

# Update on COVID-19 Projections

Science Advisory and Modelling Consensus Tables

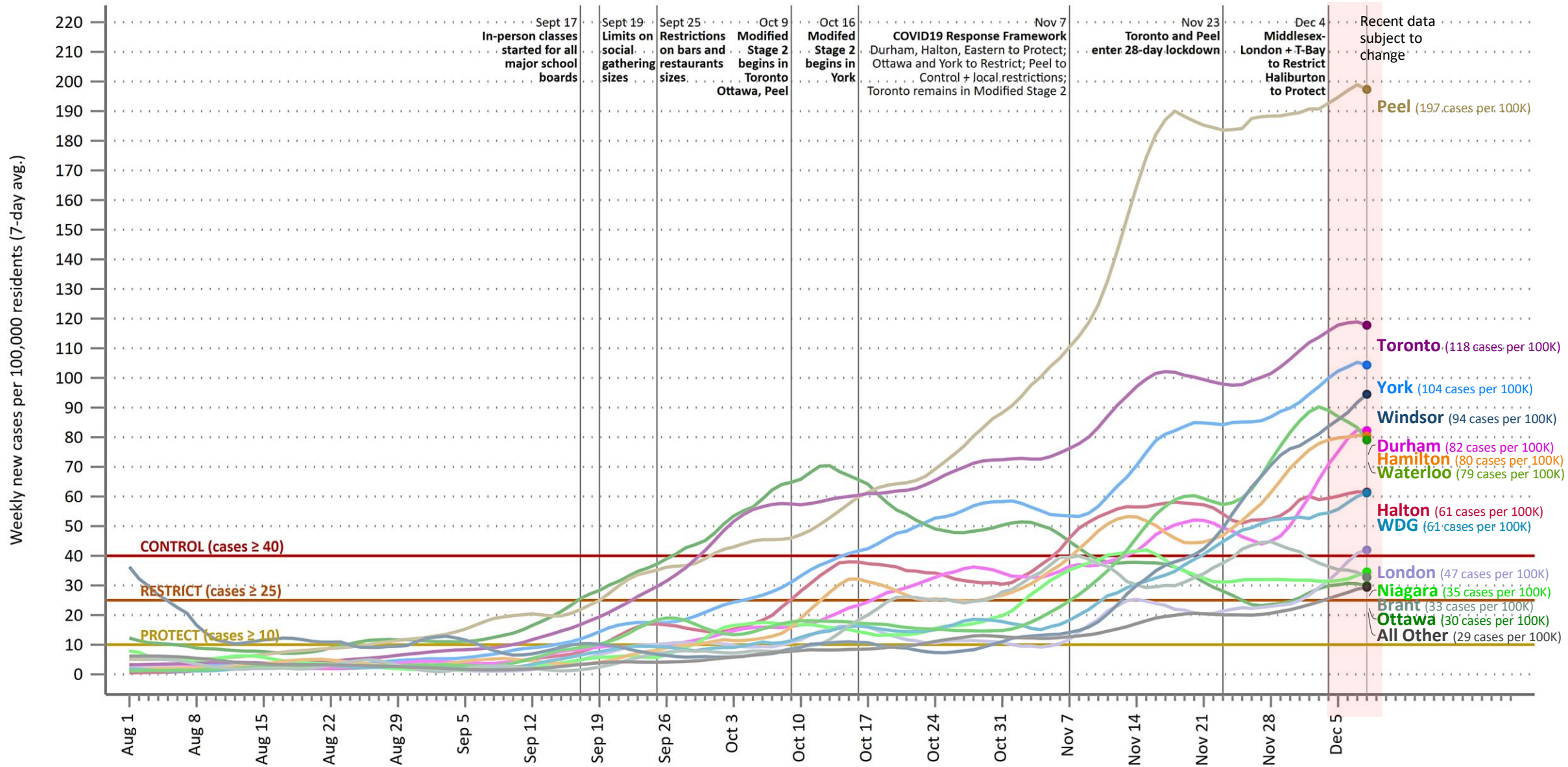
December 10, 2020



# Key Findings

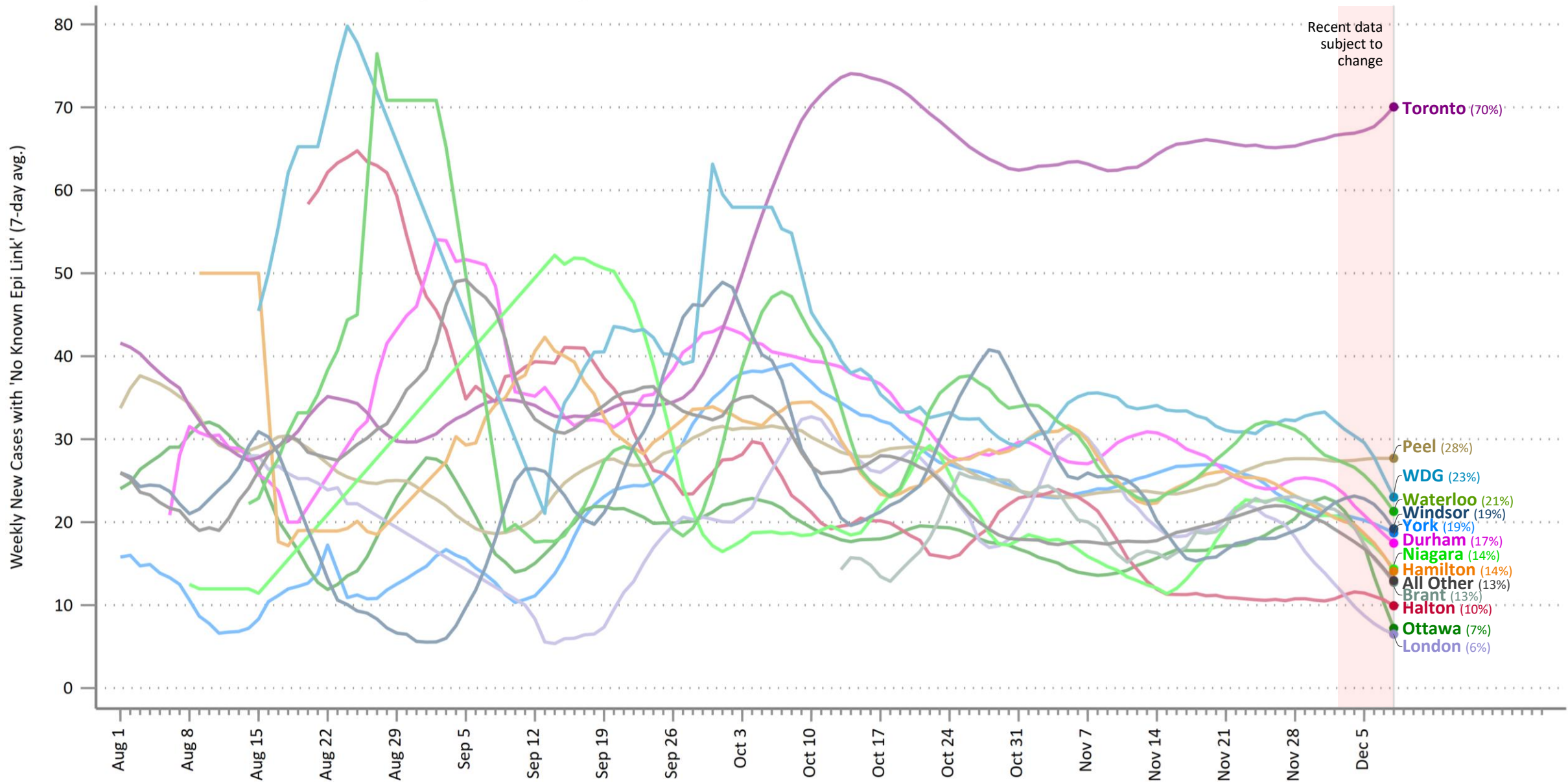
- Cases continue to grow while percent positivity appears to be flattening. The impact of the Pandemic still varies widely across and within public health units.
- Long-term care and overall mortality continue to increase and may exceed 25 deaths per day within a month.
- The reproduction number is fluctuating around 1 which means that we are at a critical juncture where case rates may change quickly.
- ICU occupancy will continue above 200 beds for the next month and may go higher, particularly if public health interventions are relaxed. Access to care deficits will persist.
- For Ontarians with access to suitable housing and employment outside of essential services, case rates have increased at a slower pace.
- Current lockdown has not had nearly as much impact on mobility (and likely contacts) as lockdown did in March. Relaxation of public health interventions with a widening prevention gap will likely lead to even higher case growth.

# Total new cases per 100,000 residents per week across PHUs



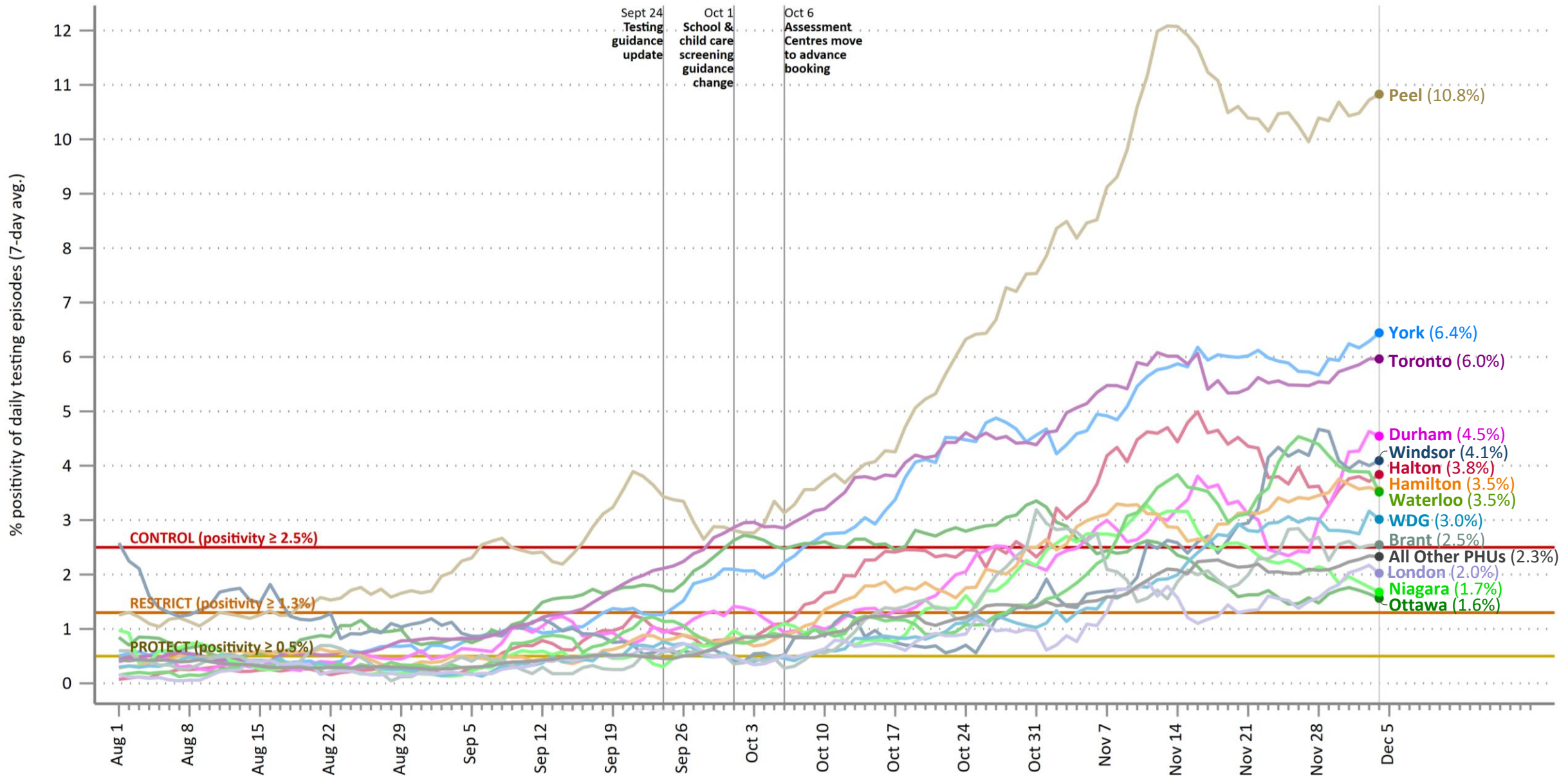
Data Source: Case and Contact Management System (CCM), data up to December 8  
 PHUs are Public Health Units

# New cases with no epidemiological link across PHUs

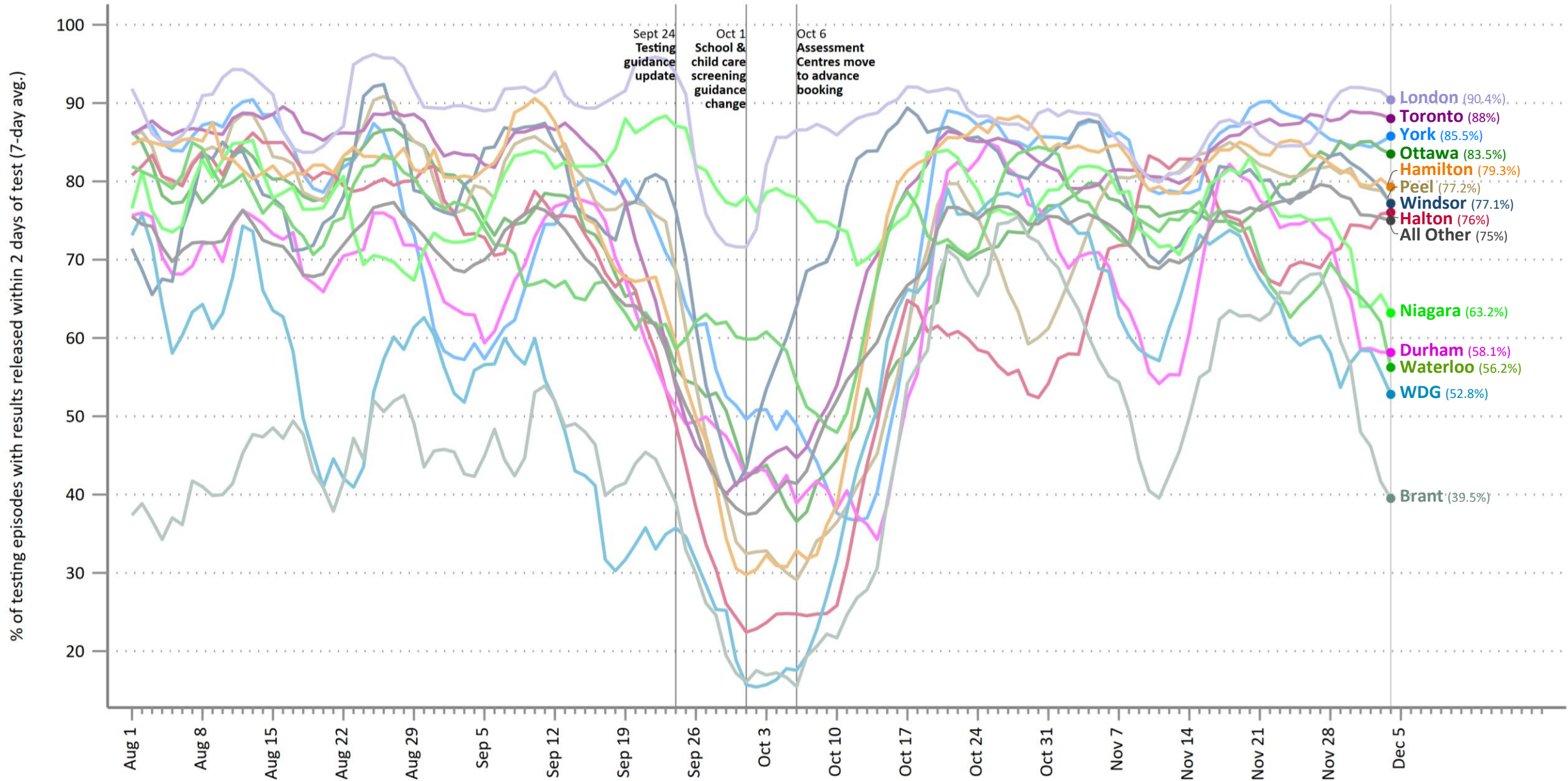


Data Source: Case and Contact Management System (CCM), data up to December 8

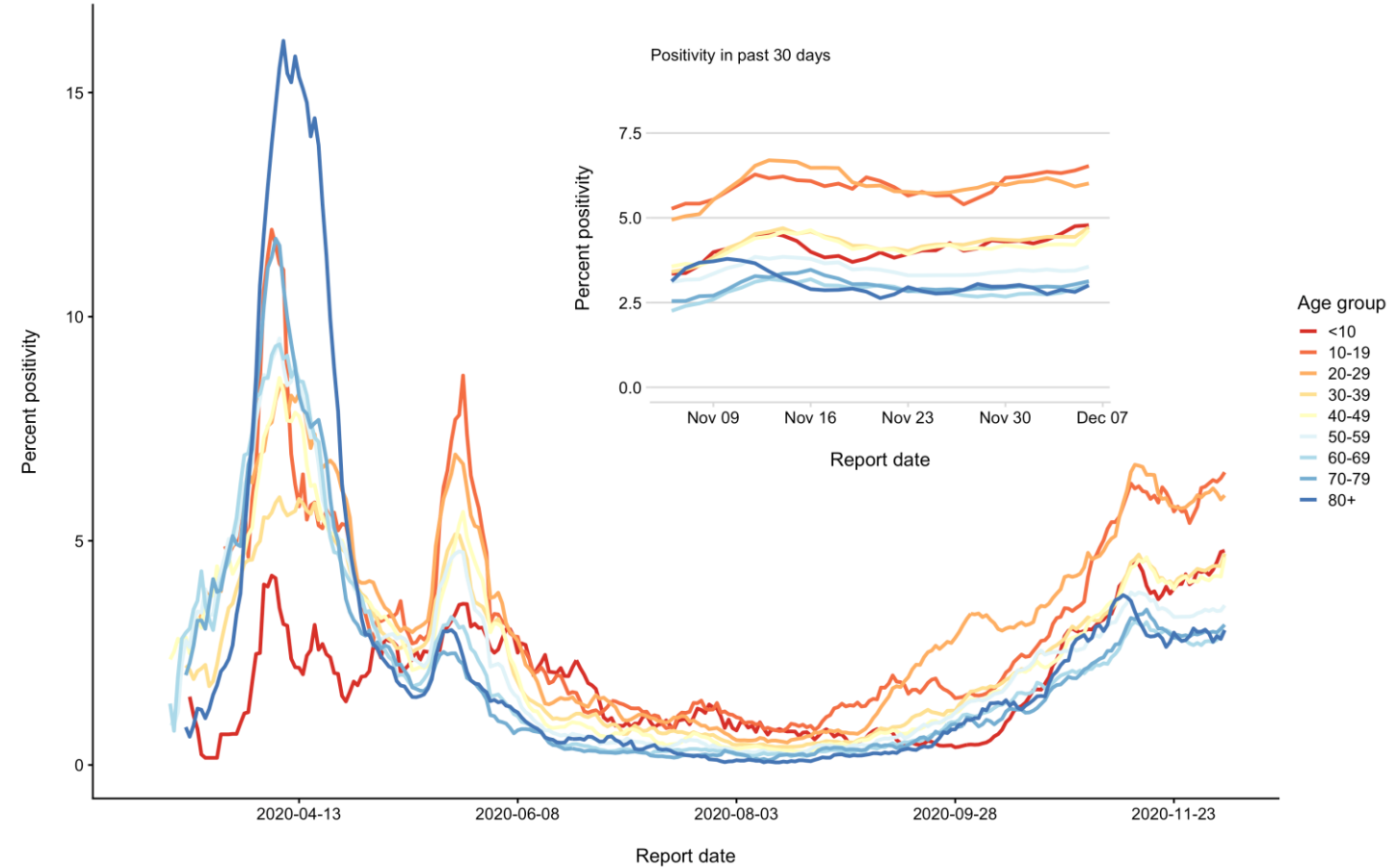
# COVID-19 testing % positivity across PHUs



# Percent of COVID test results returned within 2 days across PHUs



# Weekly % positivity by age group

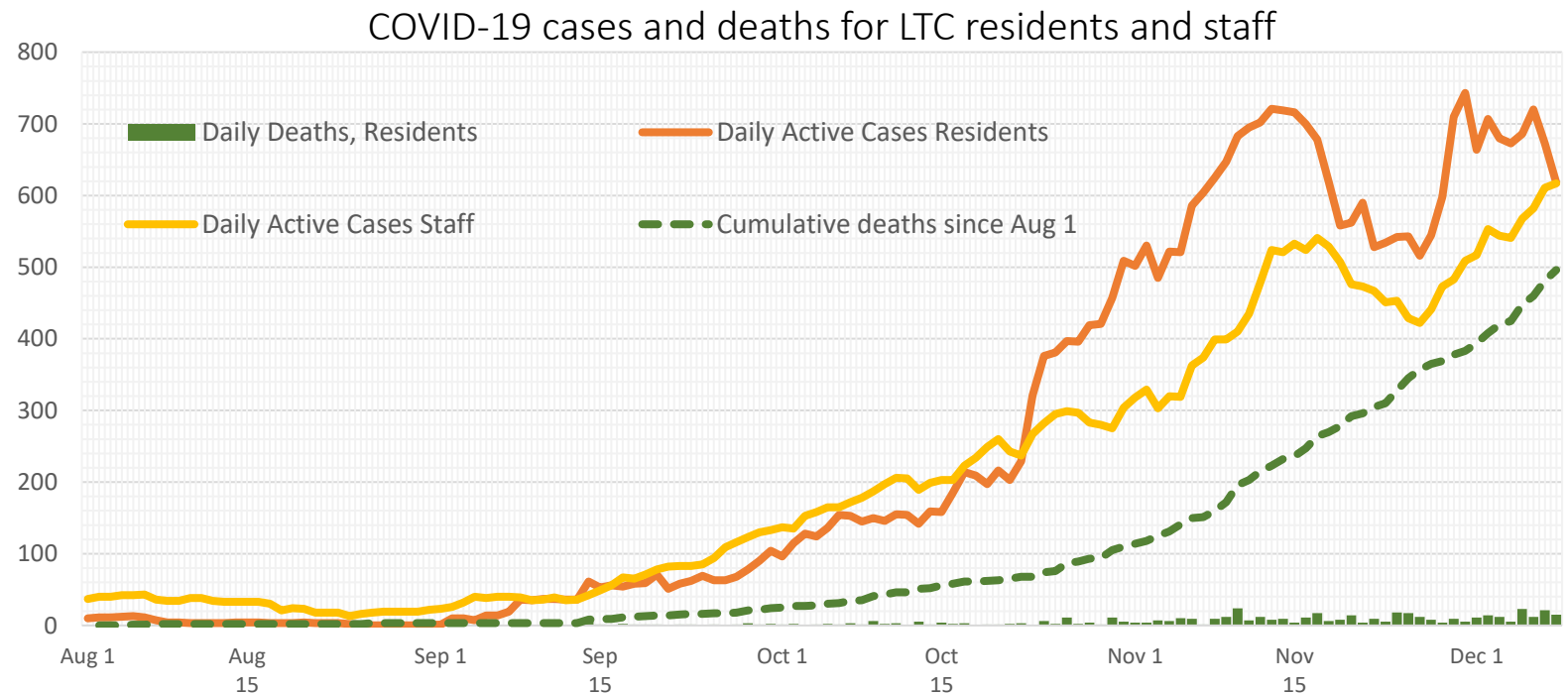


# Cases in LTC flattening, while deaths remain high (102 deaths in the past 7 days)

## LTC Home cases and outbreaks

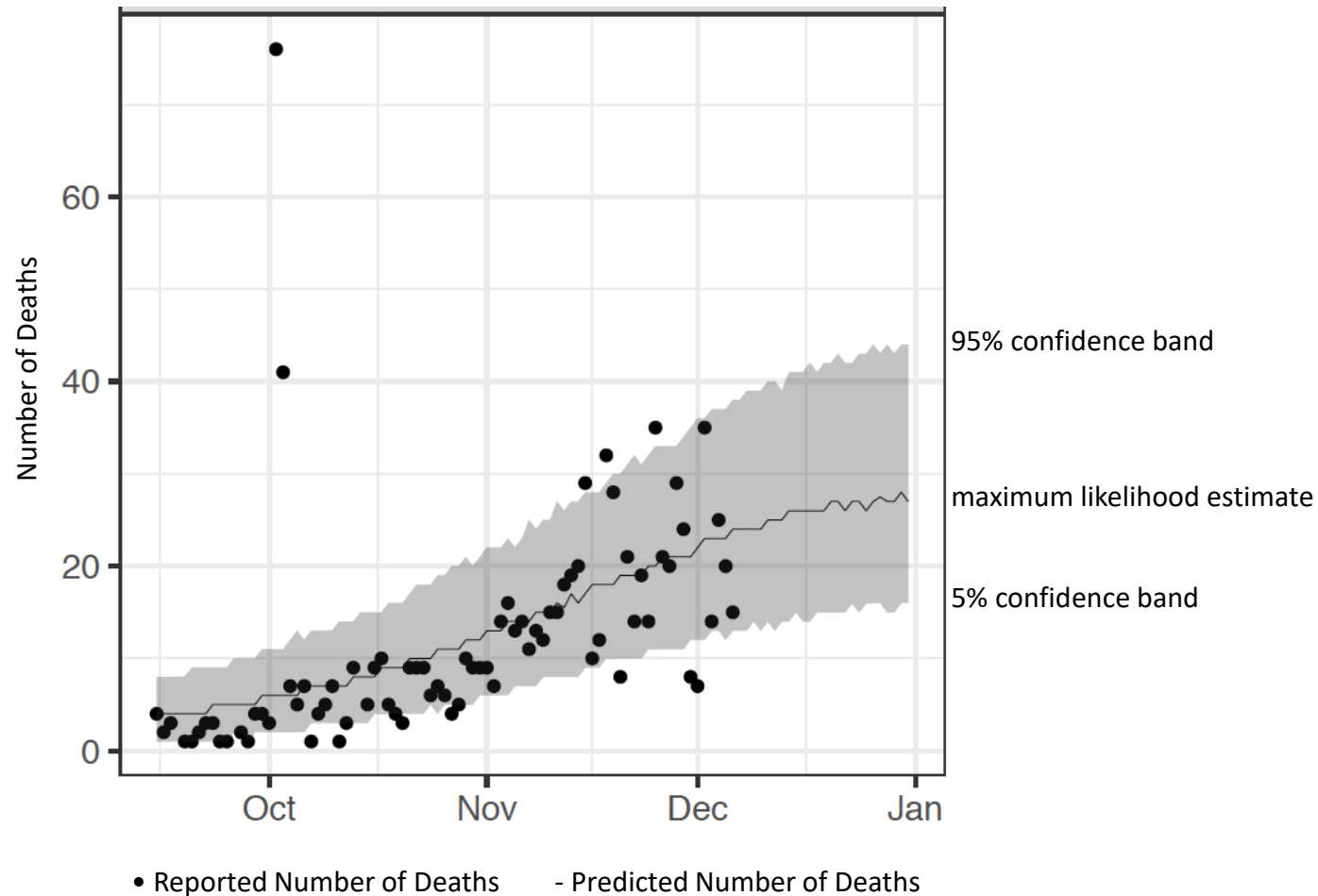
### Current status (Dec 8)

- **115 homes currently in outbreak, with 1194 confirmed cases currently in these homes**
- **There have been 496 resident deaths since Aug 1<sup>st</sup> (493 since Sept 1<sup>st</sup>) 102 of which have been in the past 7 days**
- **37 of the 115 homes in outbreak are based on 1 staff case**



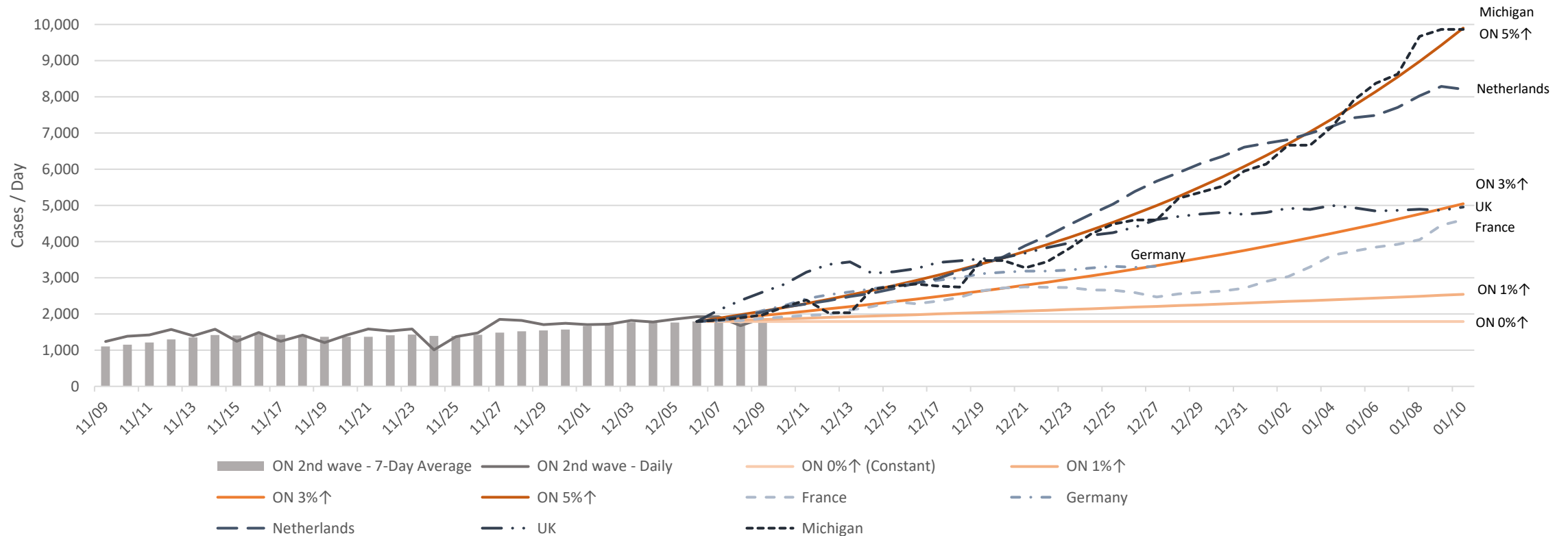


# Daily mortality is increasing and based on forecasting will continue to increase



# Ontario is following case growth of peer countries

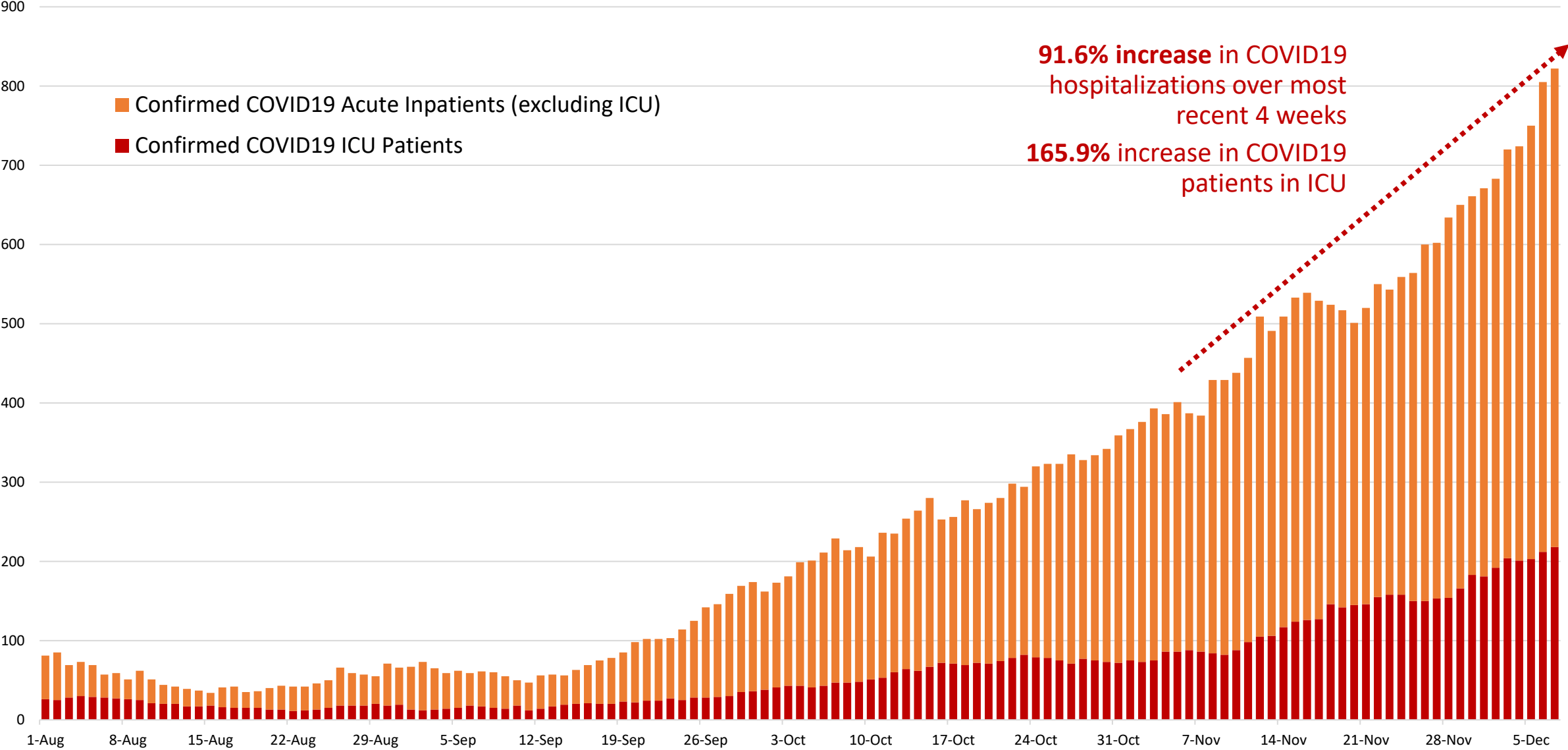
Projected Ontario cases at 0, 1, 3 and 5% increases per day mapped to progression in peer countries starting at 12/100,000 cases/day



Note: Ontario reached 12/100,000 cases between 1.5 and 3 months after these countries

Predictions informed by modeling from McMasterU, COVID-19 ModCollab, PHO; recent growth in new daily cases; reported cases in peer jurisdictions  
 Data (Observed Cases): covid-19.ontario.ca; <https://ourworldindata.org>; covidtracking.com

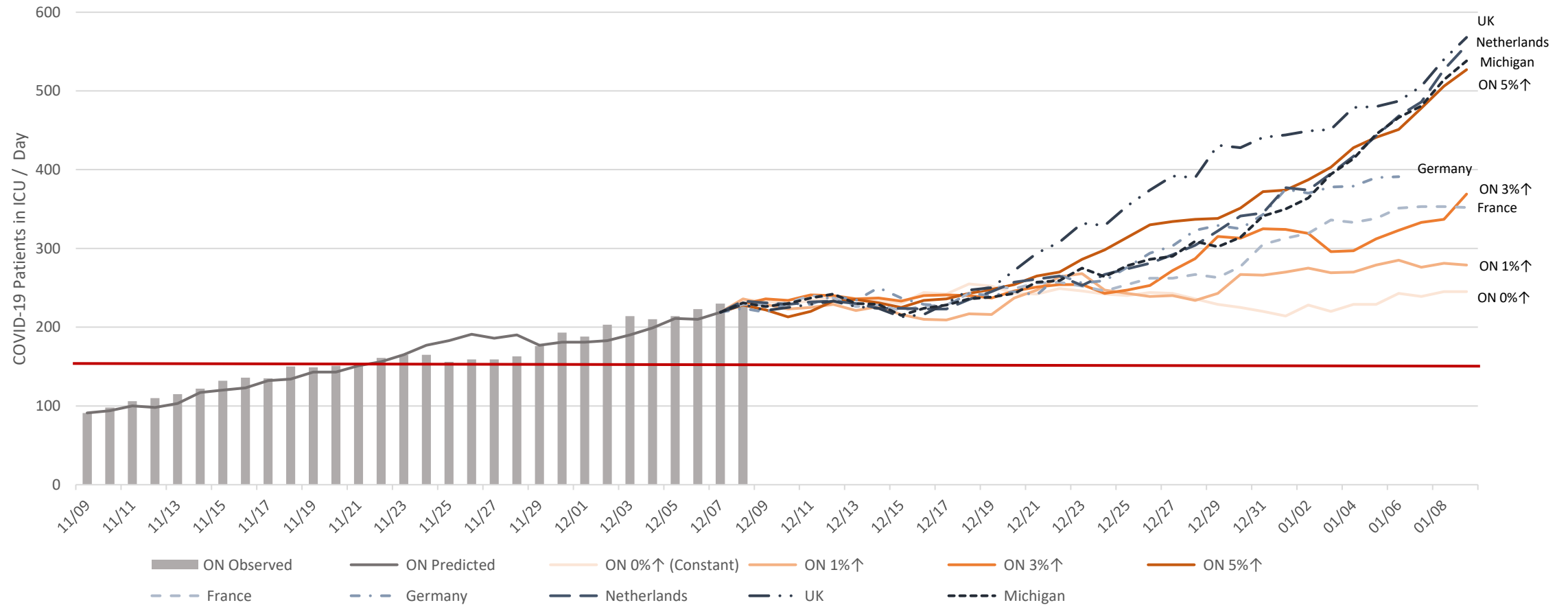
# COVID-19 hospitalizations and ICU admissions continue to rise



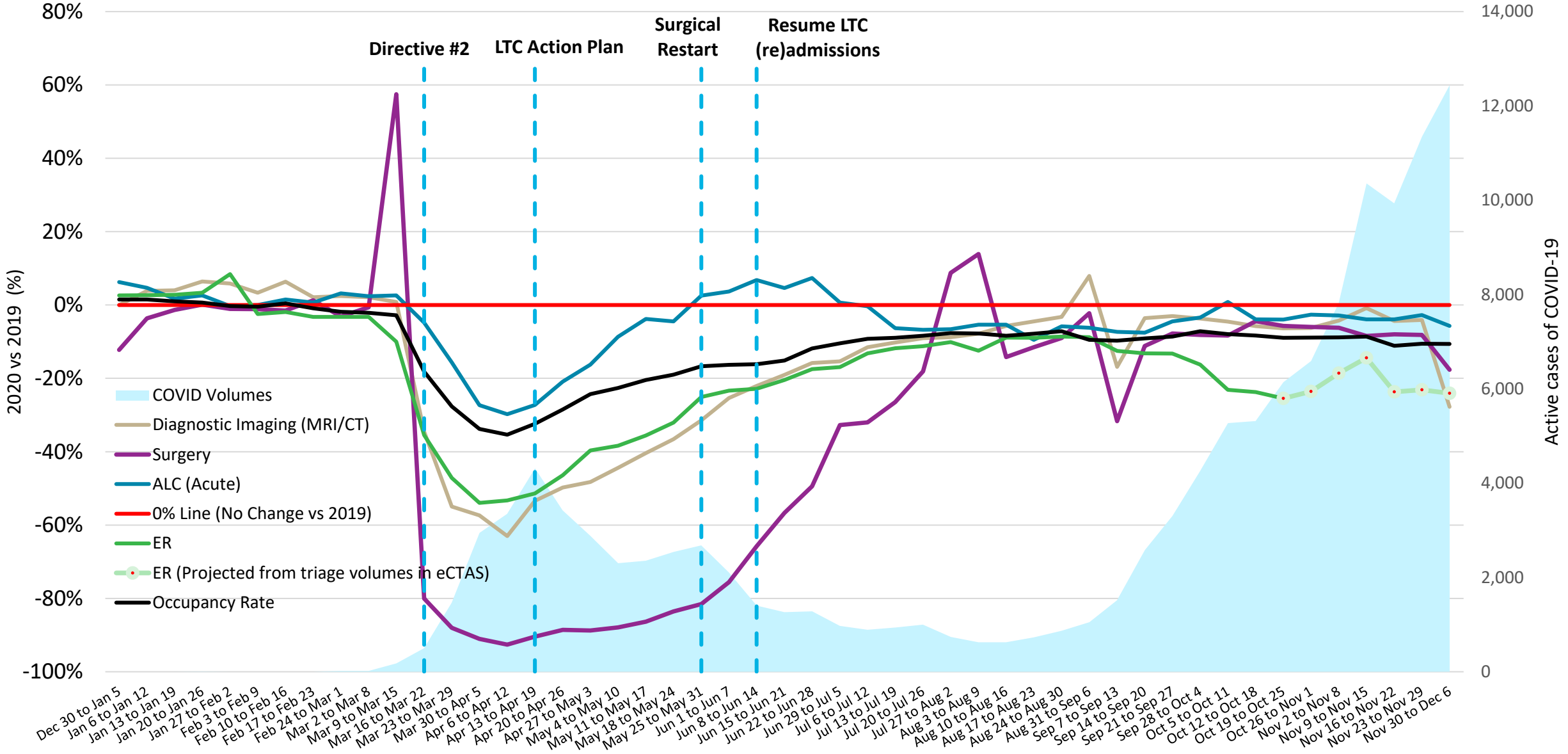
**91.6% increase** in COVID19 hospitalizations over most recent 4 weeks

**165.9% increase** in COVID19 patients in ICU

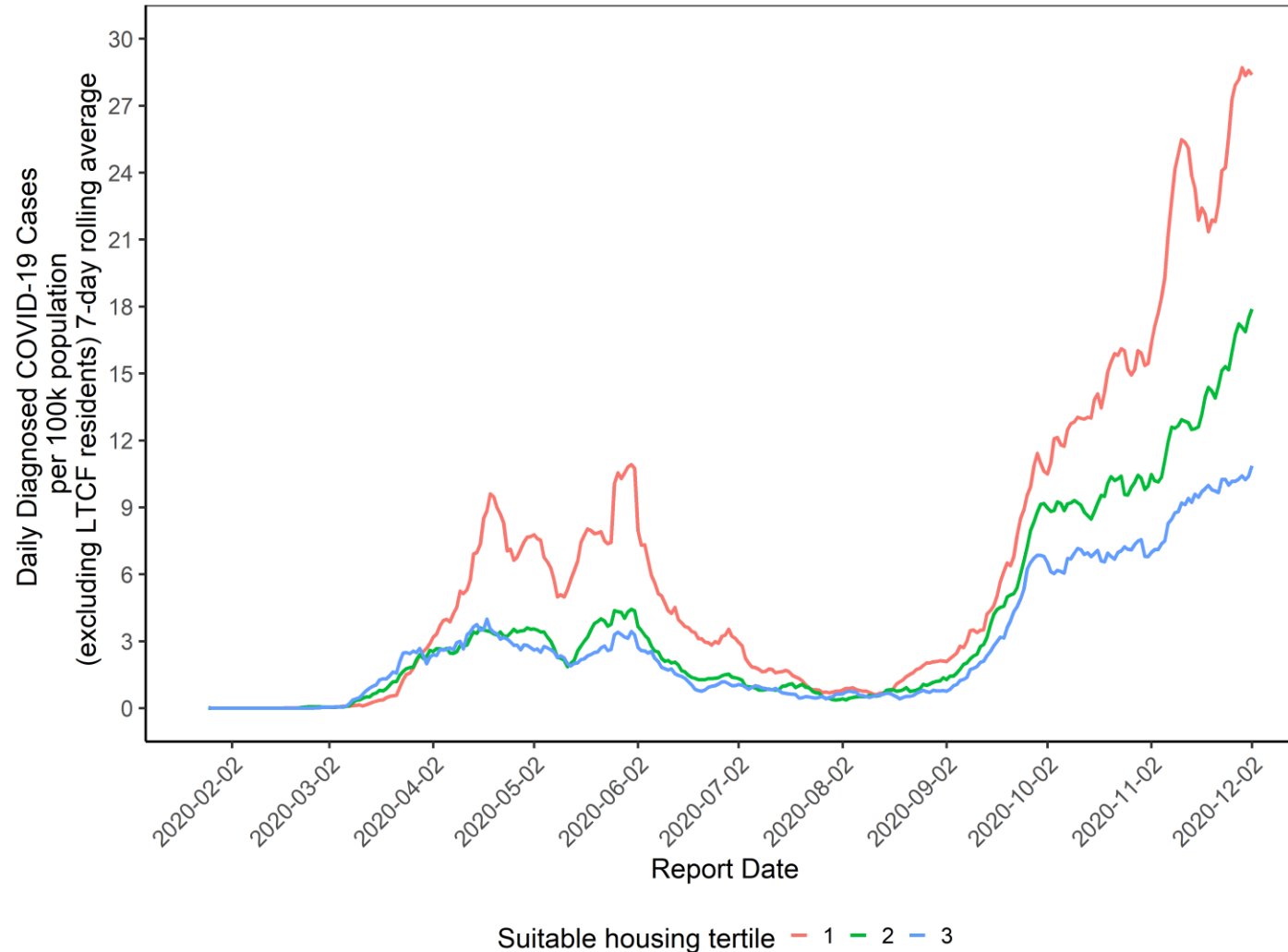
# Projections: ICU Occupancy > 200 beds under all scenarios for at least a month



# Access to care continues well below 2019 volumes

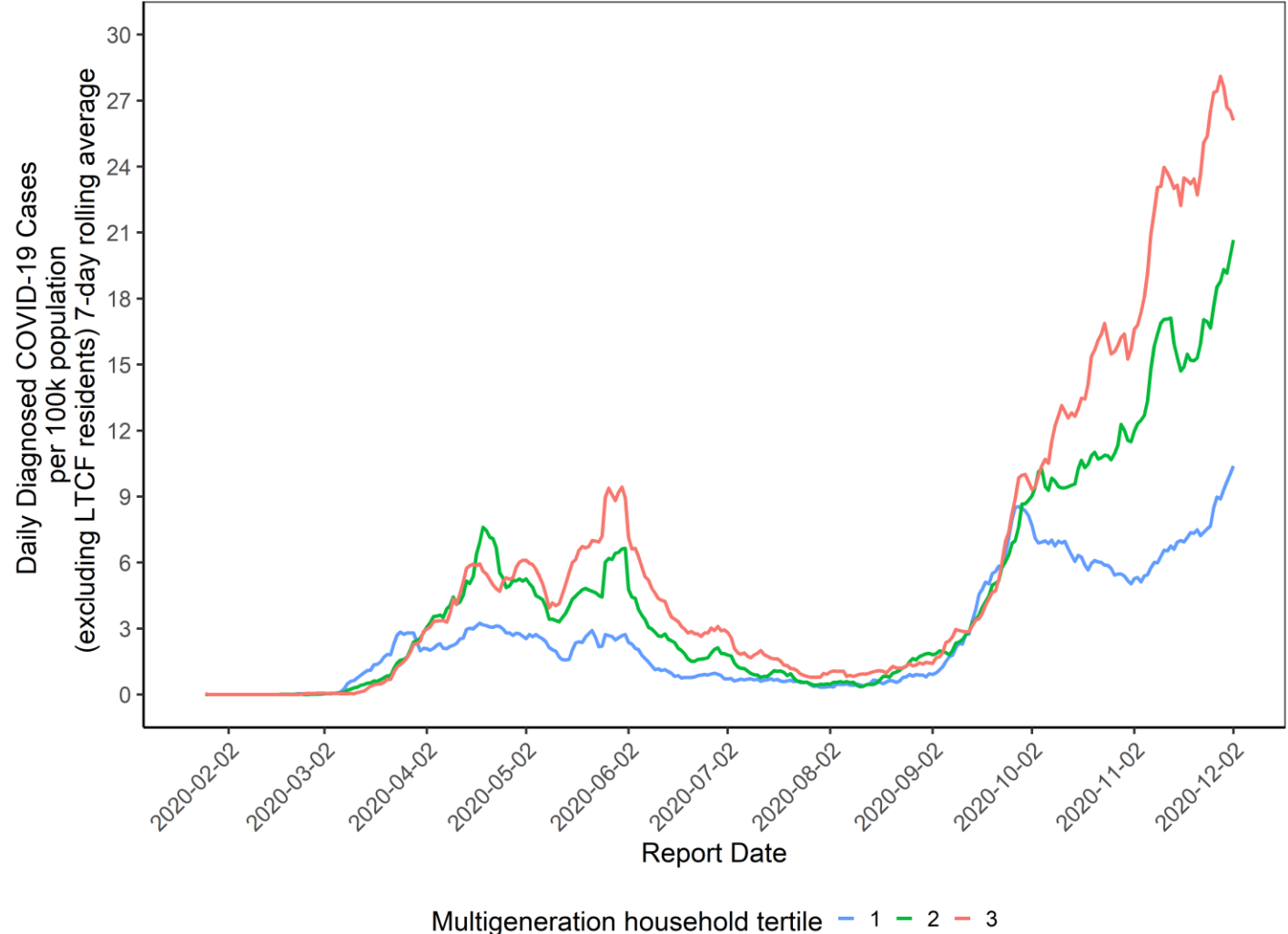


# Communities with access to suitable housing have lower case growth but all rates are increasing



City of Toronto, excluding  
LTCH residents, up to  
Dec 2, 2020 : 7-day  
rolling average

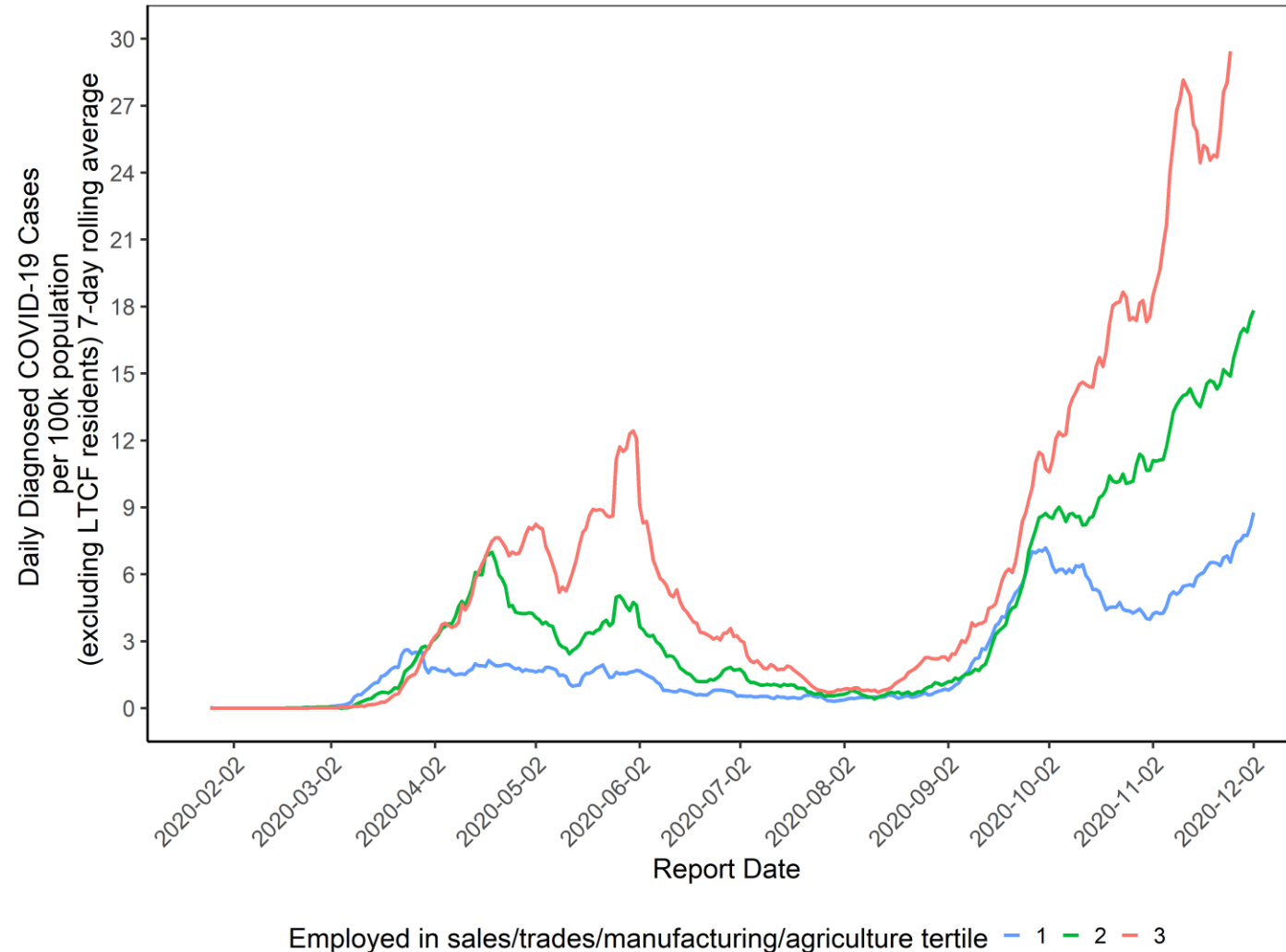
# Communities with more multi-generational housing have higher case growth but all rates are increasing



City of Toronto, excluding LTCH residents, up to Dec 2, 2020 : 7-day rolling average

University of Toronto, St. Michael's Hospital, and ICES. Data: iPHIS and StatsCan

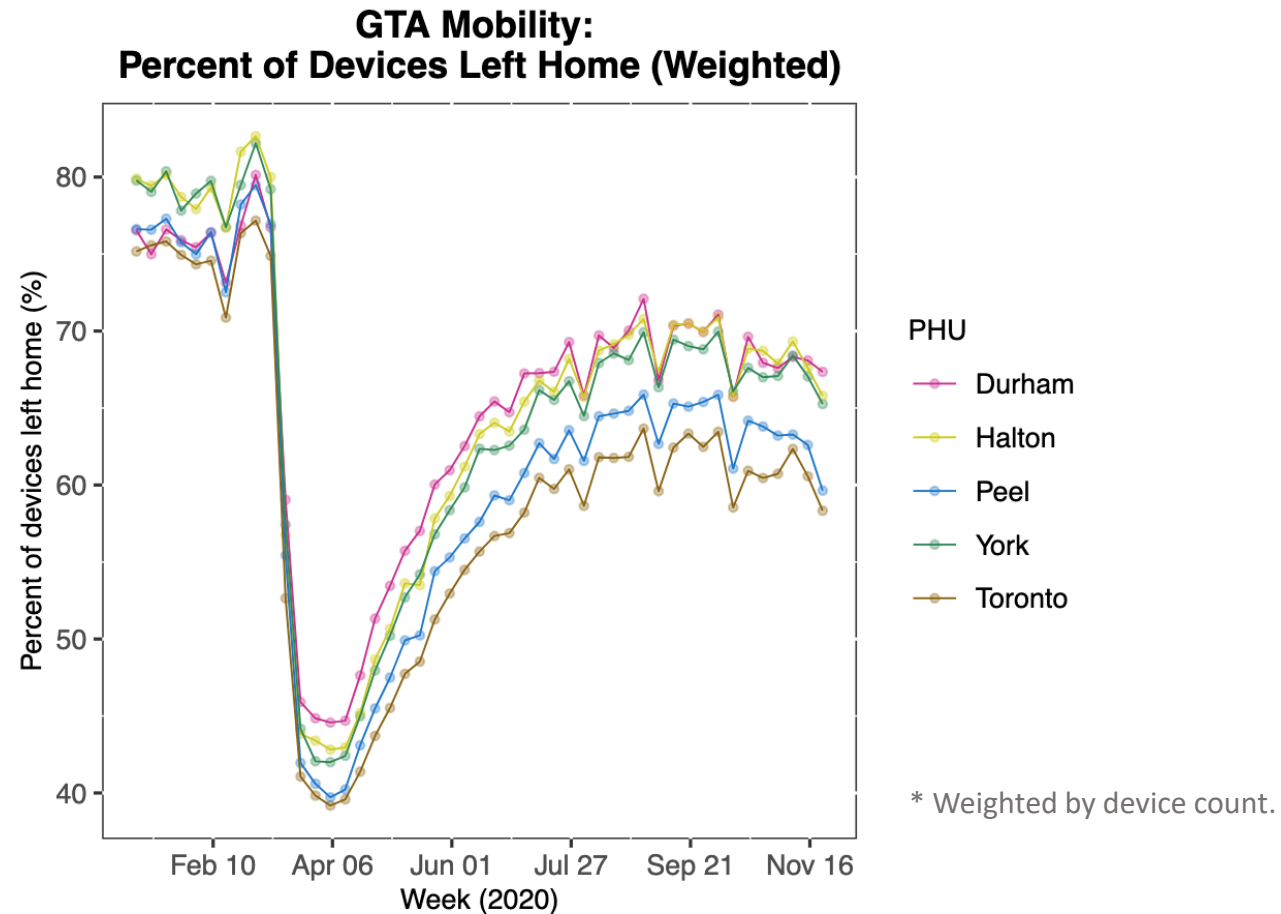
# Communities with more non-health care essential work have higher case growth but all rates are increasing



City of Toronto, excluding LTCF residents, up to Dec 2, 2020 : 7-day rolling average



# Current restrictions have had less effect on mobility than in the Spring



# Key Findings

- Cases continue to grow while percent positivity appears to be flattening. The impact of the Pandemic still varies widely across and within public health units.
- Long-term care and overall mortality continue to increase and may exceed 25 deaths per day within a month.
- The reproduction number is fluctuating around 1 which means that we are at a critical juncture where case rates (and other impacts) may change quickly.
- ICU occupancy will continue above 200 beds for the next month and may go higher, particularly if public health interventions are relaxed. Access to care deficits will persist.
- For Ontarians with access to suitable housing and employment outside of essential services, case rates have increased at a slower pace.
- Current lockdown has not had nearly as much impact on mobility (and likely contacts) as lockdown did in March. Relaxation of public health interventions with a widening prevention gap will likely lead to even higher case growth.