

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

April 29, 2020 Update

County DHS COVID-19 Predictive Modeling Team:

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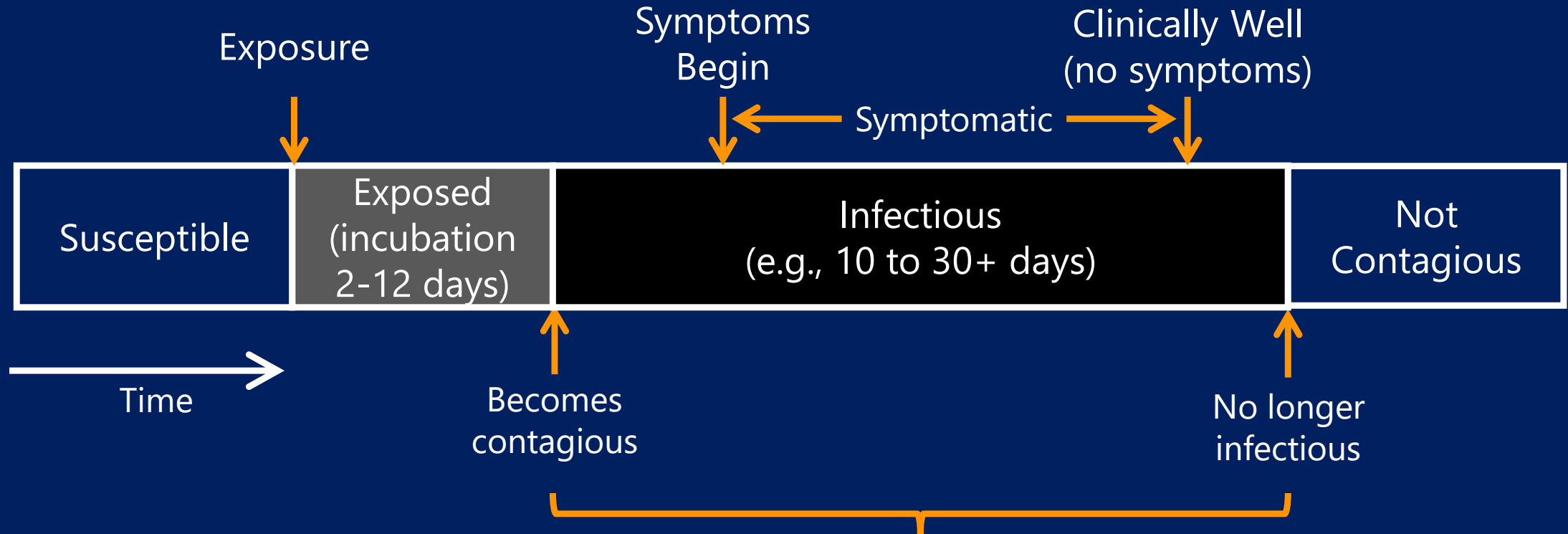
1. Los Angeles County, Department of Health Services
2. Los Angeles County, Department of Public Health
3. Los Angeles County, Office of the Chief Information Officer
4. Berry Consultants, LLC, Austin, TX
5. University of California, Los Angeles



Key Findings of the April 29th Update

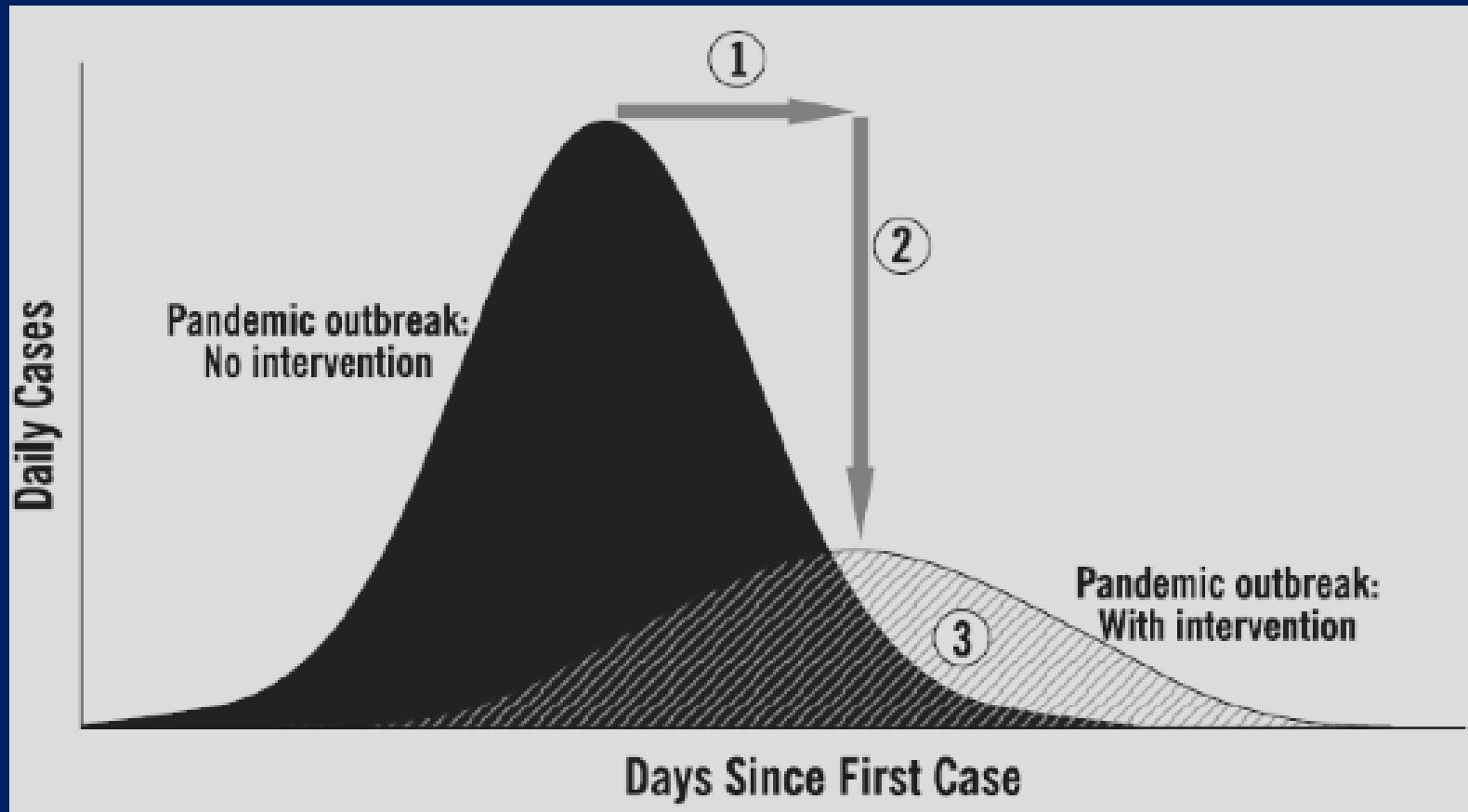
- This update includes data on hospital visits and volume through April 27, 2020. The model now accounts for increased hospital length of stay observed in patients with COVID-19.
- Key findings:
 - The overall volume of hospital-based care for patients with COVID-19 appears generally stable, within the model uncertainty, consistent with prior predictions;
 - It remains unclear if current measures are adequate to lead to a reduction in illness, or if more effective measures will be required;
 - The number of hospital beds in Los Angeles County appears adequate to meet the projected need for the care of additional COVID-19 patients over the next 4 weeks;
 - The number of ICU beds in Los Angeles County, especially with the addition of new ICU beds through multiple efforts across the County, is likely adequate to meet the projected need for the care of additional COVID-19 patients over the next 4 weeks; and
 - The number of mechanical ventilators in Los Angeles County appears adequate to meet the projected need for the care of additional COVID-19 patients over the next 4 weeks.
- If transmission increases, for example due to a reduction in physical distancing without the implementation of other effective control measures, modeling predicts that an increase in patient volume at healthcare facilities would occur after delay of approximately 2-4 weeks.

A Patient's Journey | COVID-19



Goal of physical distancing, public use of cloth face coverings, quarantine, isolation and similar actions *is to reduce the number of new susceptible people exposed during this time*

Goal of Public Health Response

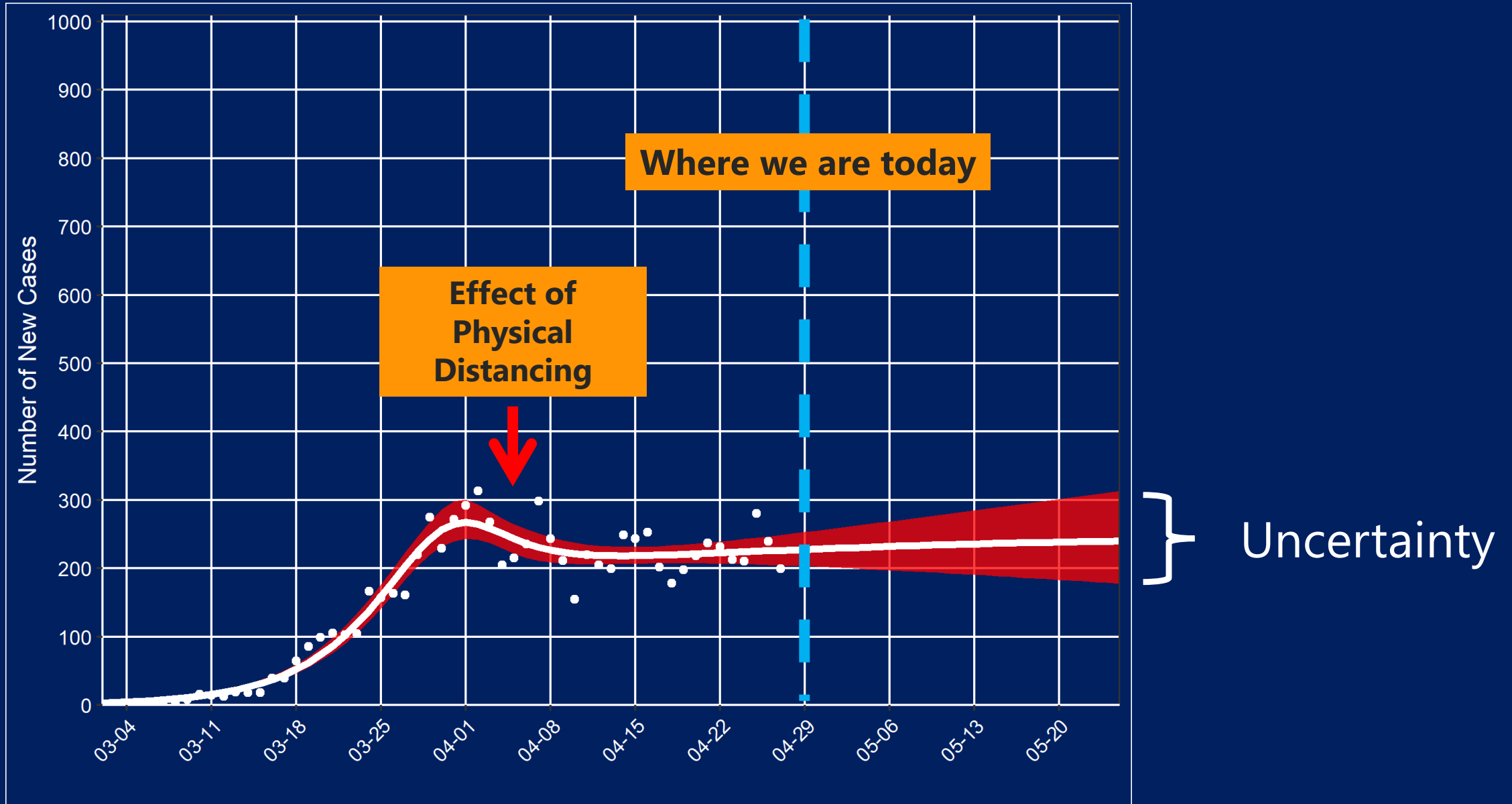


Effects of physical distancing & public health interventions:

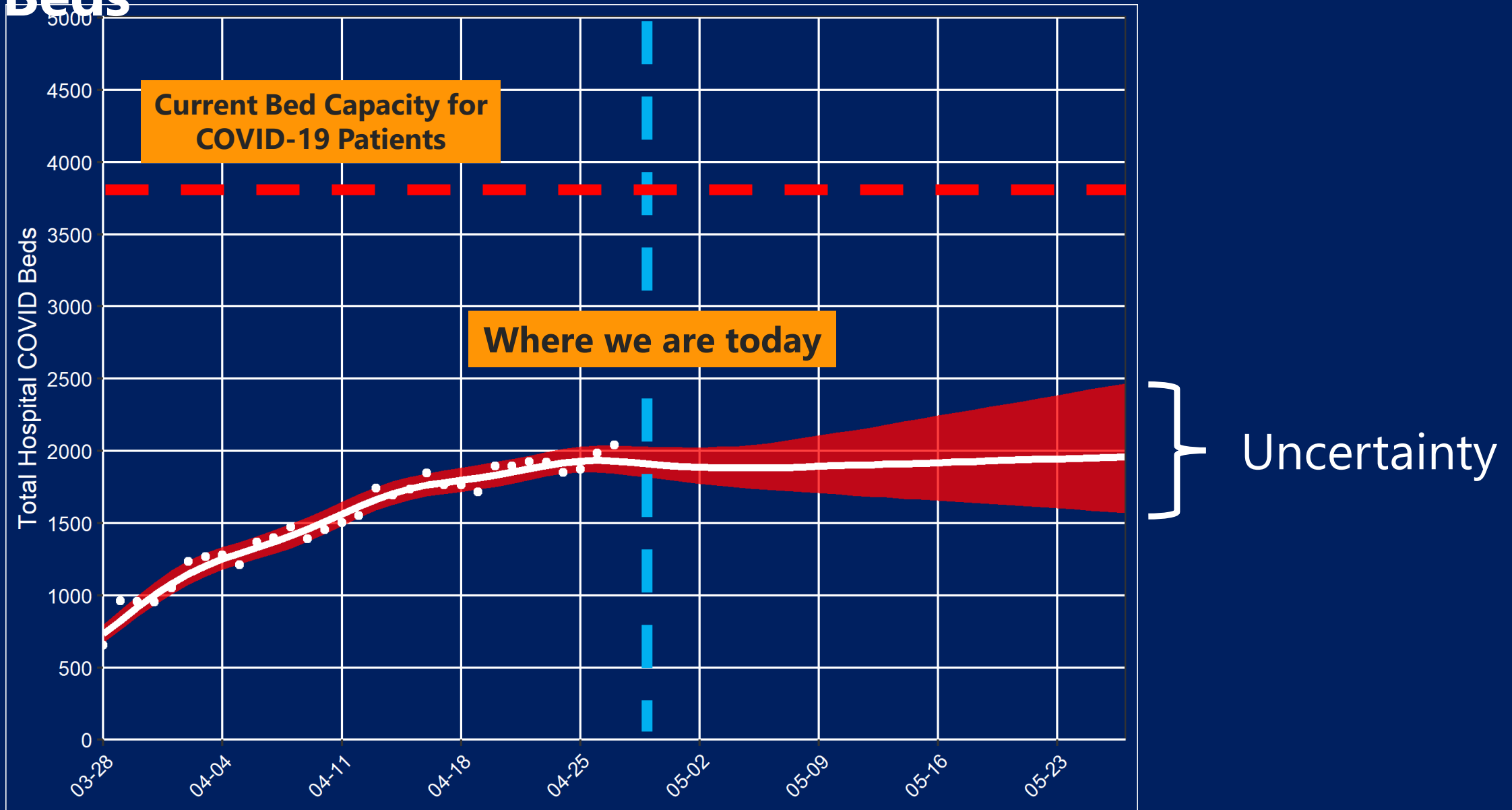
1. Delay peak in demand, increased time to prepare
2. Decrease peak demand, increased ability to surge
3. Decrease total population infected

Source: CDC 2007

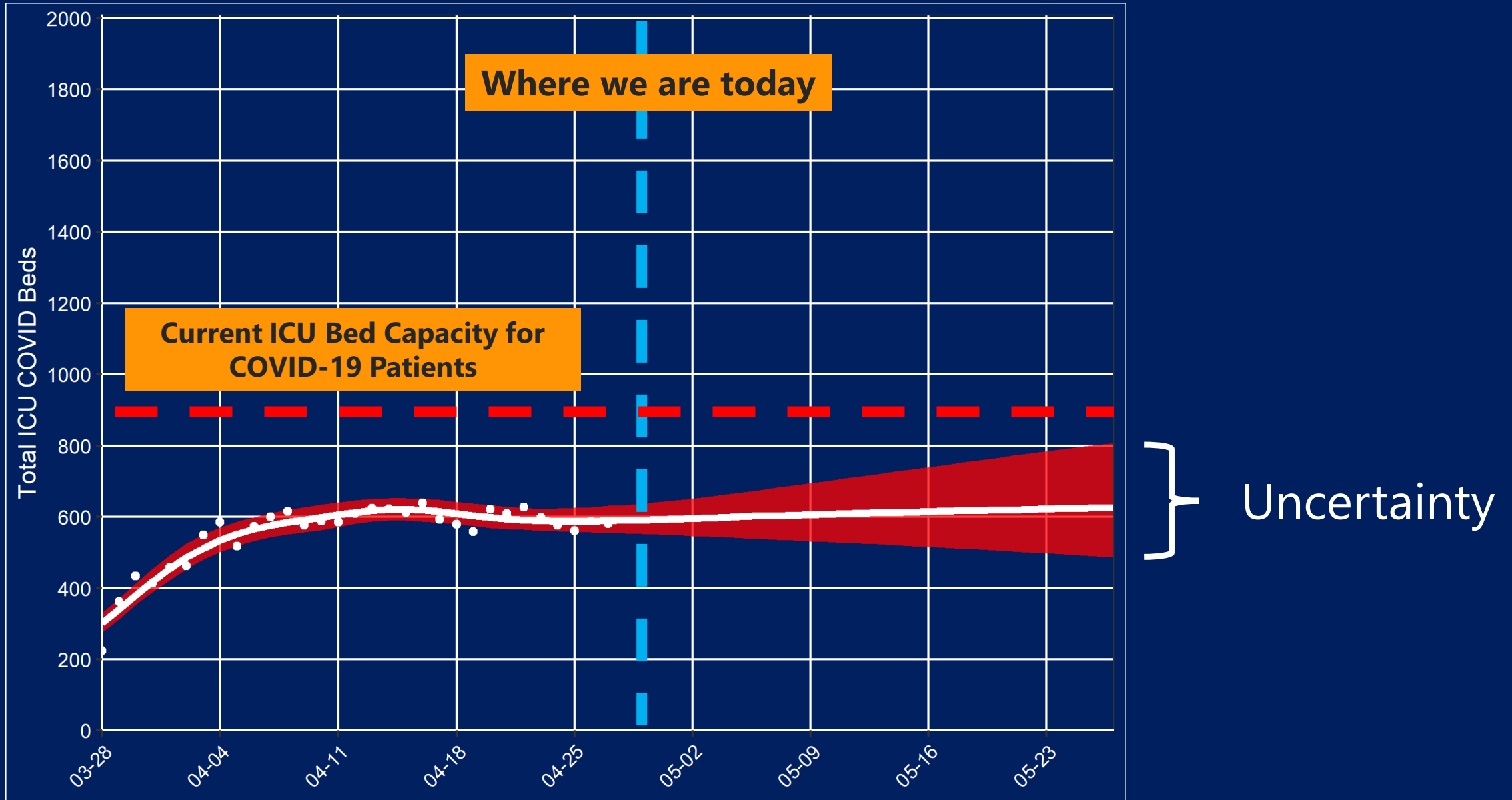
Hospital Patient Projections



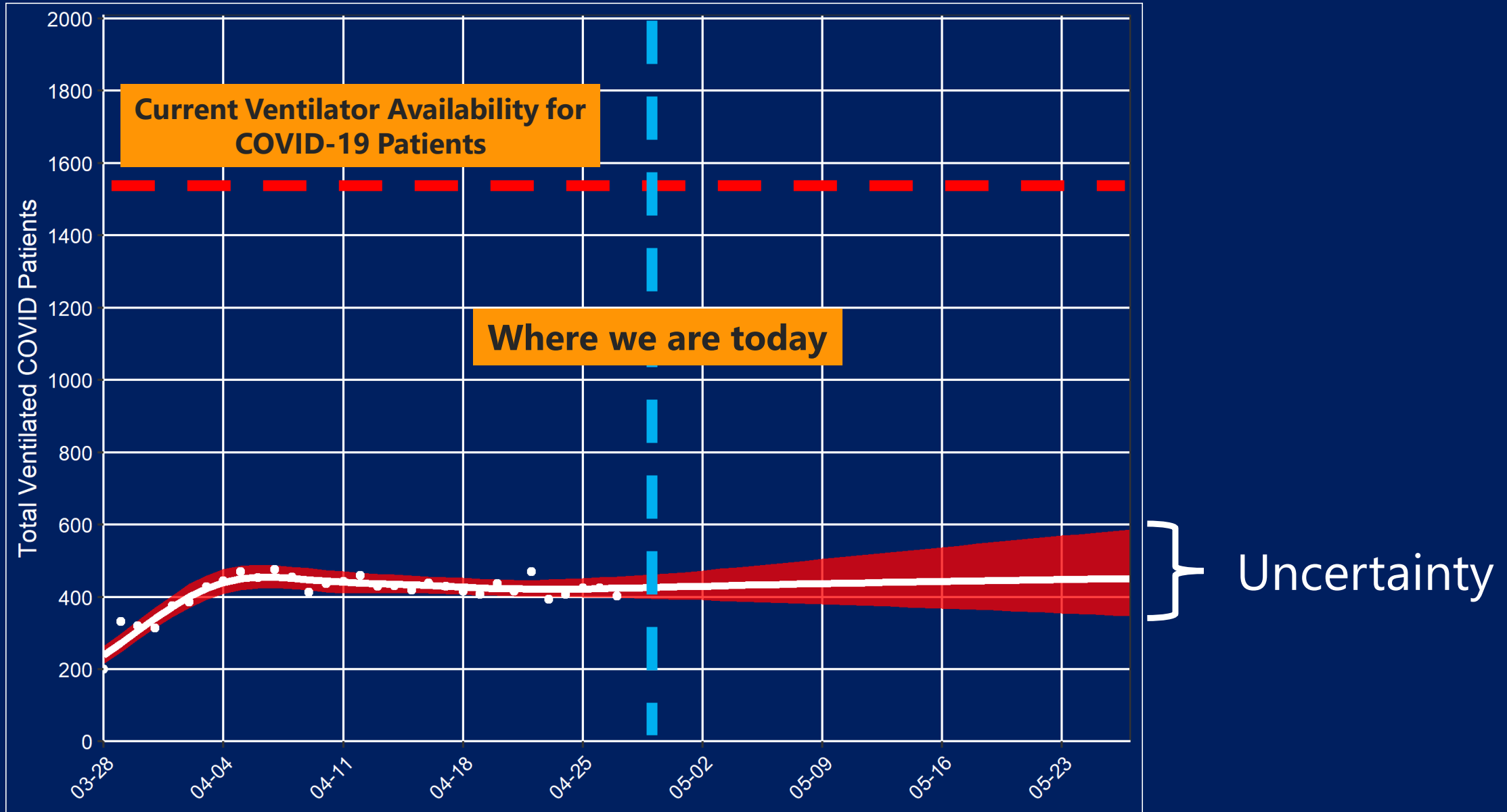
Predictions of Demand in LA County | Hospital Beds



Predictions of Demand in LA County | ICU Beds



Predictions of Demand in LA County | Ventilators



Effect of Physical Distancing Behavior

As summer approaches, if physical distancing is....



... of LA County residents will have been infected by August 1st, 2020

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