UNIVERSITY of VIRGINIA
BIOCOMPLEXITY INSTITUTE

UVA COVID-19 MODEL WEEKLY UPDATE

VDH VIRGINIA DEPARTMENT OF HEALTH

June 11th, 2021

KEY TAKEAWAYS

- As the COVID-19 situation is stabilizing, VDH and UVA will produce projections and in-depth analysis every two weeks, instead of weekly. This is a shortened, interim week report.
- Vaccination coverage continues to slowly but steadily increase across VA, but disparities and pockets of low coverage exist.
- Cases continue to decline even as restrictions on vaccinated individuals are lifted.
- Unvaccinated individuals continue to be at risk from COVID-19, with new Variants of Concern increasing the risk of transmission, severe illness and death.

4 per 100k
Average Daily Cases Week Ending June 6, 2021

18 per 100k
Potential Peak Average Fatigued Control Scenario Daily Cases, Week Ending August 15, 2021

11,661
Average Daily 1st Doses June 3, 2021

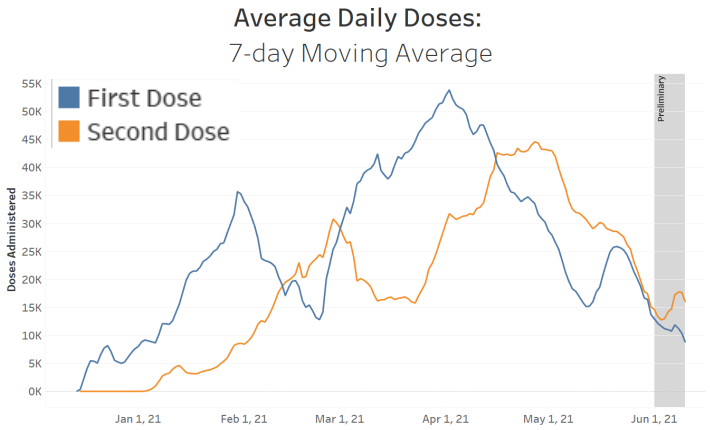
12,786
Average Daily 2nd Doses June 3, 2021

KEY FIGURES

Reproduction Rate
(Based on Confirmation Date)

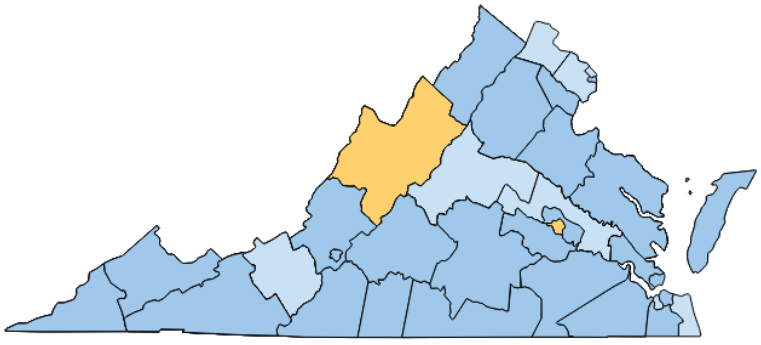
Region	R_e June 7	Weekly Change
Statewide	**0.686**	**-0.174**
Central	0.723	-0.163
Eastern	0.429	-0.511
Far SW	0.922	0.151
Near SW	0.885	-0.022
Northern	0.661	-0.089
Northwest	0.923	0.045

Vaccine Administrations



Growth Trajectories: 0 Health Districts in Surge

Status	# Districts (prev week)
Declining	25 (23)
Plateau	8 (7)
Slow Growth	2 (4)
In Surge	0 (1)



VIRGINIA'S HEALTH IS IN OUR HANDS. Do your part, stop the spread.

UNIVERSITY of VIRGINIA
BIOCOMPLEXITY INSTITUTE

UVA COVID-19 MODEL WEEKLY UPDATE

VDH VIRGINIA DEPARTMENT OF HEALTH

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)nfected, (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. Since the B.1.1.7 Variant has become dominant, the model includes increased transmission and severity associated with this Variant of Concern. The model also includes "what-if" or planning scenarios. The "Fatigued Control" scenario identifies the highest transmission rates seen during summer 2020 and projects those forward. The "VaxOpt" scenario compares the status quo vaccine acceptance levels to optimistic levels.

MODEL RESULTS

With the B.1.1.7 variant becoming predominant, the model shows a continued decline in new weekly cases along the current course, but warns that case growth could resume as Virginians relax precautions. Under the current course, model scenarios show that cases peaked at **68 average daily cases** per 100,000 residents during the week ending **January 24th**. However, under a worst case scenario, if Virginians relax their behavior for a sustained period as Variants of Concern take hold, cases could reach another smaller peak with **18 average daily cases** per 100,000 the week ending **August 15th**. To lessen the projected peak, we must give vaccines time to have an impact, especially as the B.1.1.7 variant is the predominant strain in Virginia. **Do your part to stop the spread. Continue to practice good prevention and get vaccinated when eligible.**