



TO: Chair and Members of the Board of Health

FROM: Christopher Mackie, Medical Officer of Health

DATE: 2015 October 15

**INFLUENZA: 2014/2015 SEASON REPORT AND 2015/2016 SEASON PLANS**

**Recommendation**

*It is recommended that Report No. 62-15 re Influenza: 2014/2015 Season Report and 2015/2016 Season Plans be received for information.*

**Key Points**

- There were 381 laboratory-confirmed cases, 161 hospitalizations, 14 deaths and 40 confirmed facility outbreaks.
- The 2014/2015 flu season was unusually long.
- There was a significant mismatch between circulating influenza strains and strains included in the vaccine, resulting in poor vaccine effectiveness.
- For the 2015-2016 flu season, the Health Unit will offer flu vaccine during its regularly-scheduled immunization clinics.

**Overview**

During the 2014-2015 influenza season, there were a total of 381 laboratory-confirmed cases of influenza reported to the Health Unit. It should be noted that these numbers likely underestimate the true burden of influenza in the community, as typically many people are infected with influenza but do not have laboratory testing performed and are not reported to the Health Unit. The annual number of influenza cases, outbreaks, deaths and hospitalizations are presented in Table 1. A graph outlining when laboratory-confirmed cases occurred is shown in [Appendix A](#) (Figure 1).

**Table 1: Annual Influenza Cases, Outbreaks & Hospitalizations in Middlesex-London, 2010-2015**

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Laboratory-confirmed Cases	276	106	477	407	<b>381</b>
Hospitalizations	161	34	301	206	<b>161</b>
Deaths	17	3	26	17	<b>14</b>
Outbreaks	28	6	40	19	<b>40</b>

For the 2014-2015 season, cases ranged in age from 29 days to 101 years old. Those aged 65 and over accounted for 64% (242/381) of all cases. There were 161 individuals with laboratory-confirmed influenza who were hospitalized; this represents 42% (161/381) of all laboratory-confirmed cases. Those aged 65 years and older accounted for 66% (107/161) of hospitalized cases. There were 14 deaths reported among individuals with laboratory-confirmed influenza. The number of deaths was highest amongst those 65 years of age and older, representing 86% (12/14) of all deaths among reported influenza cases. Laboratory confirmed cases of influenza identified in facilities (i.e., LTCHs and retirement homes) accounted for 31% (118/381) of all cases. A number of cases associated with influenza outbreaks were identified but were not laboratory confirmed and are not included in this analysis.

## Influenza Outbreaks

During the 2014-2015 season, 40 influenza outbreaks were declared in facilities; 30 in long-term care settings and ten in retirement homes. Attack rates ranged from 3% to 47%. Duration of influenza outbreaks ranged from 6 to 39 days. Four of the 40 influenza outbreaks had at least one other pathogen identified, such as rhinovirus, respiratory syncytial virus or coronavirus. Of the 40 outbreaks, influenza A was identified in 37 outbreaks, influenza B was identified in one outbreak and two outbreaks had both influenza A and B identified. A graph outlining when outbreaks occurred is shown in [Appendix A](#) (Figure 2).

## Timing of the Season and Strain Typing

The influenza season typically occurs anytime from October to April. This past season, the first confirmed influenza case was identified on September 29, 2014 and the last case was identified on June 17, 2015. Of the 381 laboratory-confirmed cases in Middlesex-London, 86% were influenza A and 14% were influenza B. Influenza A was the predominant strain at the beginning of the season which was followed by a peak in influenza B activity towards the end of the season. During the 2014-2015 influenza season, viral testing carried out across Canada indicated that there was a poor match between the influenza A H3N2 strain that circulated and the H3N2 strain included in the vaccine. However, testing showed that the influenza B strain included in the vaccine was a good match to the circulating strain of influenza B.

## Upcoming 2015-2016 Influenza Season

There are some changes in the provincial and local influenza program this year. The Ministry of Health and Long Term Care (MOHLTC) has included quadrivalent influenza vaccines (QIV) for the 6 months through 17 year age group in this year's influenza program. Those over 18 years of age will continue to be offered trivalent influenza vaccine (TIV) which protects against the three strains (two A and one B strains) of influenza viruses. QIV provides protection against the same three strains as TIV and one additional B strain. QIV is recommended for the 6 months through 17 year age group as the burden of illness caused by Influenza B strains is highest in this age group.

Attendance at community influenza clinics has continued to decline and the Health Unit will no longer be holding community influenza clinics. Vaccine is available through health care provider offices, pharmacies which have applied for and received approval from the MOHLTC to provide influenza vaccine to those 5 years of age and older and some workplaces. The number of pharmacies offering influenza vaccine in London and Middlesex County has increased each year since 2012.

## Conclusion

The number of confirmed cases during the 2014-2015 influenza season was lower than the previous season; however, the number of cases remained elevated in comparison to previous years. For the 2015-2016 flu season, the Health Unit will offer flu vaccine during its regularly-scheduled immunization clinics. The Health Unit will continue to encourage yearly influenza vaccination to reduce the risk of influenza infection in the population.

This report was prepared by Ms. Marlene Price, Manager Vaccine Preventable Diseases Team, Mr. Tristan Squire-Smith, Manager, Infectious Disease Control (IDC) Team, Ms. Alison Locker, Epidemiologist, Oral Health, Communicable Disease and Sexual Health; and Ms. Eleanor Paget, Public Health Nurse, IDC Team.



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This report addresses the following requirement(s) of the Ontario Public Health Standards: Infectious Diseases Prevention and Control and Vaccine Preventable Disease