VIRGINIA'S HEALTH IS IN YOUR HANDS. Do your part, stay at home.

VDH VIRGINIA DEPARTMENT OF HEALTH
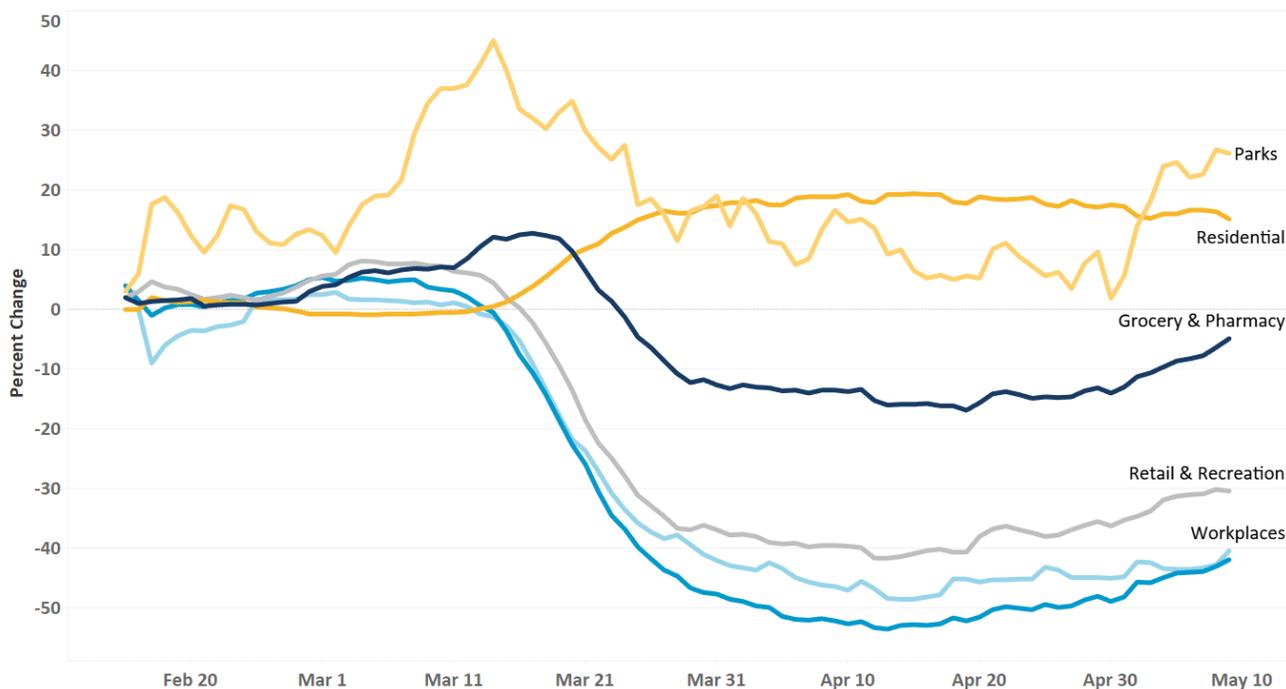
May 19 2020

KEY TAKEAWAYS

- Public health restrictions paused the epidemic in Virginia and bought time
- Data suggests social distancing is already relaxing
- Coincided with an uptick in growth (3rd week)
- This is difficult to disentangle from testing, however.
- Rebound is likely to occur. Intensity depends on:
  - "The new normal"
  - Effectiveness of test/trace/isolate

499,593
Cases Avoided so far

1.19
Reproduction Rate
(Weekly Max after Mar 15)

May 14 Google Mobility Report: Virginia
7-day Moving Averages

Like most states, Virginia has begun to relax public health restrictions. Virginians, however, began to relax their own social distancing a few weeks ago. Case growth rates have edged up during this period, suggesting the impact of social distancing may be waning. The number of tests, and the criteria to administer them, have changed as well, providing another possible explanation for the uptick in confirmed case growth.

Most of Virginia entered *Phase I: Safer at Home* of the Forward Virginia Plan on May 15. Early evidence suggests the expected rebound in cases may be lighter than feared. However, much will depend on "the new normal": how Virginia's residents and businesses react during each phase of the plan. Additionally, the Virginia Department of Health is hiring over 1,300 contract tracers, investigators and other staff to contain COVID-19.

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THE MODEL

The UVA COVID-19 Model was developed 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 specifically designed to evaluate policy options. That is to say, it is NOT designed to precisely predict future numbers. It is designed to tell us that, given what we know, IF we do "x", THEN we can expect "y". It does this by modeling scenarios.

> *It is designed to tell us that, given what we know, IF we do "x", THEN we can expect "y"...*
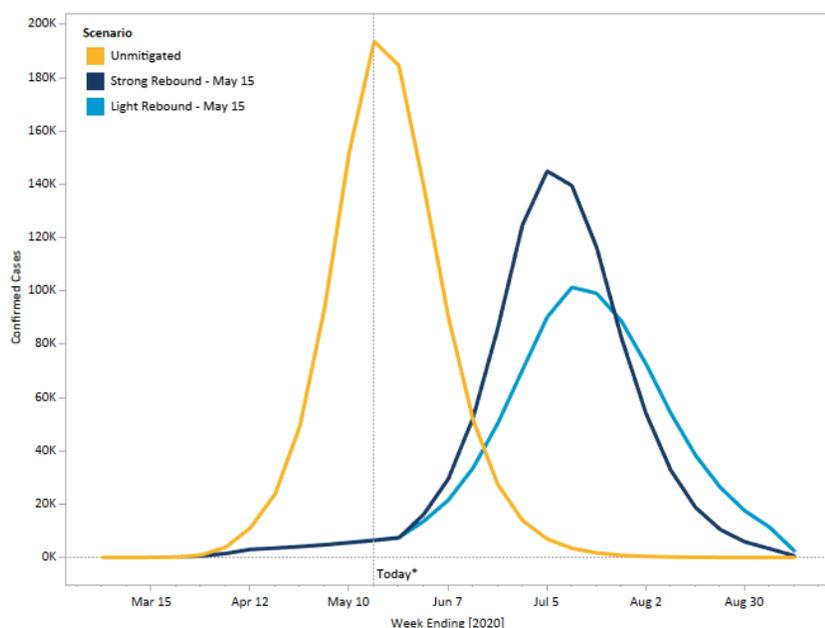
THE SCENARIOS

This week's model run examines three scenarios, one unmitigated scenario, and two tracking the public health restrictions in Virginia for 61 days, and lifted on May 15th. This week's run does not include the exceptions for Northern Virginia localities, Richmond City or Accomack County. We hope to include those in next week's model run.

Unmitigated: No community mitigation measures are put in place in Virginia, and the public does not change behavior.

Light Rebound: Once community mitigation measures are lifted, interactions return to 25% of pre-pandemic levels, with a moderate increase in transmission.

Strong Rebound: Once community mitigation measures are lifted, interactions return to 50% of pre-pandemic levels, with a stronger increase in transmission.

The model estimates that community mitigation strategies employed in Virginia have **prevented 499,593 confirmed cases in Virginia so far**. If Virginia experiences a light rebound in COVID-19 cases after public health restrictions are lifted, the model forecasts new confirmed cases will peak at 101,367 per week during the week ending July 12, 2020. However, if the rebound is strong, the model forecasts new confirmed cases will peak at 144,966 per week during the week ending July 05, 2020. Phase 1 of Forward Virginia is only a slight lift of our public health restrictions. If Virginians continue to social distance, giving room for the containment strategy of test, trace and isolate to succeed, then we can expect a much flatter curve than either scenario currently forecasts.