June 3rd, 2022

KEY TAKEAWAYS

- Statewide case rates have declined slightly from last week. However, it is unclear how the Memorial Day holiday may have affected case ascertainment rates.
- Twenty-five of thirty-five health districts are in growth trajectories. This includes twenty one districts in surge trajectories.
- Twelve counties in Virginia are experiencing high community levels of COVID19. Masking in public indoor places is still recommended for those who live in these counties. Additionally 65 are at medium community levels. The CDC recommends persons at high risk continue to mask at these levels.
- According to the CDC's Nowcast, the BA.2.12.1 subvariant accounts for almost 70% of new cases in HHS Region 3, which includes Virginia.

35.0 per 100k
Average Daily Cases for the Week Ending May 31st, 2022

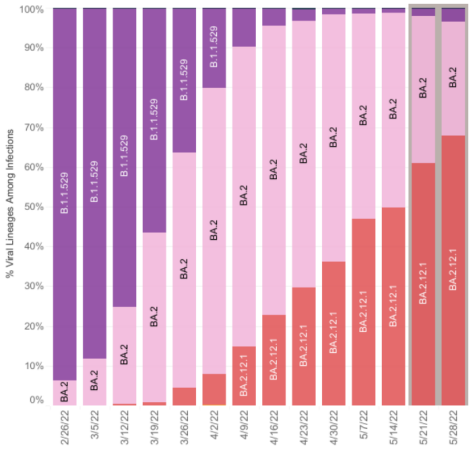
0.877
Statewide Reproductive Number as of May 31st, 2022

56 / 65 / 12
Virginia Localities at Low / Medium / High CDC Community Levels on June 2nd, 2022

41 / 65 / 27
Virginia Localities at Low / Medium / High CDC Community Levels on May 26th, 2022

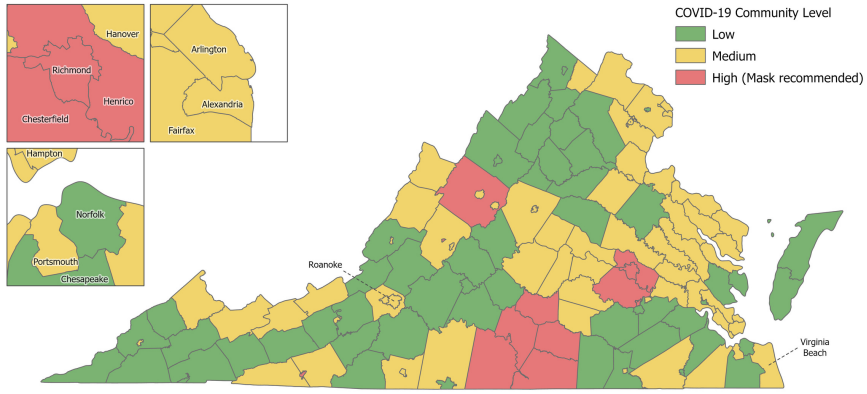
KEY FIGURES

Variant Mix - HHS Region 3



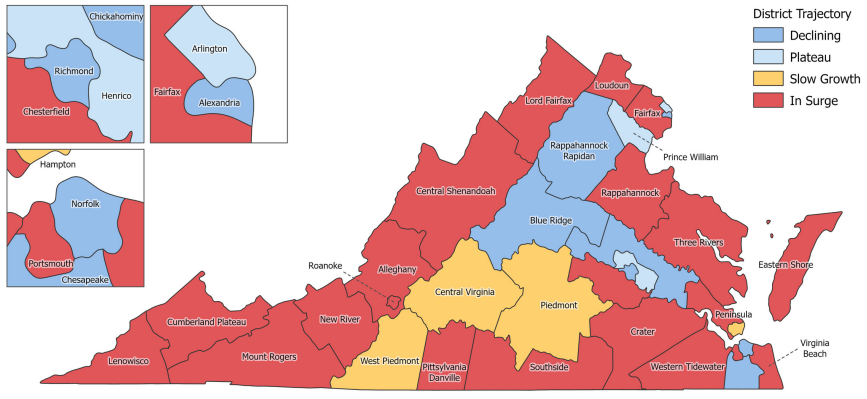
CDC Community Levels

As of June 2nd, 2022



Growth Trajectories: 21 Health Districts in Surge

Status	# Districts (prev week)
Declining	7 (0)
Plateau	3 (0)
Slow Growth	4 (5)
In Surge	21 (30)



UNIVERSITY of VIRGINIA
BIOCOMPLEXITY INSTITUTE

UVA COVID-19 MODEL WEEKLY UPDATE

VDH VIRGINIA DEPARTMENT OF HEALTH

THE MODEL

The UVA COVID-19 Model and 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 health district-level **S**usceptible, **E**xposed, **I**nfected, **R**ecovered (SEIR) 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 periodically. These models improve as we learn more.

THE SCENARIOS

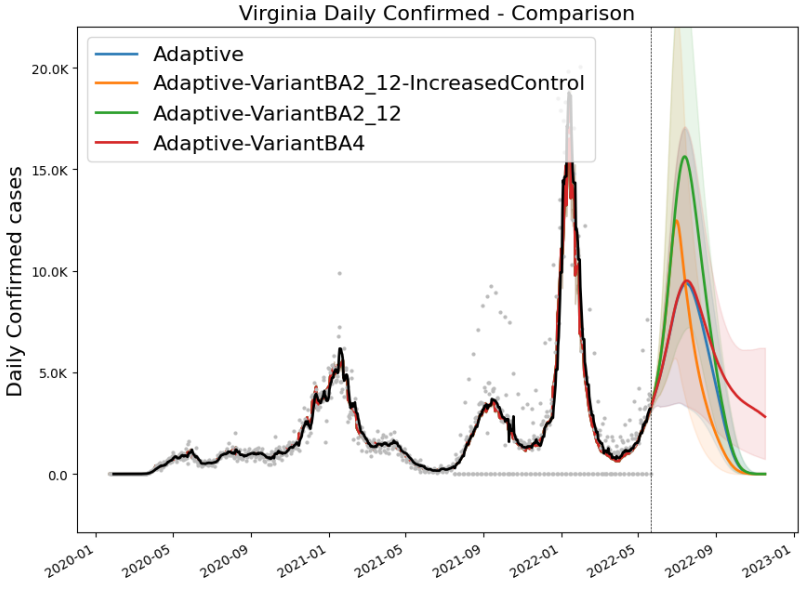
Unchanged: The model uses scenarios to explore the potential paths the pandemic may take under different conditions. Model projections take a variety of factors into account, including current variants, vaccine uptake, vaccination rates (including boosters), previous infection, waning immunity, weather, and behavioral responses (e.g., mask-wearing, social distancing). The "**Adaptive**" scenario represents the current course of the pandemic, projecting it forward with no major changes. The new "**Adaptive-VariantBA2_12**" scenario adjusts for the BA.2.12.1 subvariant's greater transmissibility (30% more than BA.2). It assumes BA.2.12.1 becomes dominant by June and reaches 95% prevalence by July, taking over from the older BA.2. The new "**Adaptive-VariantBA2_12-IncreasedControl**" scenario adds increased prevention and seasonality to the "Adaptive-VariantBA2_12" scenario. These include increased home testing, masking, and self-isolation when sick. This scenario explores the potential public response to a new summer surge. It assumes that these interventions will have a 25% reduction in community transmission and starts in 30 days. The new **Adaptive-VariantBA4** scenario is speculative. It models the hypothetical introduction of the BA.4 subvariant now circulating in South Africa. It assumes that BA.4 is 30% better at escaping prior immunity than BA.2, and becomes dominant by October. Note that at the time of this writing BA.4 represents fewer than 1% of cases of BA.4 in Virginia. This scenario is purely a "*what if*" hypothetical.

MODEL RESULTS

Unchanged: The current course "**Adaptive**" scenario is shown in blue. It projects a slow but steady rise, reaching 30,000 weekly cases by June and peaking at 65,000 weekly cases in mid-July.

The "**Adaptive-VariantBA2_12**" scenario, shown in green, projects a larger surge. It projects a rise to 60,000 weekly cases by mid-June and peaks at 105,000 weekly cases in the middle of July. The "**Adaptive-VariantBA2_12-IncreasedControl**" scenario is shown in orange. It is identical to "Adaptive-VariantBA2_12" until June 1st. From there, rates quickly peak at 85,000 weekly cases in early July, before falling back below 40,000 by August. The "**Adaptive-VariantBA4**" scenario (red) is very similar to the current "Adaptive" scenario, but the post-peak decline in case-rates is much slower. In this scenario, weekly cases remain above 20,000 until November.

Please do your part to drive down cases. Always practice good prevention. Consider masking in indoor public areas and self-isolating when sick. Also please get vaccinated and boosted.



Date of Latest Model Run: 2022-05-25
Date of Next Model Run: 2022-06-08

Please note: The data and projections shown here reflect reported cases. During the Omicron wave, testing shortages resulted in far fewer infections being reported as cases. Therefore, despite appearances, we expect fewer total infections than we experienced in January. See page three of the May 13th modeling report for more details.