

August 6th, 2021

KEY TAKEAWAYS

- The Delta variant is dominant in Virginia, driving an increase in cases. All areas of Virginia are seeing case growth, with 25 of 35 Health Districts experiencing surges.
- Model projections indicate that, along current trajectories, cases could exceed last January's peak.
- Evidence is building that the Delta variant causes more severe disease.
- Vaccines are our best defense against the Delta variant, drastically reducing the risk of infection and severe disease.

13 per 100k

Average Daily Cases
 Week Ending August 1, 2021

103 per 100k

Potential Peak Average
 Delta Variant Scenario
 Daily Cases, Week Ending
 September 12, 2021

7,294

Average Daily 1st Doses
 July 25, 2021

4,873

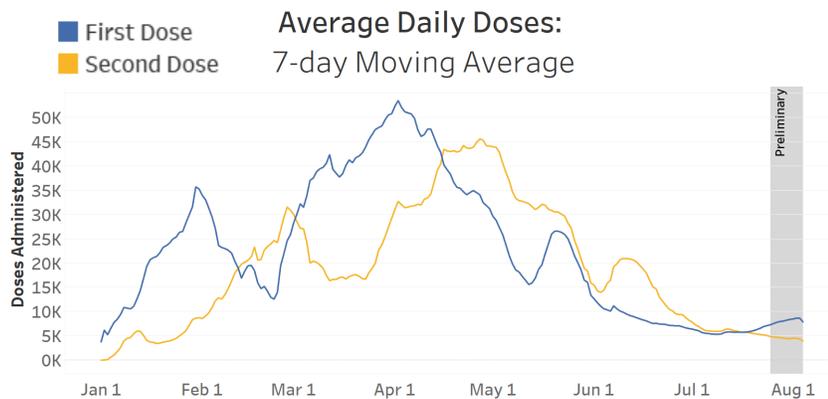
Average Daily 2nd Doses
 July 25, 2021

KEY FIGURES

Reproduction Rate (Based on Confirmation Date)

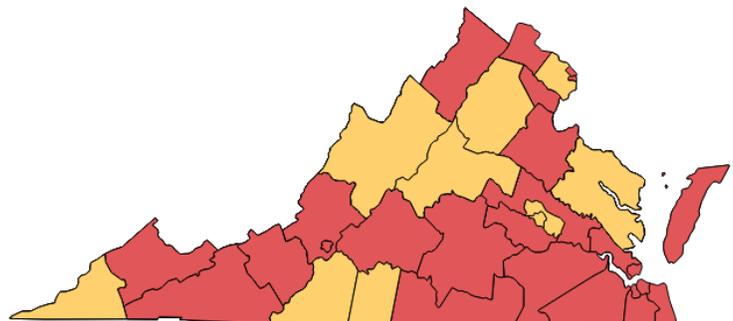
Region	R _e Aug. 2nd	Weekly Change
Statewide	1.202	0.009
Central	1.216	-0.015
Eastern	1.206	0.016
Far SW	1.237	0.027
Near SW	1.179	-0.002
Northern	1.196	0.002
Northwest	1.184	0.058

Vaccine Administrations



Growth Trajectories: 25 Health Districts in Surge

Status	# Districts (prev week)
Declining	0 (1)
Plateau	0 (1)
Slow Growth	10 (23)
In Surge	25 (10)



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 epidemiological model designed to evaluate policy options and provide projections of future cases based on the current course of the pandemic. The Institute is also able to model alternative scenarios to estimate the impact of changing health behaviors and state policy.

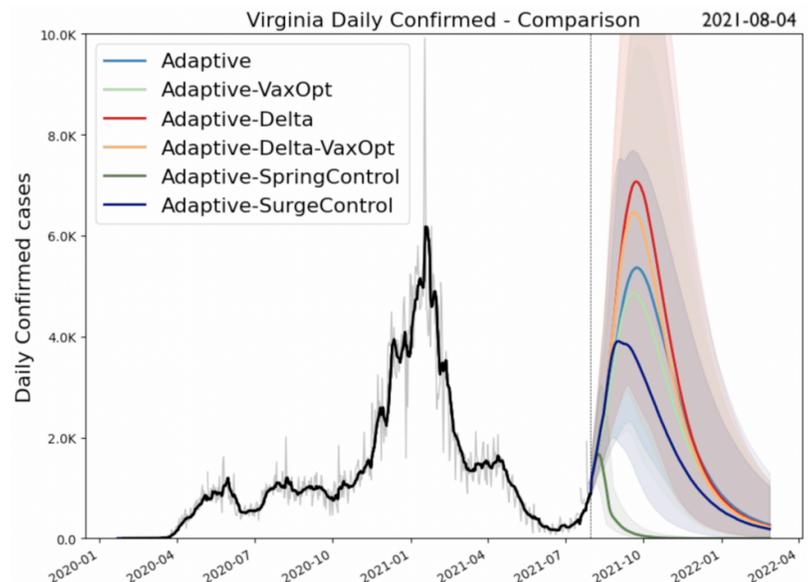
COVID-19 is a novel virus, and the variant mix changes constantly. The model improves as we learn more.

THE PROJECTIONS

The UVA team continues to improve the model. The UVA model uses an "adaptive fitting" methodology, where the model traces past and current trends and uses that information to predict future cases at the local level. Since the B.1.1.7 Variant has become dominant, the model includes increased transmission and severity associated with this Variant of Concern. The "Delta" scenarios adds the known effects of the Delta Variant of Concern to transmission rates. The model incorporates projections on the impact of vaccines, including current vaccinations and the stalled rate of vaccine uptake. The "VaxOpt" scenarios show the impact of vaccine acceptance increasing to 85% of the adult population by Labor Day. Two control scenarios have also been added. The "Surge Control" scenario shows the impact of a 25% reduction in transmission rates, while the "Spring Control" scenario shows a return to the low transmission rates seen this fall.

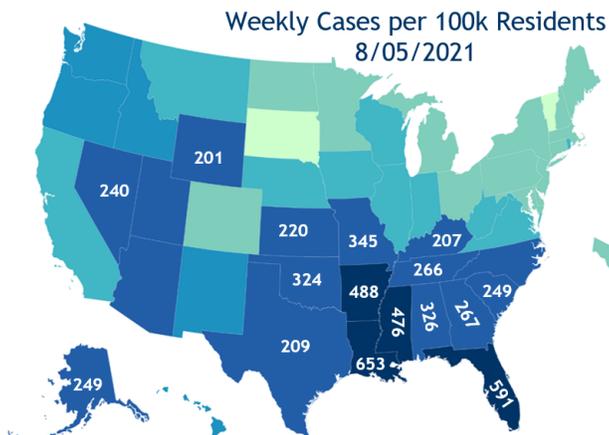
MODEL RESULTS

With the Delta virus dominant, the model projects that cases will surge through the fall, reaching levels not seen since April in mid-September. Vaccination rates are still below herd immunity levels and, with many Virginians returning to normal, the virus has room to run. If the Delta variant continues to spread, **cases could peak at levels higher than previous January peaks.** To lessen the projected peak, we must give vaccines time to have an impact. If vaccination rates pick up, the model estimates that over 60,000 cases could be avoided. **Do your part to stop the spread. Continue to practice good prevention and get vaccinated when eligible.**



THE DELTA STORM

Last November, this update [began reporting on some](#) "concerning" national trends. COVID-19 cases had grown to alarming levels in several Midwest states. In particular, average daily cases had topped 100 per 100k residents in two states, reaching 126 per 100k in South Dakota and 164 per 100k in North Dakota. Those numbers would continue to rise - and spread. The [Nov 20, 2020 update](#) showed eight states above 100 weekly cases per 100k, with North Dakota topping the list at 177. This week, Louisiana reported 653 weekly cases per 100k, or a 93 average daily cases, and Florida 590 per 100k, or 84 average daily cases. The US average is 189 weekly cases per 100k residents, but the highest case loads are in the South. Last fall's blizzard has been followed by a hurricane.

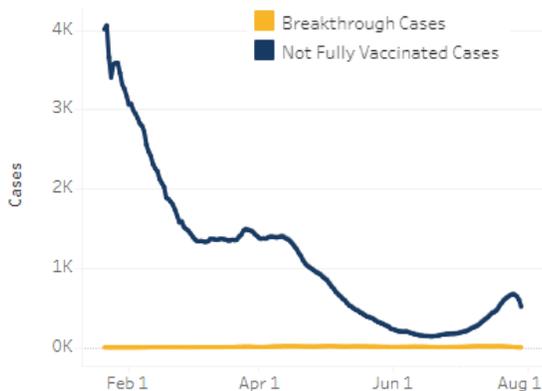


Driven by the Delta variant and loosened prevention, weekly COVID-19 cases per 100k residents are reaching unprecedented levels across the South. [CDC COVID Data Tracker](#).

In Virginia

Like many major storms that move through the South, the Delta storm is making its way into Virginia. This week, Virginia entered the 100 weekly cases per 100k residents club, with 113 weekly cases per 100k on of Aug. 5. It is a stunning turnaround. Just over a month ago, weekly cases were at the lowest point of the pandemic, below 15 per 100k. Cases in 34 of Virginia's 35 Local Health Districts were flat or declining. As shown on the first page, case counts are rising in all 35 LHD's, with 25 experiencing surges.

7-Day Moving Average of Cases by Date of Onset



A Storm Among the Unvaccinated

Although astounding already, the numbers are devastating when you consider they are occurring among the 46% of Virginians that remain unvaccinated. For all of the talk of [breakthrough](#) cases, the actual numbers are small. Virginia [reported](#) 303 breakthrough cases for all of July, or 7 *monthly* cases per 100k vaccinated. Indeed, since the vaccine has become available, there have been a mere 34 breakthrough cases per 100k vaccinated in Virginia. [Some studies do show](#) *reduced* efficacy of vaccines against the Delta variant, but they are very effective against infection by Delta and greatly reduce the risk of hospitalization or death.

What Can You Do Now?

The most important thing any of us can do is to [get vaccinated](#) if eligible. Although it takes 6 weeks to become fully vaccinated with the two dose vaccines, even the first dose offers some protection. However, as shown on page 2 in the "optimal vaccination" scenarios, vaccination is not enough to significantly impact the high peaks projected for this fall. Unvaccinated individuals, and those not fully vaccinated, should continue all [prevention measures](#), including social distancing and mask wearing. Although less likely, fully vaccinated individuals can spread the Delta variant. The CDC has updated its [guidance](#) for fully vaccinated individuals. Fully vaccinated individuals should wear a mask in public indoor spaces, keep an eye on [local transmission levels](#) and follow guidance of [local public health departments](#).