

November 12th, 2021

## KEY TAKEAWAYS

- The cadence of COVID-19 modeling projections has been reduced to bi-weekly. This is an abbreviated interim report.
- Statewide community transmission rates remains "High" with over 100 weekly cases per 100,000 residents.
- Case rates continue to decline, but this trend appears to be slowing. Four health districts are now experiencing slow growth, six others have recently plateaued, and the statewide Re is slowly climbing.
- Models continue to forecast a decline in cases. But they also suggest the possibility of another surge if winter weather and travel increase transmission rates to match those of Winter 2020.
- Stay safe during the holidays by following [CDC guidance](#).

**15 per 100k**

Average Daily Cases  
Week Ending Nov. 7, 2021

**(43 per 100k)**

Adaptive Scenario  
Forecast Average Daily Cases **Already Peaked**  
on September 19, 2021

**5,765 / 4,079**

Average Daily 1st / 2nd Doses  
Nov. 6, 2021

**23,196**

Average Daily Boosters  
Nov. 6, 2021

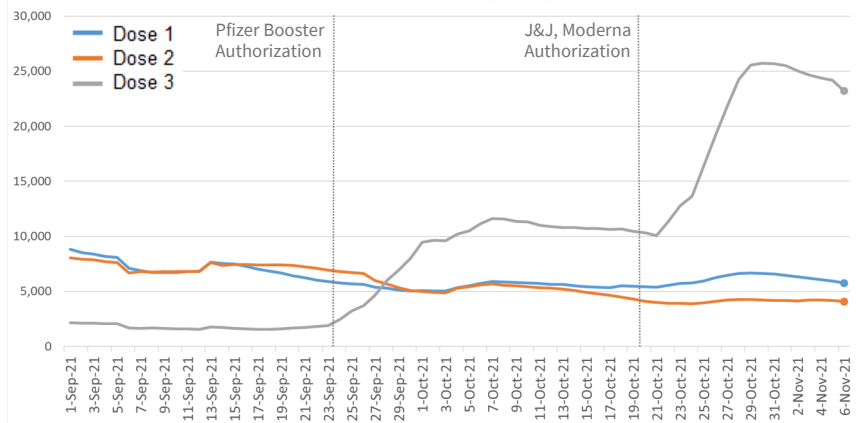
## KEY FIGURES

### Reproduction Rate (Based on Confirmation Date)

Region	R <sub>e</sub> Nov 8th	Weekly Change
<b>Statewide</b>	<b>0.994</b>	<b>0.118</b>
Central	1.013	0.116
Eastern	0.938	0.017
Far SW	0.971	0.059
Near SW	0.949	0.056
Northern	0.987	0.081
Northwest	1.008	0.160

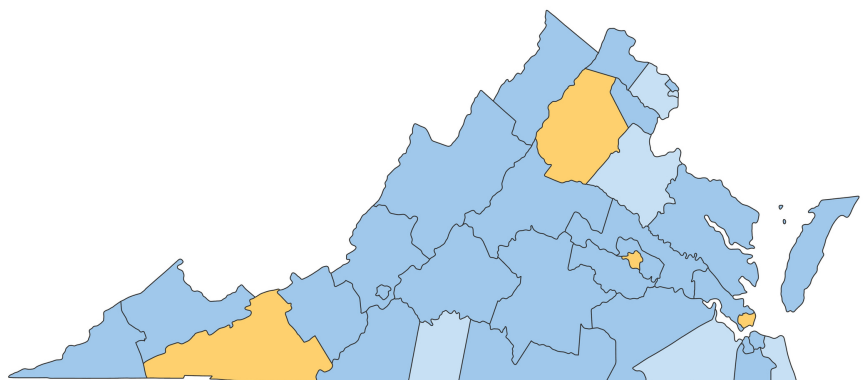
### Vaccine Administrations

COVID-19 Vaccine Administration Moving Average by Dose Number



### Growth Trajectories: No Health Districts in Surge

Status	# Districts (prev week)
Declining	25 (33)
Plateau	6 (1)
Slow Growth	4 (1)
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 **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

**Scenarios remain unchanged from last week.** The models use various scenarios to explore the path the pandemic is likely to take under differing conditions. The **Adaptive** scenario takes the current course of the pandemic at the county level, including the impact of the Delta variant and vaccines, and projects it forward. The **SurgeControl** scenario shows the likely impact of prevention and mitigation efforts (masking, social distancing, testing and isolating, etc.) by employing a 25% reduction in transmission rates. The "**FallWinter2020**" captures the transmission drivers of the entire 2020 holiday season and projects them forward. In this scenario, transmission rates from October 2021 to February 2022 are manually set to reflect the transmission rates from the same time period last year, but boosted by Delta's enhanced transmissibility.

As usual, all of these scenarios can be augmented by the **VaxOpt** (optimistic vaccine) modifier that adds to the existing scenario a hypothetical increase in vaccinations among adults and assumes vaccine eligibility for children ages 5-11 years in November. Specifically, this modifier assumes that we reach an average of 85% coverage among adults, with a minimum of 65% in each county. Note that all scenarios also include the effects of natural immunity.

## MODEL RESULTS

**No change from last week**, the "present course" Adaptive scenario (blue), suggests that cases have peaked and are now in a gradual decline. The SurgeControl scenario (shown in indigo) again forecasts a much faster drop-off of case rates, reaching Summer 2021 lows by early December. Conversely, the FallWinter2020 (shown here in orange), projects a consistent rise in case rates possibly exceeding last January's peak.

The VaxOpt (dashed lines) scenarios, show that in the long-run, increased vaccination coverage could prevent thousands of cases in any scenario. Please do your part to stop the spread and continue to **practice good prevention**, including indoor masking, social distancing, and self-isolating when sick, and **get vaccinated** as soon as possible.

