

COVID-19 and Ontario's Long-Term Care Homes

Ontario COVID-19 Science Advisory Table
December 15, 2020



Background and Importance

- COVID-19 has taken a substantial toll on LTC homes
 - 2,490 resident deaths as of December 12, 2020
 - 8 LTC worker deaths as of December 12, 2020
 - 63% of all Ontario COVID-19 fatalities
- The second wave is accelerating in LTC homes
 - 69% of resident cases occurring November 1 to December 12, 2020
 - 80% of resident deaths occurring November 1 to December 12, 2020
- To reduce COVID-19 morbidity, mortality, and hospitalizations, strong action is needed to improve the prevention and mitigation of COVID-19 outbreaks in LTC homes.

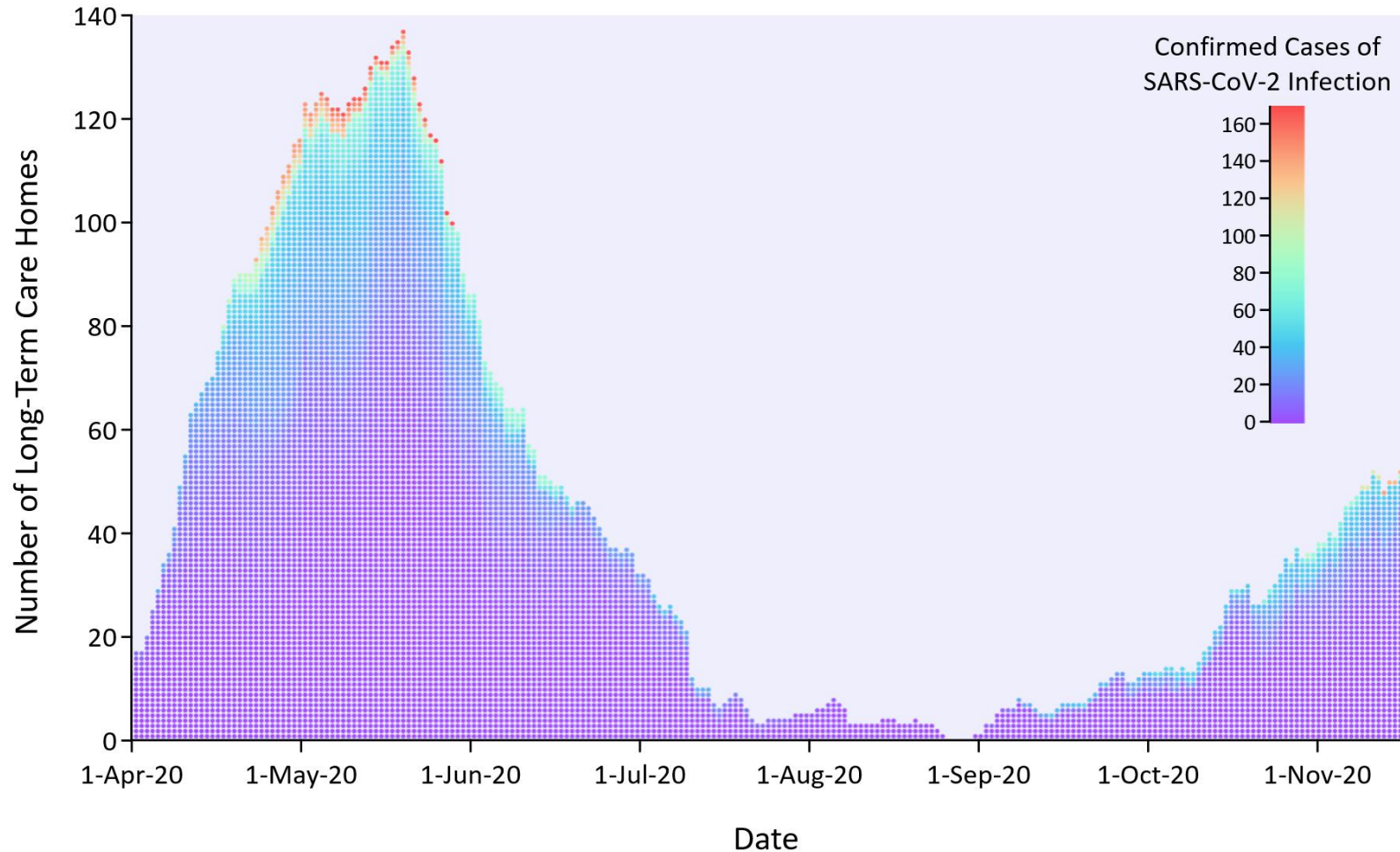
Key Messages

- Ontario LTC residents have experienced disproportionately high morbidity and mortality both from SARS-CoV-2 infection and from the conditions of the COVID-19 pandemic.
- Comparisons of waves 1 and 2 reveal improvement in some indicators. However, the second wave is intensifying in LTC. Without action we will see substantial loss of life before the arrival of a vaccine.
- The predictors for LTC outbreaks, spread of infection, and deaths are well documented and remain unchanged during the second wave.
- Some of the evidence on COVID-19 in Ontario LTC homes has been leveraged to support public health interventions and policies.
- There are a number of outstanding issues in the LTC sector. Several measures are proposed which have the potential to prevent COVID-19 outbreaks and deaths in LTC.

Overview of Ontario's LTC Sector

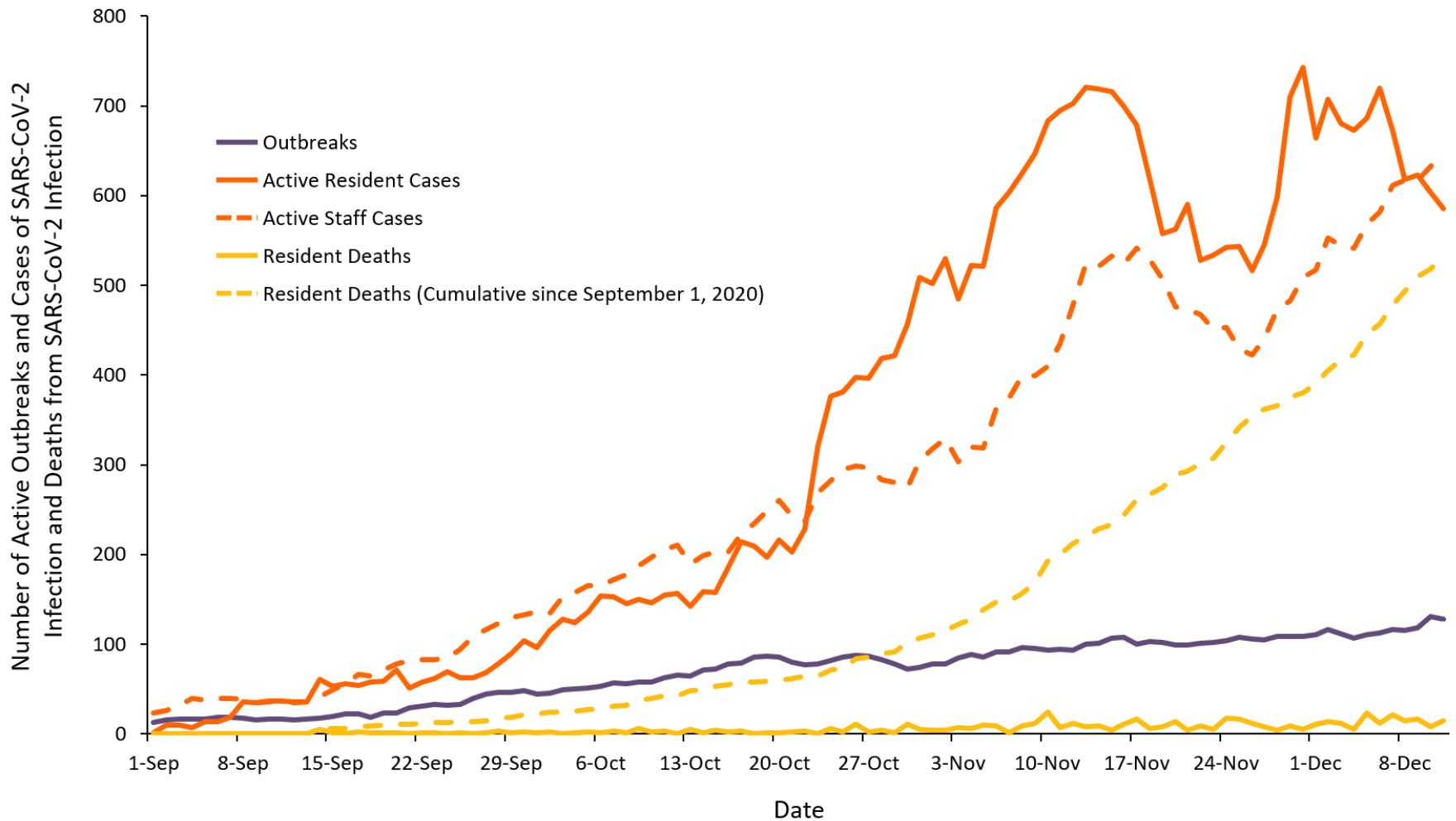
- Ontario has 623 licensed LTC homes and 77,257 long-stay beds
 - 58% are for-profit, 24% are non-profit/charitable, and 16% are municipal
 - ~300 homes are older and need to be redeveloped (more than 30,000 beds)
- Residents receive personal and nursing care as well as subsidized accommodation under a publicly funded LTC program
- As of February 2019, the average time to LTC placement was 161 days and the waitlist had nearly 35,000 individuals
- 90% of residents have some form of cognitive impairment and 86% need extensive help with daily activities
- Increasing complexity of newly admitted LTC residents

LTC Home Outbreaks in Waves 1 and 2



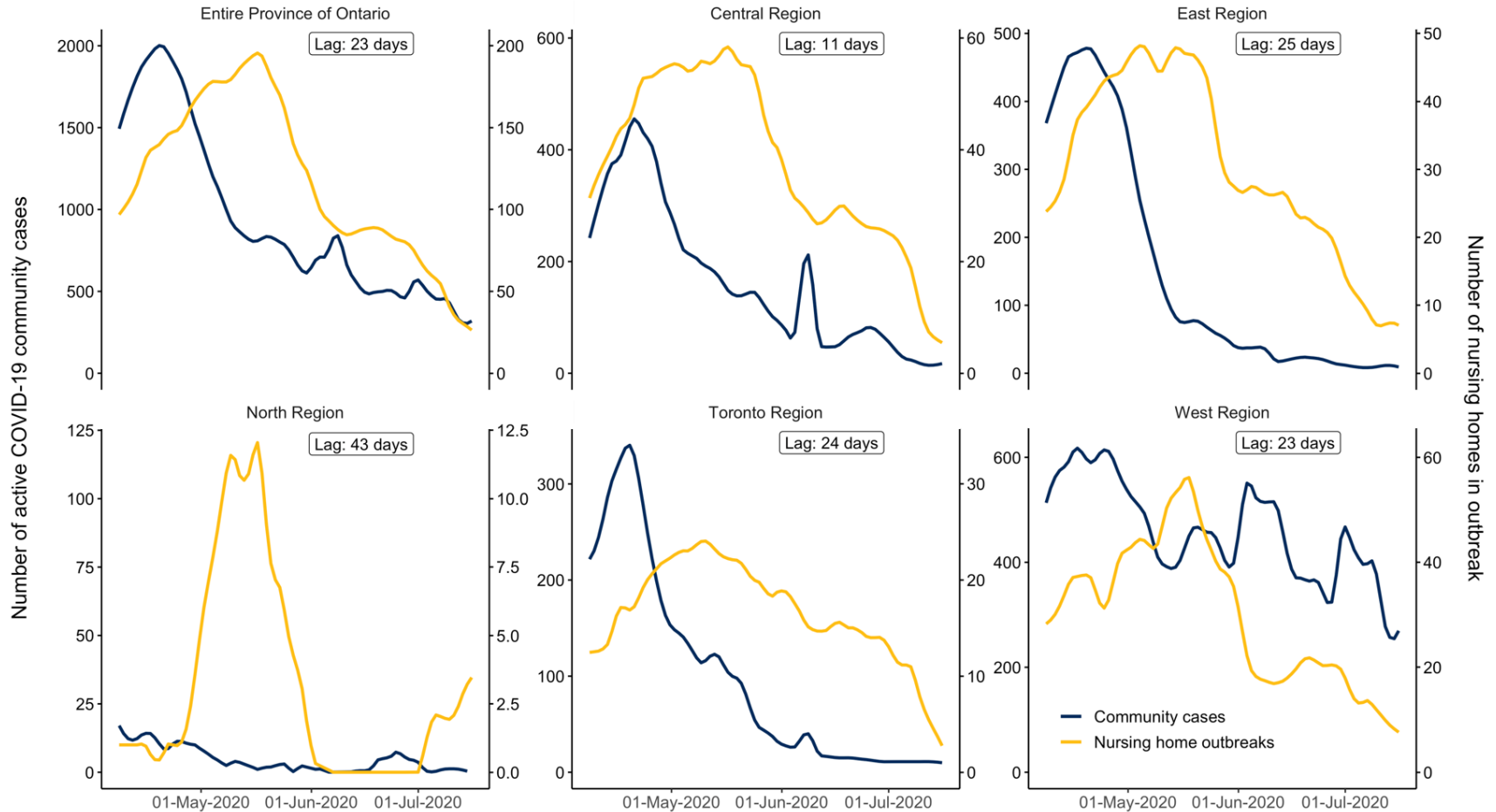
- Wave 1 = 5,987 resident cases, 1,910 resident deaths and 8 staff deaths
- Wave 2 = 3,304 resident cases and 543 resident deaths

The Second Wave in Ontario LTC Homes



■ 80% of the 543 resident deaths during the second wave have occurred November 1 to December 12, 2020

Community Incidence and LTC Outbreaks



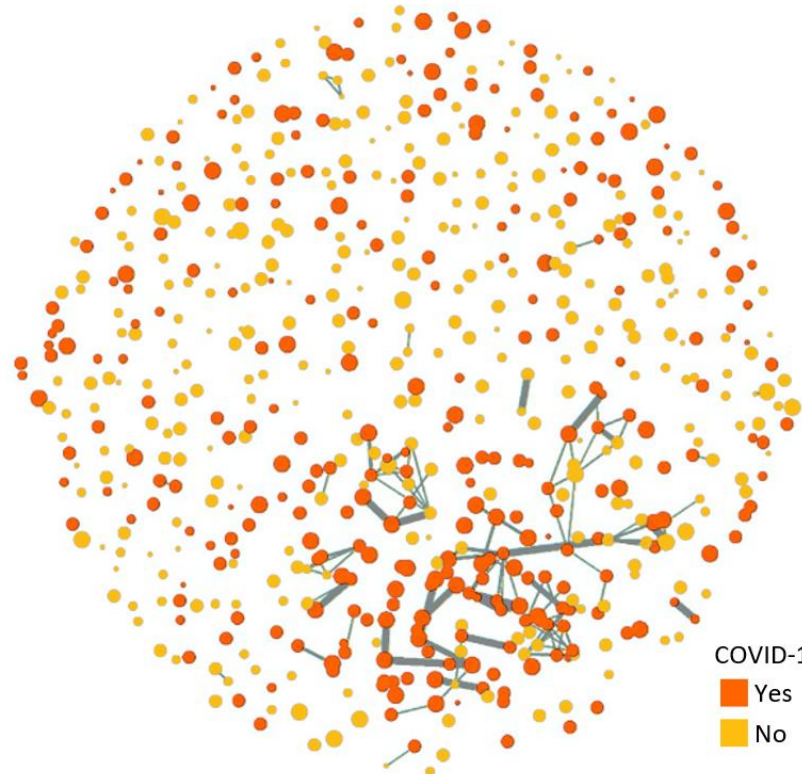
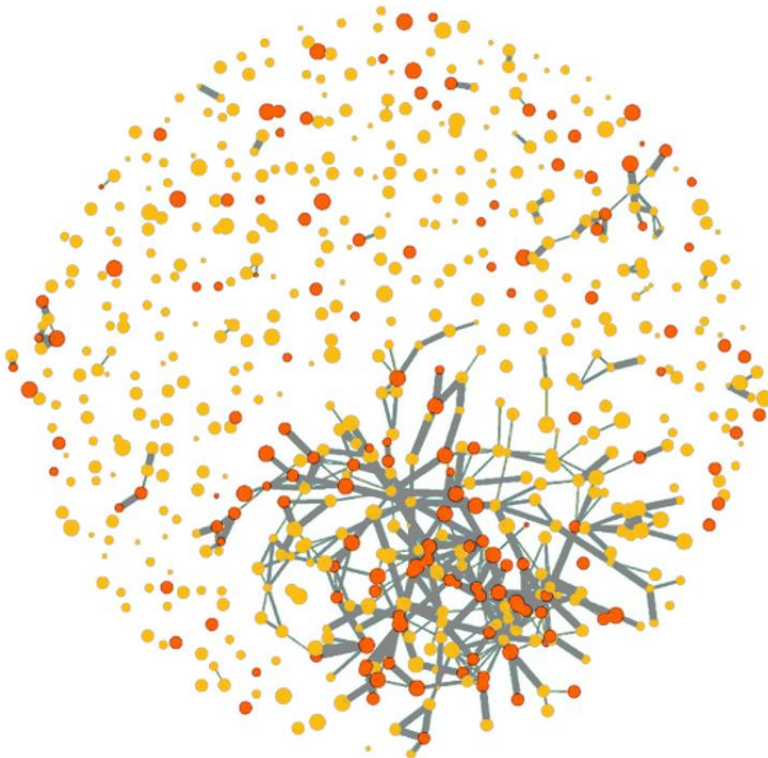
- When daily active COVID-19 community cases are 2.30 per 100,000, there is a 75% chance of a LTC home outbreak occurring five days later

Staff Mobility and LTC Homes

- Mobility data to analyze connections between homes during the 7 weeks before and after a single-site work order on April 21, 2020
- Number of connected homes dropped from 266 (43%) to 79 (13%) during the period after restrictions, a drop of 70% ($p < 0.001$)

Before (March 1 to April 21, 2020)

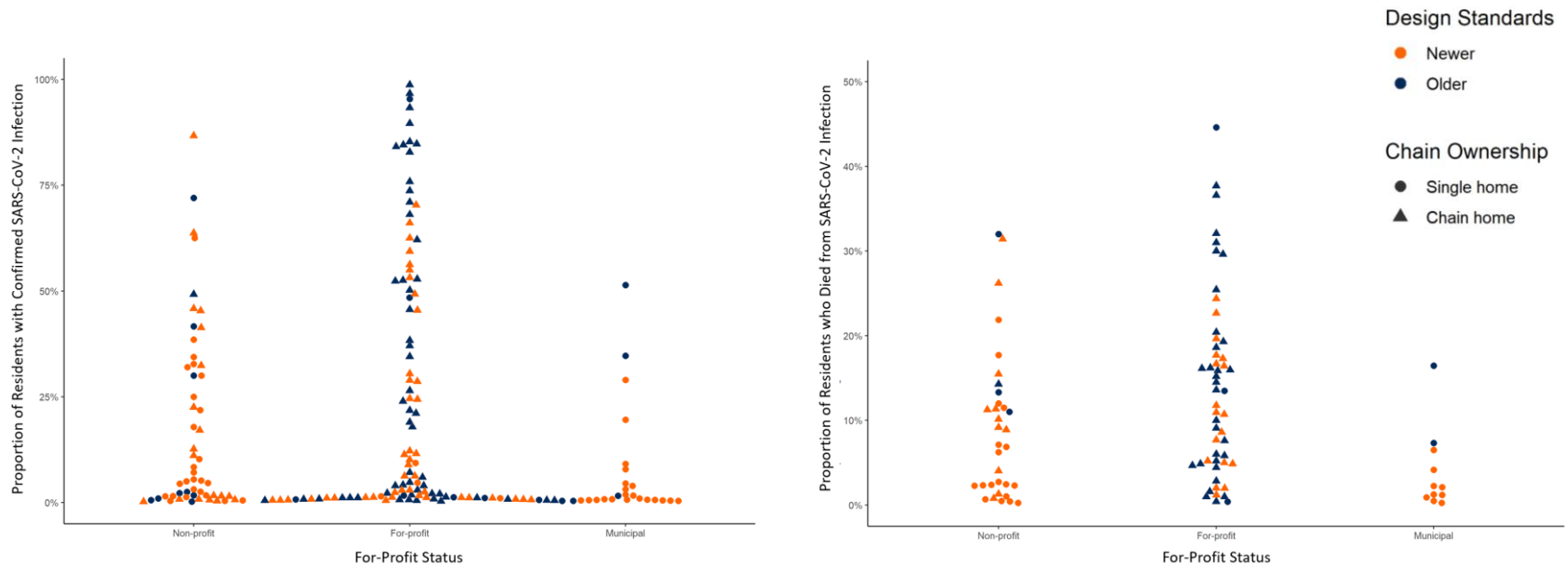
After (April 22 to June 13, 2020)



COVID-19 Outbreak
■ Yes
■ No

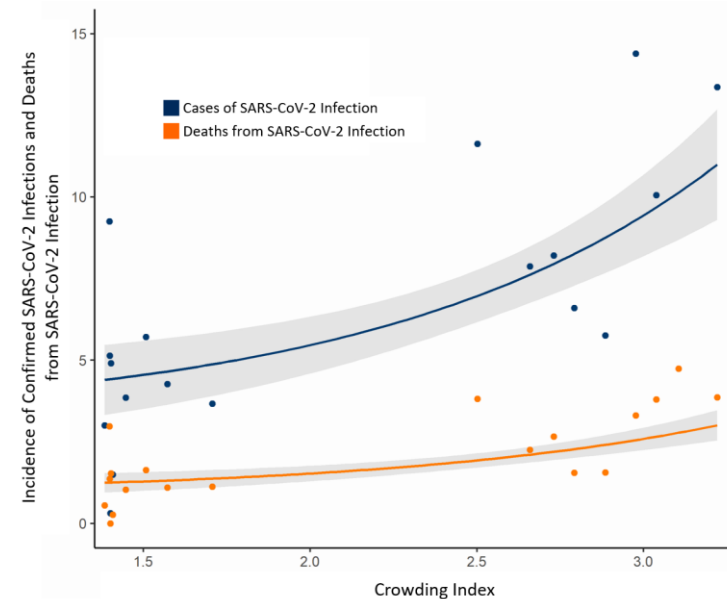
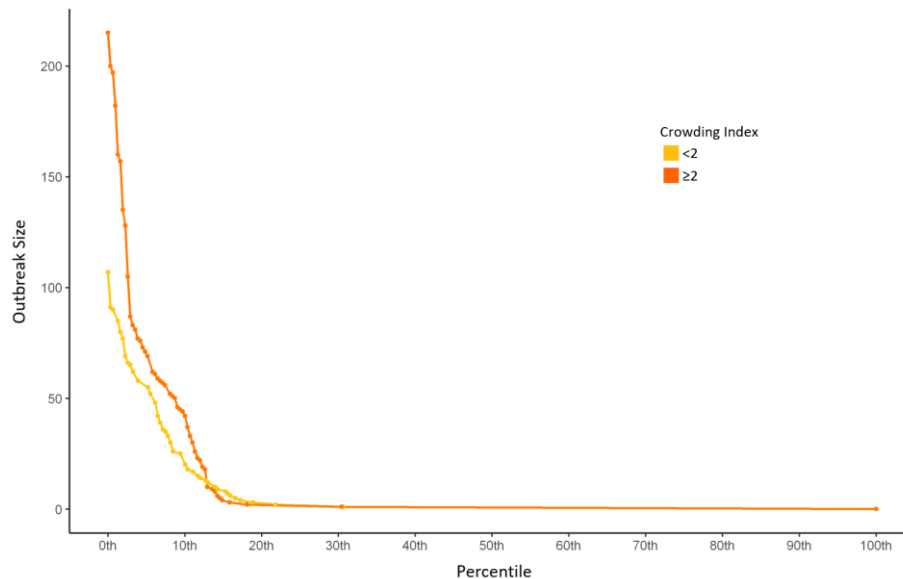
For-Profit Status and COVID-19 Outbreaks

- Retrospective cohort study of all LTC homes from Mar 29-May 20, 2020
- Outbreak risk associated with community incidence but not-profit status
- Compared with non-profit homes, for-profit homes had larger (adj. RR = 1.96) and deadlier COVID-19 outbreaks (adj. RR = 1.78)
- Associations mediated by older design standards and chain ownership

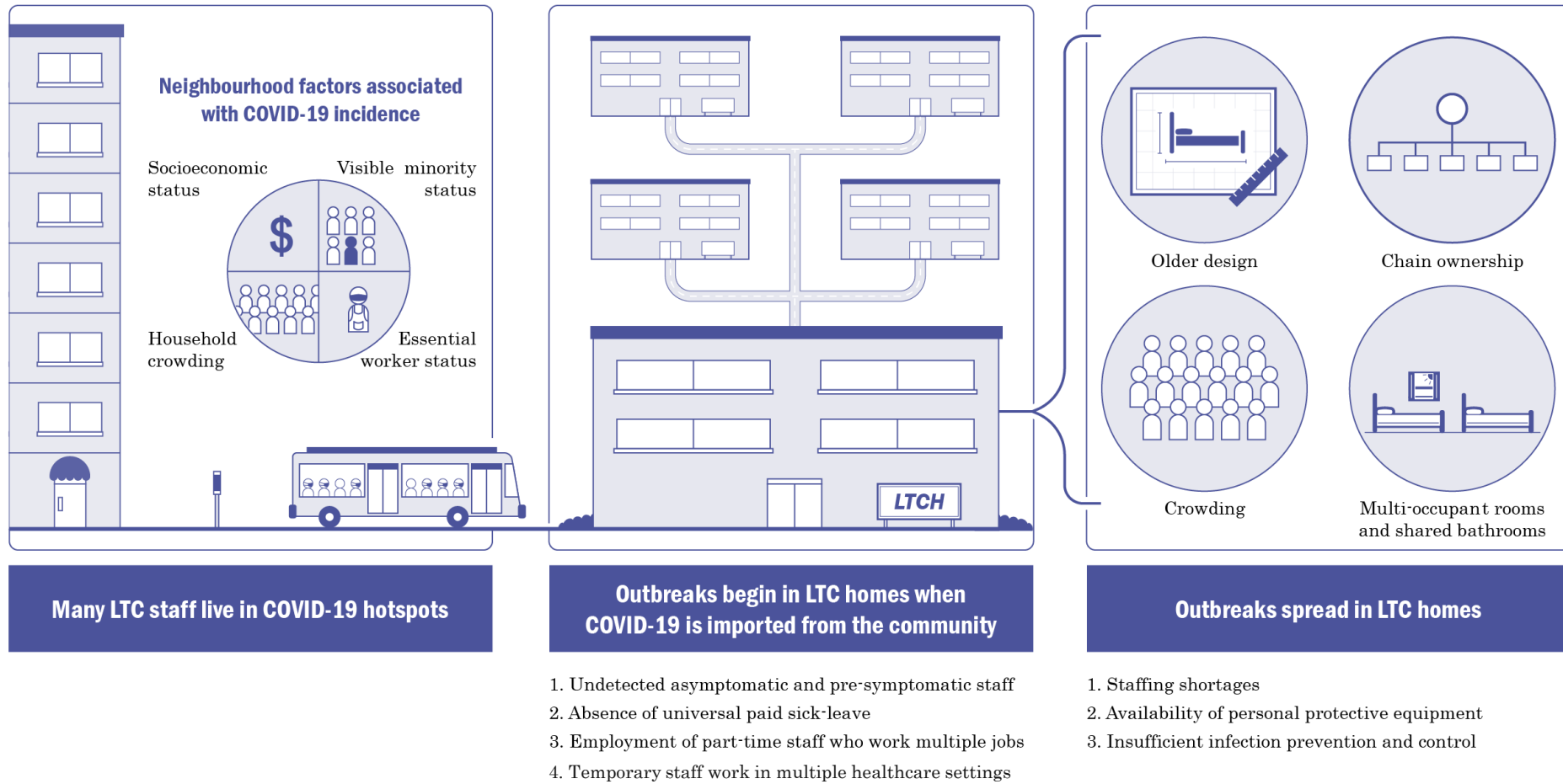


LTC Home Crowding and COVID-19

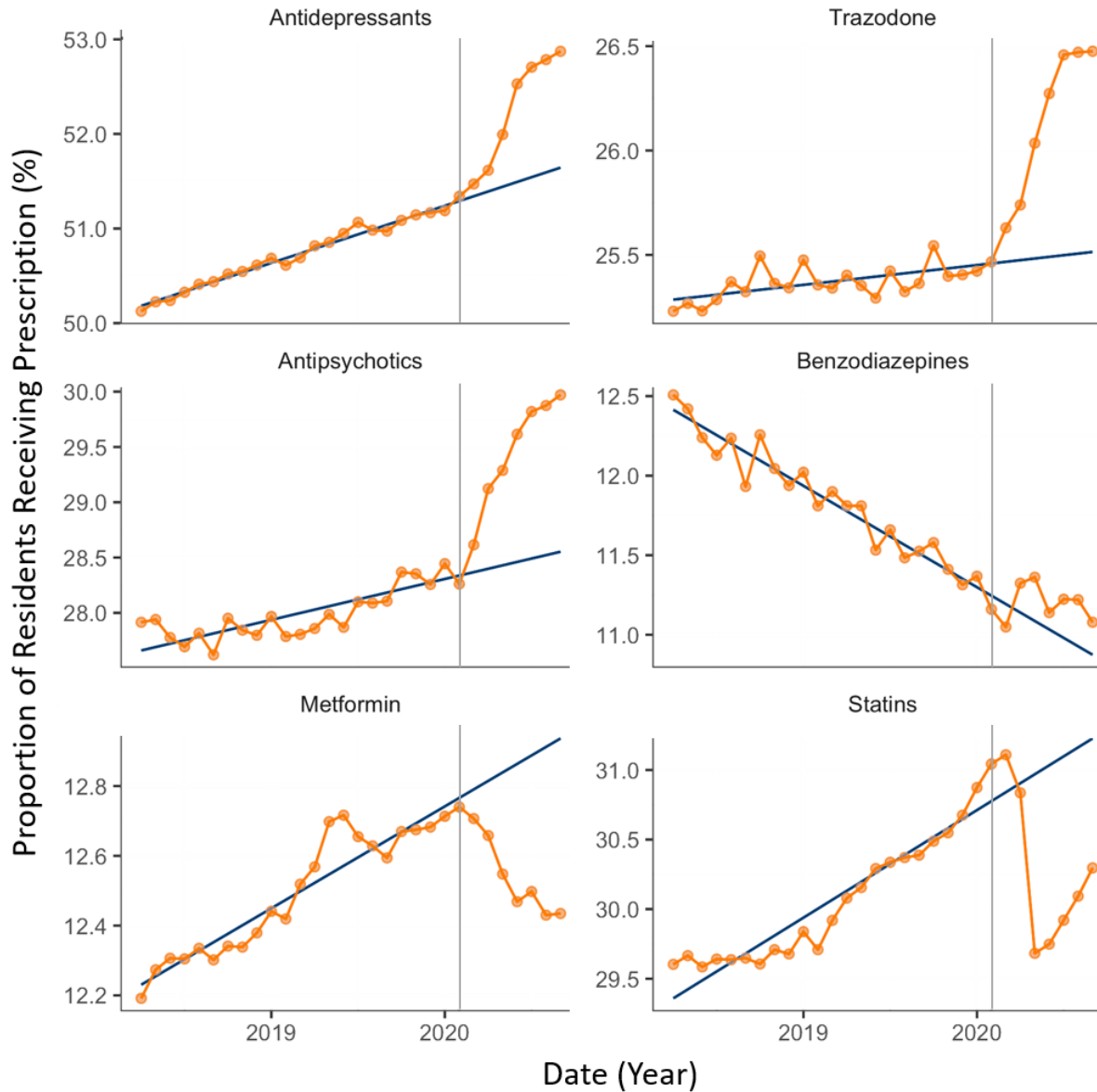
- Retrospective cohort study of all LTC homes from Mar 29-May 20, 2020
- Crowding index (mean residents per room & bathroom) associated with increased incidence of infection (RR = 1.73) and mortality (RR = 1.69)
- Converting all 4-bed rooms to 2-bed rooms would have averted 998 COVID-19 cases (19.1%) and 263 COVID-19 deaths (18.1%)
- Would require 5,070 new 2-bed rooms



Anatomy of LTC Outbreaks and Spread



Psychotropic Prescribing to Residents



How Has the Evidence Informed Policy?

- Provincial pandemic surveillance tools now incorporate documented risk factors for LTC outbreaks and deaths
 - Community incidence of COVID-19, older design standards, chain ownership and the crowding index
- Emergency order restricting LTC staff from working in more than one LTC home or healthcare setting within a 14-day period
 - Did not apply to temporary agency staff or other contract staff
- Directive #3 revised to reduce crowding by limiting admissions and occupancy to no more than two LTC residents per room
- LTC visitor policy revised allowing each resident to designate 1-2 essential family caregivers who can visit without time limits, including when a home is in outbreak

Measures That Could Be Effective

1. Promote staff entry and retention in the sector by improving the conditions of work
2. Prevent LTC worker infection with community tailored approaches
3. Further decrowd homes by continuing limits on occupancy and securing temporary housing
4. Detect LTC worker infection and prevent importation into LTC homes by prioritizing workers for testing and turnaround time, and by guaranteeing workers paid sick leave

Measures That Could Be Effective

5. Continue enhancing IPAC by securing one specialist per 200 beds in LTC homes
6. Pursue a more balanced and nuanced approach to public health measures and infection prevention in LTC homes
7. Secure advanced consent for vaccination from residents and implement strategies to improve vaccine acceptance in the LTC sector
8. Continue optimizing data on LTC homes for the duration of the COVID-19 pandemic

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Thank you