



TO: Chair and Members of the Board of Health

FROM: Christopher Mackie, Medical Officer of Health / CEO

DATE: 2019 October 17

2018–19 INFLUENZA SEASON IN MIDDLESEX-LONDON – FINAL REPORT

Recommendation

It is recommended that Report No. 061-19 re: “2018–19 Influenza Season in Middlesex-London – Final Report” be received for information.

Key Points

- The 2018–19 influenza season was a substantial one, with 518 laboratory-confirmed cases, 260 hospitalizations, 20 deaths, and 39 confirmed influenza outbreaks in Middlesex-London facilities.
- Influenza A circulated predominantly, with low influenza B activity. Earlier in the season, influenza A(H1N1)pdm09 was frequently detected; however, as the season progressed, influenza A(H3) began to circulate more widely.
- The Health Unit began distributing influenza vaccine for the 2019–20 influenza season to health care providers in early October.

Overview

This report provides the final analysis of the 2018–19 influenza season. The season was characterized by more cases, hospitalizations, and deaths reported than in each of the four seasons preceding 2017–18 (see Table 1). A total of 518 laboratory-confirmed influenza cases were reported to the Health Unit during the 2018–19 season. As with every influenza season, many more people were infected, but did not have laboratory testing performed and so were not reported to the Health Unit. A graph showing when laboratory-confirmed influenza cases occurred is provided in [Appendix A](#), Figure 1.

Table 1: Laboratory-confirmed influenza cases and outbreaks, Middlesex-London, 2013–14 through 2018–19 influenza seasons

	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19
Confirmed cases	407	381	489	480	870	518
Hospitalizations	206	161	197	258	464	260
Deaths	17	14	19	16	44	20
Outbreaks	19	40	12	40	71	39

Cases among Middlesex-London residents ranged in age from 6 weeks to 100 years old. One-half (50%, 260/518) of laboratory-confirmed cases were hospitalized. Those aged 65 years and over accounted for 45% (233/518) of all cases and 55% (144/260) of all hospitalizations. There were 20 deaths reported among individuals with laboratory-confirmed influenza, none of them children. The majority (60%, 12/20) of reported deaths were among those 65 years of age and over; however, 15% (3/20) were among adults 20–49 years of age.

Influenza Outbreaks

There were 39 influenza outbreaks declared in Middlesex-London facilities during the 2018–19 season, including 20 (51%) in long-term care homes, 11 (28%) in retirement homes, and 8 (21%) in hospitals. The duration of influenza outbreaks ranged from 3 to 41 days, with an average of 13 days. Influenza A was identified in most (97%) outbreaks with only one influenza B outbreak identified. A graph showing when influenza outbreaks occurred is provided in [Appendix A](#), Figure 2.

Median immunization coverage rates of staff at long-term care homes and hospitals in Middlesex-London and Ontario are shown in [Appendix A](#), Figure 3. In general, the median immunization coverage rate of staff in Middlesex-London hospitals (58.2%) was somewhat higher than in the province as a whole (52.6%), while local coverage rates for staff in long-term care homes (62.5%) was lower compared to median rates for all Ontario (72.8%).

Timing of the Season and Strain Typing

Influenza season typically occurs from October to April. The first confirmed influenza cases of the 2018–19 season were reported on December 3, 2019, with onset of symptoms at the end of November 2019 (see [Appendix A](#), Figure 1). Influenza activity peaked in late January and early February 2019, with a second peak in early March 2019. The 2018–19 influenza season was prolonged compared to earlier years, with the last confirmed case reported on June 26, 2019.

Of the 518 laboratory-confirmed cases among Middlesex-London residents, nearly all (98%, 508/518) were influenza A. This season was unique in that both influenza A(H1N1)pdm09 and influenza A(H3) circulated, with very few (2%, 10/518) influenza B cases. Early in the season, influenza A(H1N1)pdm09 was frequently detected, but influenza A(H3) began to circulate more widely in the latter part of the season.

Influenza Immunization

Distribution of influenza vaccine for the 2019–20 season has begun. Quadrivalent influenza vaccine that offers protection against two strains of A and two strains of B is available again for everyone aged 6 months and over. As well, high-dose trivalent vaccine offering enhanced protection against two A strains and one B strain is available for those aged 65 years and over. The intranasal spray influenza vaccine also known as Flumist® Quadrivalent is no longer available in Canada. The Health Unit is promoting receipt of influenza vaccines at health-care provider offices and pharmacies, and is offering influenza vaccine for individuals who live, work, or go to school in the Middlesex-London area who may not be able to access influenza vaccine in the community.

Conclusion

Confirmed cases, hospitalizations, and deaths reported during the 2018–19 influenza season were among the highest in the previous five seasons. Cases were reported from December 2018 to June 2019, with peak activity occurring in late January and early February, and again in March. The majority of cases were caused by influenza A, and both influenza A(H1N1)pdm09 and influenza A(H3) circulated. The Health Unit has begun distribution of influenza vaccine for the 2019–20 season and continues to encourage annual vaccination to reduce the risk of influenza infection in the community.

This report was prepared by the Associate Medical Officer of Health, the Population Health Assessment and Surveillance Team, and the Environmental Health and Infectious Disease Division.



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