

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

April 26, 2021 Update

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Key Findings of the April 26th Update

- This update includes data on hospitalizations through April 23, 2021.
- The underlying statistical prediction model incorporates the expected effect of vaccination in predicting future hospital demand.
- Key findings:
 - The daily number of newly hospitalized patients with positive tests for COVID-19 across Los Angeles County has continued to gradually decrease.
 - We continue to see patients admitted to hospitals for reasons other than acute COVID-19 illness who have positive COVID-19 PCR tests, often from prior illness that has resolved. These do not reflect recent transmission.
 - Based on recent data, reflecting transmission that occurred in the first half of April, the estimated transmission number (“R”) at that time was 0.96 with an uncertainty of 0.86 to 1.02. This estimate for R is slightly higher than our estimate one week earlier of 0.86 with an uncertainty of 0.79 to 0.99.

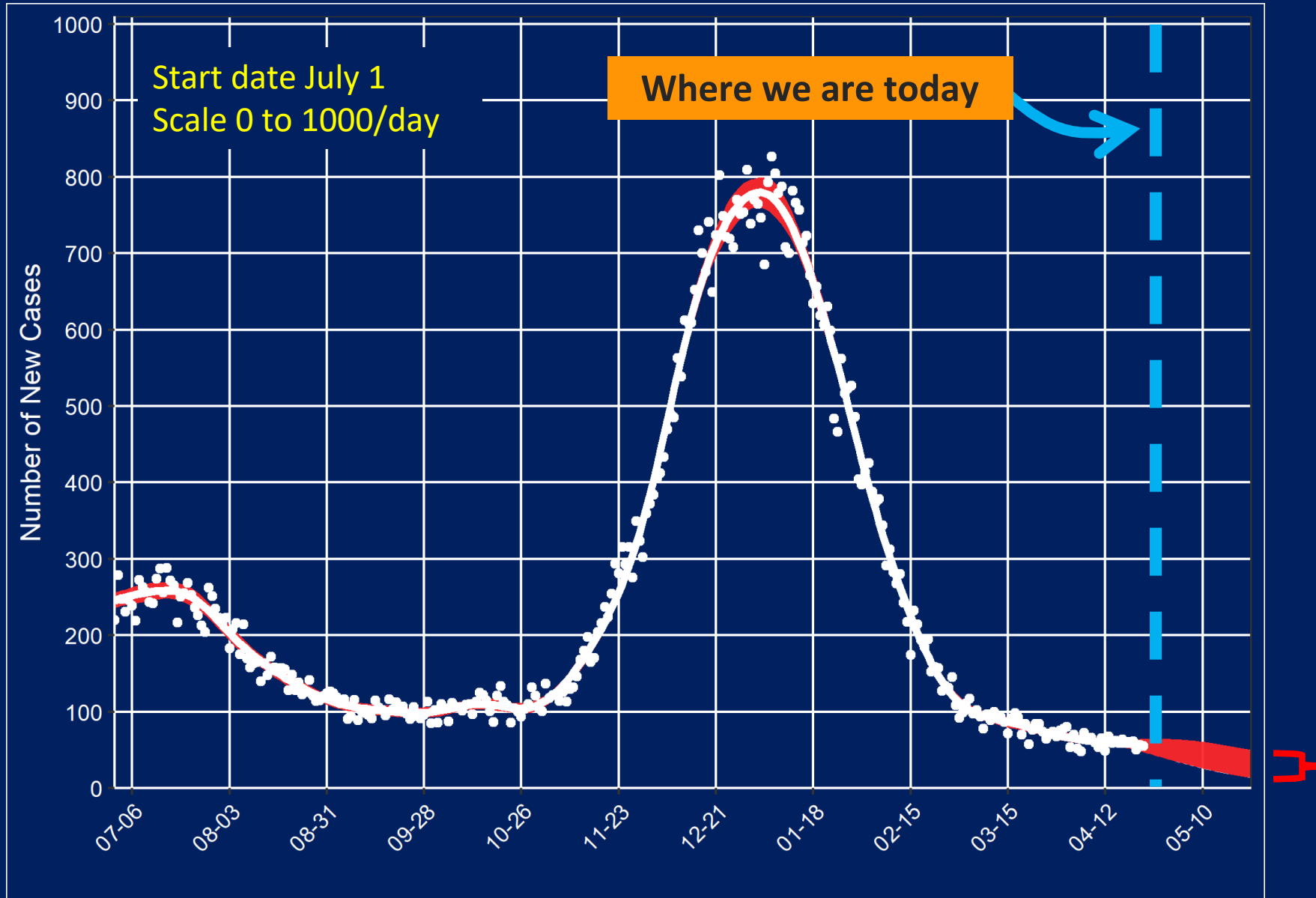
Key Findings of the April 26th Update (continued)

- Key findings (continued):
 - Based on the pattern in hospitalizations, and the resulting estimate for R, we expect the supply of hospital beds, ICU beds, and ventilators over the next 4 weeks to be adequate.
- Because of the relatively low level of community transmission, the frequency of model updates will be reduced to every two weeks after this update.

How Many in Los Angeles are Infectious to Others?

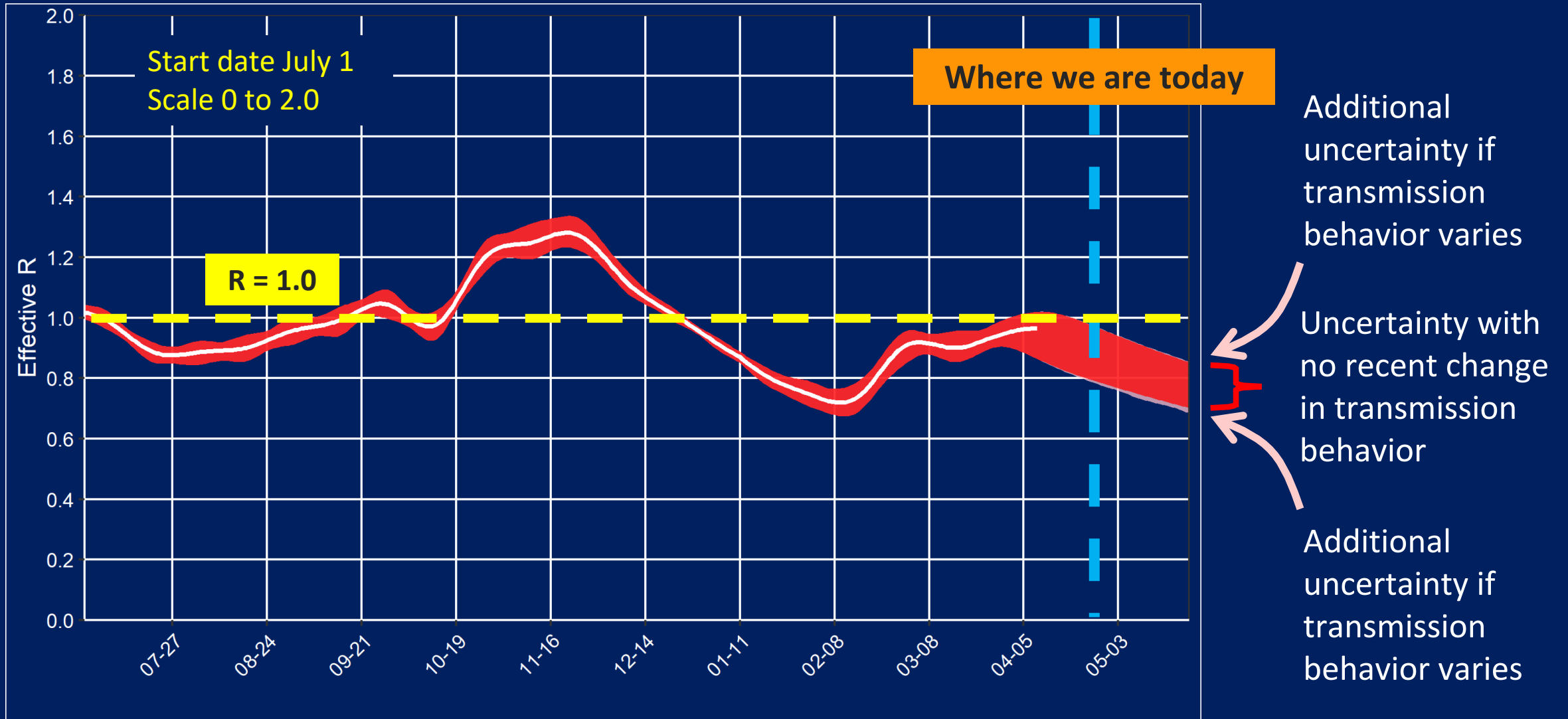
- The DHS team's epidemic model estimates the number of people in Los Angeles County who are **susceptible** to infection with COVID-19, have been **exposed**, are **infectious** to others, and have **recovered** or been vaccinated so they are no longer susceptible.
- The model suggests that about 0.09% (uncertainty of 0.05% to 0.12%) of everyone in Los Angeles County is currently infectious to others.
- This would suggest about 1 in 1200 (between 1 in 1900 and 1 in 810) Los Angeles County residents are currently infectious to others. One week ago, this estimate was 1 in 1600.
- Almost 5 in every 8 persons in Los Angeles County is estimated to be protected from COVID-19. Approximately 3 in every 8 persons in Los Angeles County has been infected and approximately another 2 in 8 have acquired protection through vaccination.

Hospital New Patient Projections



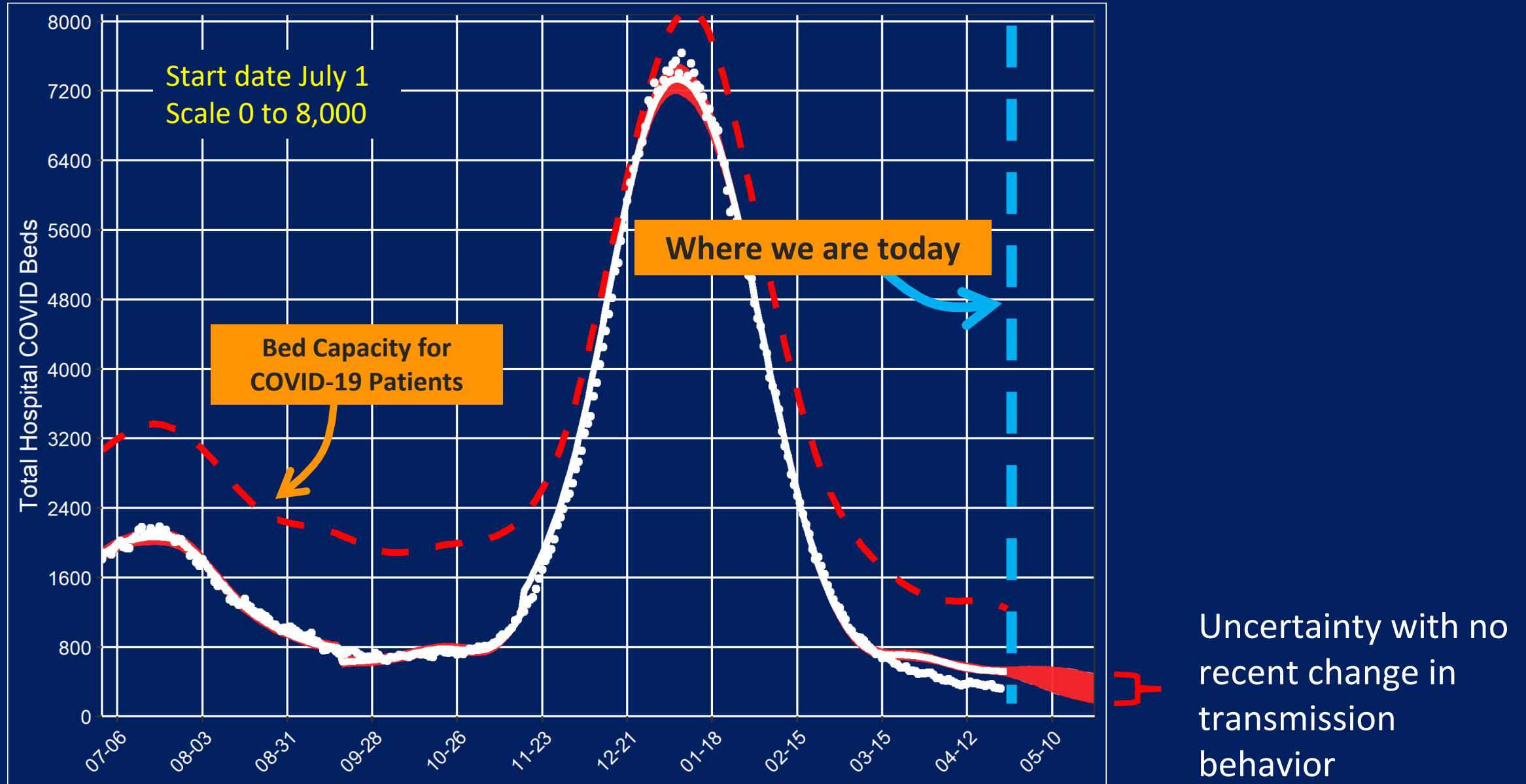
Uncertainty with no recent change in transmission behavior

Effective Transmission Number “R”

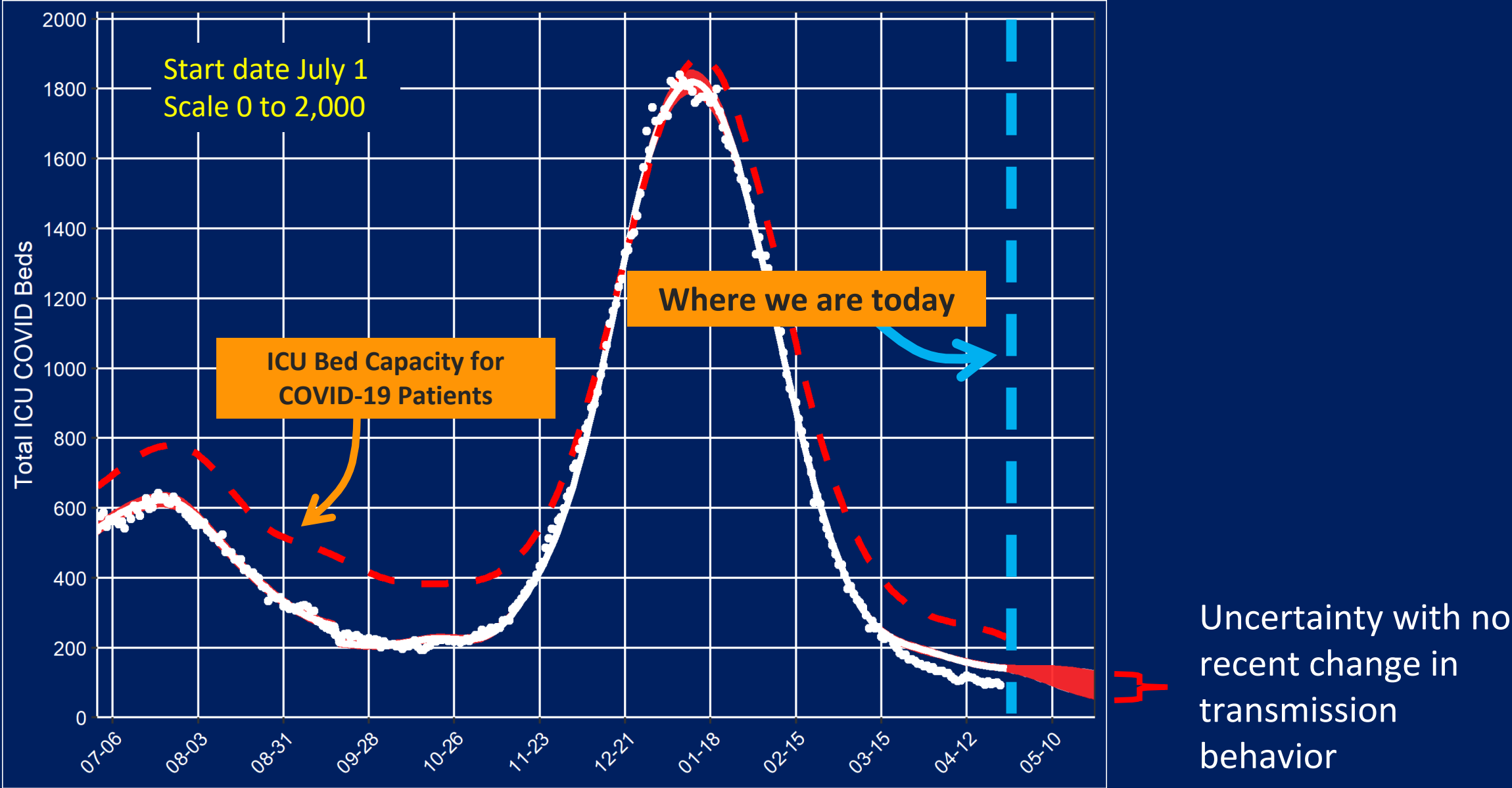


Note: The effective transmission number R is reduced by the partial herd immunity due to persons who have either experienced and recovered from COVID-19 or have been immunized.

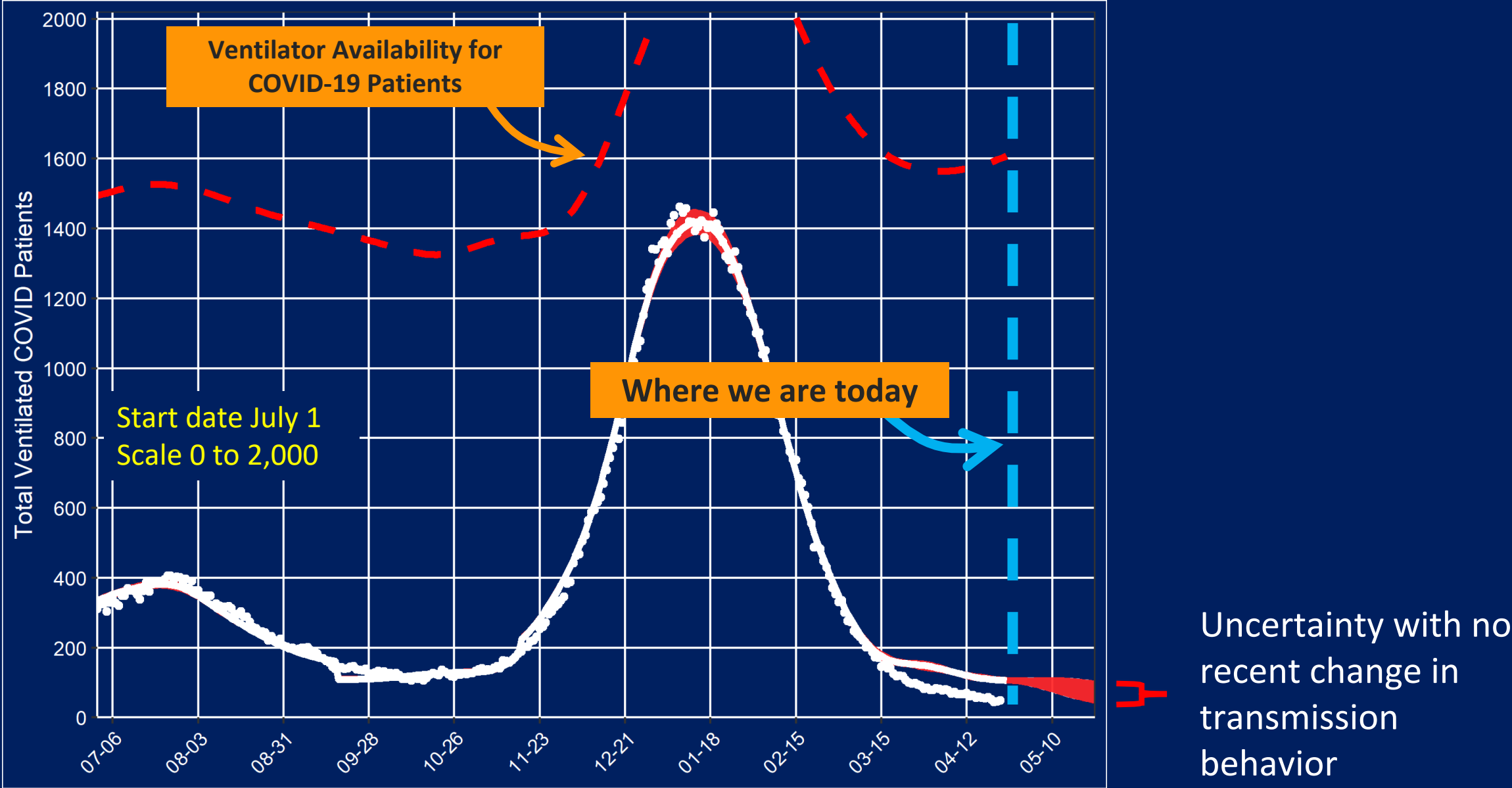
Predictions of Hospital Bed Demand



Predictions of ICU Bed Demand



Predictions of Ventilator Demand



Predictions of Daily Mortality

