

Update on COVID-19 Projections

Science Advisory and Modelling Consensus Tables

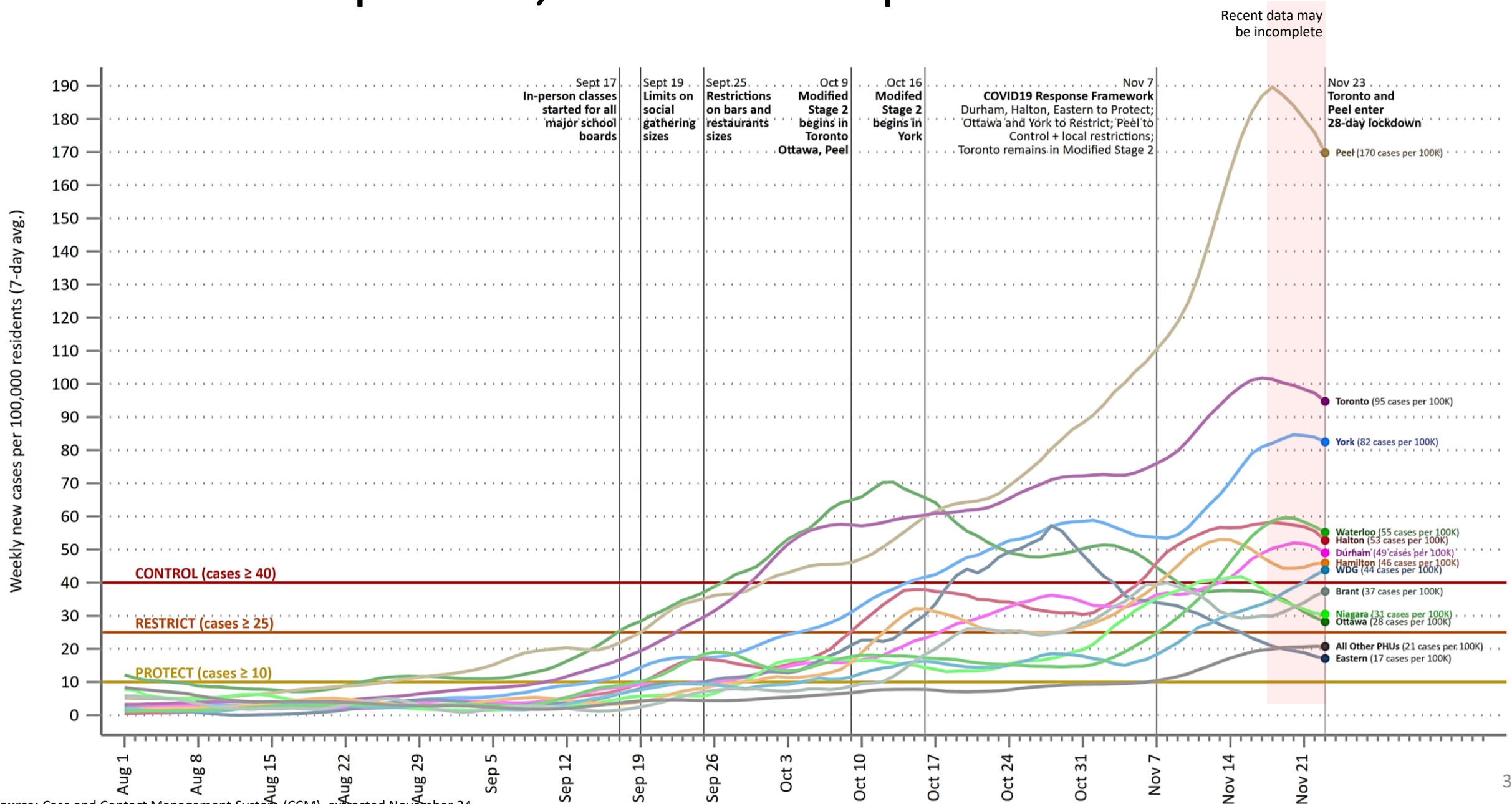
November 26, 2020



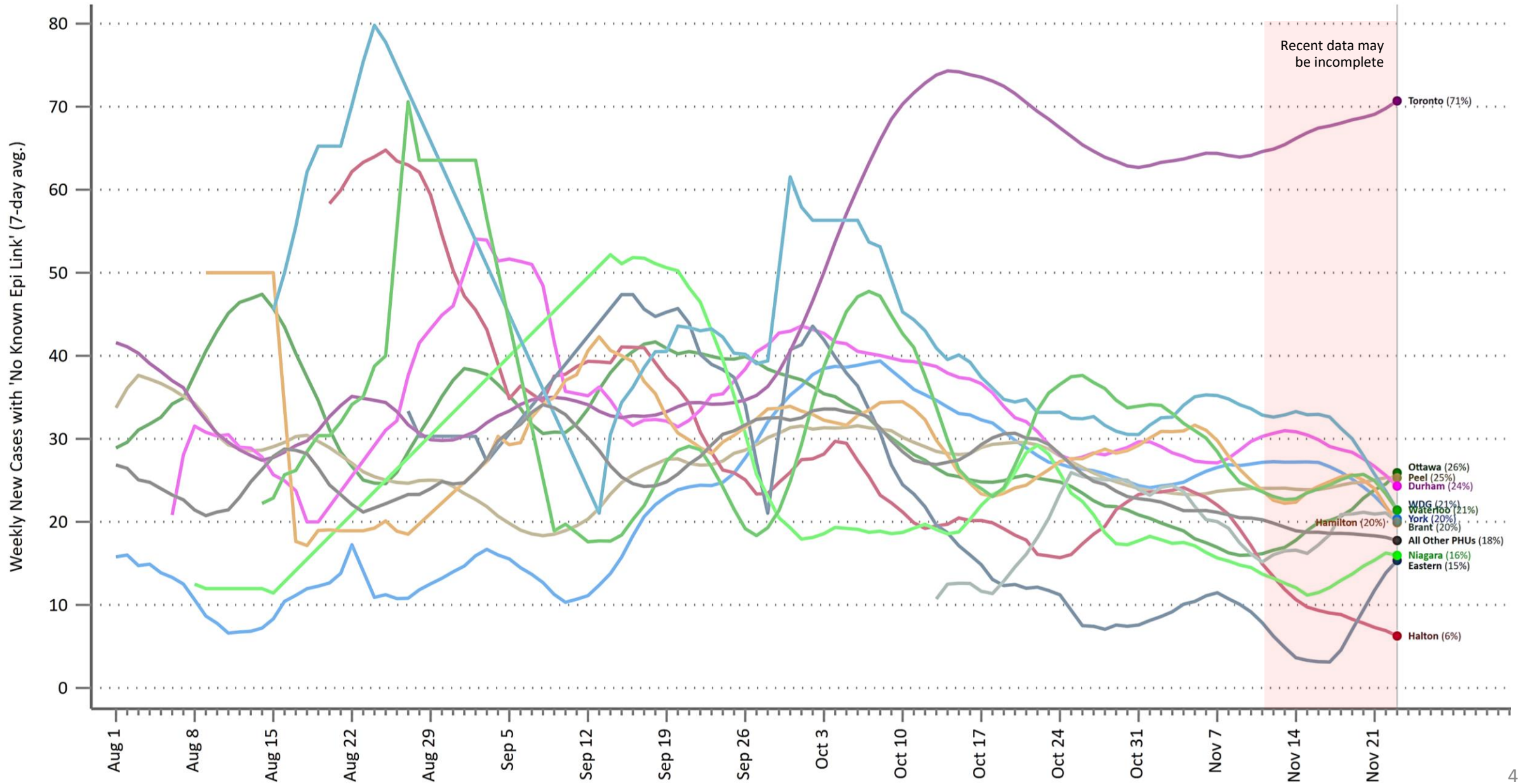
Key Findings

- Key indicators of the Pandemic are flattening in some regions but the impact of the Pandemic still varies widely across regions.
- Long-Term Care Home resident mortality continues to increase.
- ICU occupancy continues to increase and will hit 200 beds in December under any scenario.
- It is difficult to determine whether we are seeing a turnaround in case growth. Unlikely to see changes in ICU use until two weeks following decline in cases.
- Access to care continues below 2019 levels adding to the access to care deficit.
- Some communities face a much higher burden from the Pandemic because of long-standing structural factors that lead to higher exposure to COVID-19. One-size-fits-all public health interventions are unlikely to have the same impact in some communities.

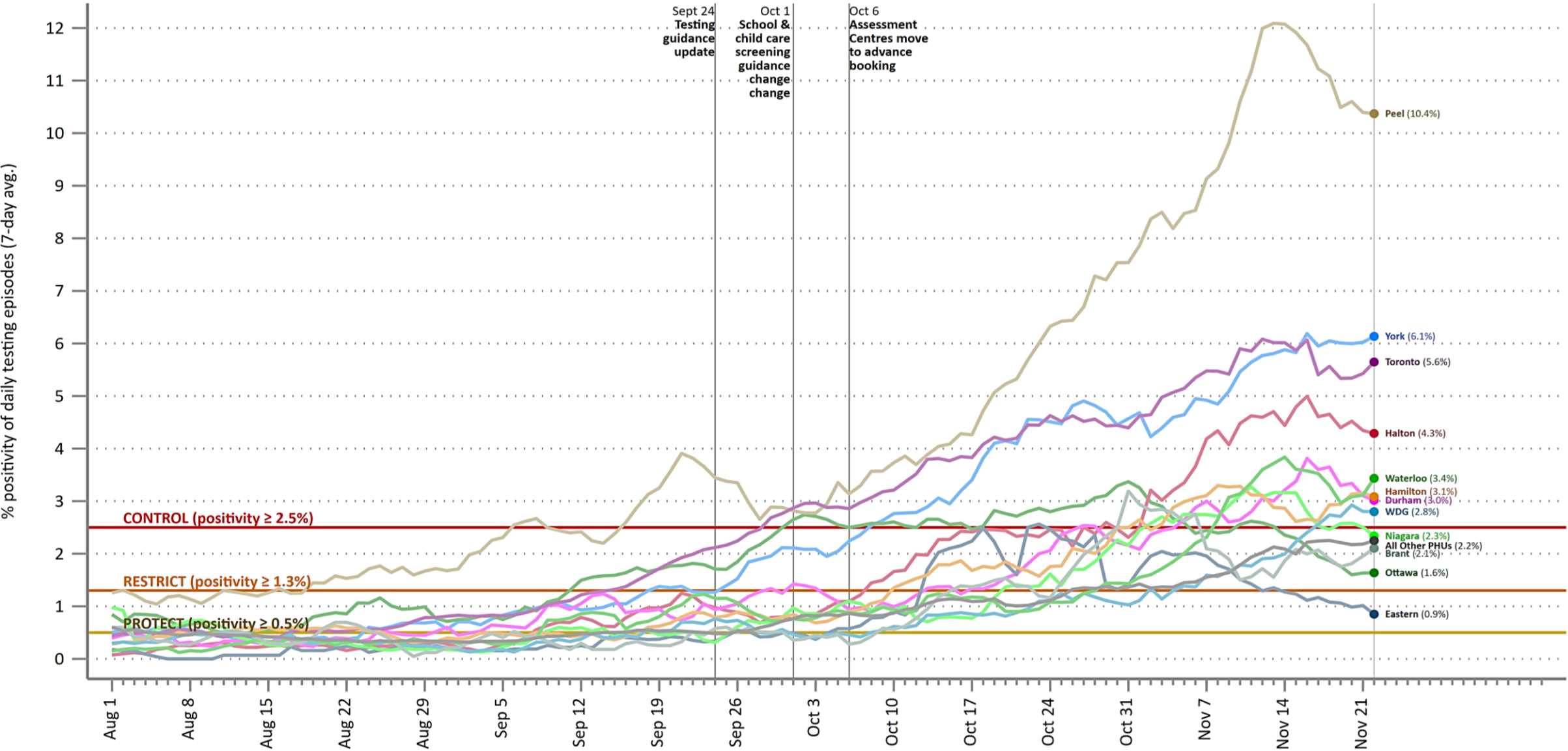
Total new cases per 100,000 residents per week across PHUs



New cases with no epidemiological Link across PHUs

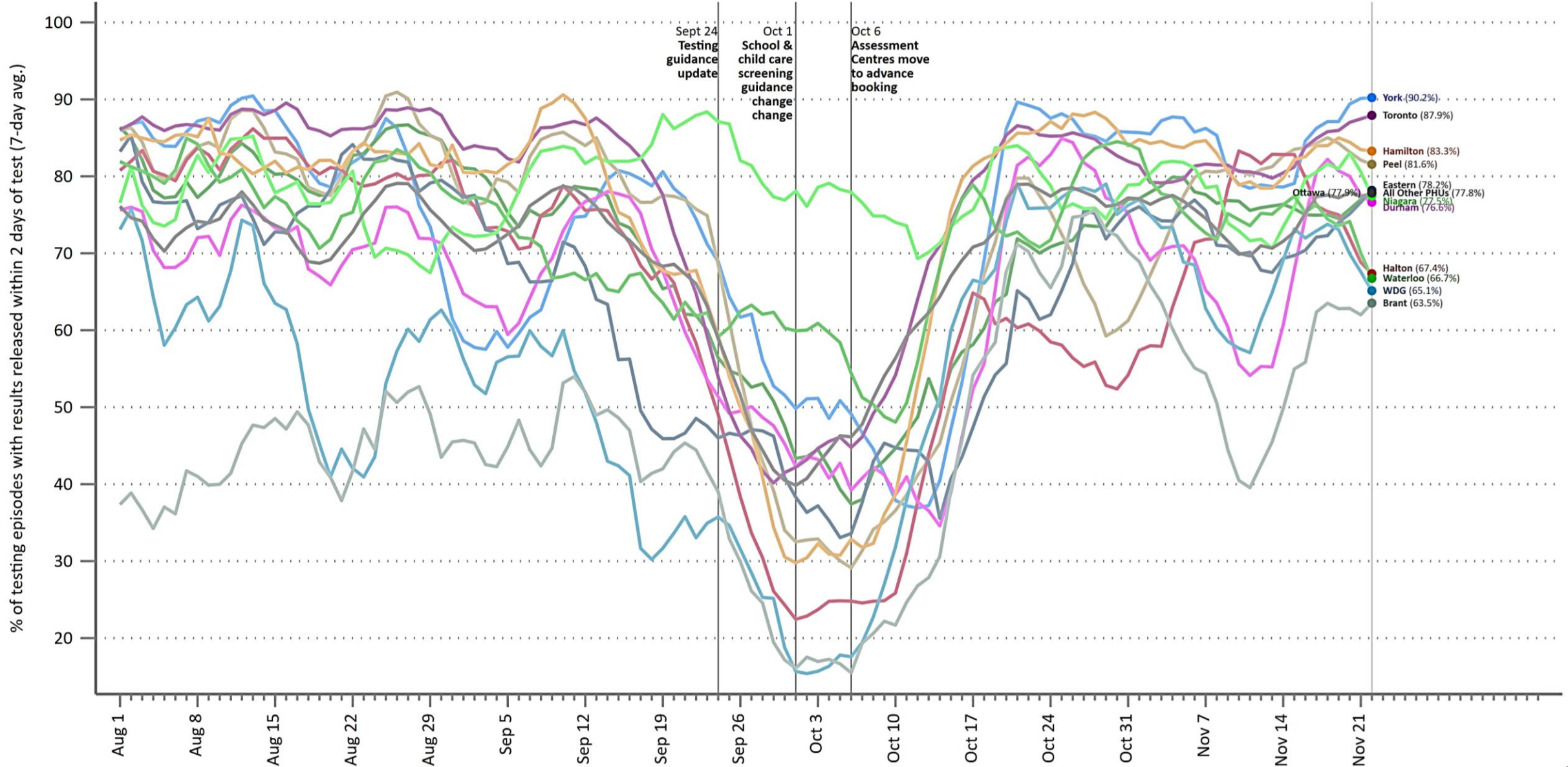


COVID-19 testing % positivity across PHUs



Data Source: Ontario Laboratory Information System (OLIS), extracted via MOH SAS VA November 24

Percent of tests processed within 2 days across PHUs



Weekly % positivity by age group

Month	Apr2020			May2020					Jun2020				Jul2020				Aug2020					Sep2020				Oct2020					Nov2020		
Week No	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
Age Group																																	
75+	16.4	11.0	5.0	4.3	3.4	4.7	5.3	3.2	2.9	1.8	1.0	0.9	0.6	0.6	0.4	0.4	0.3	0.2	0.2	0.3	0.4	0.3	0.5	0.5	1.1	1.3	1.4	1.8	2.3	2.8	3.6	3.3	3.1
65to74	11.4	7.2	5.5	4.4	3.6	4.1	3.8	1.9	1.3	0.9	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.2	0.3	0.3	0.4	0.5	0.5	0.7	1.0	1.2	1.3	1.7	1.9	2.2	2.6	3.4	3.4
55to64	11.4	8.6	6.3	4.8	3.7	4.9	5.7	2.7	2.0	1.0	0.9	0.6	0.6	0.4	0.6	0.5	0.4	0.4	0.3	0.4	0.3	0.5	0.6	0.8	1.2	1.4	1.6	2.3	2.4	2.4	3.0	3.4	3.2
45to54	10.9	8.2	6.2	5.3	4.2	4.6	6.6	3.3	2.2	1.2	1.1	0.7	0.8	0.7	0.7	0.7	0.5	0.5	0.4	0.5	0.5	0.6	0.8	1.0	1.4	1.9	1.9	2.7	2.8	3.0	3.8	4.4	3.9
35to44	8.3	7.1	5.7	4.3	3.3	3.9	5.7	3.4	2.3	1.3	1.4	1.0	0.9	0.8	0.7	0.7	0.5	0.5	0.5	0.4	0.5	0.7	0.8	1.0	1.2	1.5	1.7	2.3	2.7	2.9	3.7	4.5	3.9
25to34	8.7	7.4	6.2	5.2	4.1	4.9	6.2	3.7	2.4	1.4	1.5	1.2	1.0	0.9	1.0	0.9	0.5	0.5	0.6	0.6	0.6	0.9	1.3	1.8	2.1	2.5	2.3	2.9	3.3	3.5	4.2	5.0	4.7
18to24	9.1	7.8	6.5	4.1	4.0	4.4	6.2	3.6	2.5	1.4	1.4	1.1	0.9	0.9	0.9	1.1	0.8	0.7	0.5	0.7	0.9	0.8	1.6	2.4	2.8	3.6	2.6	3.5	4.0	4.4	4.8	5.7	5.3
14to17	5.9	7.1	4.8	3.7	3.4	5.0	6.6	2.2	2.9	1.5	1.6	1.4	1.3	1.1	1.4	1.3	1.4	1.2	1.1	0.8	1.3	1.7	1.8	1.7	1.5	1.9	2.1	2.9	4.0	4.4	5.4	6.6	5.6
9to13	5.7	6.2	4.9	5.8	5.0	5.5	6.5	4.3	3.7	3.4	2.4	1.9	1.0	1.5	1.2	1.7	1.3	0.8	1.4	1.0	1.5	1.4	1.4	0.9	0.8	0.9	1.2	1.8	2.8	3.7	5.0	4.6	5.6
4to8	1.9	4.0	2.3	4.1	2.2	2.9	3.4	3.5	3.4	2.1	2.7	1.7	1.2	0.9	1.1	1.2	1.0	1.0	0.7	0.8	0.5	0.8	0.6	0.5	0.3	0.4	0.9	1.5	2.7	2.7	3.6	4.0	4.5
0to3	1.4	1.5	1.4	1.5	1.5	2.1	2.1	1.3	1.1	1.8	1.3	1.3	0.7	1.4	0.8	1.2	0.4	0.8	0.5	0.3	0.5	0.5	0.3	0.4	0.6	0.7	1.3	2.7	2.2	2.6	3.0	5.2	3.6
Total	11.3	8.5	5.7	4.6	3.7	4.5	5.6	3.1	2.3	1.3	1.1	0.9	0.7	0.7	0.7	0.7	0.5	0.5	0.4	0.5	0.5	0.7	0.9	1.2	1.3	1.6	1.8	2.4	2.8	3.1	3.7	4.3	4.0

Data Source: Ontario Laboratory Information System (OLIS), MOH – extracted from SAS VA Nov 24.

Note: Includes all data submitted to OLIS up to Nov 23, 2020. The last six days are considered interim data (week 46) and subject to change

Weekly % positivity = total number of positive tests within the week (based on reported date)/COVID tests within the week

Cases in LTC flattening while cumulative mortality has increased (64 deaths in the past 7 days).

LTC Home cases and outbreaks

Current status (Nov 24)

104 Long term care (LTC) homes currently in outbreak, 964 active confirmed cases in these homes

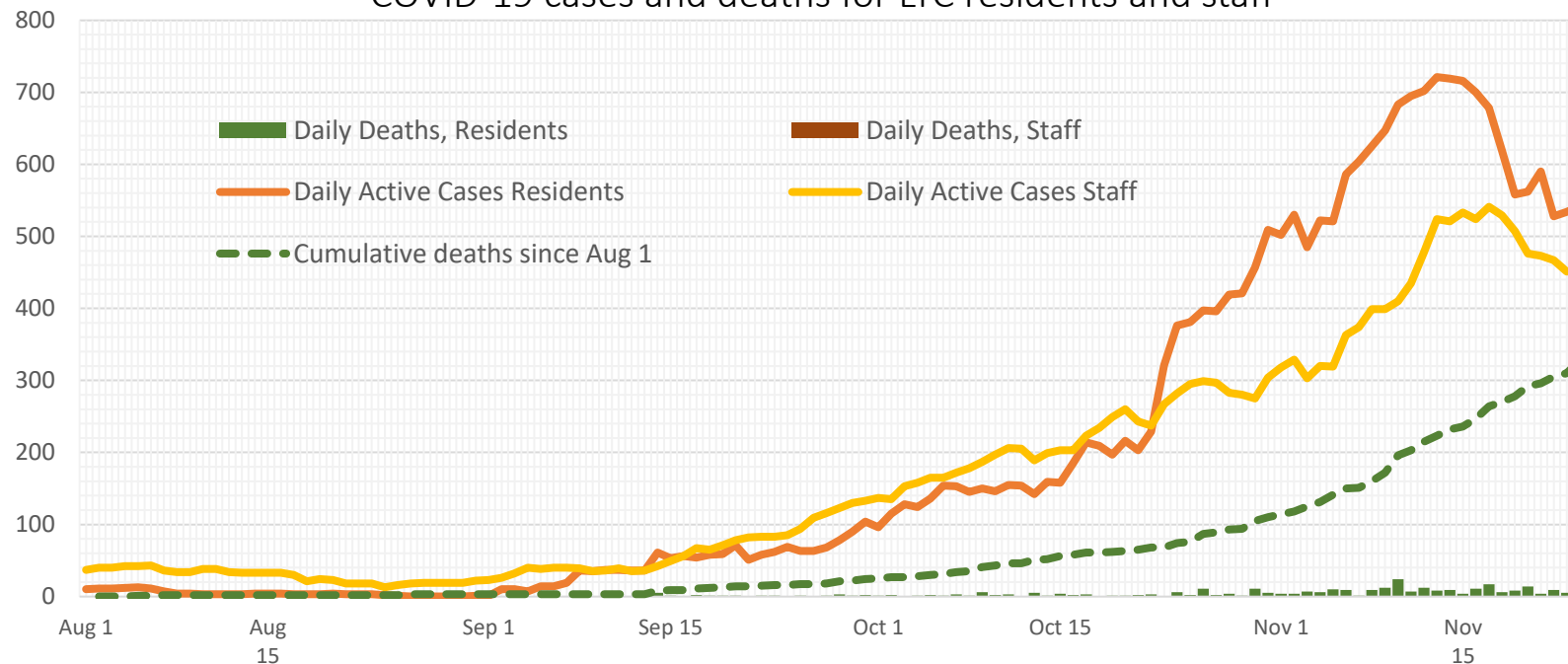
542 resident, 453 staff active cases in total

2,173 cumulative resident deaths, 8 cumulative staff deaths

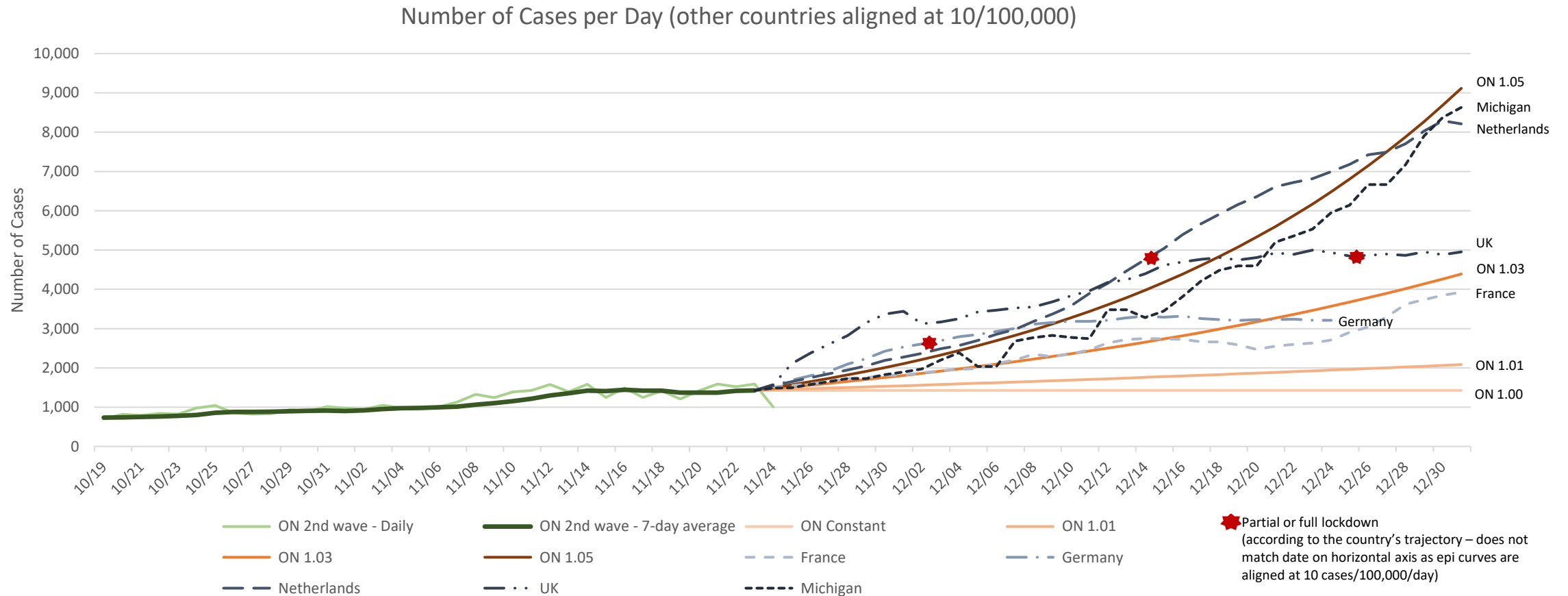
34 of the 104 homes in outbreak are based on 1 staff case

There have been 328 resident deaths since Aug 1st, 64 of which have been in the past 7 days

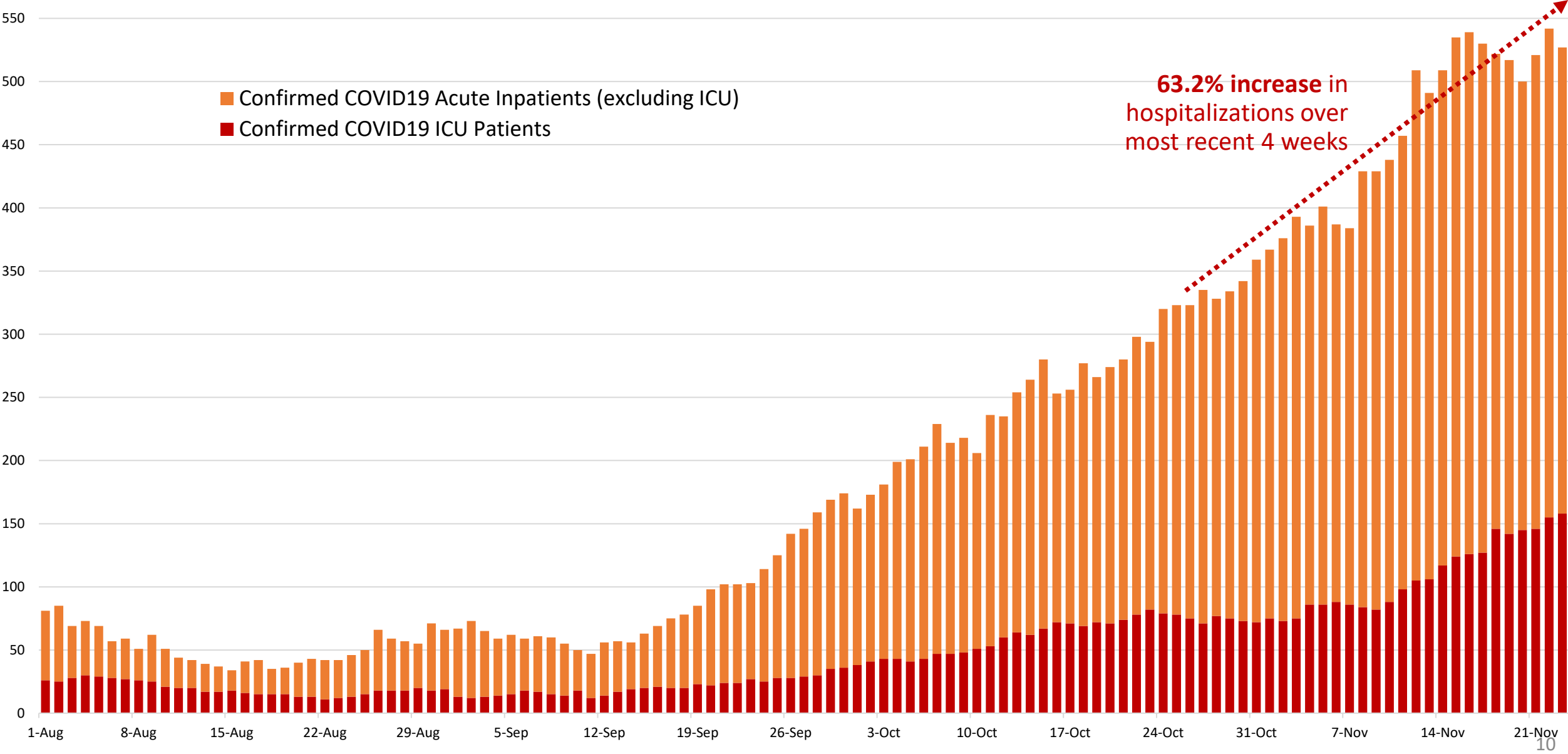
COVID-19 cases and deaths for LTC residents and staff



A number of jurisdictions struggle to control case numbers following public health interventions



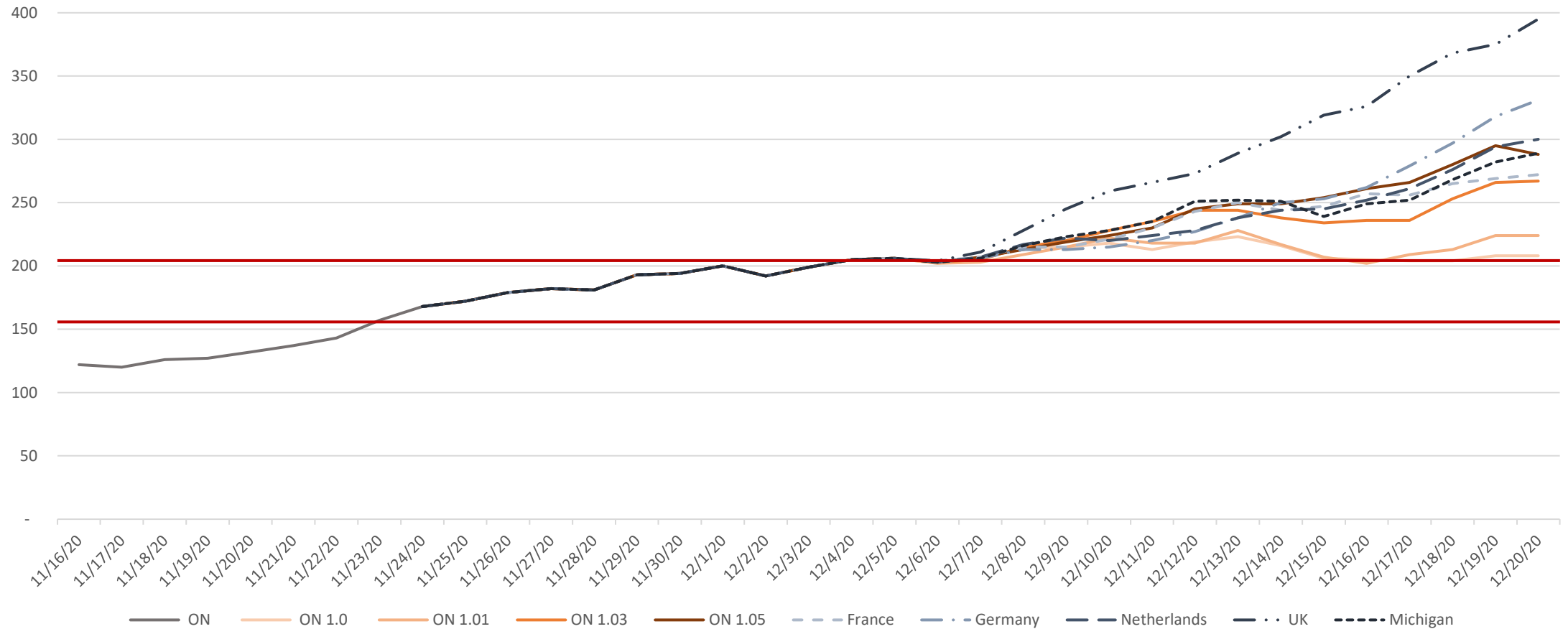
COVID-19 Hospitalizations continue to rise



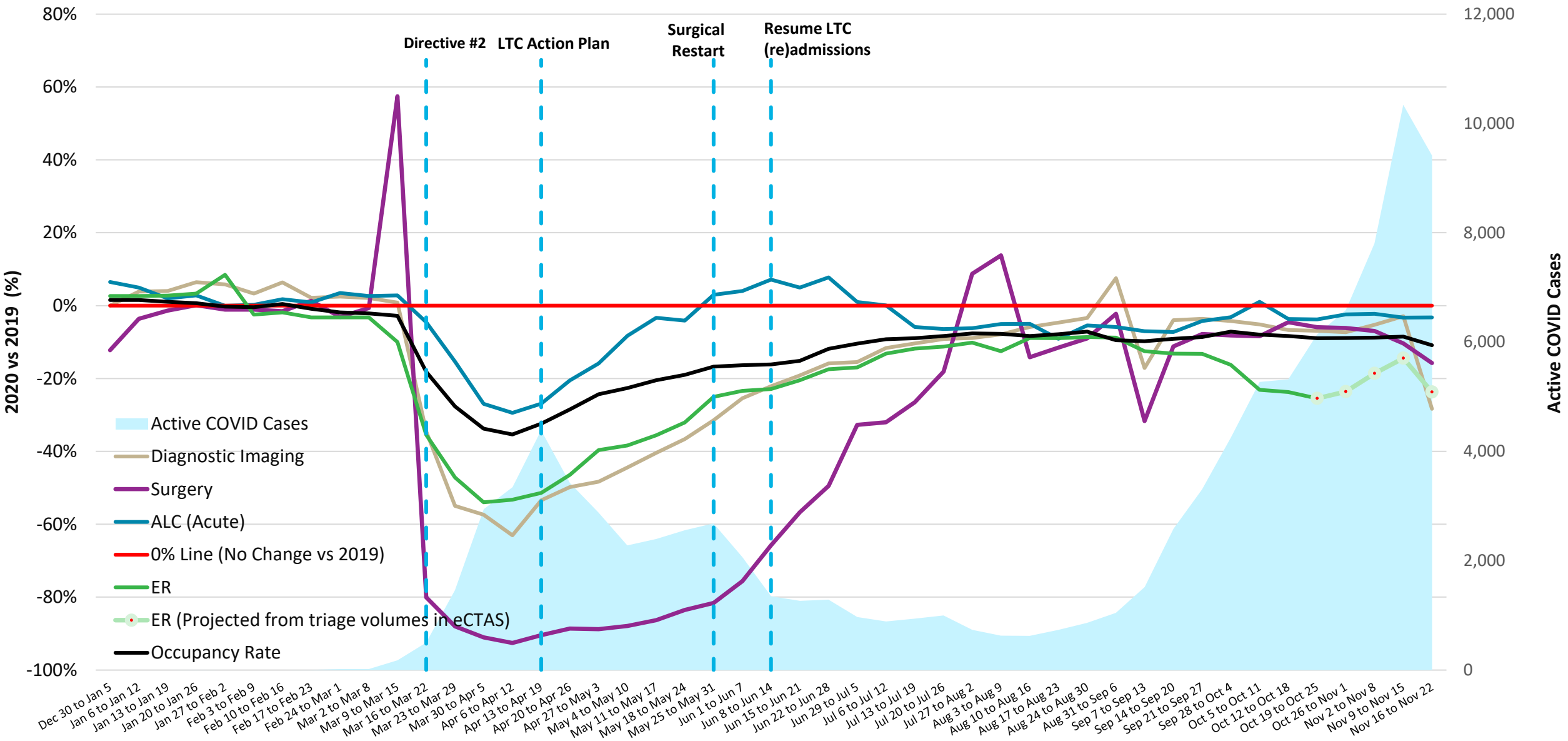
63.2% increase in hospitalizations over most recent 4 weeks

Data Sources: Daily Bed Census Summary COVID-19 Report + Critical Care Information System. Extracted via MOH SAS VA November 24

Projections: ICU Occupancy > 200 beds under all scenarios

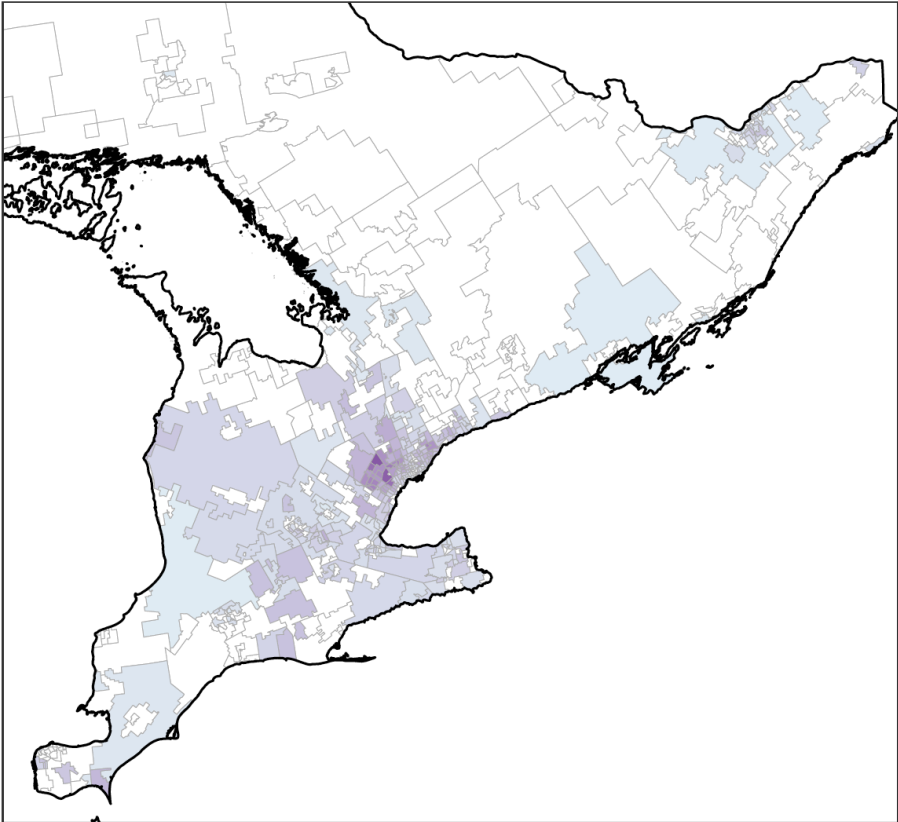


Access to care continues well below 2019 volumes



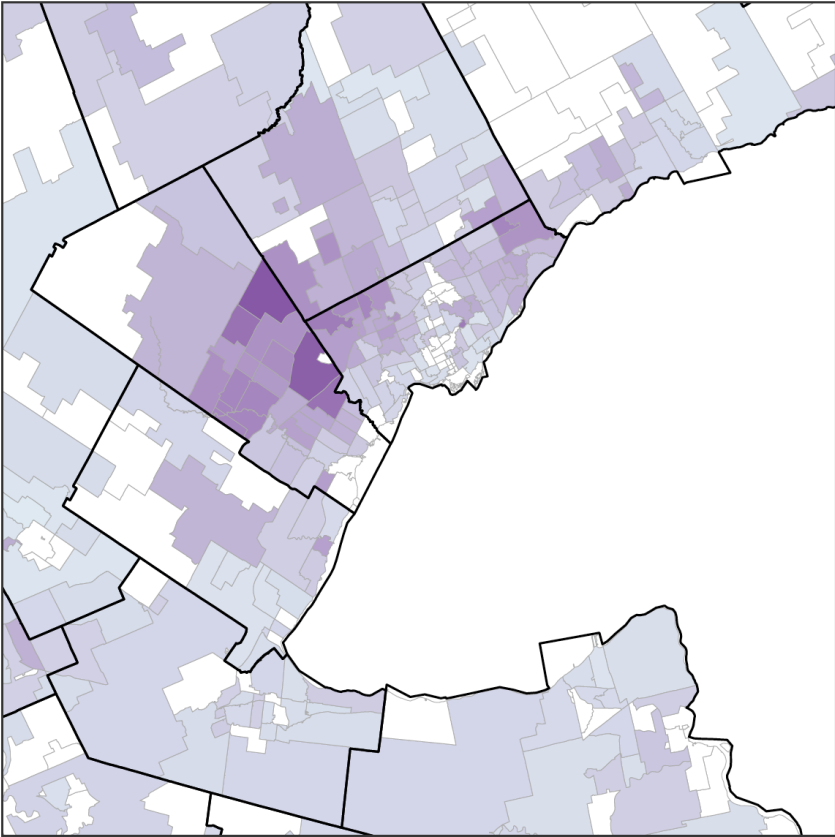
The impact of the COVID-19 epidemic in Ontario is not evenly distributed

% Positivity by FSA



FSA in white have <6 cases.

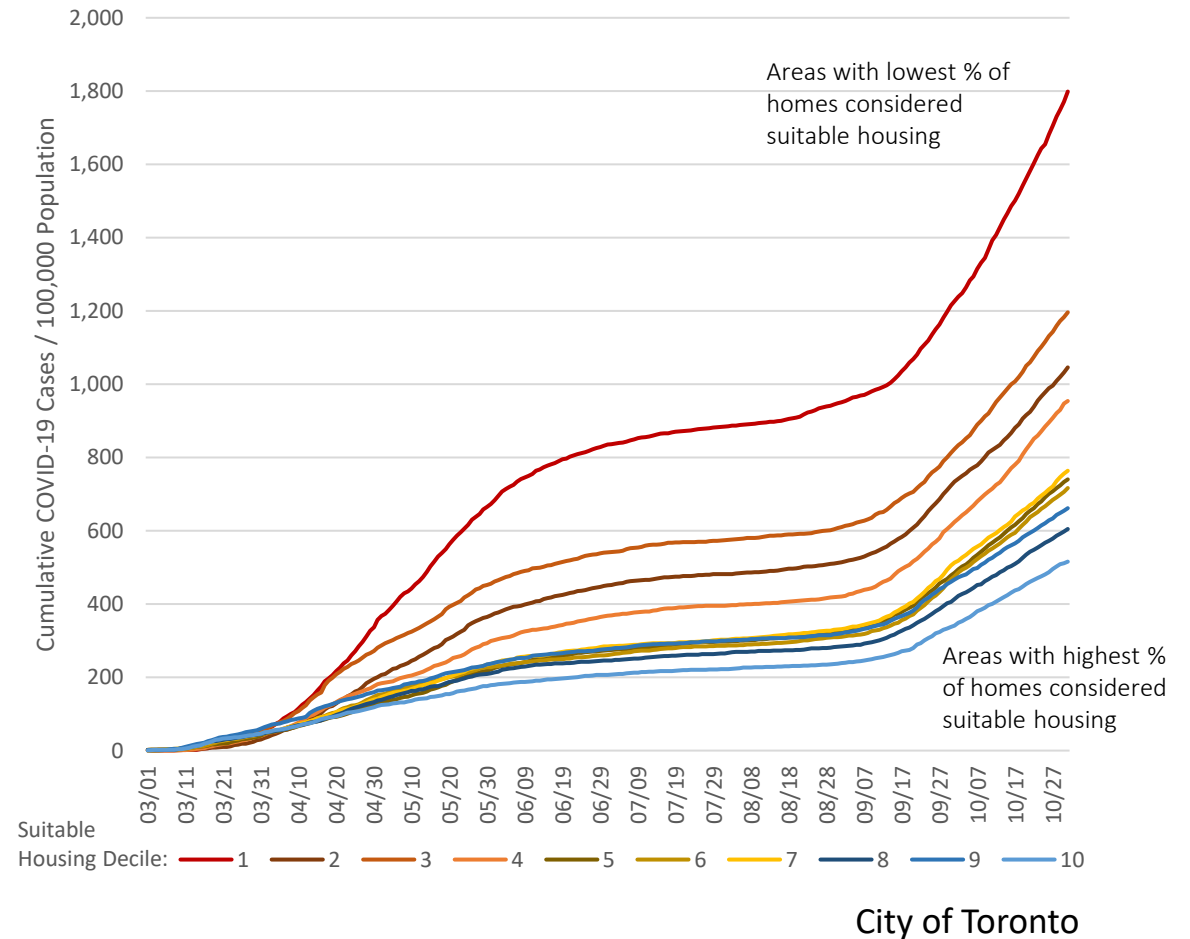
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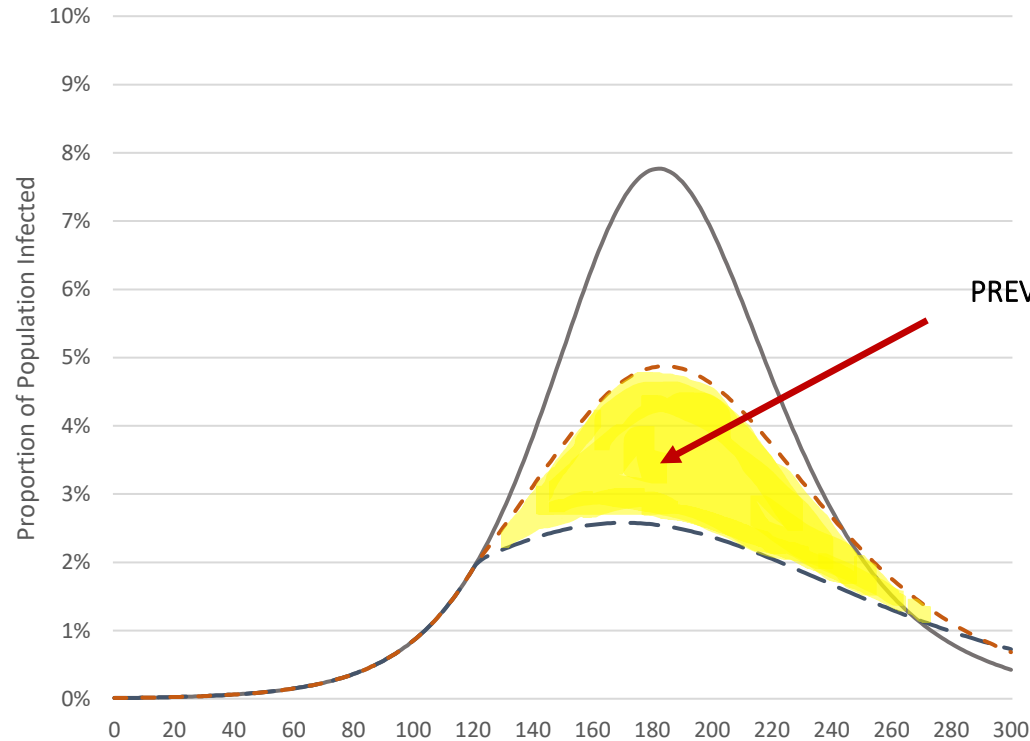
Household density and occupation places individuals and relations most at risk of COVID-19

- **↑ Odds for COVID-19 if residing in neighbourhoods with**
 - Higher household density/size
 - Higher proportion of essential service workers (measured by proxies for occupation)
- **Steeper ↑ in COVID-19 cases in neighbourhoods with lowest % of suitable housing**

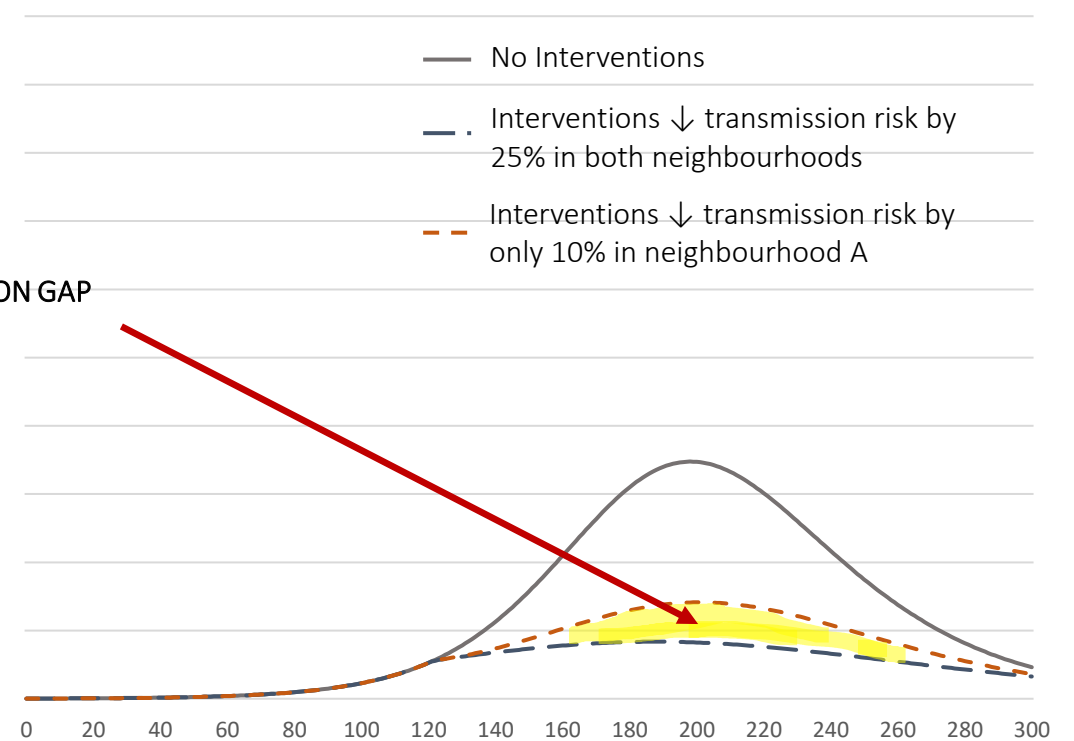


One-size-fits-all approaches lead to prevention gaps

Neighbourhood A



Neighbourhood B



prevention gap = conditions that lead to disproportionate risks of acquisition and/or onward transmission → increase R, sustain transmission & “micro-epidemics”

Key Findings

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