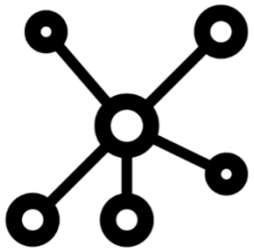
Chicago COVID-19 Community Risk Matrix – Phase V

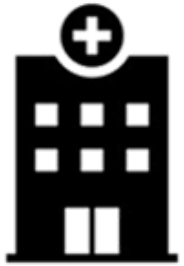
	Very high risk	High risk	Moderate risk	Lower risk	Low risk: Controlled transmission
COVID-19 cases diagnosed per day Chicago residents 7-day rolling daily average	800+	400 – 799	200 – 399	20 – 199 current: **35** declining	<20
COVID-19 test positivity Chicago residents 7-day rolling daily average	10%+	6.6 - 9.9%	5.0 - 6.5%	2 - 4.9%	<2% current: **0.5%** declining
Hospital beds(non-ICU) occupied by COVID patients Chicago hospitals 7-day rolling daily average	1250+	750-1249	250 - 749	100 - 249	<100 current: **90** declining
ICU beds occupied by COVID patients Chicago hospitals 7-day rolling daily average	400+	300 - 399	100 – 299	20 - 99 current: **38** declining	<20
Additional considerations within each risk level	**Metric will revert to **very high** risk if 7+ consecutive days ≥15% higher than the week prior*	**Metric will revert to **high** risk if 5+ consecutive days ≥10% higher than the week prior*	*Metrics must continue to decrease or remain stable relative to the week prior*	*Metrics must continue to decrease or remain stable relative to the week prior*	*Metrics must continue to decrease or remain stable relative to the week prior*

Source: Chicago Department of Public Health, data current as of July 1, 2021. These metrics represent general community COVID risk and should not be applied to individual settings that have mitigation practices in place.

Some variants are concerning or interesting



Increased transmissibility

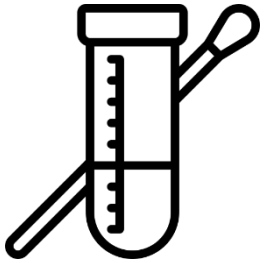


Increased disease severity

Evades vaccine-induced immunity

Evades infection-induced immunity

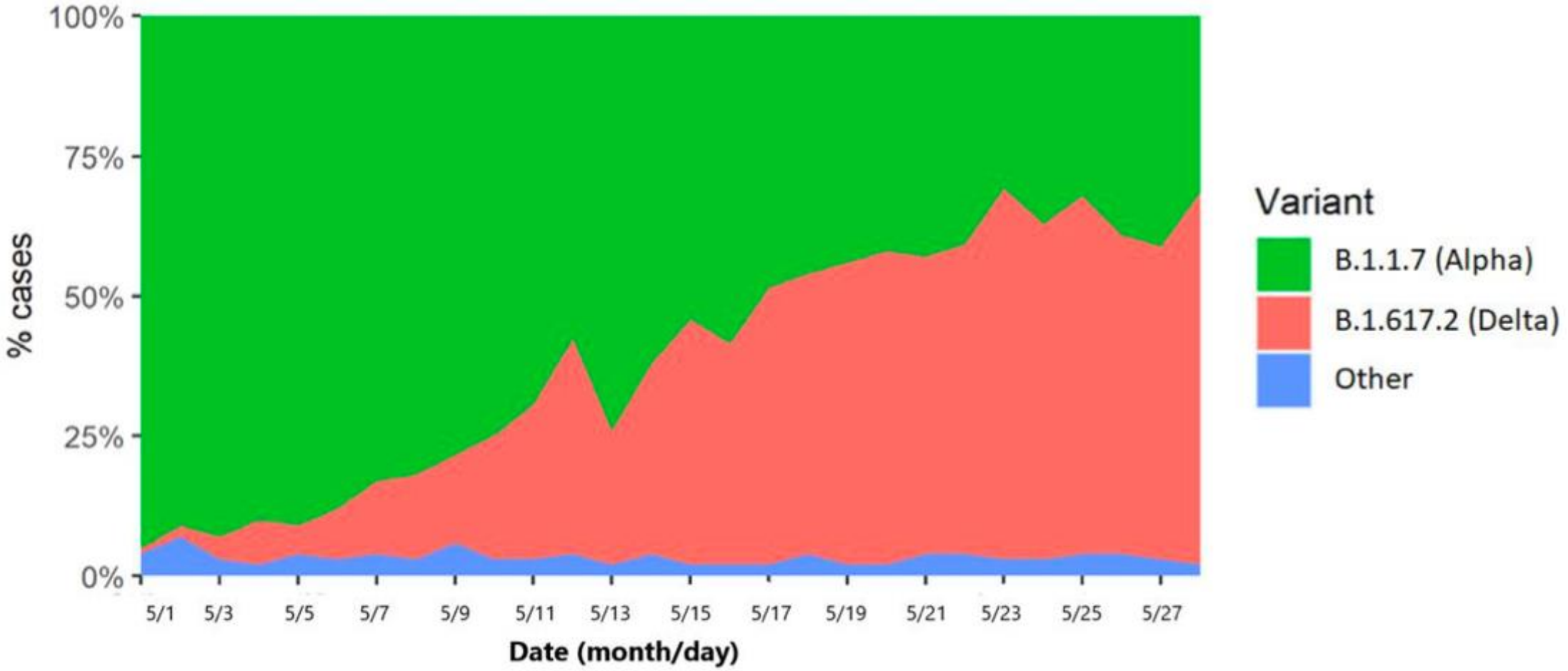
Evades therapeutics



Evades diagnostics

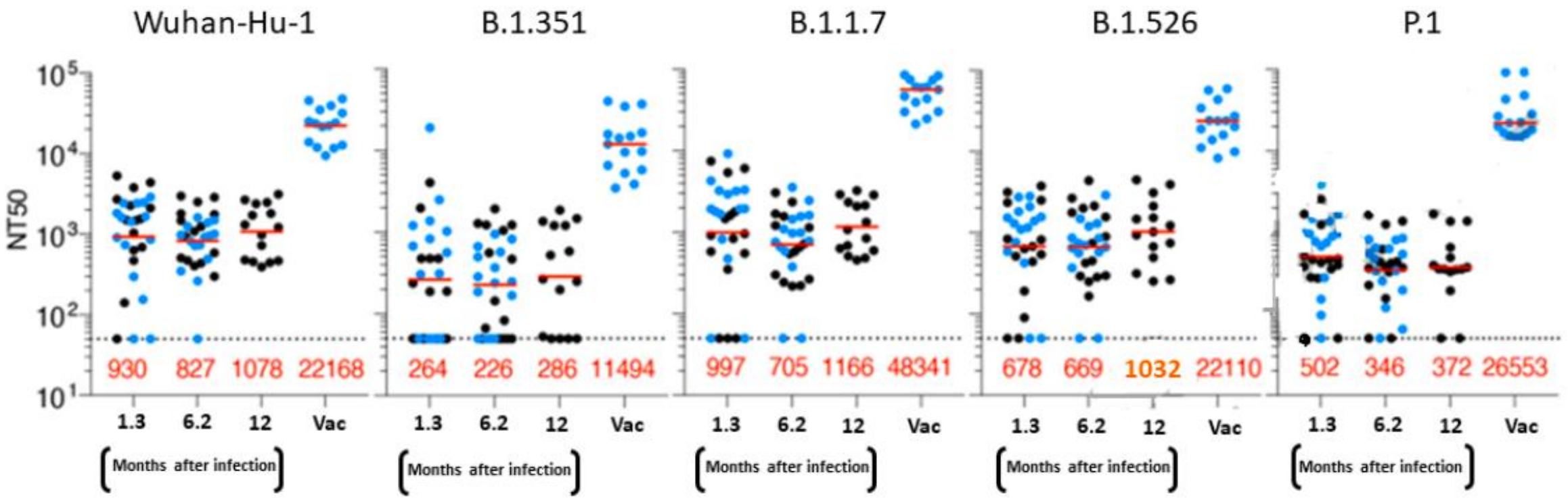
Note, some SARS-CoV-2 risk assessment frameworks include zoonotic emergence and transmission from animals to humans, but this is not routine and usually a lower priority than those domains listed above.

The Delta variant rapidly replaced Alpha in Scotland. COVID-19 vaccines appear effective in preventing hospitalization from Delta.



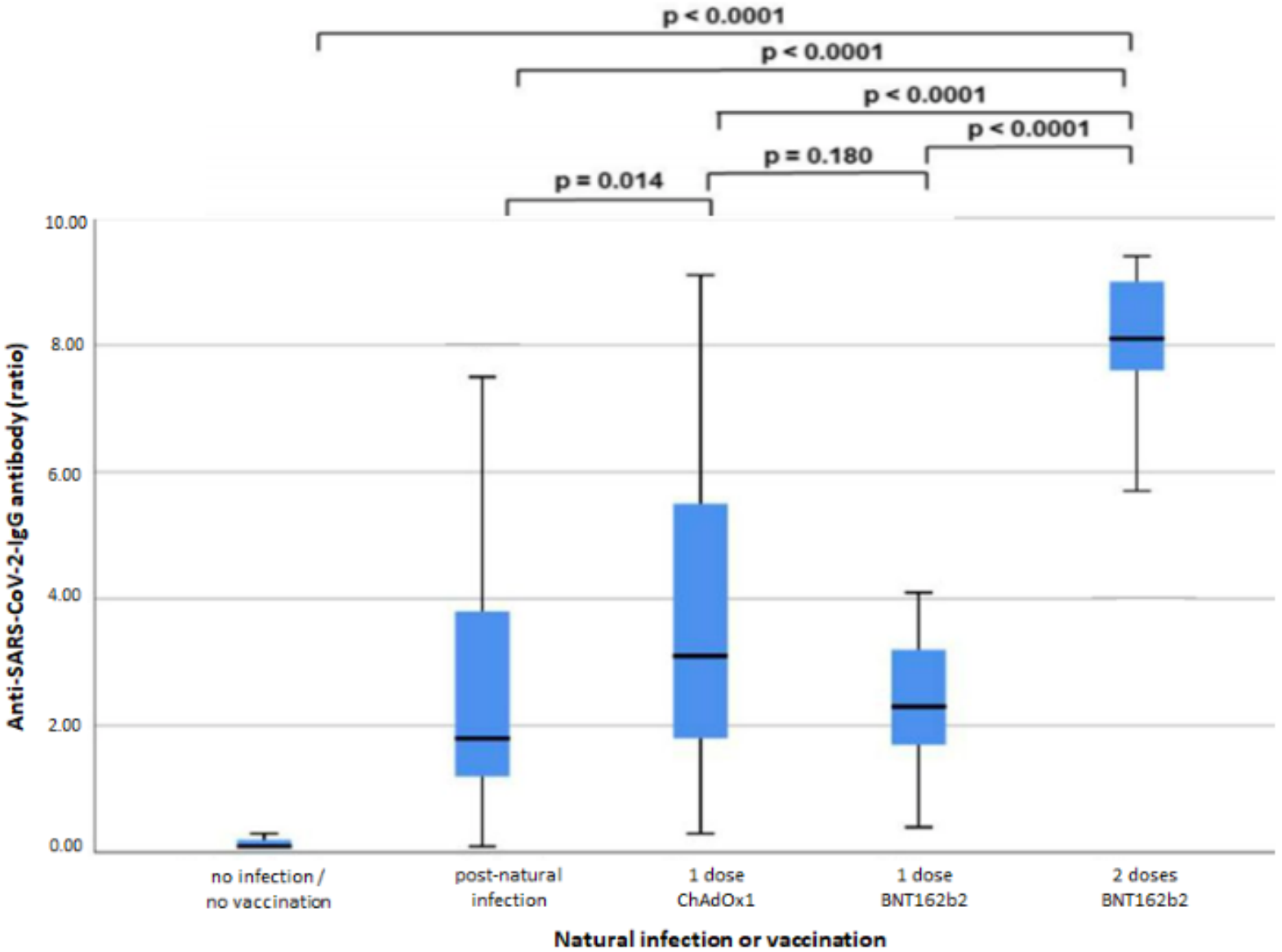
Note: Adapted from Sheikh *et al*. Changing proportions of infections due to SARS-CoV-2 **B.1.1.7 (Alpha)**, **B.1.617.2 (Delta)**, and **other variant** viruses in Scotland over time. All dates are from 2021.

Vaccination after infection produces antibodies and memory B cells that can protect against circulating variants for up to 12 months and should be protective against variants.



Note: Adapted from Wang *et al*. Plasma neutralizing activity (y-axis) against SARS-CoV-2 wild-type (Wuhan-Hu-1) and variants B.1.351, B.1.1.7, B.1.526, and P.1. Time points (x-axis) are in months. COVID-19 **non-vaccinated convalescent** and **vaccinated convalescent (Vac)** persons are shown separately at 12 months only. **Red bars** indicate medians, **red numbers** indicate the geometric mean neutralization (NT50) at indicated timepoints.

2 doses (Pfizer/BioNTech) vaccine elicited significantly higher antibody levels compared to 1 dose and natural infection



Note: Adapted from Herzberg *et al*. Anti-SARS-CoV-2-IgG antibody ratio by previous infection or vaccination status. According to assay manufacturer, a ratio <0.8 should be interpreted as negative, a ratio ≥0.8 to <1.1 should be considered equivocal, and a ratio ≥1.1 should be interpreted as positive. Solid lines indicate median IgG ratio, outlier values are not shown.