

Projections of Hospital-based Healthcare Demand due to COVID-19 in Los Angeles County

February 22, 2021 Update

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Key Findings of the February 22th Update

- This update includes data on hospitalizations through February 19, 2021.
- The underlying statistical prediction model is unchanged from last week.
- Key findings:
 - The number of new patients with COVID-19 requiring hospitalization each day across Los Angeles County has continued to decrease.
 - Based on the most recent available hospitalization data, information that reflects transmission that occurred near the end of January and the beginning of February, the estimated transmission number (“R”) at that time was 0.78 with an uncertainty of 0.71 to 0.83. Our prior estimate for one week earlier was similar at 0.81 with an uncertainty of 0.76 to 0.85.
 - Based on the pattern in hospitalizations, we expect a decreasing demand for hospital-based services including hospital beds, ICU beds, and ventilators over the next 4 weeks.

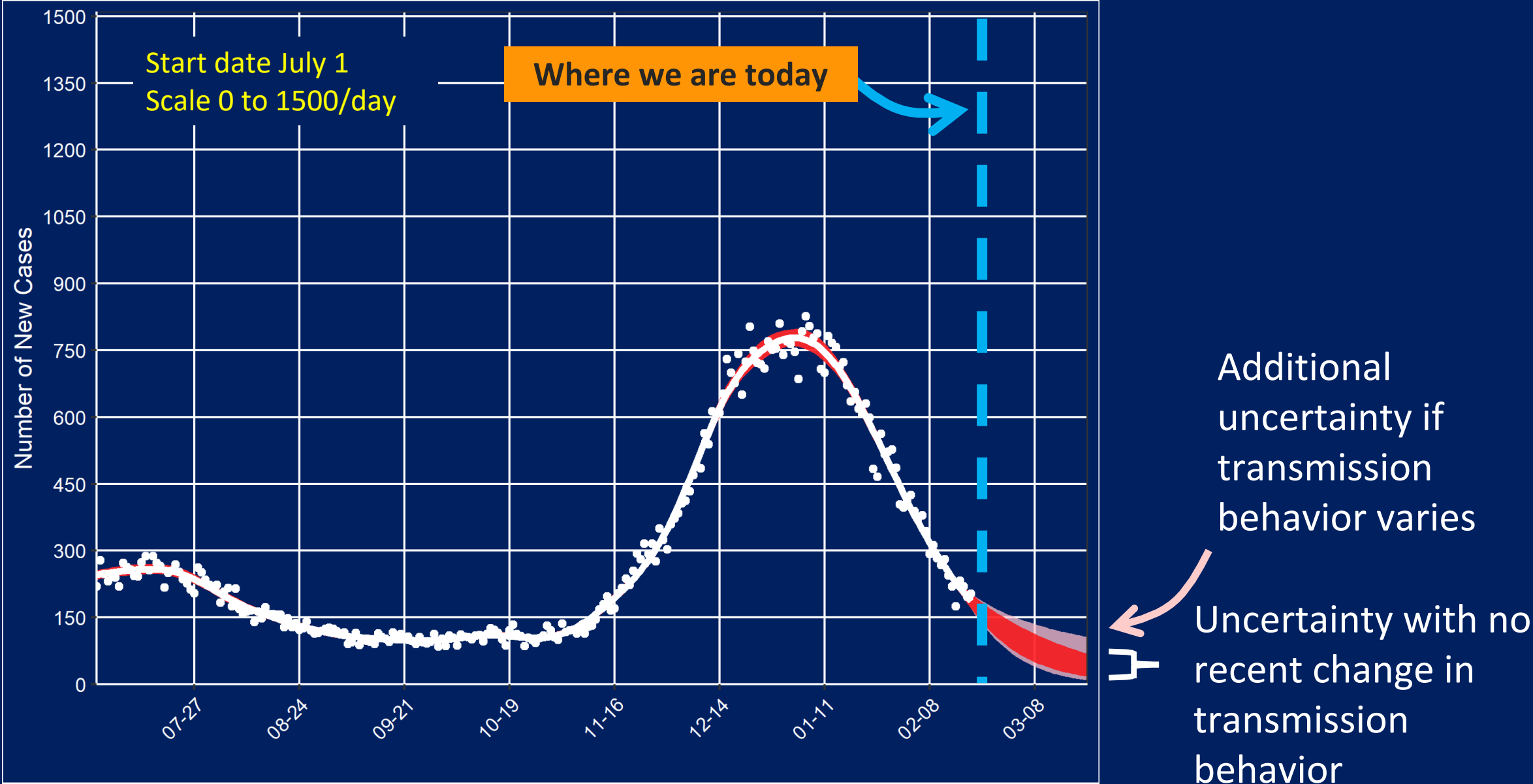
Key Findings of the February 22th Update (Continued)

- Key findings (Continued):
 - Daily mortality is falling and is predicted to continue to fall as well.
 - An increase in behaviors that facilitate transmission could lead to a new upturn in the number of hospitalized patients in about 3 weeks' time.

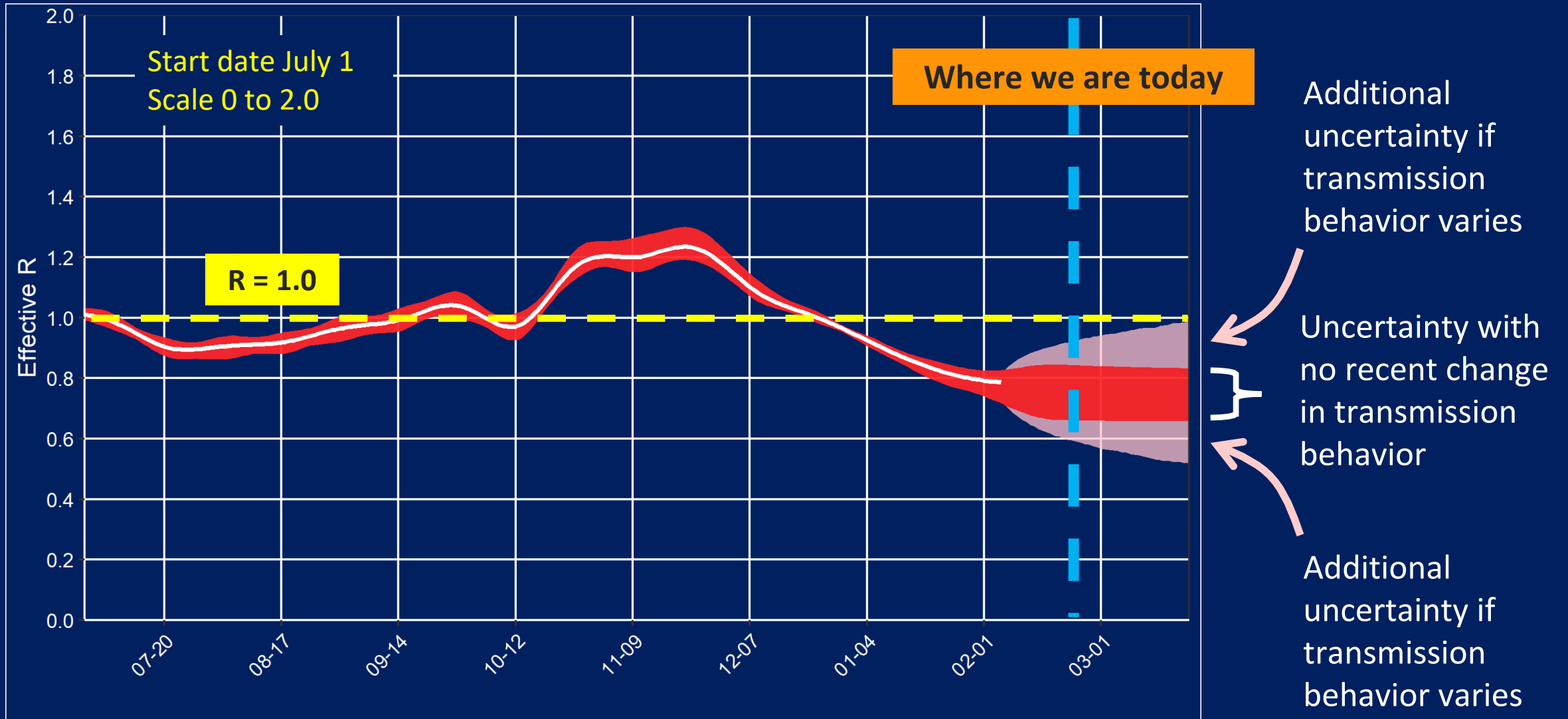
How Many in Los Angeles are Infectious to Others?

- The DHS team's epidemic model estimates the number of people in Los Angeles County who:
 - Are still **susceptible** to infection if exposed;
 - Have been **exposed** and are incubating, but not infectious;
 - Have COVID-19 and are **infectious** to others, though they may have no symptoms; and
 - Have had COVID-19 and either **recovered** or died, so they are no longer infectious
- The model suggests that about 0.14% (uncertainty of 0.08% to 0.23%) of everyone in Los Angeles County is currently infected and infectious to others.
- This would suggest about 1 in 730 (between 1 in 1200 and 1 in 440) Los Angeles County residents are currently infectious to others. One week ago, this estimate was 1 in 460.
- Approximately 1 in 3 persons in Los Angeles County has been infected with COVID-19 since the beginning of the pandemic.

Hospital New Patient Projections

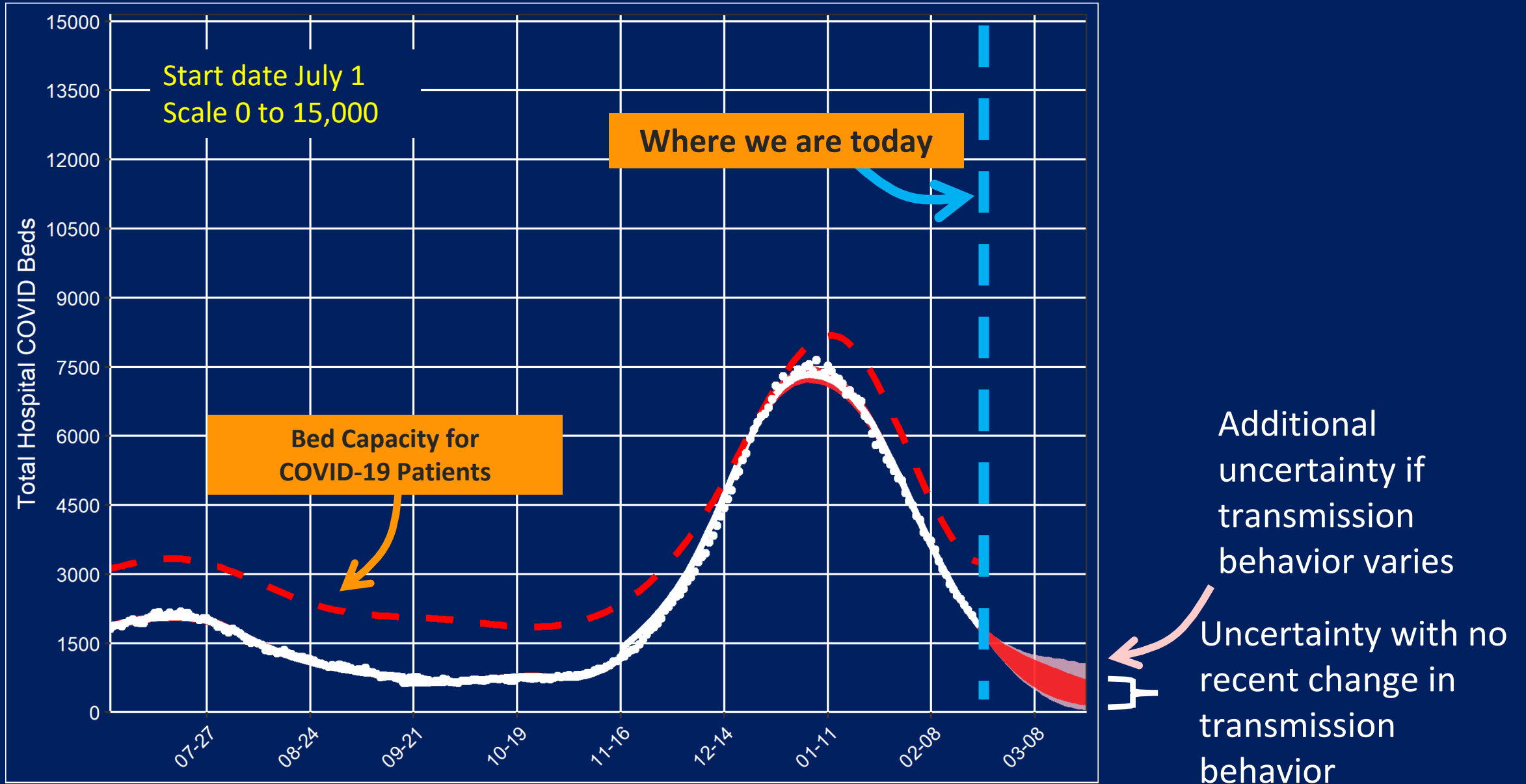


Effective Transmission Number “R”

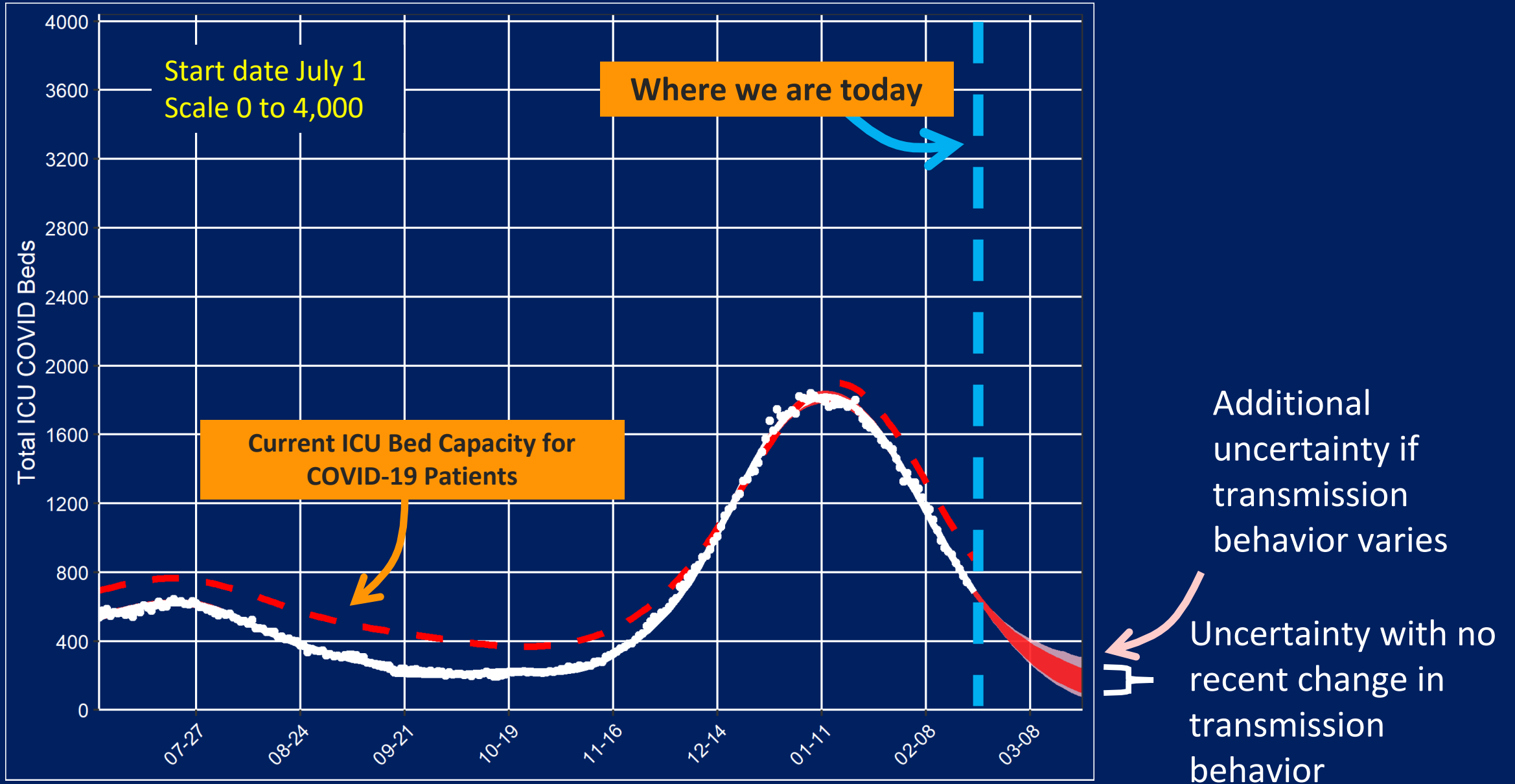


Note: We have adjusted the R that we present to account for the fraction of the population that is presumed to be immune to reinfection. At the beginning of the pandemic, this fraction was essentially zero so this would not have made any difference. But as more people have been infected, and are presumed to have immunity, we are presenting an R that includes this factor.

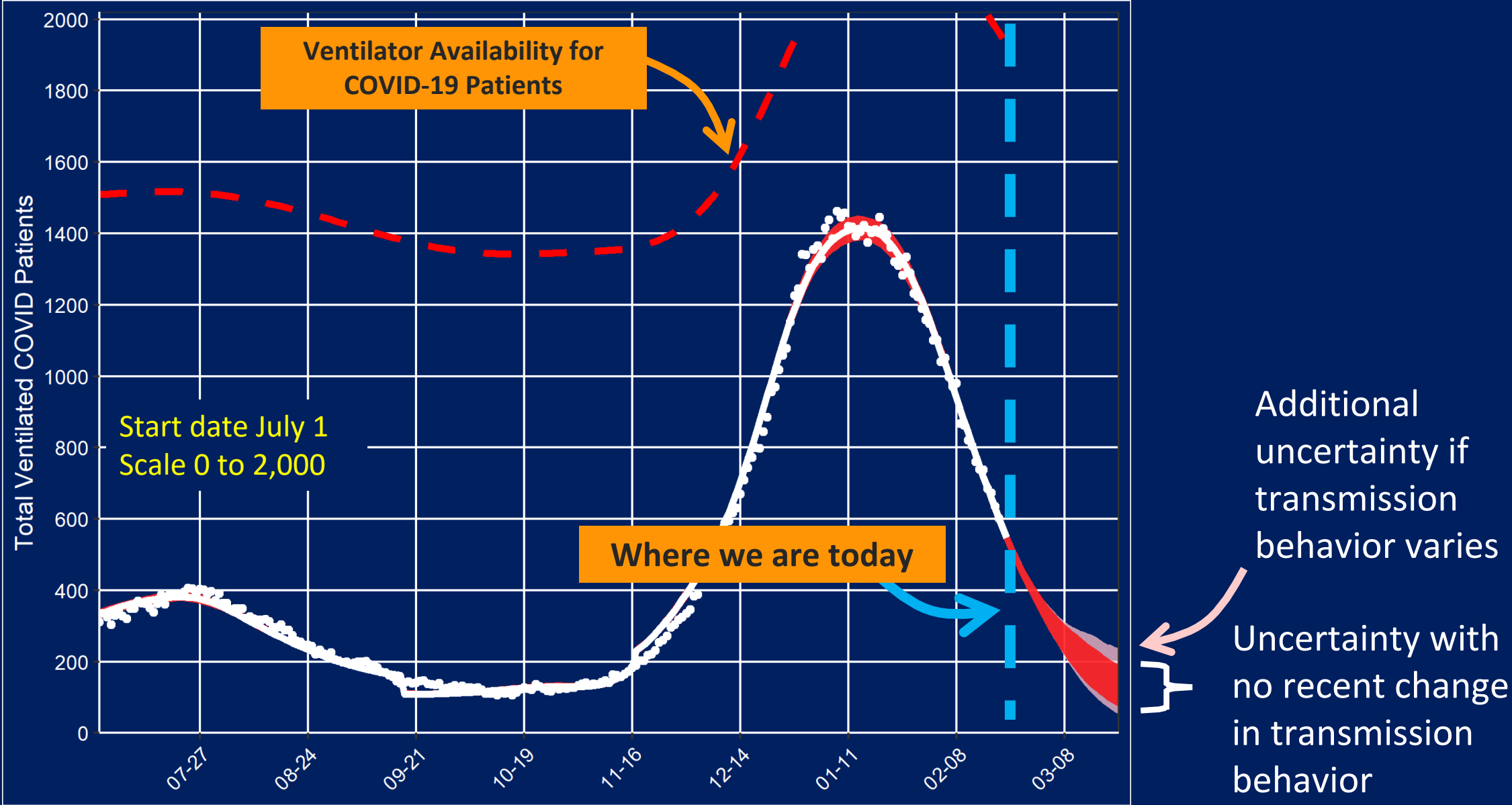
Predictions of Hospital Bed Demand



Predictions of ICU Bed Demand



Predictions of Ventilator Demand



Predictions of Daily Mortality

