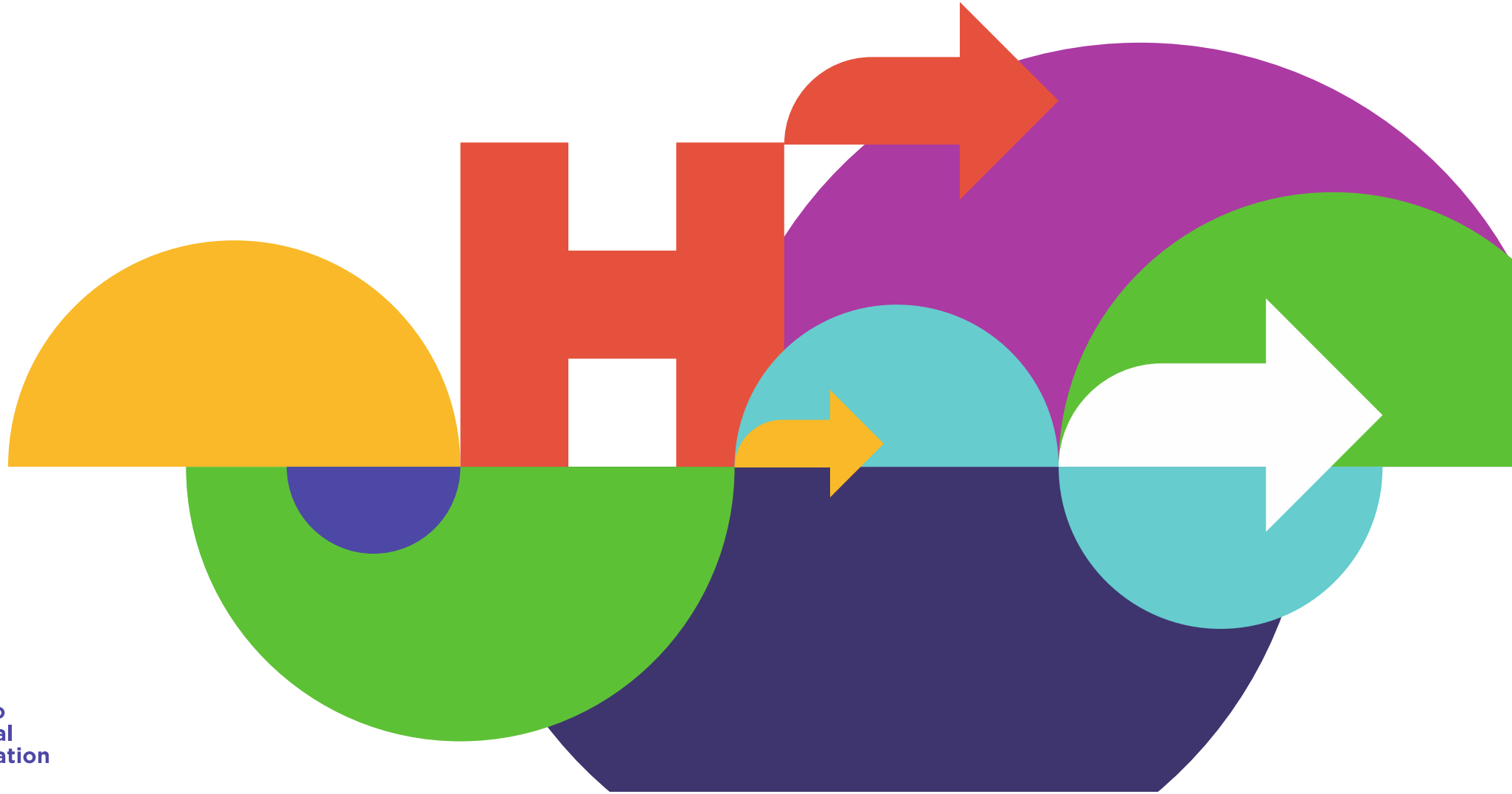
COVID-19 Hospital Capacity

Tuesday, January 11, 2022



Ontario Hospital Association

Hospital Capacity: Critical Care

Data source: Critical Care Information System
All data as of **January 10 2022**

Total Funded* ICU Bed Capacity				Critical Care Census**				% ICU occupancy	Funded* ICU Bed Capacity Remaining
2343	(Adult)	1599	Vented	1821	(Adult)	465	CRCI	77.7% (Adult)	522 (Adult)
		744	Non-Vented			1356	NON-CRCI		
93	(Paediatric)	77	Vented	63	(Paediatric)	8	CRCI	67.7% (Paediatric)	30 (Paediatric)
		16	Non-Vented			55	NON-CRCI		

Dec 16 Ontario Science Table COVID-19 ICU Occupancy Projections for December 31, 2021		
	Low range	241-244
	"Circuit breaker" high range	326
	No intervention high range	637

7-day average CRCI patients in ICU (Adult)	370
7-day average New CRCI Admits (Adult)	59
7-day average New CRCI Admits (Paediatric)	2

% pts in ICU with CRCI
25.5% (Adult)
12.7% (Paediatric)

% of CRCI pts on vents
53.5% (Adult)
12.5% (Paediatric)

Region	Adult Funded* beds	Current Adult CRCI census	% Adult pts in ICU with CRCI	% Adult ICU occupancy	Funded* Adult ICU Bed Capacity Remaining	(+/- change from previous day)
West	694	157	27.7%	81.6%	128	-6
Central	477	119	32.3%	77.1%	109	-8
Toronto	464	65	19.6%	71.6%	132	-18
East	574	109	24.3%	78.2%	125	-23
North	134	15	14.2%	79.1%	28	-1

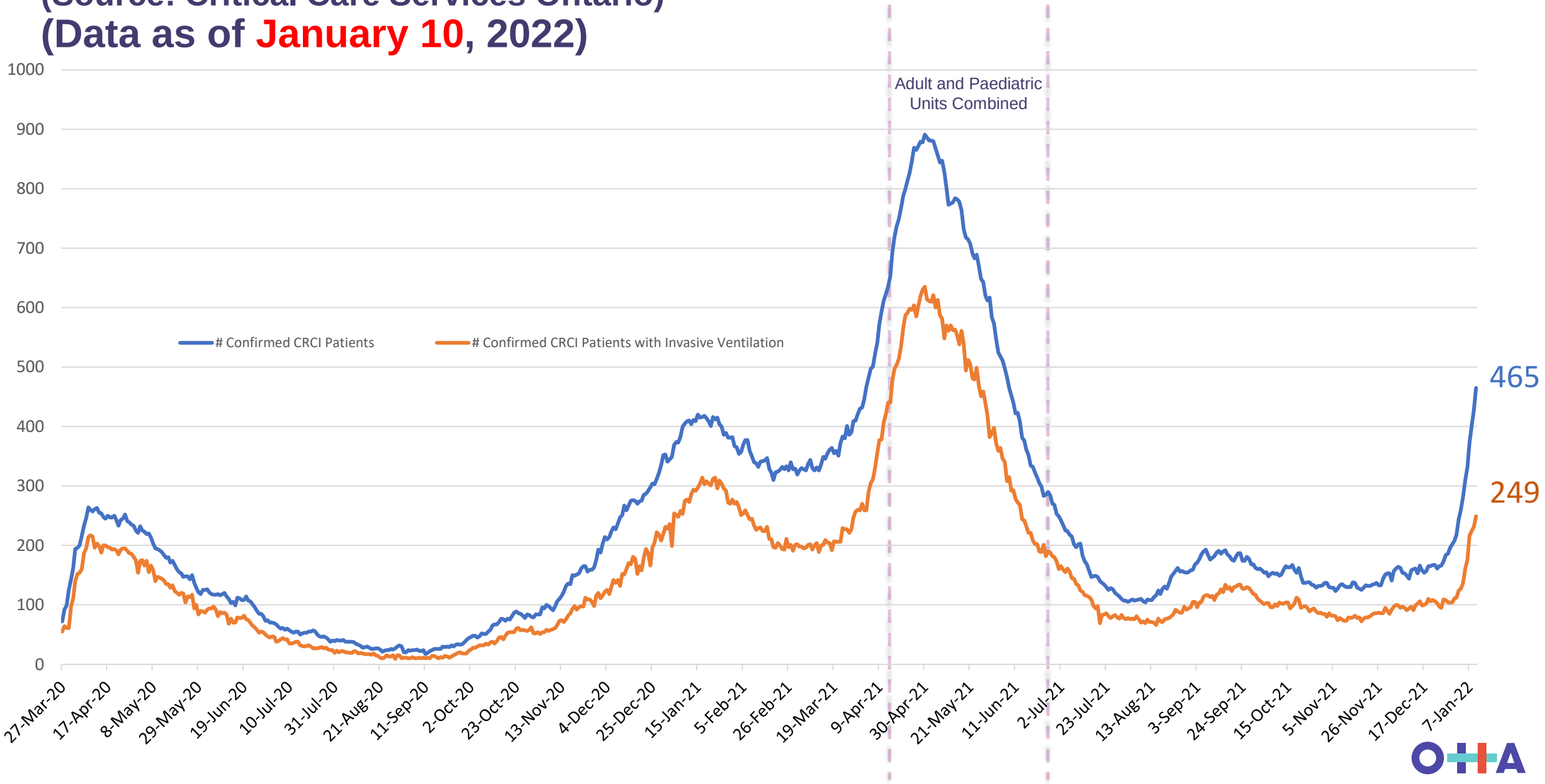
Definition: COVID-19 pts are represented by CRCI (COVID-Related Critical Illness and is defined as: Admission to the ICU because of a clinical syndrome consistent with COVID, AND the patient has had a positive test that is consistent with acute COVID illness)
*Staffing pressures may reduce funded bed capacity. Please see view the OHA resource page for more details.
There were **8 paediatric CRCI cases, **1** vented. There was **1** neonatal CRCI case .

OHA

Adult Critical Care Units COVID Related Critical Illness (CRCI) Patients

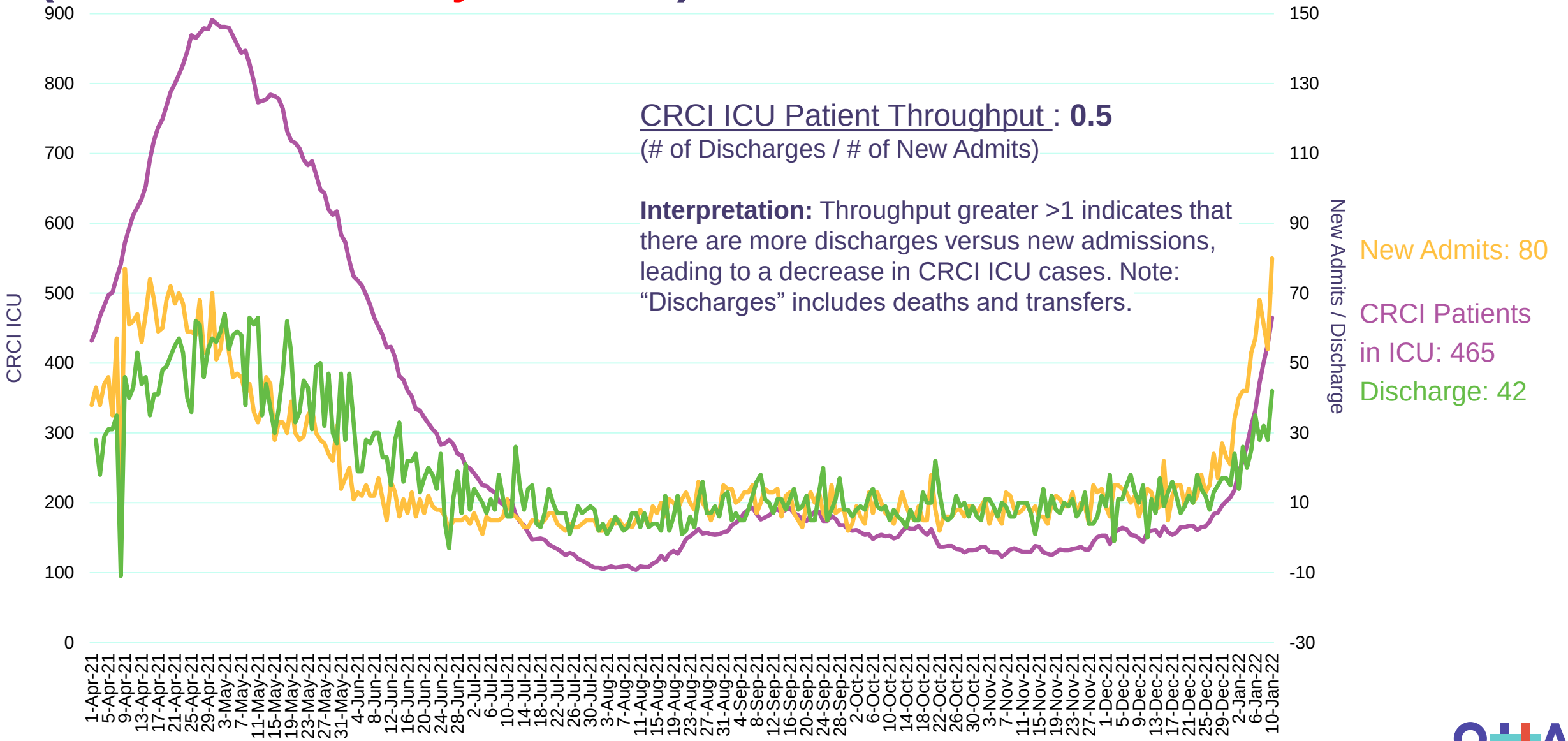
(Source: Critical Care Services Ontario)

(Data as of January 10, 2022)



CRCI ICU Patient Throughput (starting April 2021 onward) (Data as of January 10, 2022)

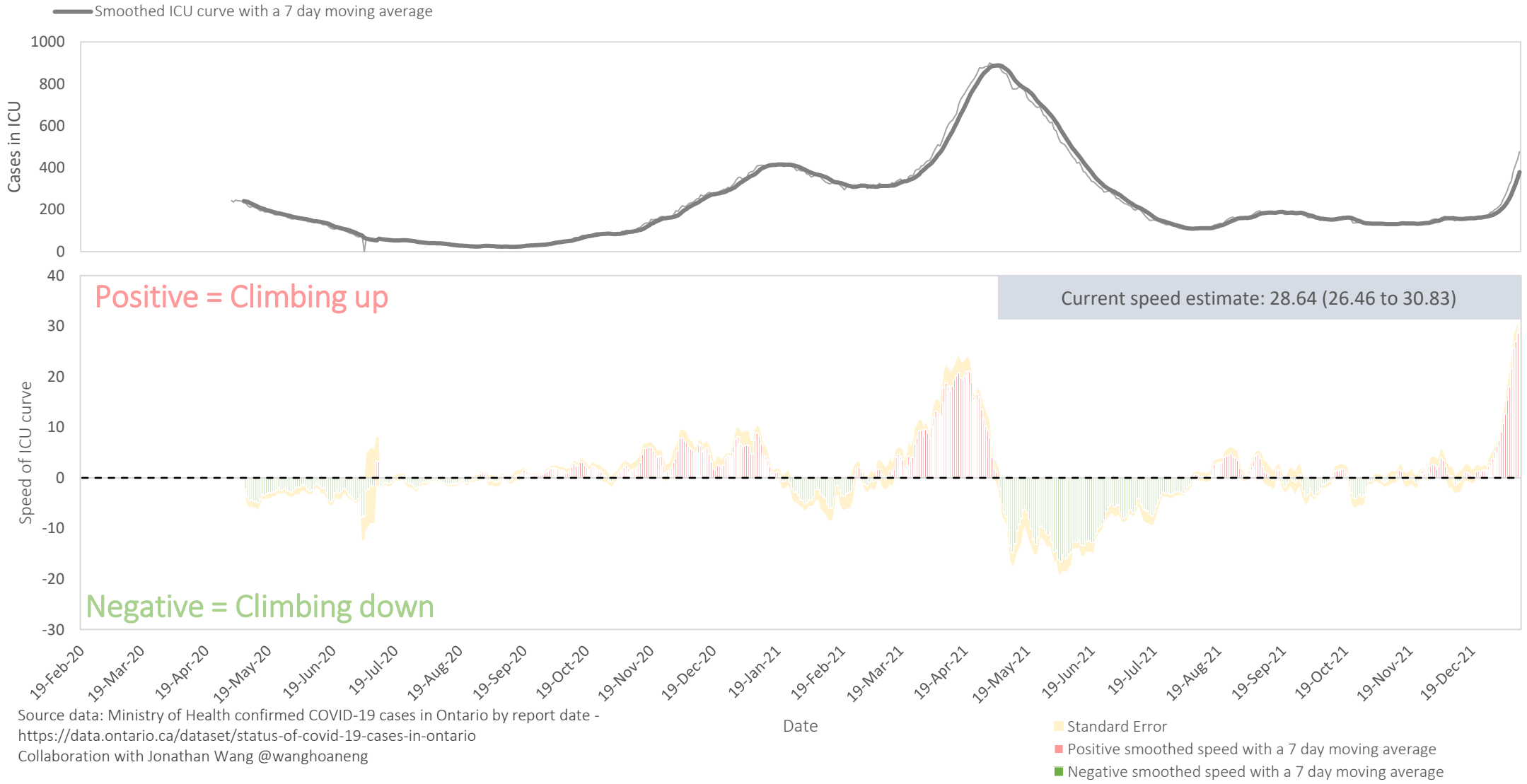
Data source: Critical Care Information System



Technical Note: Patient Throughput based on Ontario Health - CCO methodology

COVID-19 ICU curve and speed of ICU curve: as of January 10, 2022 in Ontario

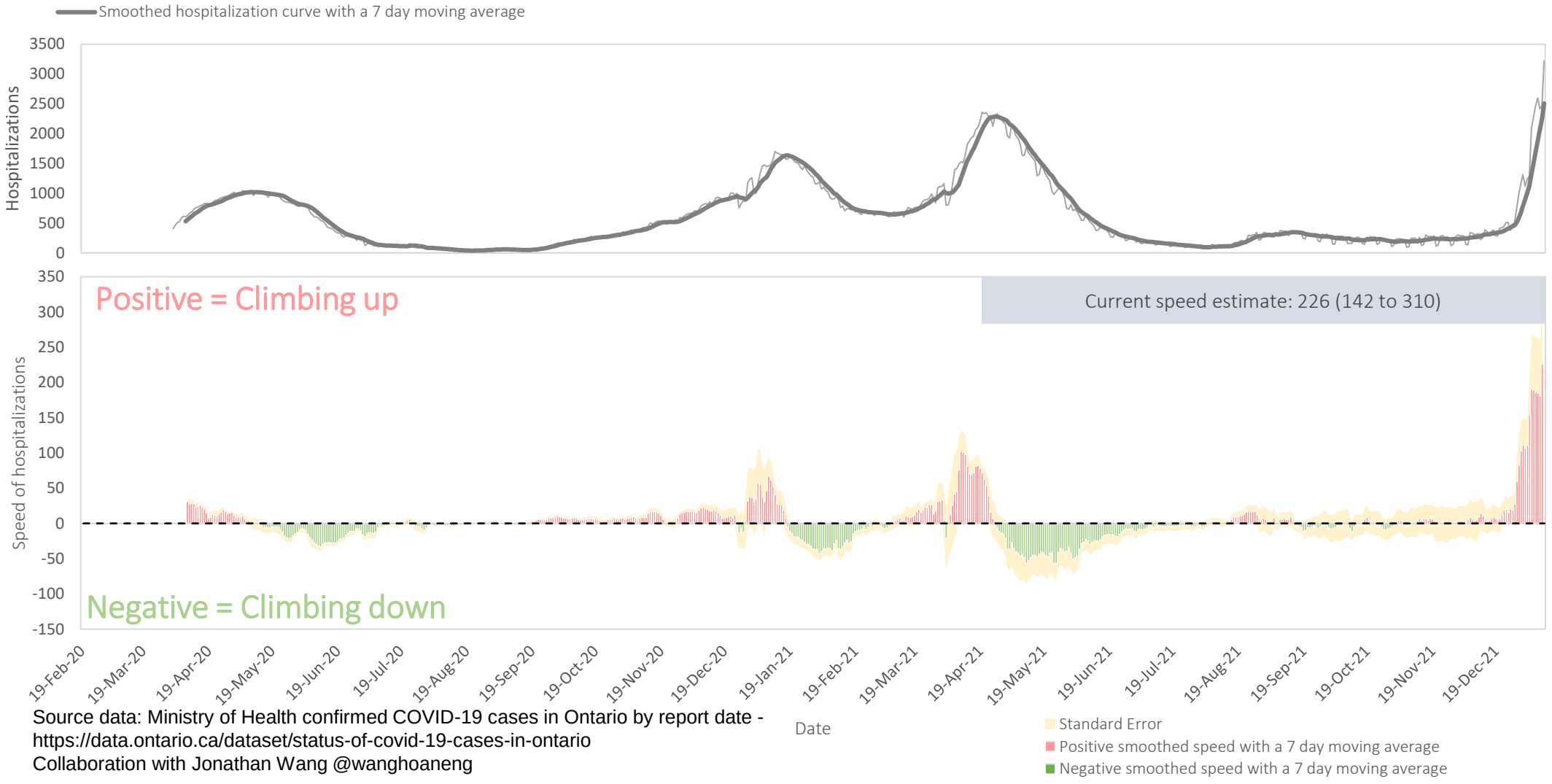
The speed of COVID-19 spread is measured as the slope of the ICU curve. When the **speed > 0**, then the trend of cases in ICU is speeding up. When the **speed < 0**, then trend of cases in ICU is slowing down. When **speed = 0**, then the cases in ICU have plateaued. The goal is to drive cases in ICU down to zero.



Source data: Ministry of Health confirmed COVID-19 cases in Ontario by report date - https://data.ontario.ca/dataset/status-of-covid-19-cases-in-ontario
Collaboration with Jonathan Wang @wanghoaneng

COVID-19 hospitalizations curve and speed of hospitalizations: as of January 10, 2022 in Ontario

The speed of COVID-19 spread is measured as the slope of the hospitalization curve. When the **speed > 0**, then the trend of hospitalizations is speeding up. When the **speed < 0**, then trend of hospitalizations is slowing down. When **speed = 0**, then the hospitalizations have plateaued. The goal is to drive hospitalizations down to zero.



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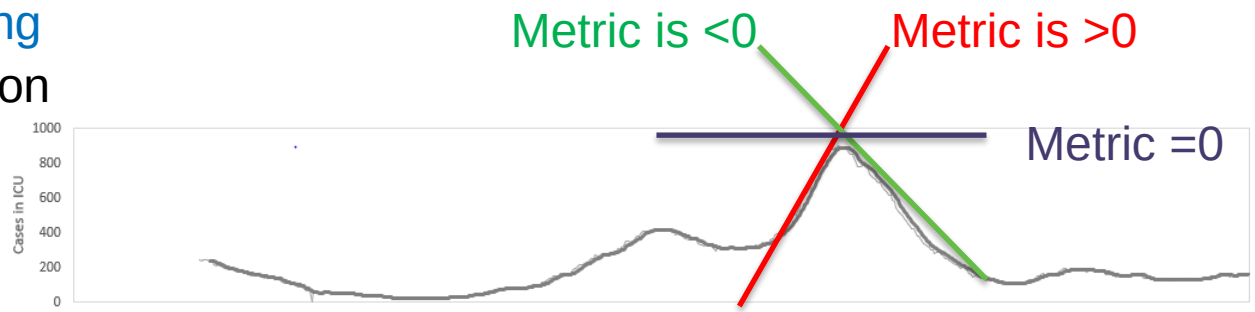
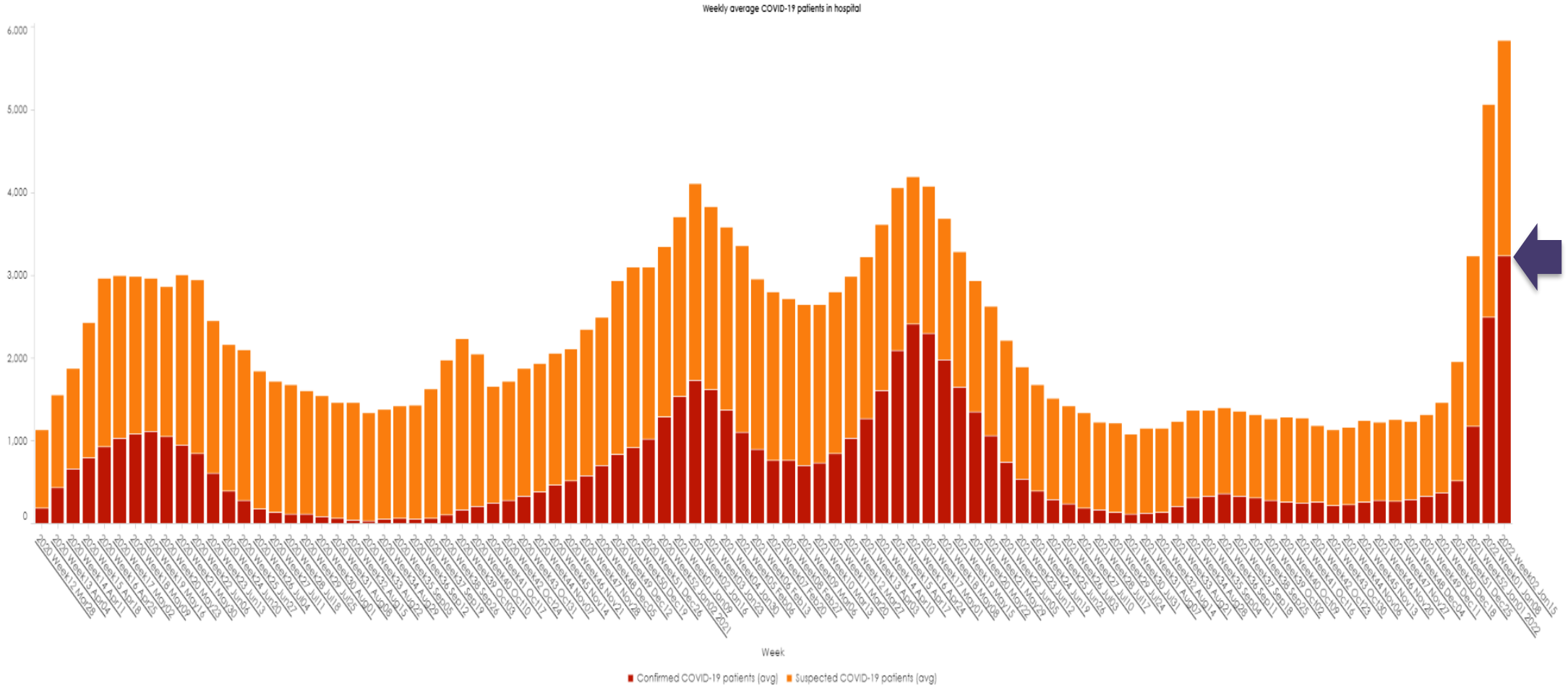
Interpretation of the “Speed Signal” Graphs

- The “speed signal” metric, developed by Jonathan Wang - Twitter: @wanghoaneng in 2020, is a simple calculation method with intuitive explanatory power for rates and spread.
- The speed signal can be considered as the number of hospitalization or ICU cases per day that can be expected if the current 7-day trend continues.
- The directionality (positive or negative) of the metric provides insight into the rate of increase of cases per day.
- This metric only provides information on the slope of the hospitalization/ICU curve and should be read in conjunction with the hospitalization or ICU case curve (i.e., zero slope does not mean there are no more daily cases, just that the rate of change in cases per day is zero over a 7-day period).
- The red bars in the graph show rates increasing and the green bars show rates decreasing.



- The speed of COVID-19 spread is measured as the slope of the hospitalization/ICU curve.
- When the **speed metric is > 0**, then the trend of hospitalizations/ICU cases is speeding up.
- When the **speed metric < 0**, then the trend of hospitalizations/ICU cases is slowing down.
- When **speed = 0**, then the hospitalizations/ICU cases have plateaued.
- The goal is to drive COVID-19 hospitalizations and ICU cases down to zero.

Weekly average COVID-19 patients in hospital (Data as of January 9, 2022)



3240 confirmed COVID-19 patients (January 9, 2022)

Source: MOH VA Tool

Hospital Occupancy

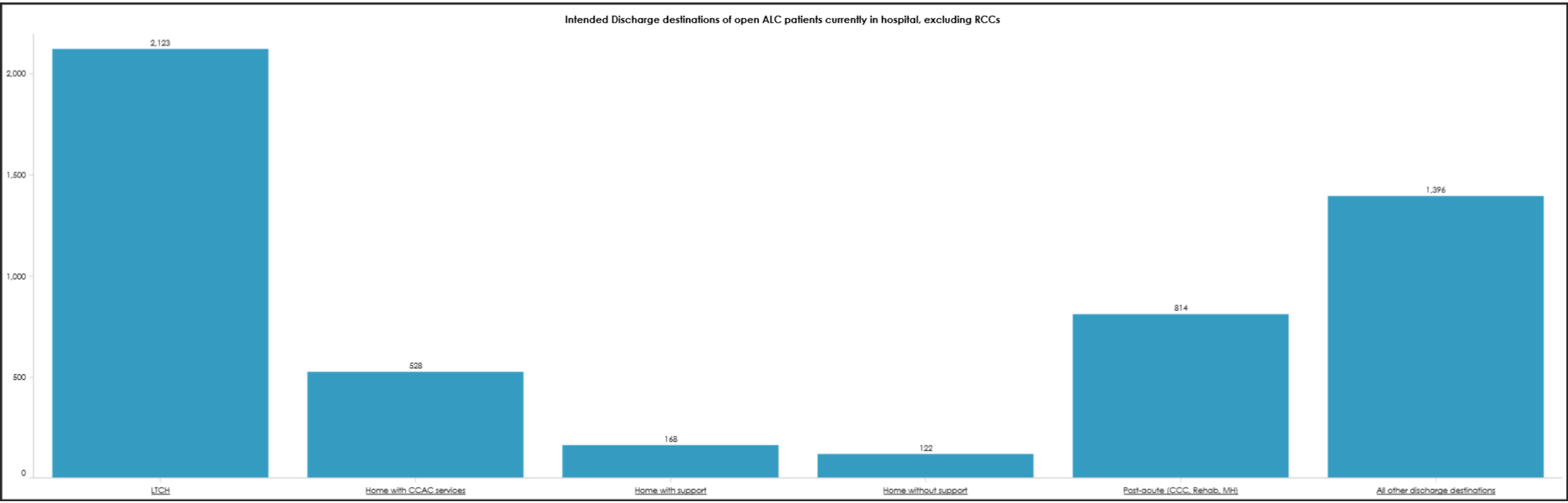
(Data as of January 9, 2022)

All Beds (Total)	Acute	Post-acute
90.7%	93.9%	84.8%
+/- from previous day 0.1	+/- from previous day 0.1	+/- from previous day 0.3
3,141	1,292	1,827
Available beds	Available beds	Available beds

(Data as of January 6, 2022)

5,151	10.3%	41.2%
ALC Open Cases Excludes RCCs	% waiting for homecare	% waiting for LTC

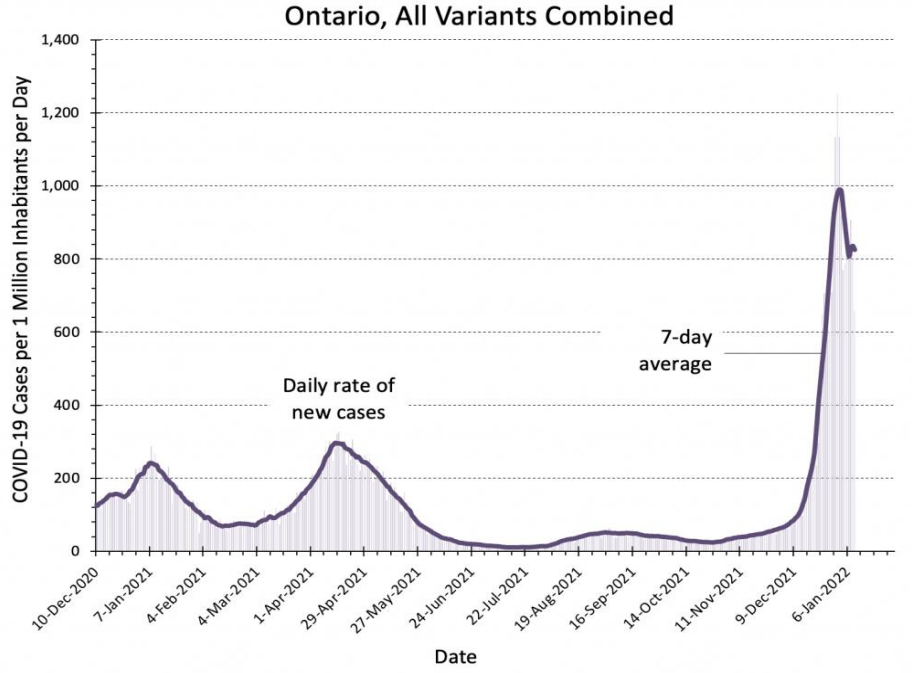
As of January 6, there are **372** ALC patients in RCC beds, approximately 2 out of 5 intended to be discharged to LTCH.



Highlights: COVID-19 Science Table Ontario Dashboard

Key Indicators	
Effective Reproduction Number R(t)	-*
Estimated Number of COVID-19 Cases per Day, on 10-Jan-2022	12,162
Change per week	-2,370
Doubling Time (Days)	-*
Estimated Percentage Caused by Omicron	96.9%
Test Positivity	27.9%
Change per week	-3.0%
COVID-19 Hospital Occupancy, on 10-Jan-2022	2,607
Change per week	+1279
Doubling Time (Days)	6.7
COVID-19 ICU Occupancy, on 10-Jan-2022	438
Change per week	+190
Doubling Time (Days)	8.7
Estimated Number of COVID-19 Deaths per Day, on 07-Jan-2022	21
Change per week	+12
COVID-19 Cases per 1 Million per Day, on 10-Jan-2022	825.4
Among Unvaccinated People	1,059.5
Among People Vaccinated with at Least 2 Doses	789.0
Reduction Associated with at Least 2 Vaccine Doses	-25.5%
COVID-19 Hospital Occupancy per 1 Million, on 10-Jan-2022	176.9
Among Unvaccinated People	609.6
Among People Vaccinated with at Least 2 Doses	138.0
Reduction Associated with at Least 2 Vaccine Doses	-77.4%
COVID-19 ICU Occupancy per 1 Million, on 10-Jan-2022	29.7
Among Unvaccinated People	175.1
Among People Vaccinated with at Least 2 Doses	16.7
Reduction Associated with at Least 2 Vaccine Doses	-90.5%
COVID-19 Vaccination, on 09-Jan-2022	
Number of People Vaccinated With at Least 1 Dose	12,288,683
Change per week	+65,980
Percent of People Aged 5+ Vaccinated With at Least 1 Dose	87.7%
Change per week	+0.5%
Number of People Vaccinated With at Least 2 Doses	11,474,711
Change per week	+53,078
Percent of People Aged 5+ Vaccinated With at Least 2 Doses	81.9%
Change per week	+0.4%
Number of People Vaccinated With 3 Doses	4,769,378
Change per week	+1,009,215
Percent of People Aged 5+ Vaccinated With 3 Doses	34.0%
Change per week	+7.2%

Estimated Rate of COVID-19 Cases per 1 Million Inhabitants per Day in Ontario



Current COVID-19 Risk in Ontario by Vaccination Status