

TO: Chair and Members of the Board of Health

FROM: Christopher Mackie, Medical Officer of Health

DATE: 2013 September 19

2012-2013 INFLUENZA SEASON IN MIDDLESEX-LONDON - FINAL REPORT

Recommendation

It is recommended that Report No. 101-13 re 2012-2013 Influenza Season in Middlesex-London– Final Report be received for information.

Key Points

- Middlesex-London experienced high levels of influenza activity in 2012-2013.
- There were 477 laboratory-confirmed cases, including 301 hospitalizations and 26 deaths, as well as 40 confirmed outbreaks in facilities.
- Of those people with laboratory-confirmed influenza who were less than 65 years of age, 82% had not received their influenza vaccine.

Overview

[Report No. 012-13](#) from the January 17, 2013 Board of Health meeting provided an interim overview of the 2012-2013 influenza season and outlined the Health Unit’s role in responding to influenza outbreaks in facilities. The current report provides the final analysis of the 2012-2013 influenza season, which was the most severe that Middlesex-London had experienced in recent history (see Table 1 for comparison with previous years). In total, 477 laboratory-confirmed cases of influenza were reported to the Health Unit during the 2012-2013 season. It should be noted that many more people were 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, 2009-2010 through 2012-2013

	2009-2010	2010-2011	2011-2012	2012-2013
Laboratory-confirmed Cases	391	276	106	477
Hospitalizations	92	161	34	301
Deaths	8	17	3	26
Outbreaks	2	28	6	40

Cases ranged in age from three weeks to 98 years old. Those aged 65 and over accounted for 52% of all cases. There were 301 individuals with laboratory-confirmed influenza who were hospitalized; this represents 63% of all laboratory-confirmed cases. Those aged 65 years and older accounted for 59% of hospitalized cases. There were 26 deaths reported among individuals with laboratory-confirmed influenza. The number of deaths was highest amongst those 65 years of age and older, representing 92% of all deaths among reported influenza cases. Thirty-four (34) laboratory-confirmed cases (7%) were determined to have been acquired while the patient was admitted to hospital for other reasons (referred to as “nosocomial

cases”). This stresses the importance of immunization among staff and visitors who are the source of influenza infection in these hospitalized patients.

Influenza Immunization Status

Influenza immunization status was known for 82% of laboratory-confirmed cases. Among cases whose immunization status was known, 55% were not immunized. In cases 64 years of age and under, 82% had not received their influenza immunization this season. In those 65 years of age and over, 30% of cases had not received their influenza immunization this season.

Influenza Outbreaks

During the 2012-2013 season, 40 influenza outbreaks were declared in facilities; 22 in long-term care settings, nine in hospitals (including both acute care and chronic/rehabilitation care settings), eight in retirement homes/independent living settings, and one in a group home. A graph outlining when outbreaks occurred is shown in [Appendix A](#) (Figure 2). Outbreaks declared in assisted and independent living settings and group homes required a significant amount of assistance from the Infectious Disease Control Team. Since these settings had less experience with outbreak management than hospitals and long-term care facilities, outbreak management and providing antiviral medication to their residents posed additional challenges.

Timing of the Season and Strain Typing

The influenza season typically occurs anytime from October to April and lasts for a few months. As indicated in Figure 1 of [Appendix A](#), the 2012-2013 influenza season started at the end of October 2012 and lasted until the middle of May 2013. Of the 477 laboratory-confirmed cases in Middlesex-London, 94% were influenza A and 6% were influenza B, with influenza B cases occurring towards the end of the season. Based on viral testing carried out across Canada, the 2012-2013’s influenza vaccine matched very well to circulating strains of influenza A and was a good match for influenza B.

Conclusion

The 2012-2013 influenza season was long and the most severe in recent history, with cases occurring from late-October 2012 to May 2013. The Health Unit continues to encourage yearly influenza vaccination to reduce the risk of influenza infection in the population. Vaccination of health care workers is very important to prevent spread of influenza to hospitalized patients.

This report was prepared by Mr. Tristan Squire-Smith, Manager, Infectious Disease Control (IDC) Team; Ms. Hilary Caldarelli and Ms. Alison Locker, Epidemiologists, Oral Health, Communicable Disease and Sexual Health; and Ms. Eleanor Paget, Public Health Nurse, IDC Team. The contributions of the entire Infectious Disease Control Team are recognized for an outstanding effort throughout a prolonged period of increased workload attributed to influenza.

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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