Update on COVID-19 Projections

Science Advisory and Modelling Consensus Tables

May 20, 2021
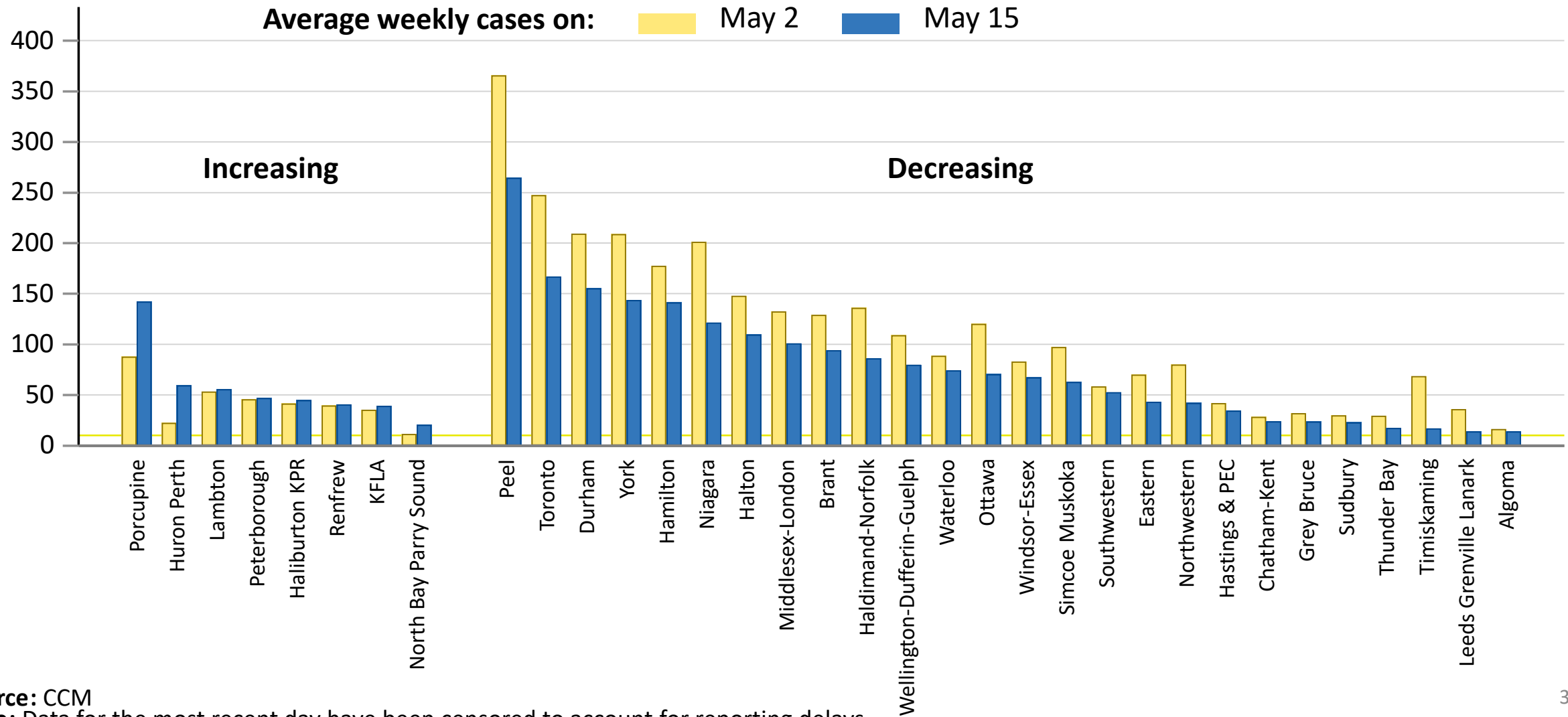
SCIENCE TABLE

COVID-19 ADVISORY FOR ONTARIO

Key Findings

- Cases, positivity and hospitalization rates are decreasing. **Control of the pandemic is improving** due to current public health measures and the efforts of Ontarians.

- The access to care deficit continues but high-priority surgeries are being performed at higher rates.

- **Maintaining progress on vaccinations and maintaining some public health measures** until mid-June can help ensure a good summer:
  - School re-opening will create an increase in cases, but this may be manageable.
  - **Outdoor activities are much safer** than indoor activities and should be encouraged.

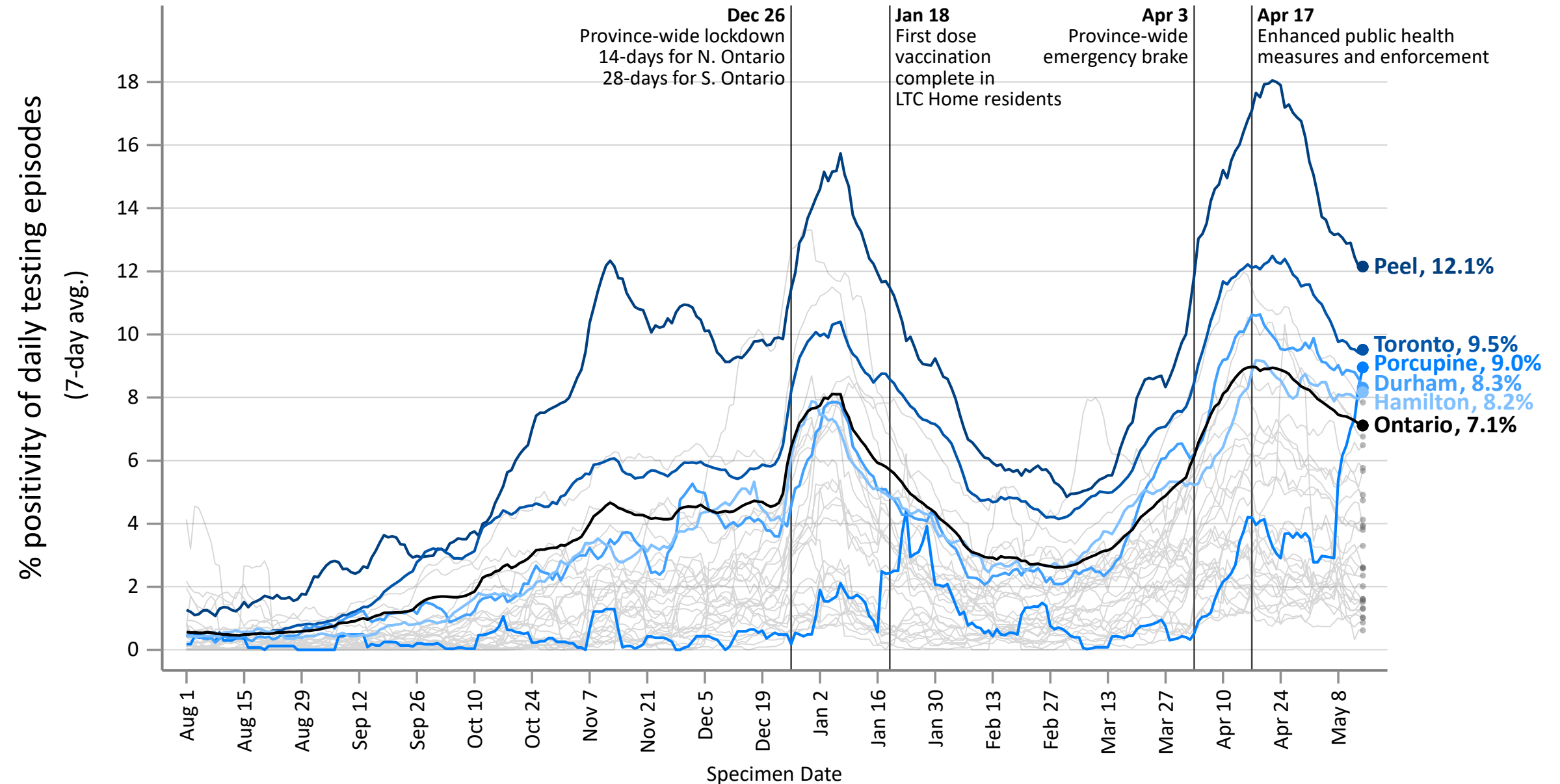Cases are decreasing in most Public Health Units, with the greatest progress made in hotspot areas

Weekly new cases per 100,000 residents

Average weekly cases on: ☐ May 2 ☐ May 15

Increasing

Decreasing

Porcupine, Huron Perth, Lambton, Peterborough, Haliburton KPR, Renfrew, KFLA, North Bay Parry Sound, Peel, Toronto, Durham, York, Hamilton, Niagara, Halton, Middlesex-London, Brant, Haldimand-Norfolk, Wellington-Dufferin-Guelph, Waterloo, Ottawa, Windsor-Essex, Simcoe Muskoka, Southwestern, Eastern, Northwestern, Hastings & PEC, Chatham-Kent, Grey Bruce, Sudbury, Thunder Bay, Timiskaming, Leeds Grenville Lanark, Algoma

Data source: CCM
Data note: Data for the most recent day have been censored to account for reporting delays

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% positivity is declining across Ontario

Dec 26
Province-wide lockdown
14-days for N. Ontario
28-days for S. Ontario

Jan 18
First dose
vaccination
complete in
LTC Home residents

Apr 3
Province-wide
emergency brake

Apr 17
Enhanced public health
measures and enforcement

Peel, 12.1%
Toronto, 9.5%
Porcupine, 9.0%
Durham, 8.3%
Hamilton, 8.2%
Ontario, 7.1%

% positivity of daily testing episodes
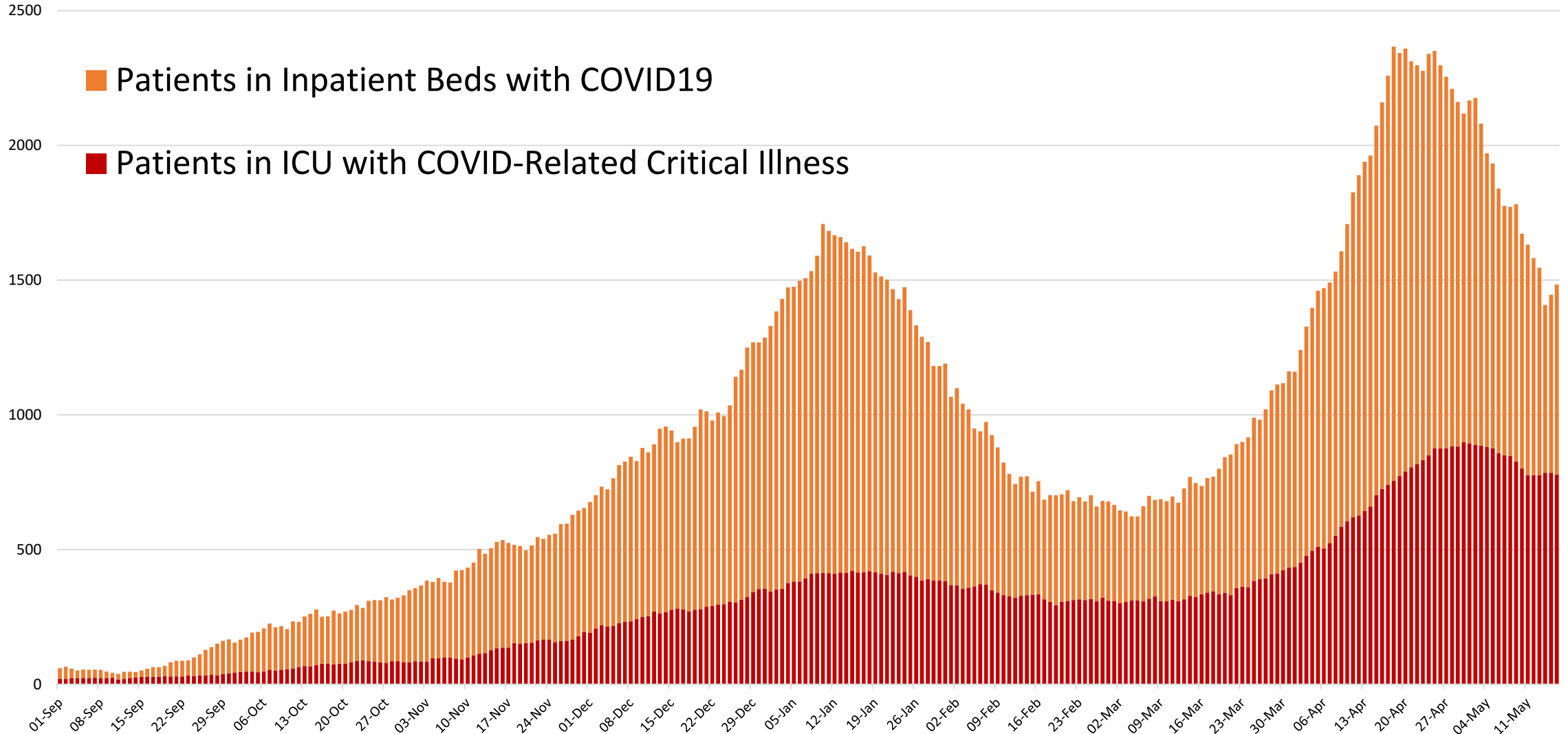(7-day avg.)

Specimen Date

Data source: Ontario Laboratory Information System (OLIS), data up to May 14

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Higher vaccination coverage is starting to control hospitalizations in older age groups

Daily COVID+ hospitalization rate across age groups, per 100,000 population, 7 day moving average
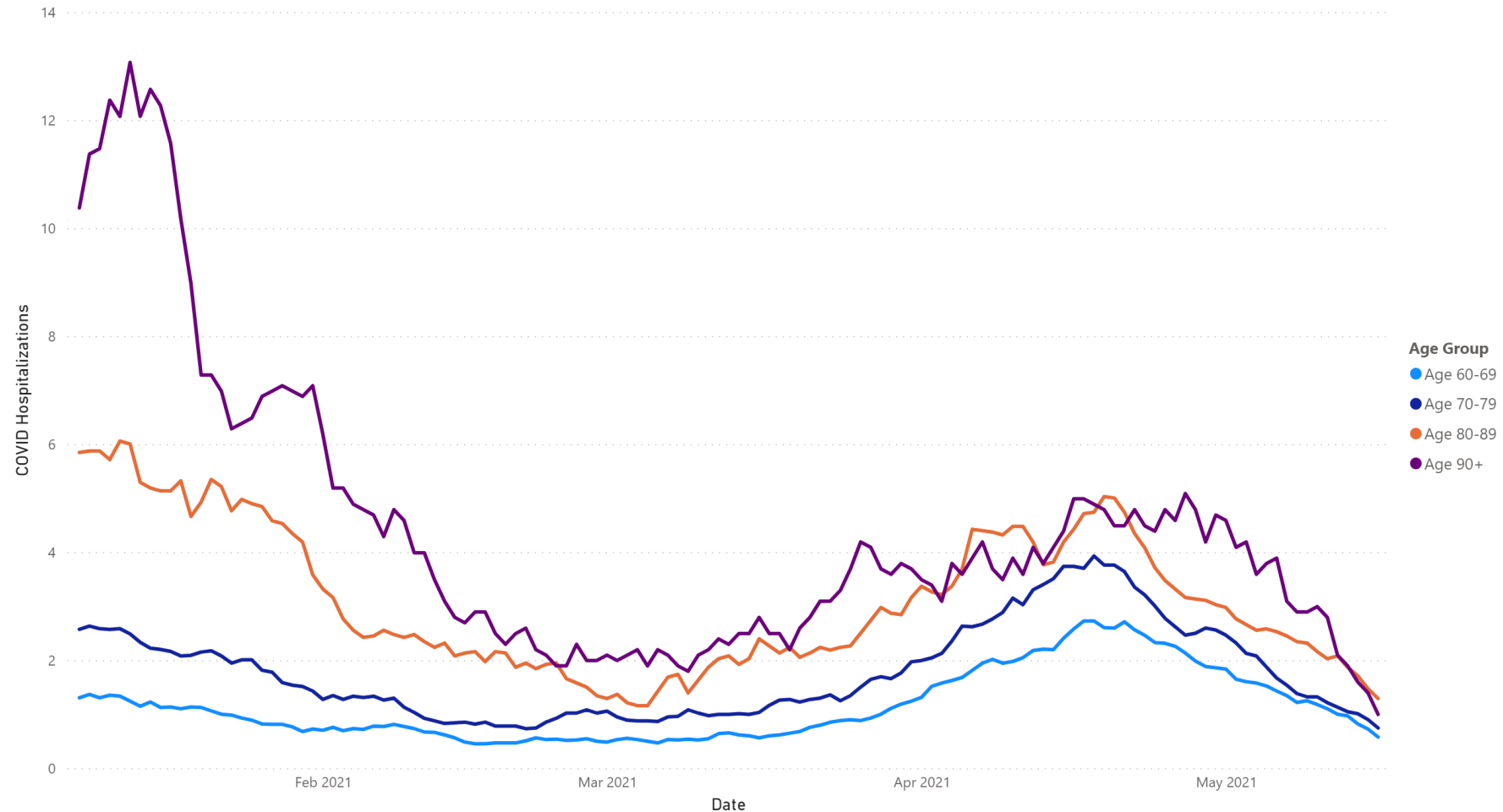
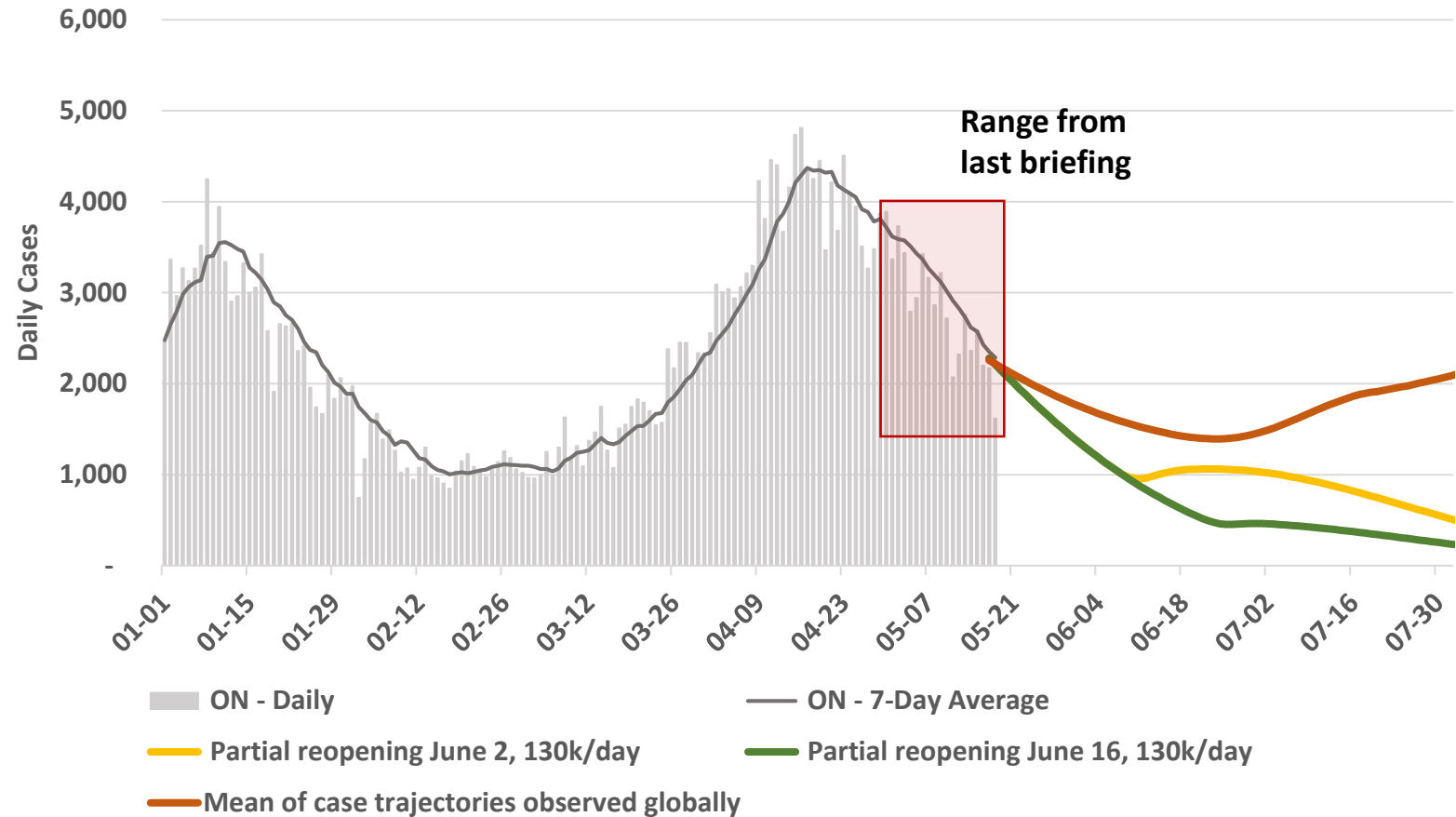# Hospitalization rates are down, ICU occupancy has dropped slightly

Legend:
- Patients in Inpatient Beds with COVID19
- Patients in ICU with COVID-Related Critical Illness

# Continued efforts to control spread of COVID-19 can help limit the impact of all variants of the virus

Figure shows predictions based on 5 models.

- Partial reopening June 2 or 16
- Vaccinating 100k-150k/day
- New VOC not explicitly considered

Not shown: 2 models looked at school opening June 2: School opening associated with a 6-11% increase in new daily cases

Range from last briefing

Daily Cases

Legend:
- ON - Daily
- ON - 7-Day Average
- Partial reopening June 2, 130k/day
- Partial reopening June 16, 130k/day
- Mean of case trajectories observed globally

Predictions informed by modeling from COVID-19 ModCollab, Fields Institute, McMasterU, PHO, YorkU
Data (Observed Cases): covid-19.ontario.ca

ICU occupancy continues to decrease slowly, with potentially fewer than 500 patients with COVID-19 in ICUs by mid-June

Predictions: COVID-19 ModCollab.
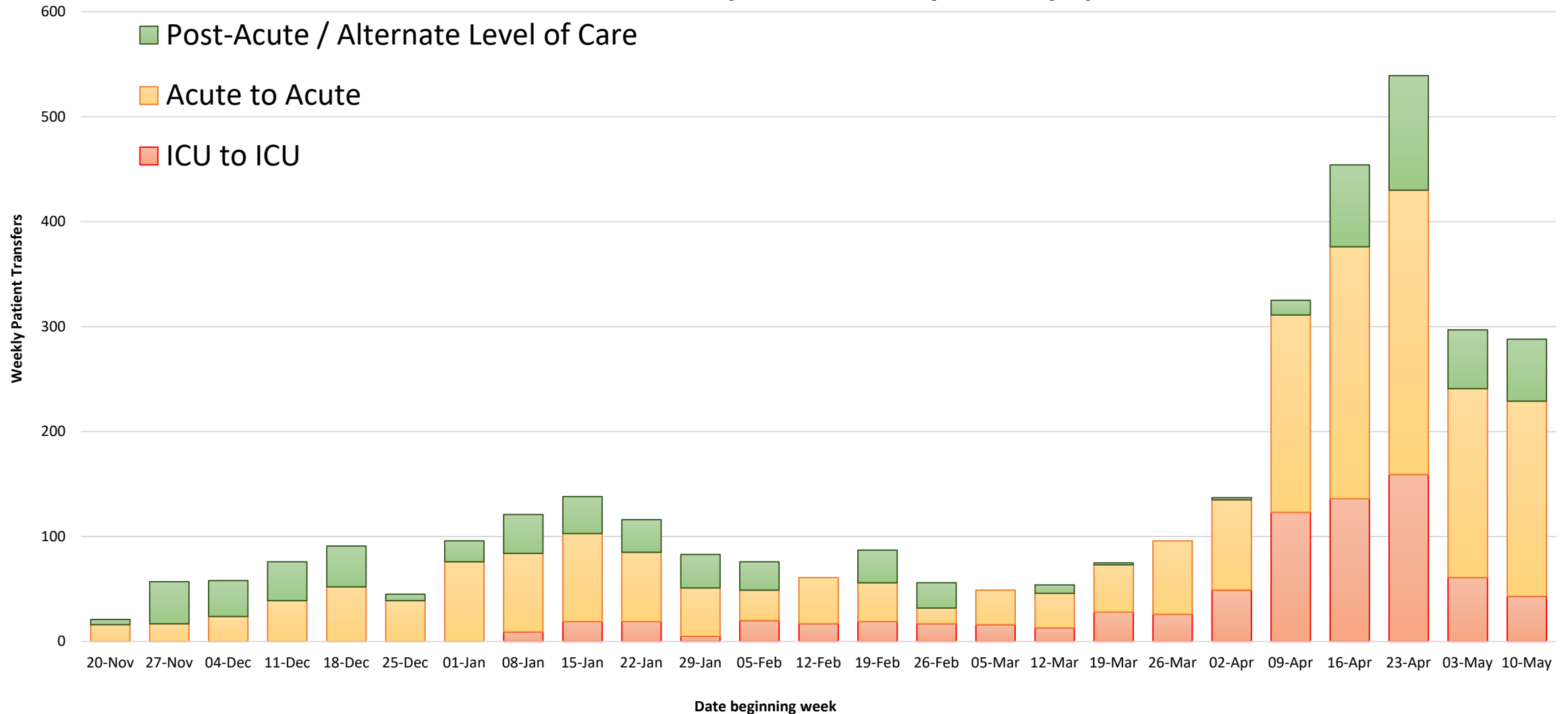**Data** (Observed ICU Occupancy): CCSO
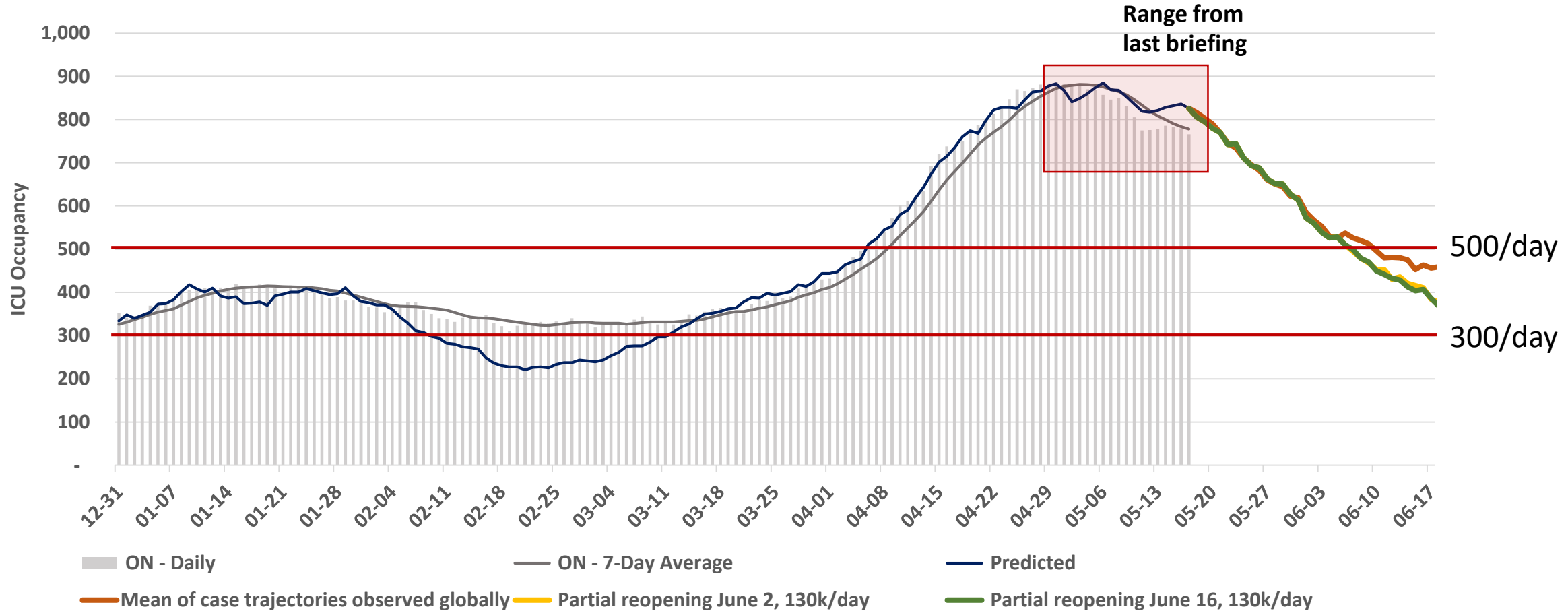
Higher priority procedures were more likely to be completed throughout the pandemic
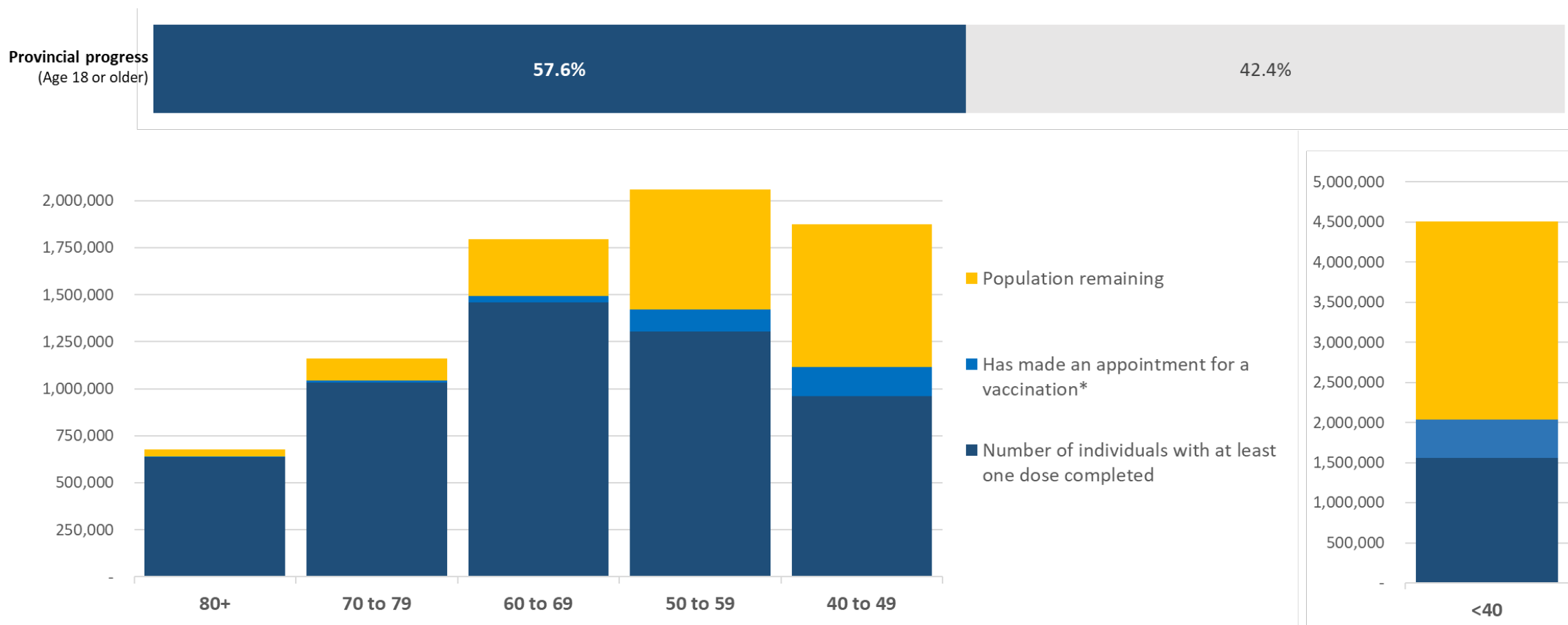

Data for most recent week incomplete
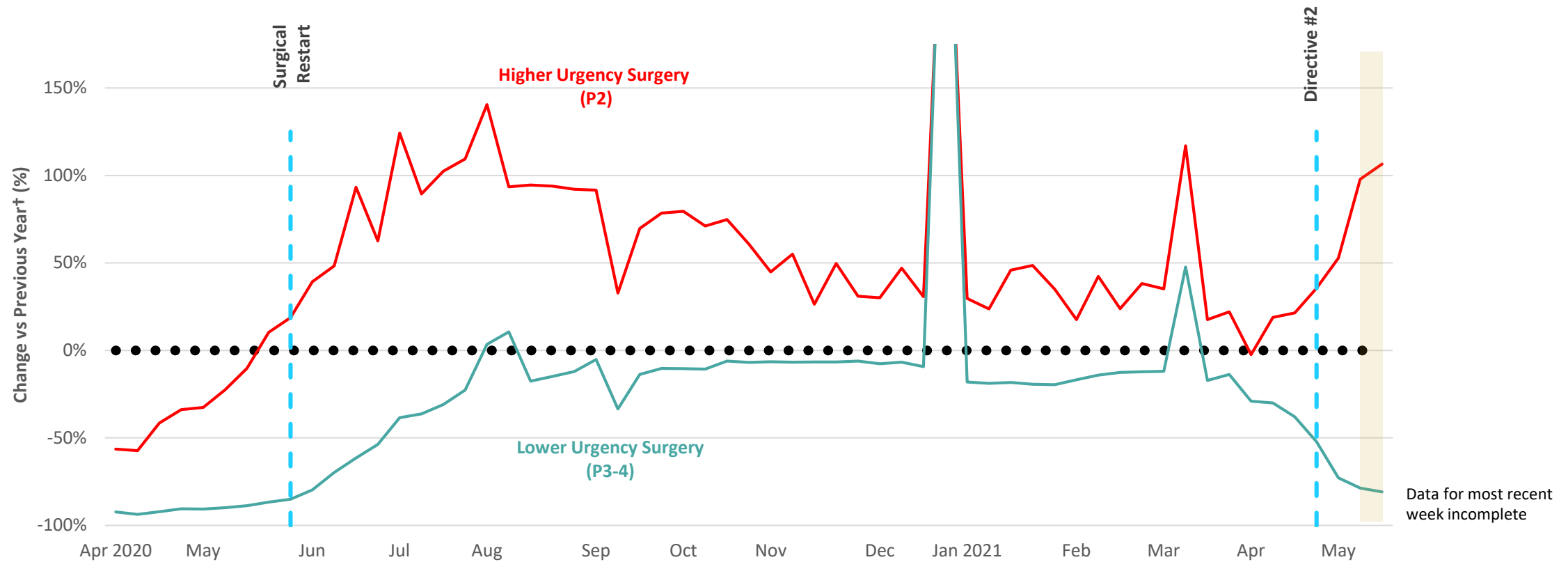
† As of the week of March 8, 2021, the comparator year was rolled back to 2019 to ensure the baseline for comparison continues to be pre-pandemic data

While the situation is improving, a high volume of patient transfers continues due to system capacity pressures

Data Sources: GTA IMS Transport Tracking, Ontario Health

Vaccination coverage continues to increase

Provincial progress (Age 18 or older): 57.6% / 42.4%

Legend:
- **Population remaining** (yellow)
- **Has made an appointment for a vaccination*** (blue)
- **Number of individuals with at least one dose completed** (dark blue)

Age groups: 80+, 70 to 79, 60 to 69, 50 to 59, 40 to 49, <40

* Note that this is just *Pending Appointments*. Anyone that has made an appointment and received a vaccine will be counted under "Individuals with at least one dose". Data for Appointments reflect 21 PHUs that are captured through the provincial booking system. Appointments made through other systems (e.g., local PHU booking systems, pharmacies, primary care) are not included.
Age is based on year of birth. Age <40 includes those age 18-39. Figure for age <40 is shown separately because of the difference in scale of the overall population size.

Data Sources
MOF 2020 Population Projections
COVAX analytical file, extracted, 8:00 pm May 18 2021, CPAD, MOH
COVAX Skedulo, extracted 6:00pm May 18 2021

The hotspot strategy is working. Continued efforts are key to a good summer.

*Figure excludes long-term care vaccination – at least 1 dose as of May 17, 2021*

| Age group | Neighbourhood Risk‡ 1 = high incidence of COVID-19 infections → 10 = low incidence of COVID-19 infections | | | | | | | | | | Overall |
	1	2	3	4	5	6	7	8	9	10	
80+	73%	75%	78%	80%	81%	83%	84%	86%	87%	87%	**82%**
75-79	75%	78%	80%	82%	83%	84%	85%	86%	87%	85%	**83%**
70-74	75%	79%	79%	81%	82%	83%	84%	85%	85%	82%	**82%**
65-69	75%	77%	77%	77%	79%	80%	81%	81%	81%	76%	**79%**
60-64	74%	76%	75%	74%	76%	77%	78%	77%	77%	70%	**75%**
55-59	70%	72%	68%	65%	66%	67%	67%	67%	65%	54%	**66%**
50-54	68%	68%	62%	57%	57%	56%	55%	54%	50%	41%	**57%**
45-49	61%	62%	56%	51%	51%	49%	49%	47%	41%	36%	**51%**
40-44	52%	55%	50%	46%	48%	46%	46%	43%	38%	33%	**46%**
16-39	41%	44%	38%	32%	31%	29%	29%	25%	21%	21%	**32%**
Overall (16+)	**57%**	**60%**	**55%**	**52%**	**53%**	**53%**	**53%**	**51%**	**51%**	**49%**	**54%**

0%   30%   >80%

Vaccine coverage (per 100 population)
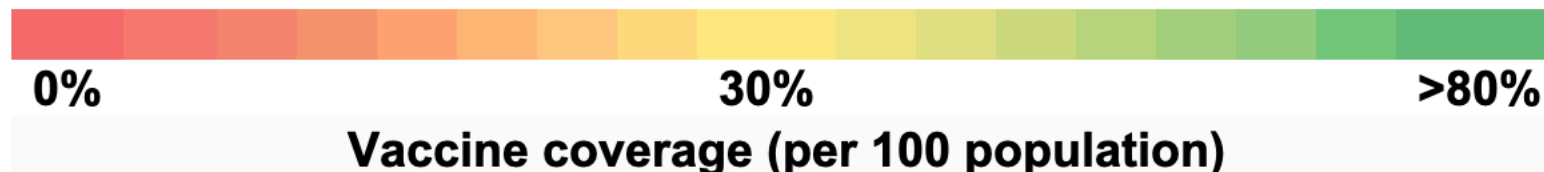
Outdoor activities can be much safer

Two-out-of-three rule for outdoor activities

Outdoors + Distance = No Masks Needed
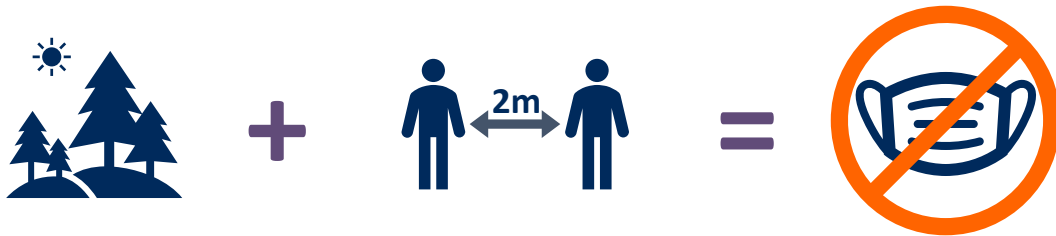
Outdoors + No Distance = Masks Needed

Always wear masks and distance indoors

Marr L, Virginia Tech 2021

Byproducts to avoid when engaging in outdoor activities

Dining indoors, dining with others, sharing food or drinks
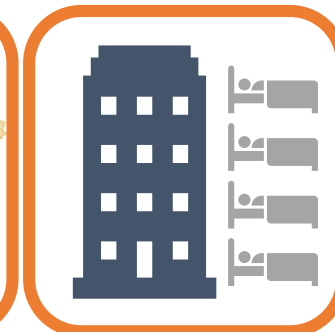

Crowding and going to crowded places

Carpooling with others

Travel between regions

Sharing overnight accommodation with others

Locker rooms and shared amenities

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Select examples of safer outdoor activities

Camping
- Local camping with your own household is safer
- Camping elsewhere with your own household is not safer
- Camping with people outside your household is not safer

Basketball
- Basketball with masks is safer

Tennis
- Single tennis is safer
- Doubles tennis with masks is safer

Singing and playing music
- Singing outside where there is social distancing is safer

Note: Indoor facilities associated with outdoor recreation (e.g., change rooms and clubhouses) present a greater risk and should remain closed at this time

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- **Maintaining progress on vaccinations and maintaining some public health measures** until mid-June can help ensure a good summer:
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