



TO: Chair and Members of the Board of Health
FROM: Christopher Mackie, Medical Officer of Health / CEO
DATE: 2017 September, 21

2016-2017 INFLUENZA SEASON IN MIDDLESEX-LONDON - FINAL REPORT

Recommendation

It is recommended that Report No. 046-17 re: 2016-2017 Influenza Season in Middlesex-London- Final Report be received for information.

Key Points

- There were 480 laboratory-confirmed cases, 258 hospitalizations, 16 deaths and 40 confirmed facility influenza outbreaks during the 2016-17 Influenza Season; the number of laboratory confirmed influenza cases was slightly lower than in previous seasons
The predominant strain during the 2016-2017 influenza season was influenza A (H3)
The Health Unit will begin distributing influenza vaccine for the 2017-2018 flu season to Health Care Providers in early October.

Overview

This report provides the final analysis of the 2016-2017 influenza season (see Table 1 for comparison with previous years). In total, 480 laboratory-confirmed cases of influenza were reported to the Health Unit. It should be noted that many more people may have been infected with influenza but did not have laboratory testing performed and so were not reported to the Health Unit. A graph outlining when laboratory-confirmed cases occurred is shown in Appendix A (Figure 1).

Table 1: Influenza Cases, Middlesex-London, 2011-2012 through 2016-2017 Influenza Seasons

Table with 6 columns: Category, 2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017. Rows include Laboratory-confirmed Cases, Hospitalizations, Deaths, and Outbreaks.

Cases ranged in age from 16 days to 103 years old. For cases whose ages were known, those aged 65 years and older accounted for 64% (308/480) of cases, followed by those aged 20-49 years, who accounted for 14% (65/480) of cases. There were 258 individuals with laboratory-confirmed influenza who were hospitalized representing 54% (258/480) of laboratory-confirmed cases. Those aged 65 years and older accounted for 72% (187/258) of hospitalized cases. There were 16 deaths reported among individuals with laboratory-confirmed influenza. The number of deaths was highest amongst those 65 years of age and older, representing 94% (15/16) of deaths among reported influenza cases.

Influenza Outbreaks

During the 2016-2017 season, 40 influenza outbreaks were declared in facilities, 22 in long-term care settings, 12 in retirement home settings, and 6 in hospital settings. Attack rates ranged from 4% to 82%. Duration of influenza outbreaks ranged from 7 to 34 days. Of the 40 outbreaks, influenza A was identified in

35 outbreaks and influenza B was identified in 6 outbreaks. Laboratory confirmed cases of influenza identified in facilities accounted for 23% (110/480) of cases. It should be noted that a number of cases associated with influenza outbreaks were identified but were not laboratory confirmed and are not included in this analysis. A graph outlining when outbreaks occurred is shown in [Appendix A](#) (Figure 2).

The rate of influenza by health unit within Ontario is shown in [Appendix A](#) (Figure 3). Median immunization coverage rates of staff at long term care homes and hospitals in the Health Unit and Ontario are shown in [Appendix A](#) (Figure 4).

Timing of the Season and Strain Typing

The influenza season typically occurs from October to April. The peak of the 2016-2017 influenza season was later than in previous years. As indicated in Figure 1 of Appendix A, the first confirmed influenza case was reported to the health unit on October 7, 2016 and had an onset of symptoms on October 4, 2016. Influenza activity did not intensify until late January. The last case was reported on May 24, 2017. Of the 480 laboratory-confirmed cases in Middlesex-London, 90% (432/480) were influenza A, 10% (48/480) were influenza B, and 0.2% (1/489) were co-infected with influenza A and B. Both influenza A and B peaked at the same time in mid-March. Of the influenza A cases identified 99% (112/113) were typed as influenza A (H3), >0.01% (1/113) were typed influenza A(H3) and influenza A(H1N1) pdm09 co-infection, and 76% (319/432) were not typed. Strain typing was conducted on 2 samples from Middlesex London. Two cases were strain typed A/Hong Kong/4801/2015-like.

Influenza Vaccine

The Health Unit distributed 112,400 doses of influenza vaccine to Health Care Providers in London and Middlesex County during the 2016-2017 influenza season. Distribution for the 2017-2018 season will begin in October. Those over 18 years of age are offered trivalent influenza vaccine which protects against three strains (two A and one B) of influenza viruses. Those aged 6 months through 17 years are offered the quadrivalent vaccine which offers protection against two Influenza A strains and two Influenza B stains, as the burden of illness caused by Influenza B strains is highest in this age group. The Health Unit will be offering influenza vaccine during its regularly scheduled Immunization Clinics.

Conclusion

The number of confirmed cases during the 2016-2017 influenza season was slightly lower than the previous season. Cases were reported from September 2016 to May 2017. Influenza A and B peaked in early January. The predominant strain of influenza identified was influenza A (H3). The Health Unit will continue to encourage yearly influenza vaccination to reduce the risk of influenza infection in the population for the 2017-2018 season.

This report was prepared by Infection Disease Control and Vaccine Preventable Diseases Teams, Environmental Health and Infectious Diseases Division.



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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