

2012-2013 Influenza Surveillance Update of Current Status and Issues April 25, 2013

This report provides an update to the previous report issued on April 18, 2013. Between April 16 and the end of day on April 22, four new laboratory-confirmed influenza B cases were reported to the Middlesex-London Health Unit. The total number of reported cases is slightly higher than the previous week (April 9-15, 2013), when two laboratory-confirmed cases of influenza were reported to the Health Unit. Three hospitalizations and one death were reported among the newly reported cases. There were no influenza outbreaks declared in facilities between April 16 and April 22.

As of Monday April 22, 2013, a total of 468 laboratory-confirmed influenza cases have been reported in in Middlesex-London for the current surveillance season. Of these 468 laboratory-confirmed cases, 446 were influenza A cases and 22 were influenza B cases. This influenza season, there have been 295 hospitalizations and 26 deaths reported among laboratory-confirmed cases. Seventy-four of the reported influenza A cases have been subtyped as human influenza A(H3) and four have been subtyped as influenza A(H1N1)pdm09. To date, a total of 39 influenza outbreaks have been reported; 38 were influenza A outbreaks, and one was an influenza B outbreak. Thirty-four (34) of these outbreaks occurred in long-term care/retirement homes/assisted living facilities, while 5 occurred in acute care hospitals. There have also been outbreaks of several other respiratory viruses during this influenza season. One of the more common viruses, Respiratory Syncytial Virus (RSV), was the cause of a total of 11 outbreaks, nine in long-term care/retirement homes/assisted living facilities and two in acute care hospitals.

Appendix B shows the number of laboratory-confirmed influenza cases by week of illness. Influenza illness peaked in December and early January, with the highest number of reported influenza cases occurring the week of December 23 to 29, 2012. Overall, the number of new influenza cases has continued to decline since that time.

Influenza immunization status is known for 384 of the 468 reported cases. Of these 384, 182 people were 64 years of age and under, and 202 were 65 years of age and over. Of the 182 cases who were 64 years of age and under, 32 (18%) received their influenza immunization this influenza season and 150 (82%) did not. Of the 202 cases who were 65 years of age and over, 141 (70%) received their influenza immunization this season, 59 (29%) did not, and 2 (1%) were not sure. The [National Advisory Committee on Immunization](#) (NACI) states that "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..."

Public Health Ontario reports that from April 7-13, 2013, influenza activity was similar to the previous week, and was driven predominantly by influenza B. During this time period, influenza A decreased slightly to 1.92% positivity, compared to 2.79% the previous week, and influenza B increased slightly at 5.68% positivity compared to 5.03% positivity the previous week. However, both influenza strains were less common than Respiratory Syncytial Virus (RSV), which had the highest proportion of respiratory samples testing positive, at 8.47%, followed by human metapneumovirus (7.39% positivity) and entero/rhinovirus (6.44% positivity).

In Canada, since the beginning of September 2012, 1,016 influenza viruses have been antigenically characterized. A total of 553 influenza A(H3N2) viruses were similar to A/Victoria/361/2011 and 162 A(H1N1)pdm09 viruses were similar to A/California/07/09. A total of 248 influenza B viruses were similar to B/Wisconsin/01/2010 and 53 were similar to B/Brisbane/60/2008. The components of the 2012/2013 influenza vaccine are A/Victoria/361/2011 (H3N2)-like virus, A/California/7/2009-like virus (an H1N1pdm09)-like virus, and B/Wisconsin/1/2010-like virus.

Precautions to prevent the spread of seasonal influenza are provided on page 6 of this report. **(continued on next page)**

Influenza A(H7N9) Update

The World Health Organization continues to report human cases of influenza A(H7N9) influenza in China. As of April 25, 2013, they are reporting a total of 109 cases that have been laboratory confirmed with influenza A(H7N9) virus including 22 deaths. The cases have been found in five eastern provinces in China (Anhui, Henan, Jiangsu, Shandong and Zhejiang), two municipalities (Shanghai and Beijing), and the most recent case has been identified in Taiwan. The case had been working in Jiangsu province, and became ill shortly after returning to Taiwan.

The H7N9 influenza virus has been identified in poultry, including chickens, pigeons and ducks. The virus was originally identified in a live bird market in Shanghai, though birds do not appear to have symptoms of illness. So far, there is no evidence of sustained human-to-human transmission, based on monitoring of the cases' close contacts. Investigations into potential sources of infection and viral reservoirs are continuing.

On April 13, 2013, the Ministry of Health and Long Term Care issued guidance information on the management of patients suspected to have H7N9 influenza based on:

- Illness compatible with influenza of any severity and travel to China in the past 10 days; or
- Illness compatible with influenza of any severity and contact with a person who is confirmed or very likely to have H7N9 influenza.

The document outlines the case definitions, reporting, assessment, testing and treatment recommendations from the Ministry. It can be found on the Middlesex London Health Unit's website at <https://www.healthunit.com/uploads/influenza-a-h7n9-guidance-2013-04-13.pdf> .

A suspected case should be tested using a nasopharyngeal swab, as is done for seasonal influenza. Please contact the Health Unit if a case of H7N9 influenza is suspected at 519-663-5317 ext. 2330, or after hours at 519-675-7523.

The World Health Organization has indicated that the virus is sensitive to both oseltamavir and zanamavir.

Additional information can be found on the [World Health Organization's website](#).

Clinical precautions to use when caring for someone suspected of having H7N9 influenza are provided on page 6 of this report.

Appendix A
Summary of Community Influenza Surveillance Indicators
April 25, 2013

Since the beginning of the year, influenza activity in Middlesex-London **has declined**. Influenza-like activity this week was **slightly increased** compared to the previous week.

Indicator	Recent trends / data	Comments for most recent week
Hospital emergency room reports regarding the percentage of patients with fever and respiratory illness	Similar to previous week overall; slight increase at paediatric emergency department	<p>From April 14-20, an average of 7.5% 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 is slightly higher than 6.6% from the previous week.</p> <p>The proportion was highest at the paediatric emergency department, where 19.3% of patients presented with a fever and respiratory symptoms. This is slightly higher than 18.6% from the previous week.</p>
Absence reports from elementary schools (i.e., absenteeism > 10%)	Decreased	From April 15–18, four elementary schools in the two main English public school boards reported a 4-day average absenteeism exceeding 10%. This number is lower than the previous week, when nine elementary schools reported average absenteeism exceeding 10%.
Laboratory-confirmed cases	Slight increase compared to previous week	<p>From April 16-22, four laboratory-confirmed cases of influenza (all influenza B) were reported. This is slightly more than the previous week, when two laboratory-confirmed influenza cases were reported.</p> <p>Since the beginning of the surveillance season on September 2, 2012, a total of 468 laboratory-confirmed influenza cases (446 Influenza A and 22 influenza B) have been reported to the Health Unit.</p>
Hospitalizations	Slight increase compared to previous week	<p>From April 16-22, three people with laboratory-confirmed influenza were reported to be hospitalized. This is slightly more than the previous week, when one hospitalization were reported.</p> <p>To date, 295 people with laboratory-confirmed influenza have been hospitalized.</p>
Deaths	One death reported	<p>From April 16-22, one death was reported among newly reported laboratory-confirmed influenza cases. Last week, no deaths were reported.</p> <p>To date, 26 deaths have been reported among cases with laboratory-confirmed influenza. However, it should be noted that the reporting of deaths may be incomplete.</p>

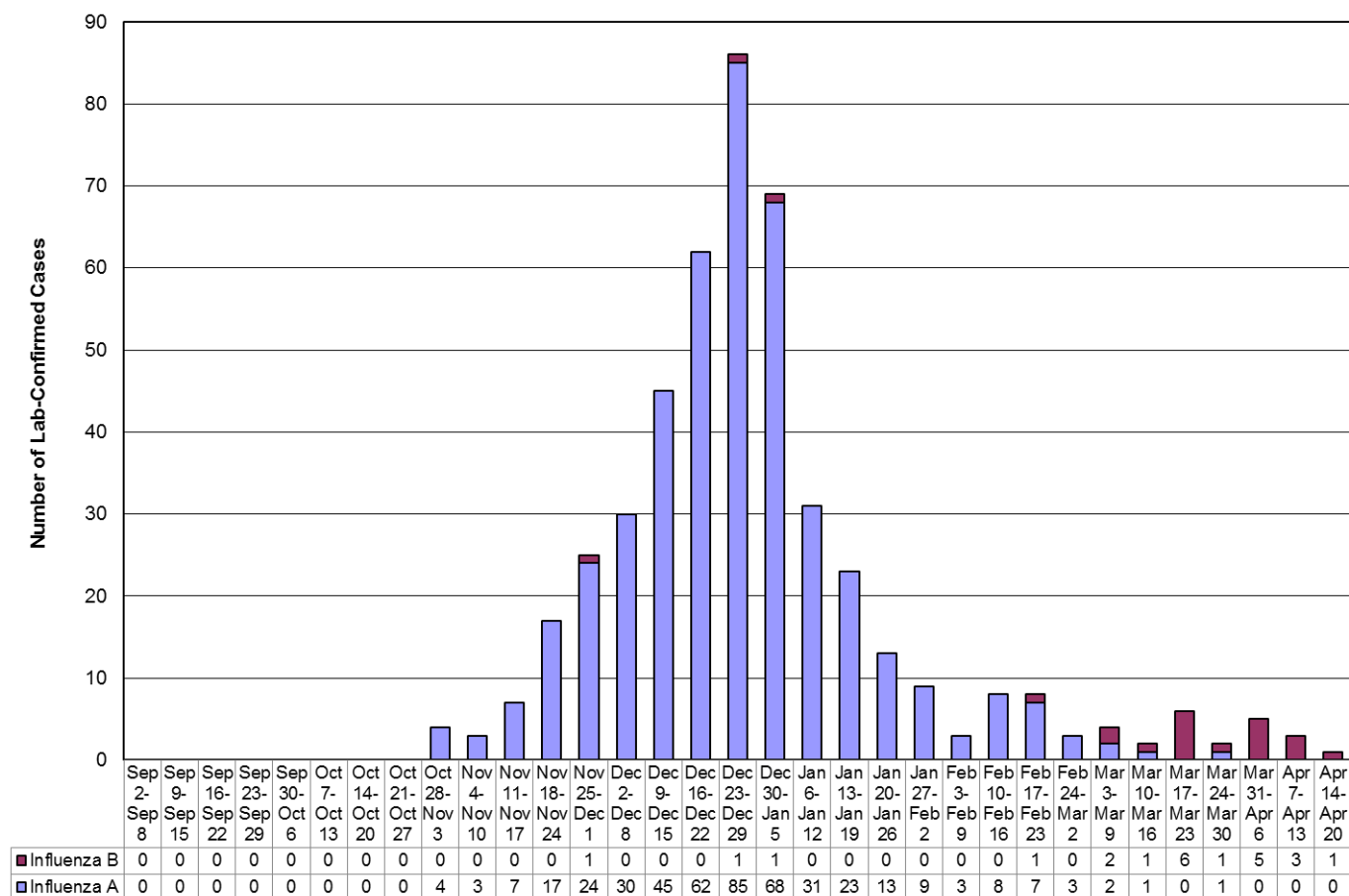
Indicator	Recent trends / data	Comments for most recent week
Influenza outbreaks in long-term care homes/retirement homes/acute care	Similar to previous week	<p>From April 15-22, no influenza outbreaks were declared in long term care facilities. This is similar to the previous week, when no outbreaks were declared in long term care facilities.</p> <p>To date, a total of 39 influenza outbreaks have been reported; 38 influenza A outbreaks and one influenza B outbreak. Of these 39 outbreaks, 34 occurred in long-term care/retirement homes/assisted living facilities and five occurred in acute care hospitals.</p>
Sentinel X-ray provider reports regarding newly identified bronchopneumonia cases	Slight decrease compared to previous week	From April 15-20, 2.6% of chest x-rays performed by the sentinel x-ray provider were newly diagnosed bronchopneumonia cases. This is slightly lower than the previous week, when 2.9% of chest x-rays performed were newly diagnosed bronchopneumonia cases.
Percentage of Ontario laboratory samples that are positive for influenza	Slight decrease for influenza A, Slight increase for influenza B compared to previous week	<p>According to the Ontario Respiratory Virus Bulletin issued for the week of April 7-13, in Ontario, 21 of 1,091 tests were positive for influenza A (1.92 % positivity) and 62 of 1,091 tests were positive for influenza B (5.68% positivity).</p> <p>The percent positivity for influenza A is slightly lower compared to the previous week, when the percent positivity for influenza A was 2.79%. The percent positivity for influenza B is slightly higher than the 5.03% positivity reported the previous week.</p> <p>This week, Respiratory Syncytial Virus (RSV) had the highest percent positivity among all circulating respiratory viruses (8.47% positivity), followed by human metapneumovirus (7.39% positivity) and then entero/rhinovirus (6.44% positivity).</p>

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

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

Appendix B

Laboratory-confirmed influenza cases, by influenza episode date and influenza type, Middlesex-London, September 2, 2012 – April 20, 2013 (n=469)



Source: Infectious Disease Control (IDC) Database (MLHU internal tracking database), extracted April 24, 2013.

Notes: Influenza episode date source varies. In 440 cases, episode date is the date that the case’s symptoms began. In 28 cases, episode date is date the specimen was collected for laboratory testing, and in one case, episode date is the date that the case was reported to the Health Unit. Numbers are subject to change week by week given the retrospective nature of reporting.

Measures to Prevent the Spread of Influenza and Other Seasonal Viruses, Including Norovirus

- Stay home if you are sick. Individuals who work as food handlers, health care providers or child care workers who have diarrhea and/or vomiting should stay at home until at least 48 hours have passed from their last episode of diarrhea or vomiting.
- Clean hands frequently using soap and water or alcohol-based hand sanitizers. Alcohol-based hand sanitizers should contain 70-90% alcohol. Hands should be cleaned after using the washroom, after changing diapers, after shaking hands and before preparing and eating food.
- If you have diarrhea or vomiting, do not prepare food for others for at least 48 hours after the last episode.
- Clean frequently-touched surfaces often. When cleaning up vomit or diarrhea, thoroughly clean the area with detergent and water, removing all debris, then disinfect with a 1:50 bleach solution if the object being cleaned will tolerate it. Discard or wash all clean-up materials then wash hands thoroughly.

Clinical Precautions When Caring for Suspected Cases of Influenza (H7N9)

Influenza A(H7N9) has recently been found in parts of China. This type of influenza A is a novel strain of influenza, about which relatively little is currently known. The Ontario Ministry of Health and Long Term Care recommends the following precautions when caring for someone with suspected H7N9 influenza:

- Place the patient in a negative pressure airborne isolation room;
- Use of gloves, gowns and fit-tested, seal-checked N95 respirators and eye protection by health workers when entering the same room as, transporting or caring for the patient;
- Masking the patient with a surgical mask when outside of the negative pressure airborne isolation room.

Please ensure that the Health Unit is notified if a case of H7N9 influenza is suspected (519-663-5317 ext. 2330; afterhours 519-675-7523).