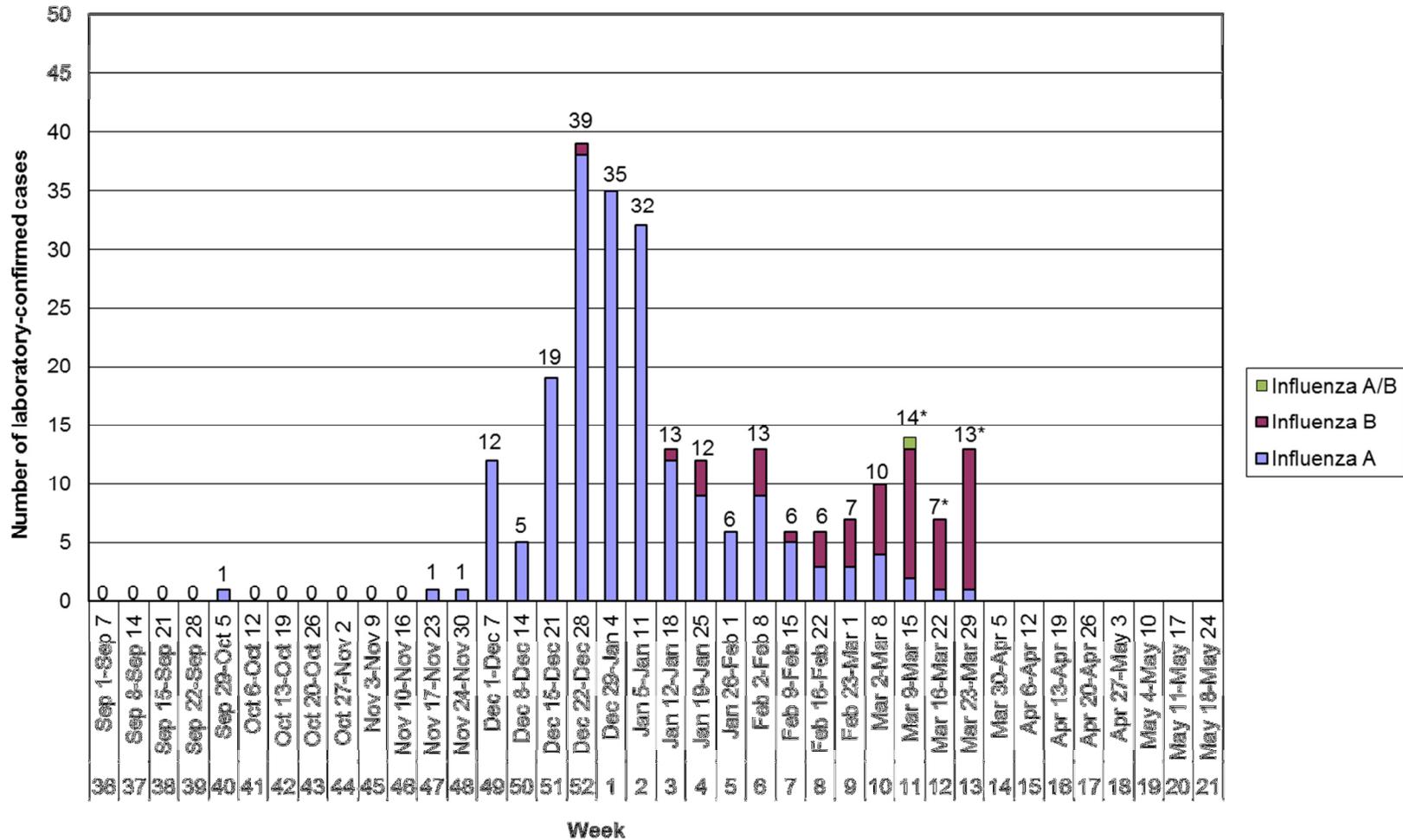
London X-Ray Associates

St. Joseph's Health Care London

Thames Valley District School Board

Appendix B March 31, 2014

**Laboratory-confirmed influenza cases, by influenza date†
Middlesex-London 2013-2014 influenza season (N=252)**



† '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 March 31, 2014.