

March 11th, 2022

KEY TAKEAWAYS

- Case rates and hospitalizations are continuing their steep decline across the Commonwealth. The statewide effective reproduction number (R_e) remains below 0.75.
- For the second week in a row, all 35 health districts are in decline. All 50 states and the District of Columbia are also in decline.
- Community transmission levels remain high in the Alleghany and Lynchburg areas, as well as in the Far Southwest. Residents should continue to mask in indoor public places.
- The CDC estimates that about 10% of new cases in Virginia are caused by the BA.2 subvariant. The growth rate of BA.2 has slowed considerably, but it is still expected to become dominant.
- Models project a continued decline in statewide case rates. The BA.2 subvariant may slow this decline, but another surge is not expected.

14 per 100k

Average Daily Cases
Week Ending March 7, 2022

(187 per 100k)

Adaptive Scenario
Forecast Average Daily
Cases, **Already Peaked**
on Jan. 16, 2022

1,264 / 1,596

Average Daily 1st / 2nd Doses
March 4, 2022

2,444

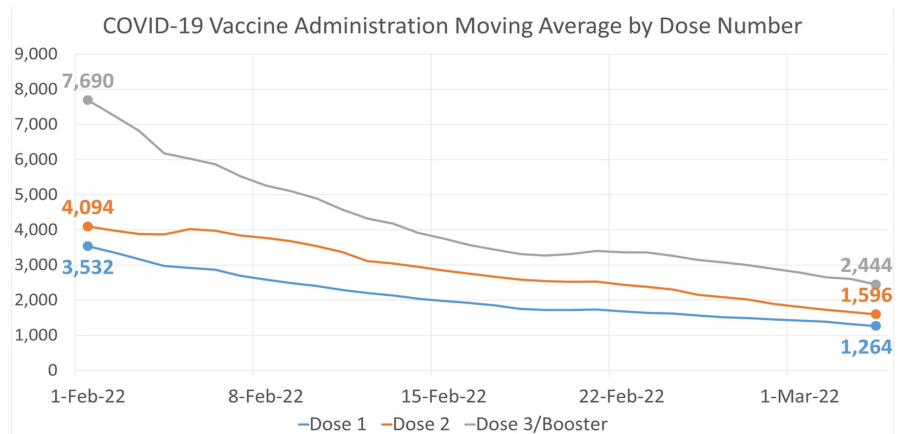
Average Daily Boosters
March 4, 2022

KEY FIGURES

Reproduction Rate (Based on Confirmation Date)

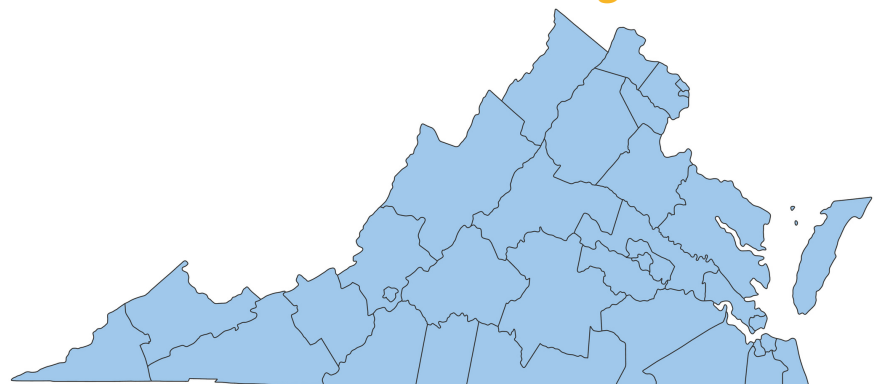
Region	R_e Mar. 8th	Weekly Change
Statewide	0.740	0.095
Central	0.881	0.045
Eastern	0.446	-0.306
Far SW	0.450	-0.047
Near SW	0.772	0.005
Northern	0.921	0.283
Northwest	0.649	0.091

Vaccine Administrations



Growth Trajectories: 0 Health Districts in Surge

Status	# Districts (prev week)
Declining	35 (35)
Plateau	0 (0)
Slow Growth	0 (0)
In Surge	0 (0)



THE MODEL

The UVA COVID-19 Model and these 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 county-level Susceptible, Exposed, Infected, Recovered (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.
The model improves as
we learn more.**

THE SCENARIOS

Unchanged: The models use various scenarios to explore the path the pandemic is likely to take under differing conditions. As the [CDC now estimates](#) that the Omicron variant represents >99% of all new cases in Virginia, all prior Delta variant scenarios have been retired. All current scenarios are based on the immune escape and transmission profiles of the Omicron variant. As before, models use [COVIDcast](#) surveys to estimate county-level vaccine uptake. They then assume that vaccinations increase steadily in each county until this value is reached and 40% of vaccinated individuals receive a booster.

The new "**Adaptive**" scenario assumes that Omicron is as transmissible as Delta but adds an immune escape of 80%. This represents the current course of the pandemic and assumes that there will be no significant changes in interventions or transmission rates in the near future. Note that this scenario was called "Adaptive-Omicron" until January 21st.

The "**Adaptive-Spring**" scenario is meant to approximate the epidemic trajectory seen in the Spring of 2021. In this scenario, transmission rates from now until mid-March are manually set to reflect the falling transmission rates from the same time last year, then boosted by Omicron's enhanced transmissibility and immune escape. The "**Adaptive-DecreaseControl**" scenario explores the effects of a hypothetical increase in transmission rates. It is meant to demonstrate that continuing preventive measures are important despite Omicron's milder illness. The "**Adaptive-VariantBA2**" scenario adjusts for the new Omicron BA.2 subvariant's enhanced transmissibility, and assumes it will reach 95% prevalence by April 1st.

MODEL RESULTS

Unchanged: The current course "**Adaptive**" scenario (blue) shows a continued decline in case rates, with Virginia reaching fewer than 500 daily cases by February 20th. The "**Adaptive-Spring**" scenario (green) is similar, but the quicker decline in case rates results in 1,000 fewer cases by April.

The "**Adaptive-DecreaseControl**" (shown here in orange) is also very similar to Adaptive, but with larger uncertainty bounds. It forecasts an additional 5,000 cases by April and keeps Virginia above 500 daily cases until late March.

The "**Adaptive-VariantBA2**" (maroon) projects a slower decline with even more uncertainty. It keeps Virginia above 500 daily cases until April.

Please do your part to drive down cases. [Practice good prevention](#), including indoor masking, social distancing, self-isolating when sick, and [get vaccinated and boosted](#) as soon as possible.

