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CMAJ headlines:

- Easy-to-identify characteristics of Ontario's retirement homes determine risk of SARS-CoV-2 outbreaks
- An analysis of an early SARS-CoV-2 outbreak in an Ontario LTC home

Easy-to-identify characteristics of Ontario's retirement homes determine risk of SARS-CoV-2 outbreaks

Size, location, being part of a large chain, and providing a lot of care were risk factors associated with SARS-CoV-2 outbreaks in retirement homes, according to a study of 770 Ontario retirement homes published in CMAJ (Canadian Medical Association Journal).

VIEW EMBARGOED ARTICLE

Retirement residences, where older adults who are more mobile and independent live, have received much less attention during the pandemic than long-term care facilities.

"Outbreaks of SARS-CoV-2 infection surged in retirement homes during the first and second waves in Canada and the US, and there has been limited examination in the literature beyond early reports of case surveillance," writes Dr. Andrew Costa, McMaster University, Hamilton, Ontario, and St. Joseph's Health System.
As of April 11, 2021, retirement home residents accounted for about 8% of deaths from COVID-19 in Ontario.

Researchers included data from March 1, 2020, to December 18, 2020, on 770 retirement homes in Ontario with 56,491 residents, almost the same size of population as in long-term care facilities. More than one-third of retirement homes (273 [35.5%]) had 1 or more outbreaks of SARS-CoV-2 involving 1944 (3.5%) residents and 1101 staff (3.0%). Most cases in these homes were in residents (2487 residents [81.7%] compared with 7 employees [10%]).

Larger retirement homes had a 3-fold increased risk of a SARS-CoV-2 outbreak, likely because of more staff coming in and out of a home to provide care. Homes that provided 9 or more services had a 2.5-fold increased risk and those co-located with a long-term care facility were at a 1.6-fold increased risk of an outbreak. Being part of a large chain and being located in areas with larger local ethnic populations also increased the risk of outbreaks.

"We identified risk factors for outbreaks of SARS-CoV-2 infection in retirement homes that can inform risk identification and vaccine priority at the provincial and regional levels, as has been done for the long-term care sector," write the authors. "We showed that a subset of retirement homes in Ontario have been severely affected by the pandemic, with case fatality rates approaching those of long-term care facilities."

The authors suggest steps that could help reduce the risk of outbreaks in these congregate living facilities.

"Limiting the number of different staff providing care and services within retirement homes and a reduction in staff connectivity between settings are modifiable factors that may reduce the risk of future outbreaks of SARS-CoV-2 infection," they conclude.

"Risk factors for outbreaks of SARS-CoV-2 infection at retirement homes in Ontario, Canada: a population-level cohort study" is published May 10, 2021.

**MEDIA NOTE: Please use the following public links after the embargo lift:**

An analysis of an early SARS-CoV-2 outbreak in an Ontario LTC home

Rapid and undetected spread of SARS-CoV-2 in a long-term care (LTC) home at the start of the pandemic led to high infection rates in residents and staff and one of the highest attack rates in Ontario, according to an analysis of one of Ontario's first LTC outbreaks published in CMAJ (Canadian Medical Association Journal).

However, implementation of outbreak measures after cases peaked prevented further staff cases and are now part of LTC outbreak policy in Ontario.

"Lessons learned from this early and severe outbreak of SARS-CoV-2 in an LTC home have helped to inform the current provincial prevention and outbreak measures, specifically, the need for early identification of symptoms, cases and outbreaks, and for implementation of additional testing and prevention measures," writes Dr. Michelle Murti, Public Health Ontario, Toronto, Ontario, with coauthors.

The authors looked at one of the earliest and largest outbreaks of SARS-CoV-2 in an LTC in March 2020 when there were only 274 cases in all of Ontario, and used genomic analysis to understand the spread of the virus within the home. Among the 65 residents of the long-term care home, 61 (94%) contracted SARS-CoV-2, and almost half (28 [45%]) died. About half (51%) of the 67 original staff contracted the virus and none died. When the outbreak was declared on March 18, 12 staff, 2 visitors and 9 residents had symptoms. The distribution of illness in residents throughout the home points to transmission via staff or among residents in common areas.

"Active screening and universal masking for staff are needed to prevent the introduction and asymptomatic spread of SARS-CoV-2 from staff. Mass testing of residents and staff in an outbreak allows for early identification of cases to facilitate outbreak measures. Ensuring sufficient staffing and personal protective equipment is necessary for appropriate care delivery, protection for staff and prevention of transmission in the home," write the authors.

The authors suggest that outbreaks may continue unless foundational issues are addressed.
"The prevention of LTC outbreaks requires low levels of community transmission and improvements to LTC infrastructure, density and staffing."

"Investigation of a severe SARS-CoV-2 outbreak in a long-term care home early in the pandemic" is published May 10, 2021.

**MEDIA NOTE: Please use the following public links after the embargo lift:**


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