

January 28th, 2022

KEY TAKEAWAYS

- Case rates are declining in 22 health districts but much of the state is still in surge, including many rural districts in Southwest, Southside and Eastern Virginia.
- Models forecast rapid decline across the state in the coming weeks, though cases could rise if Virginians relax prevention measures.
- Despite the recent decline in case rates, levels remain near record highs across the Commonwealth. All counties in Virginia are still considered to have "High" community transmission levels.
- Hospitalizations in Virginia reached record high levels this week, exceeding last year's peak by 25%. Though Omicron is milder for most, it is still capable of causing serious illness and death.
- Vaccination strongly protects against hospitalization and death.

149 per 100k
Average Daily Cases
Week Ending Jan. 23, 2022

(216 per 100k)
Adaptive Scenario
Forecast Average Daily Cases, **Already Peaked**
on Jan. 16, 2022

2,297 / 2,120
Average Daily 1st / 2nd Doses
Jan. 23, 2022

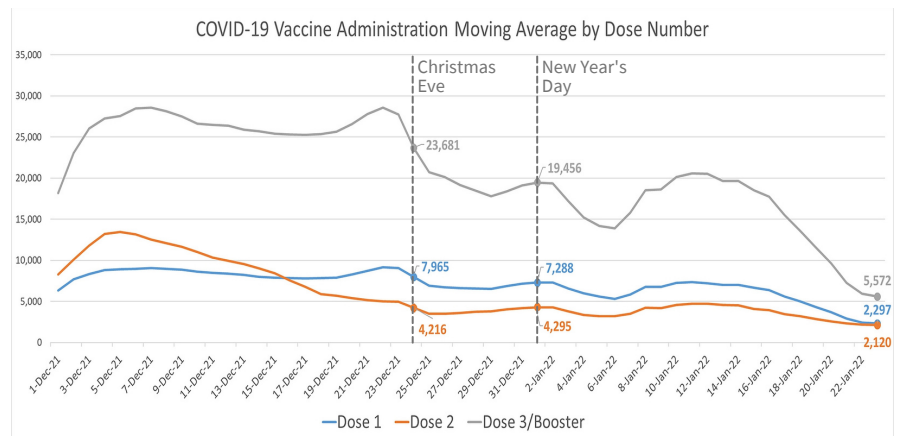
5,572
Average Daily Boosters
Jan. 23, 2022

KEY FIGURES

Reproduction Rate (Based on Confirmation Date)

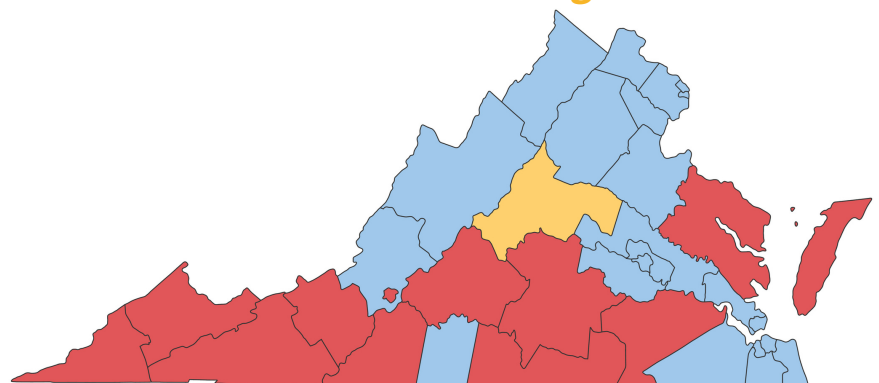
Region	R _e Jan. 24th	Weekly Change
Statewide	0.746	-0.215
Central	0.828	-0.127
Eastern	0.685	-0.293
Far SW	1.035	-0.100
Near SW	0.879	-0.193
Northern	0.538	-0.332
Northwest	0.911	-0.073

Vaccine Administrations



Growth Trajectories: 12 Health Districts in Surge

Status	# Districts (prev week)
Declining	22 (0)
Plateau	0 (0)
Slow Growth	1 (1)
In Surge	12 (34)



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 **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 constantly. 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 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 acceptance. They then assume that vaccination uptake continues 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 last week.

In 2021, we saw a rapid decline in cases in Spring, possibly as a result of changing weather or decreased travel. What would it look like if we followed the same trajectory this year? The "**Adaptive-Spring**" scenario is meant to explore this. In this scenario, transmission rates from now until mid-March 2022 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. This scenario is meant to demonstrate that continued vigilance remains important despite Omicron's milder illness.

MODEL RESULTS

Updated: The current course "**Adaptive**" scenario (light blue) shows that daily cases have already peaked and will continue to decline gradually. It forecasts that we will reach 2,000 or fewer daily statewide cases by March 27th.

The "**Adaptive-Spring**" scenario (green) is very similar, showing that case rates peaked last week. However, the quicker decline in case rates results in 65,000 fewer cases by April, and sub-2,000 daily cases by March 13th.

The "**Adaptive-DecreaseControl**" suggests the possibility of a second peak on February 13th. Combined with a slower decline, this results in an additional 240,000 cases by April.

Please do your part to slow this wave. [Practice good prevention](#), including indoor masking, social distancing, self-isolating when sick, and [get vaccinated and boosted](#) when eligible.

