

March 26th, 2021

## KEY TAKEAWAYS

- Case rates in Virginia remain plateaued above the peaks experienced last summer. Declining case rates observed earlier this year appear to have slowed.
- The effective reproductive number ( $R_e$ ) has risen above 1.0 statewide for the first time since January.
- Vaccine coverage continues to increase, but disparities in vaccine uptake are notable.
- Relaxing personal precautions and growing variants emerge as the two greatest threats to case rate declines.

**17 per 100k**  
 Average Daily Cases  
 Week Ending March 21, 2021

**77 per 100k**  
 Potential Peak Average  
 Daily Cases, Week Ending  
 July 11, 2021 with B117  
 Variant & Pandemic  
 Fatigue

**13 per 100k**  
 2020 Summer Peak  
 Week Ending Aug 2, 2020

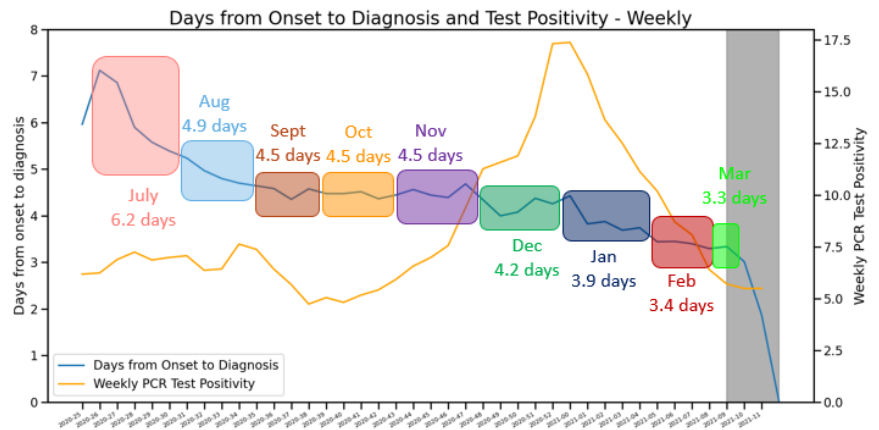
**69 per 100k**  
 Highest Peak Average  
 Daily Cases  
 Week Ending Jan 24, 2021

## KEY FIGURES

### Reproduction Rate (Based on Confirmation Date)

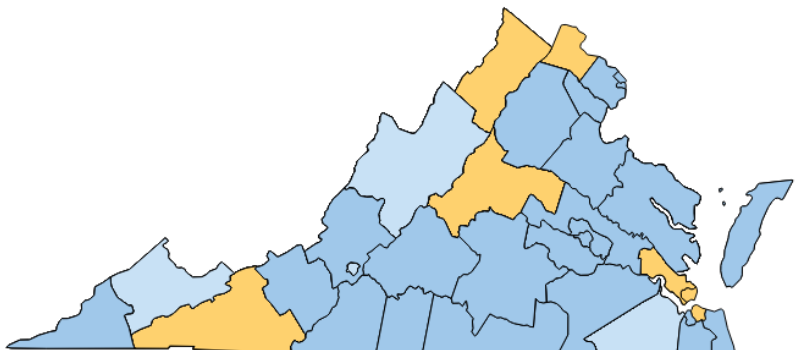
Region	$R_e$ Mar 22	Weekly Change
State-wide	1.006	0.052
Central	1.023	0.099
Eastern	1.044	0.056
Far SW	0.849	-0.335
Near SW	0.905	-0.071
Northern	1.045	0.142
Northwest	1.040	0.057

### Case Detection



### Growth Trajectories: 0 Health Districts in Surge

Status	# Districts (prev week)
Declining	23 (31)
Plateau	6 (2)
Slow Growth	6 (2)
In Surge	0 (0)



## 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)nfectious, (R)ecovered epidemiologic model designed to evaluate policy options and provide projections of future cases based on the current course of the pandemic.

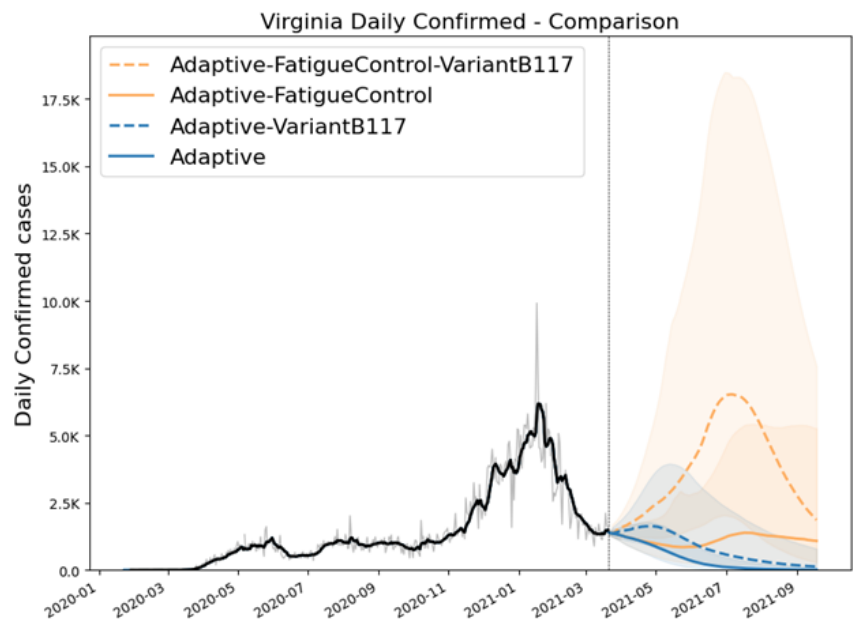
*COVID-19 is a novel virus causing a global pandemic and response. The model improves as we learn more about it.*

## THE PROJECTIONS

The UVA team continues to improve the model weekly. 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. The model incorporates projections on the impact of vaccines which will improve over time. Several scenarios are modeled, including counterfactual "no vaccine" scenarios. The model also includes "what-if" or planning scenarios. The "Fatigued Control" scenario identifies the highest transmission rates seen between June and September 2020 and projects those forward. The "VariantB117" scenario projects the potential impact of new variants, including a 50% increase in transmission, with the B.1.1.7 variant becoming dominant by the end of March.

## MODEL RESULTS

The model shows a continued declining trajectory along the current course, but warns of a surge in cases that could occur as variants predominate and cautious behavior relaxes. Under the current course, model scenarios show that cases peaked at **69 average daily cases** per 100,000 residents during the week ending **January 24th**. However, under the Fatigued Control - Variant B.1.1.7 scenario, if Virginians relax their behavior as new variants take hold, cases will reach a new peak with **77 average daily cases** per 100,000 the week ending **July 11th**. To avoid another peak, we must give vaccines time to have an impact, especially as new variants become more prevalent across the nation. **Do your part to stop the spread. Continue to practice good prevention and get vaccinated when eligible.**



## SLOWING PROGRESS

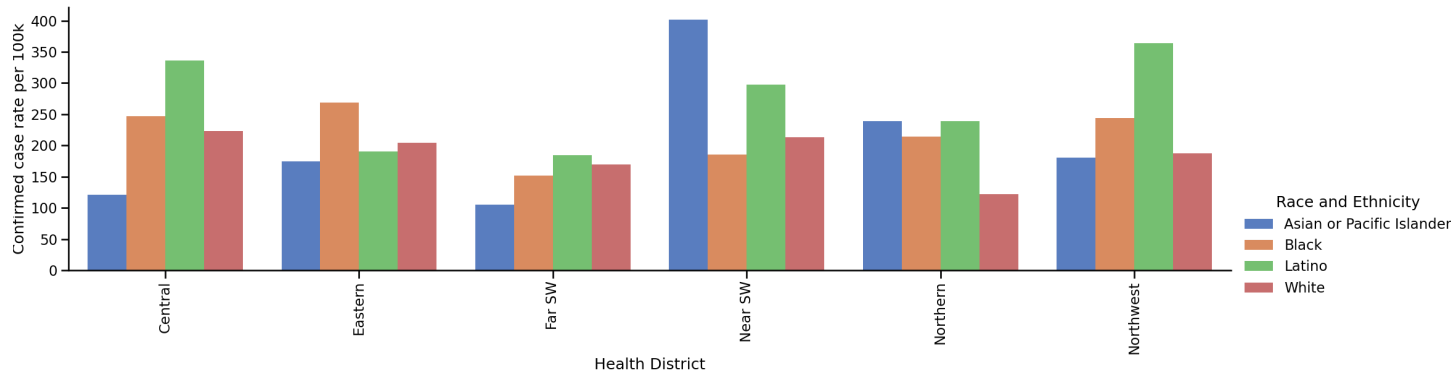
The outlook this week is mixed. The statewide effective reproductive number ( $R_e$ ) is back above 1.0 and cases in twelve health districts are either in a plateau or slow growth trajectory. Although cases have dropped dramatically in the past several weeks, they are flattening a level higher than we might have hoped given Virginia's high vaccination rates.

This is due to a combination of factors. The B.1.1.7 variant growth appears to be playing out as predicted, with a growing number of cases attributed to the variant. With the decline in cases, some public health restrictions have been relaxed. Warmer weather, coupled with pandemic fatigue, has drawn more people out of their homes. However, case rates are still above last summer's peaks. Lax prevention may cause us to follow the Fatigue Control Variant B.1.1.7 scenario from the UVA model.

## Disparities Continue

As vaccination rates increase, talk of herd immunity fills the air. A key component of herd immunity is that it works when there is an **even distribution of protection**. If pockets of the population remain unvaccinated, the virus will continue to spread among unvaccinated groups and outbreaks could emerge. This is particularly concerning if unvaccinated individuals are located in the same geographic region and are more likely to interact with one another.

Our goal is equitable vaccine coverage for **all Virginians**. Nonetheless, disparities remain. Vaccine coverage is 40% lower among the Black and Latino population compared to the White population. Meanwhile, cases and hospitalizations remain highest among Black and Latino Virginians, who experience twice the hospitalization rates as their White counterparts. To truly achieve statewide control over the virus, efforts must focus on every Virginian. Particularly at a time when vaccine shortages do not exist, [we encourage all Virginians to get vaccinated when eligible](#).



*District-level case rates highlight concerning disparities by race/ethnicity and geography. To reach statewide herd immunity, disparities must be addressed. All Virginians should be vaccinated to achieve an even distribution of protection throughout the state. We are most protected when everyone is protected.*

## Behavior as a Driving Force

Virginia is experiencing its lowest case rate since the start of the new year. The rapid decline may be a welcome cause to celebrate, but we must not let our guard down too early. 81% of Virginia counties continue to have case rates **above the summer 2020 peak**, back at a time when no vaccine was available. With 25.5% of Virginians vaccinated with at least one dose and 13.7% fully vaccinated -- including many of the highest risk segments of the population -- we might expect a brighter picture.

Variants do play a role in the high case rates, but behavior is really *the* driving force. Even though certain restrictions are being relaxed, the pandemic is not yet over. We must continue to use good judgement and assume personal responsibility to avoid further spread of disease. Avoid crowds, wear a mask, and respect social distancing guidelines.