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***CMAJ* COVID-19 headlines:**

- Work bubbles may help businesses reopen while limiting risk of COVID-19 outbreaks
- Why have fewer long-term care residents died from COVID-19 in BC than Ontario?

Work bubbles can help businesses reopen while limiting risk of COVID-19 outbreaks

Podcast link: www.cmaj.ca/lookup/doi/10.1503/cmaj.201582/tab-related-content

Creating “work bubbles” during the COVID-19 pandemic can help reduce the risk of company-wide outbreaks while helping essential businesses continue to function, as the example of Bombardier Aviation demonstrates in an analysis published in *CMAJ* (*Canadian Medical Association Journal*). VIEW ARTICLE

The need to keep essential businesses open during the pandemic has resulted in large outbreaks in factories and other locations where employees work in close proximity, jeopardizing the safety of employees and the community as well as disrupting supply chains.

“Employers have a responsibility to provide a safe work environment for their employees,” says lead author Dr. Jeffrey Shaw, a critical care physician and fellow at the University of Calgary’s Cumming School of Medicine, Calgary, Alberta. “Creating company cohorts, or work bubbles, can reduce the risk of a company-wide COVID-19 outbreak that could affect the larger community.”

Bombardier Aviation example
The authors describe how Bombardier Aviation, a large Canadian company that employs 22 000 people at 7 factories across 4 provinces/states in Canada and the United States, adjusted to the pandemic. Most office staff worked from home, ensuring that only employees who built or supported aircraft delivery were on site. Essential employees were organized into cohorts that interacted only with each other to minimize contact with other staff.

Cohorts were organized on the principles that work bubbles should

- Include the least number of people required to do the job
- Be designed to allow business continuation if another work bubble is removed from the workforce
- Be strictly separated from other bubbles in time and/or space to prevent virus transmission between groups.

Scheduling rotating workdays and disinfecting shared spaces after use by a work bubble can ensure physical separation of employees. Daily symptom screening and rapid isolation of infected employees is also key to containing and preventing outbreaks.

“Adjusting our operational activities to the pandemic was challenging, but we are extremely proud of how proactive and efficient our teams were in adapting to their new working conditions. Keeping our employees safe is our number one priority," says coauthor Nancy Barber, COO, Industrialization, Footprint and Central Planning, Bombardier Aviation.

Despite some challenges, work bubbles offer benefits including

- Reducing the reproduction number of the disease
- Increasing efficiency of contact tracing
- Protecting employees from contracting severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) at work
- Increasing employee confidence in workplace safety
- Allowing for business to continue in the case of positive cases

“As we begin to relax the public health measures brought in to slow the spread of COVID-19 in Canada, we must think of how to limit the risk of becoming infected at work,” says Dr. Shaw. “Using a work bubbles strategy can help businesses continue to function and ensure the safety of employees.”

Listen to a podcast with coauthors Dr. Jeffrey Shaw and Hayley Wickenheiser discussing work bubbles and their practical application to factories, schools and sports.

"*Working in a bubble: How can businesses reopen while limiting the risk of COVID-19 outbreaks?*" is published September 30, 2020.

The article was written by authors from **University of Calgary**, Alberta; **Queen's University**, Kingston, Ontario; **Bombardier Aviation**, Montreal, Quebec; **University of Toronto** and **University Health Network**, Toronto, Ontario; and **Harvard Medical School** and **Boston Children's Hospital**, Boston, Massachusetts.

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Why have fewer long-term care residents died from COVID-19 in BC than Ontario?

An analysis comparing COVID-19 deaths in long-term care (LTC) residents in Ontario and British Columbia found that BC was better prepared for the pandemic and responded in a more coordinated and decisive manner, leading to far fewer deaths than in Ontario.

The article is published in *CMAJ* (*Canadian Medical Association Journal*). VIEW ARTICLE

As of September 10, 2020, Ontario had reported 5965 resident cases in LTC homes and 1817 resident deaths from COVID-19, compared with just 466 cases and 156 deaths in BC homes.

"The BC long-term care system before the pandemic was better prepared to minimize SARS-CoV-2 transmission and respond to outbreaks," says lead author Michael Liu, medical and graduate student at Harvard University, Boston, Massachusetts, and the University of Oxford, Oxford, United Kingdom.

In a comparison of the two provinces' preparedness and response to COVID-19, the authors found that BC's health system had several strengths over Ontario's.

For example, before the pandemic, the average combined per diem funding per LTC resident in BC was $222 compared with $203 in Ontario. Long-term care residents were more likely to live in shared rooms in Ontario (63%) than in BC (24%). Links between hospitals, LTC and public health were stronger in BC, and the organizational structure of the health system was relatively stable compared with Ontario, which was undergoing significant change with the merging of regional entities and several provincial agencies into Ontario Health.

"BC overall was better prepared for the pandemic, and elected leaders and public health officials responded faster and more decisively with measures to limit transmission of SARS-CoV-2 into long-term care homes," says Dr. Irfan Dhalla, a physician at St. Michael's Hospital, Unity Health Toronto, and the University of Toronto.

The authors recommend governments should ensure clear, consistent communications; respond rapidly and proactively; ensure disparities between for-profit and non-profit homes do not affect quality of care; move to single rooms; ensure infection prevention and control teams can support LTC homes during outbreaks; and consider organizational structures to support integration between LTC, public health and hospitals.

"Residents of long-term care homes will always be vulnerable to infections," says Dr. Dhalla. "Our analysis highlights policies and practices that, if implemented, could help protect these vulnerable seniors from a second wave of COVID-19 as well as other infectious diseases."

"*COVID-19 in long-term care homes in Ontario and British Columbia*" is published September 30, 2020.

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