The updated analysis tells us several important things. **First, we need more coronavirus testing.** To know if we are doing enough to flatten the curve, we need to know where we currently are on the curve. To know where we are on the curve, we need to know how many people have the virus. Testing is the only way to get that information. Since we don’t have widespread testing yet, we don’t know if the 609 positive tests in Bergen county represent 10 percent of symptomatic infections or 80 percent of symptomatic infections. The range of dates presented in this brief shows this uncertainty in confirmed infections. The nearer date assumes we are testing 10 percent of symptomatic individuals, and the later date assumes we are testing 80 percent of symptomatic individuals.

**Second, these models provide valuable information about where in New Jersey we are likely to reach hospital capacity soonest, and when that will happen.** This is useful information even with the range of uncertainty we have due to testing limitations.

**Key findings include:**
1. Generally, stronger social distancing measures do not just delay the date when the first county reaches capacity (capacity date), they also spread that capacity date out over summer 2020. This additional time to capacity could allow the state to mobilize health care resources (such as mobile beds, nursing staff, and ventilators) from county to county. This mobilization strategy has been advocated on a global level as well as a local level. Under moderate social distancing, the capacity dates across all counties occur within a one-month span (April 2020). Under stronger measures, counties are likely to reach their capacity dates over a three-month time frame (May-July 2020).
2. Counties in South Jersey are likely to reach hospital capacity later in the year than North Jersey. The exceptions to this are Cumberland and Ocean Counties in the South, and Warren County in the North.
3. The overall population of a county does not predict the capacity date. For example, Somerset County has roughly one-third of the population of Bergen County, but the model predicts they will reach capacity at about the same time.
4. Because of the nature of the coronavirus, there is a delay between when social behaviors change and when we observe changes in new symptomatic infections.
Several factors produce uncertainty in the models. The unknown rates of testing, described above, create the first source of uncertainty—the range of dates for each county. It is also probable that the rate of testing varies by county. For example, counties with drive-through testing are likely to have higher testing rates than those without drive-through testing.

The second source of uncertainty is which social behaviors constitute “strong” or “moderate” social distancing. “Social distancing” describes infection control actions taken by public health offices and others to stop or slow the spread of a contagious disease. This uncertainty is the difference between the moderate and strong graphics displayed on page two. Unfortunately, there is not yet enough data to answer that question. As more time passes and we understand the impact of social behaviors in other regions of the world, we will update the model further. We do know that extreme social distancing measures (as implemented in China and South Korea) can flatten the curve completely, so that hospitals never reach capacity. However, we also know that even stay-at-home orders do not completely flatten the curve (as demonstrated in Italy prior to March 25). The scenarios here should be thought of as two possible outcomes, rather than predictions for a specific set of social behaviors.

The third source of uncertainty comes from what percentage of symptomatic people will need hospitalization, and for how long they will need to be hospitalized. There are a range of reports on these values. We used middle of the road estimates, as reported in our technical documentation.