

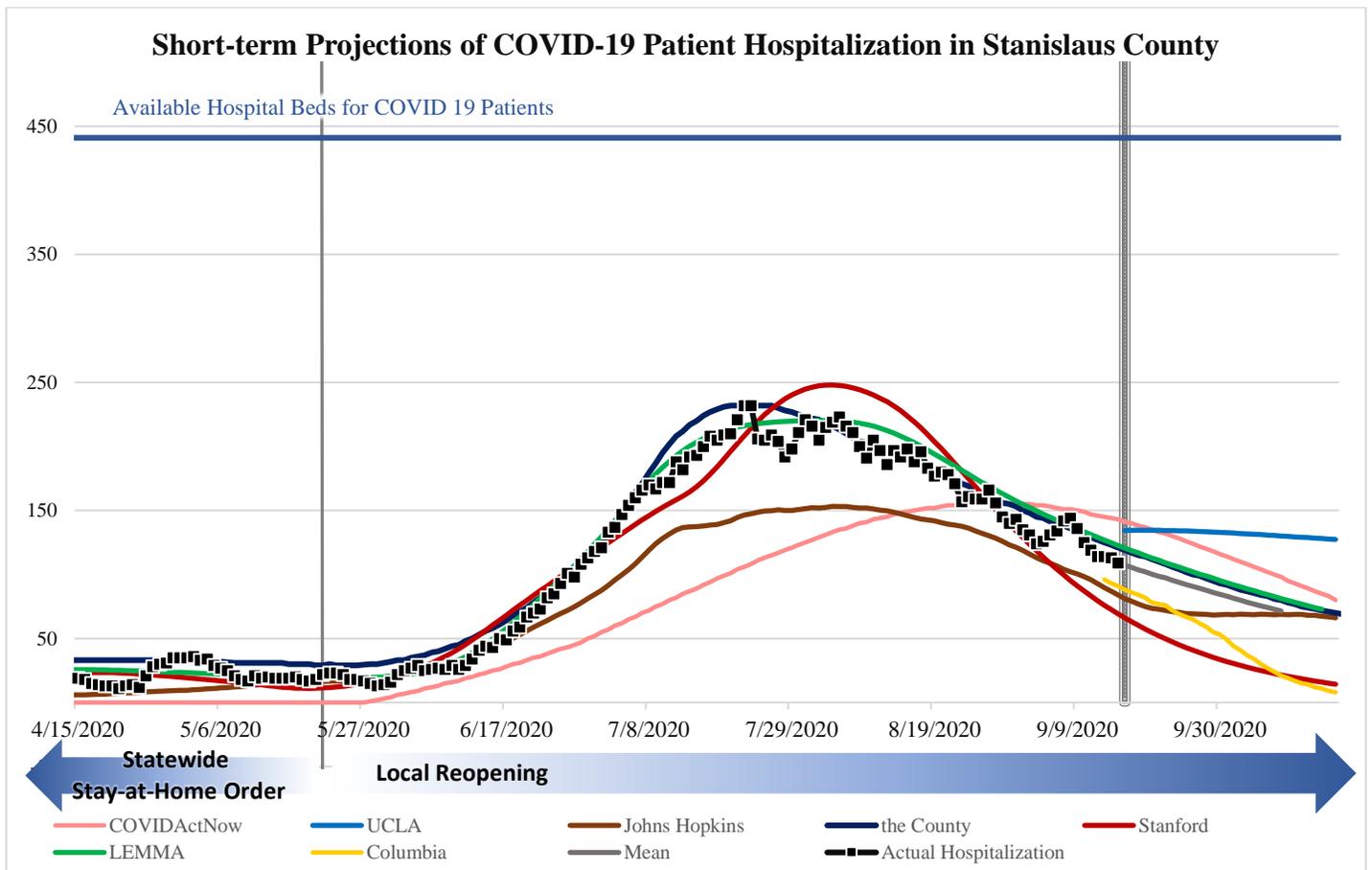
Short-term Forecasts: COVID-19 Patient Hospitalizations in Stanislaus County



As COVID-19 (coronavirus) spread across the world, many jurisdictions, including California, have implemented policies and recommendations to slow the spread of the disease, including closing non-essential business operations, asking people to work from home when possible, closing schools, prohibiting group gatherings, maintaining at least a six-foot separation from other people and wearing facial coverings in public. Publicly available platforms (e.g., [unacast](#), [cuebig](#)) provide estimated magnitudes of social distancing in the County, suggesting

1. Approximately 40% reduction in social contacts for the period between March 19 and May 19, 2020
2. Less than 20% reduction in social contacts for the period between May 20, 2020 and on July 13, 2020
3. Approximately 30% reduction in social contacts since July 13, 2020.

Utilizing estimated magnitudes of social distancing as well as non-pharmaceutical interventions (e.g., case isolation/quarantine), data scientists from universities and private sectors have created mathematical/statistical forecasting models to project hospital bed utilization for the next 2 to 4 weeks. These models not only consider the local transmission rate but also incorporate several pieces of epidemiological information, such as when the COVID-19 epidemic started, the amount of social distancing practiced, the percentage of COVID-19 patient being isolated and quarantined and so on. Figure 1 shows short-term forecasts of COVID-19 patient hospitalizations in Stanislaus County, generated by seven different models. Each model's growth curve is represented by a different color. The black squares show the number of confirmed Stanislaus County COVID-19 patients who were hospitalized in a local hospital on a given day. All models have estimated a significant increase in the past month but projected that the curve would be flattened or there would be a moderate decrease for the next month.



Note: This graph is based on the data available as of September 16, 2020. Please note that there is considerable uncertainty in the estimates of each epidemiologic model at this time, driven by the uncertainties in key aspects of the virus and lack of data regarding the prevalence of infection.

Figure 1 Estimates and Short-term Projections of COVID-19 Patient Hospitalizations in Stanislaus County, CA