

July 24, 2020

KEY TAKEAWAYS

- Twelve health districts are experiencing surges, including eight in the Hampton Roads area.
- On current course, Virginia is projected to have ~15,000 weekly cases, and growing, by early September
- On July 11, the reproduction rate was above 1.0 statewide and in four of six HPP regions.
- So far, projections do not anticipate hospitalizations will exceed capacity through August, however it is crucial to mitigate surges.
- Social distancing appears to be waning, but infection control and other mitigations are suppressing spread.

752,188

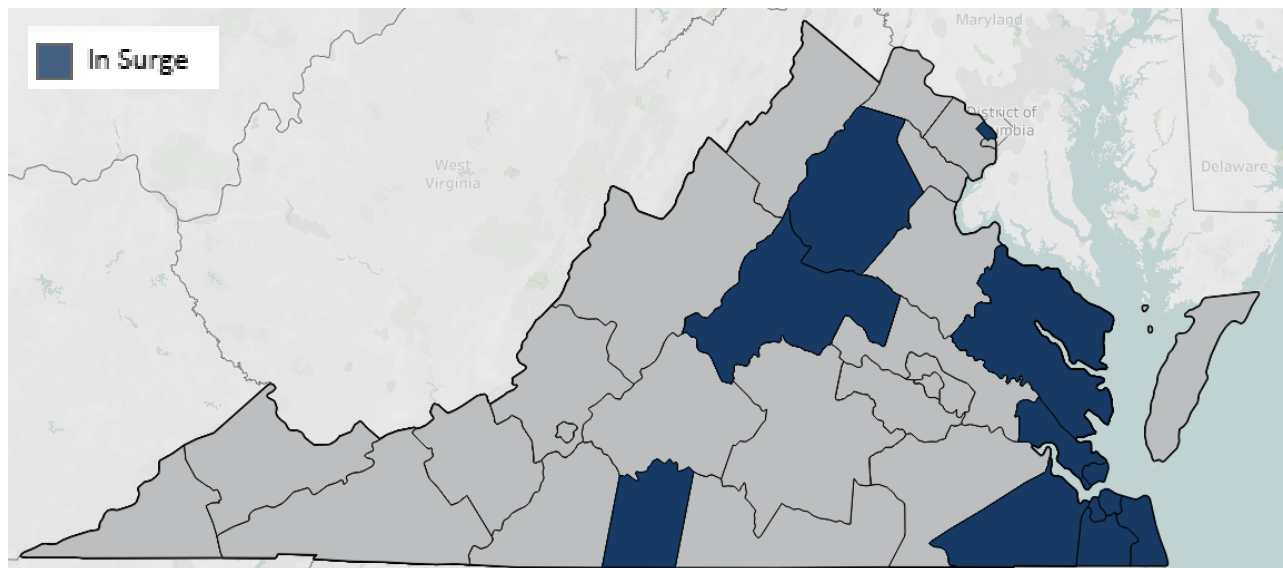
Cases Avoided since
 May 15

1.093

Reproduction Rate

Based on onset date
 7 days ending July 11th

In Surge: 12 Health Districts



Last week, 10 of Virginia's 35 local health districts were experiencing surges based on the UVA team's "Hockey Stick" measure. This week, that number increased to 12. While the Eastern Region, excluding Eastern Shore, continues to be the epicenter of the surge in Virginia, it is beginning to spread to other areas as well. Notably, Rappahannock-Rapidan joined Thomas Jefferson in the Northwest Health Planning Region. Arlington also entered a surge in Northern Virginia. It is crucial that Virginians clamp down now to prevent these surges from growing and spreading.

Cell phone data indicates that Virginians are increasingly returning to work and visiting local businesses, almost at pre-pandemic levels. This is good news, *if* residents and businesses follow the guidance in the [Forward Virginia](#) plan. In many areas, cases are surging among 20-39 year olds. Although this group is less likely to suffer the worst from COVID-19 a spike in cases puts us all at risk. It also risks a rollback of reopening plans, something we've seen in other states. Protect yourself and others by practicing proper social distancing and infection control. Virginia's health is in our hands.

THE MODEL

The UVA COVID-19 Model and the weekly results are provided by the UVA Biocomplexity Institute, which has over 20 years of experience crafting and analyzing infectious disease models. It is a (S)usceptible, (E)xposed, (I)nfected, (R)ecovered epidemiologic model specifically designed to evaluate policy options. That is to say, it is NOT designed to precisely predict future numbers. It is designed to tell us that, given what we know, IF we do "x", THEN we can expect "y". It does this by modeling scenarios.

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THE PROJECTIONS

The UVA team has been continuously improving the model. Previously, we presented a number of scenarios. With recent improvements, we've decided to show two projections: the "Current Course" and "With Surge" scenarios. We also continue to use the "Full Rebound" scenario as the basis to estimate the affect of community mitigation and public health measures.

Full Rebound: Once public health restrictions are lifted, interactions return to 100% of pre-pandemic levels, with transmission returning to its pre-March 15 rate.

Current Course: The model examines the past and most recent case growth rate, along with other factors, in each of Virginia's 35 health districts to determine the strength of the rebound after May 15 in each district. It also examines whether the district has experienced a recent "surge" in cases. This information is used to model the current course of the pandemic locally.

With Surge: States that reopened early tended to experience a surge in case growth rates 4-6 weeks after reopening. This scenario examines anticipated cases if Virginia were to experience a surge 4 weeks after entering Phase III of the Forward Virginia plan.

MODEL RESULTS

The model estimates that Virginia's cautious approach to reopening prevented **752,188** confirmed cases in Virginia since May 15. While cases are surging in Hampton Roads, the model does not project that hospital capacity will be overwhelmed during the projection window (through September 6.) However, the "Current Course" scenario is tracking closer to the "With Surge" scenario each week, as more areas of the state match the surge scenarios. If this continues, growth could be rapid into the fall. In the Current Course projection, new weekly cases are expected peak at **14,404** (and growing) by early September. With a surge, that increases to **16,322**.

