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VDH VIRGINIA DEPARTMENT OF HEALTH

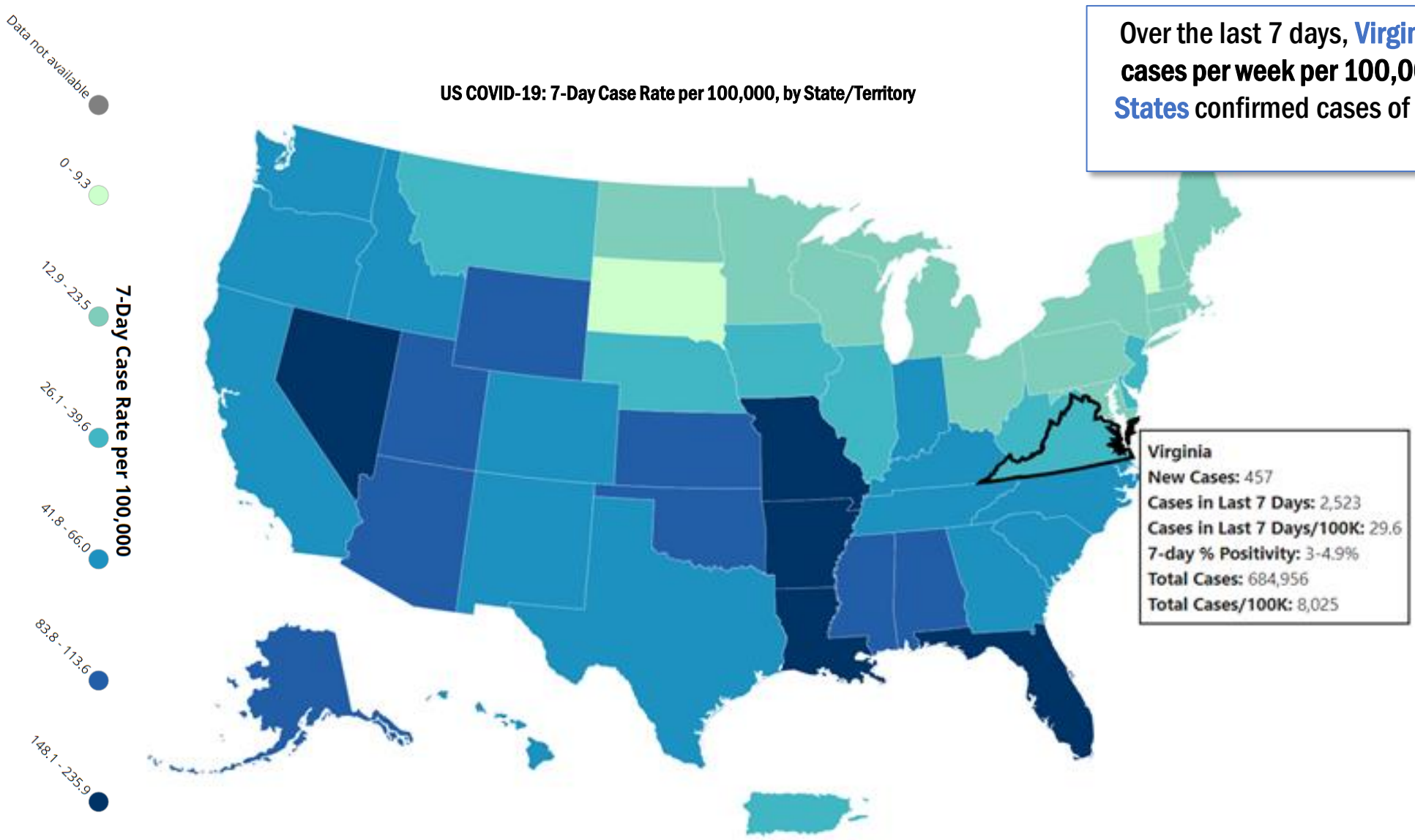

# COVID-19 Surveillance Data Update

July 19, 2021

# National: Weekly New Cases per 100k

Updated 07/18

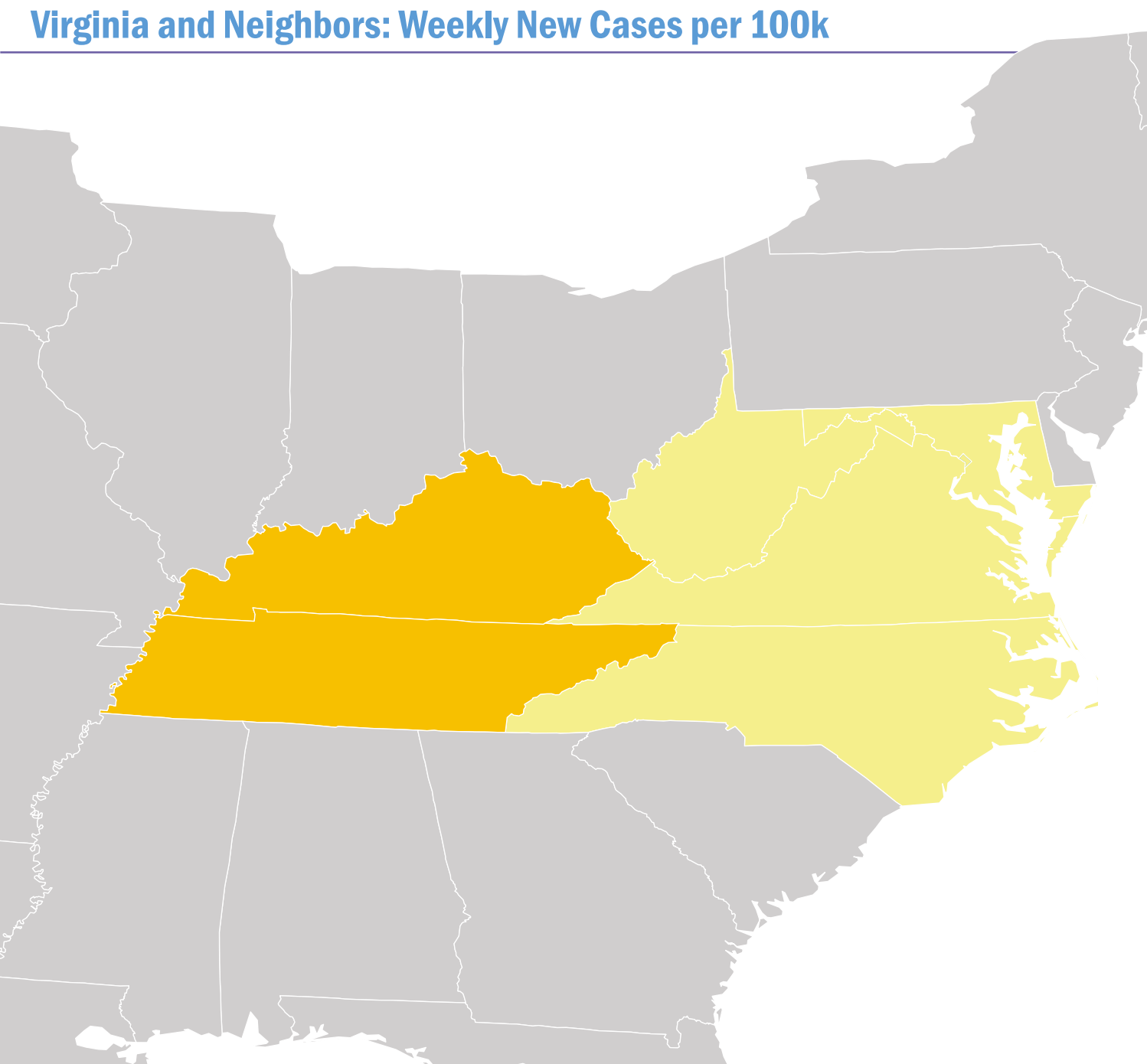
Over the last 7 days, Virginia had **29.6** new confirmed **cases per week per 100,000** compared to The United States confirmed cases of **62.4** per week per 100,000




Source: CDC COVID Data Tracker

# Virginia and Neighbors: Weekly New Cases per 100k

Updated 07/18



Over the last 7 days, Virginia had **29.6** (+35%) new confirmed **cases per week per 100k**

## Rates Higher than Virginia:

Kentucky, **63.3** (+76%)
Tennessee, **50.0** (+33%)
North Carolina, **41.8**, (+15%)

## Rates Lower than Virginia:

District of Columbia, **27.9** (+63%)
West Virginia, **26.1** (+22%)
Maryland, **15.3** (+32%)

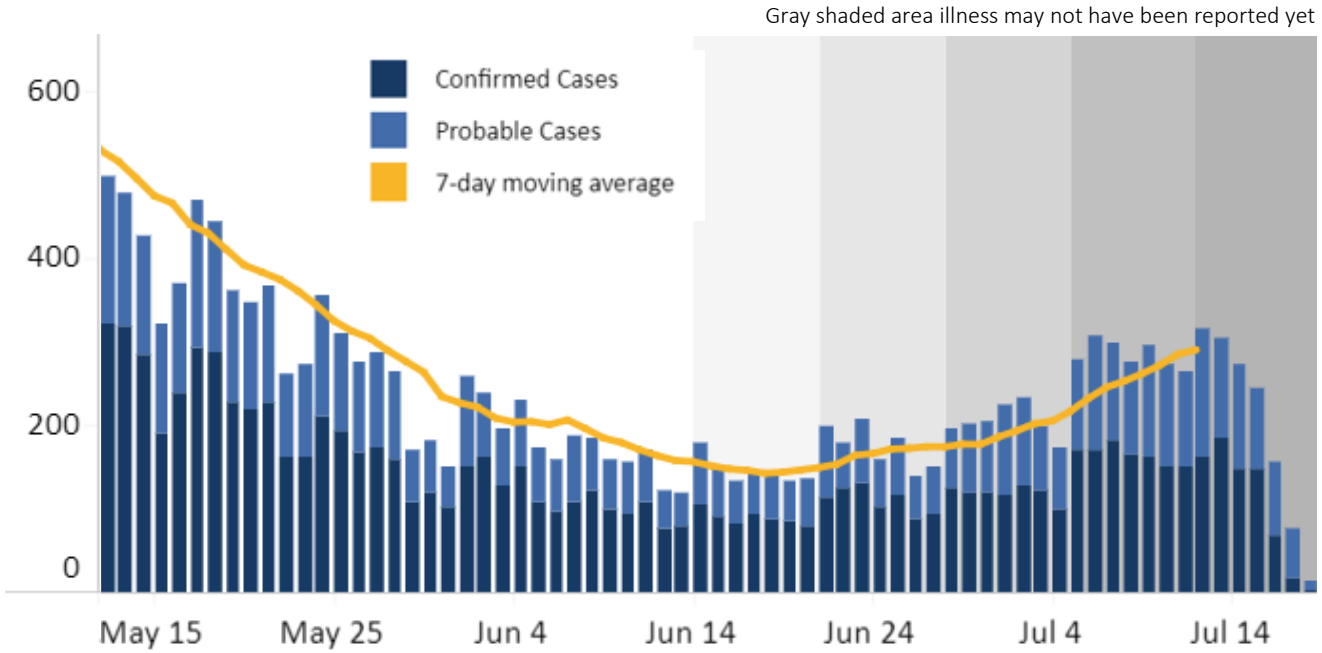
| Legend | New cases per 100k population per week |
|---|---|
| Dark Green | ≤ 4 |
| Light Green | 5-9 |
| Yellow | 10-49 |
| Orange | 50-99 |

Source and thresholds provided by CDC, HealthData.gov

# Virginia: Cases, Hospitalizations, and Deaths

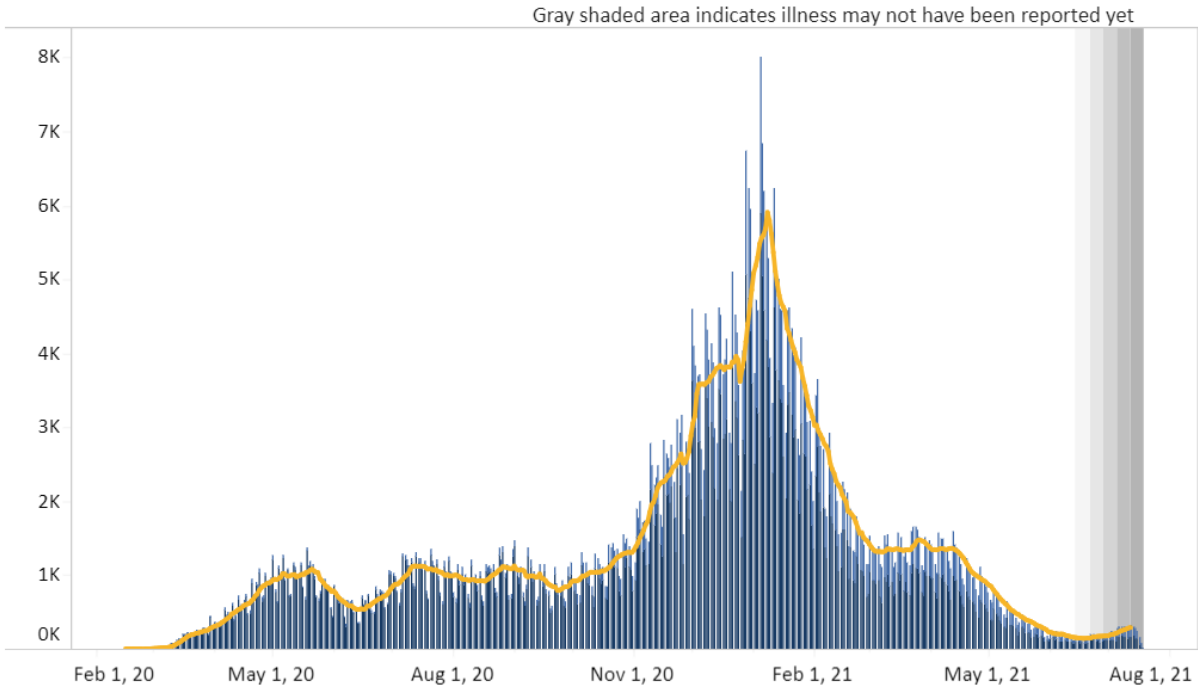
Updated 07/19

## Cases by Date of Symptom Onset, last 60 days




- Compared to last week, **cases** increased to 375 (7-day MA) per day (+58%)
  - 71% lower than the mid-March low of 2021
  - 27% below the summer lows of 2020
- **Hospitalizations** increased to 261 per day (+14%)
- **Deaths** increased to 4.7 per day (+74%)

## All Reporting Timeline




Source: Cases – Coronavirus (virginia.gov), Key Measures – Coronavirus (virginia.gov)
Data represent a 7-day moving average

# Virginia: Regional Metric Summary

Updated 07/19

**Metrics date: 07/19/2021**

| | Central | Eastern | Far Southwest | Near Southwest | Northern | Northwest |
|---|---|---|---|---|---|---|
| New cases per 100k within the last 7 days | 34.6 | 40.2 | 25.1 | 34.1 | 21.9 | 30.0 |
| % Positivity 7-day moving average | 3.6% | 4.3% | 4.8% | 4.6% | 1.7% | 3.2% |
| COVID-like ED visits rate per 100k | 9.2 | 7.2 | 6.1 | 8.2 | 4.1 | 4.9 |
| COVID-like ICU Hospitalizations rate per 100k | 1.0 | 1.0 | 0.9 | 1.2 | 0.1 | 0.8 |

Source: Region Metrics – Coronavirus
Data represents a 7-day moving average

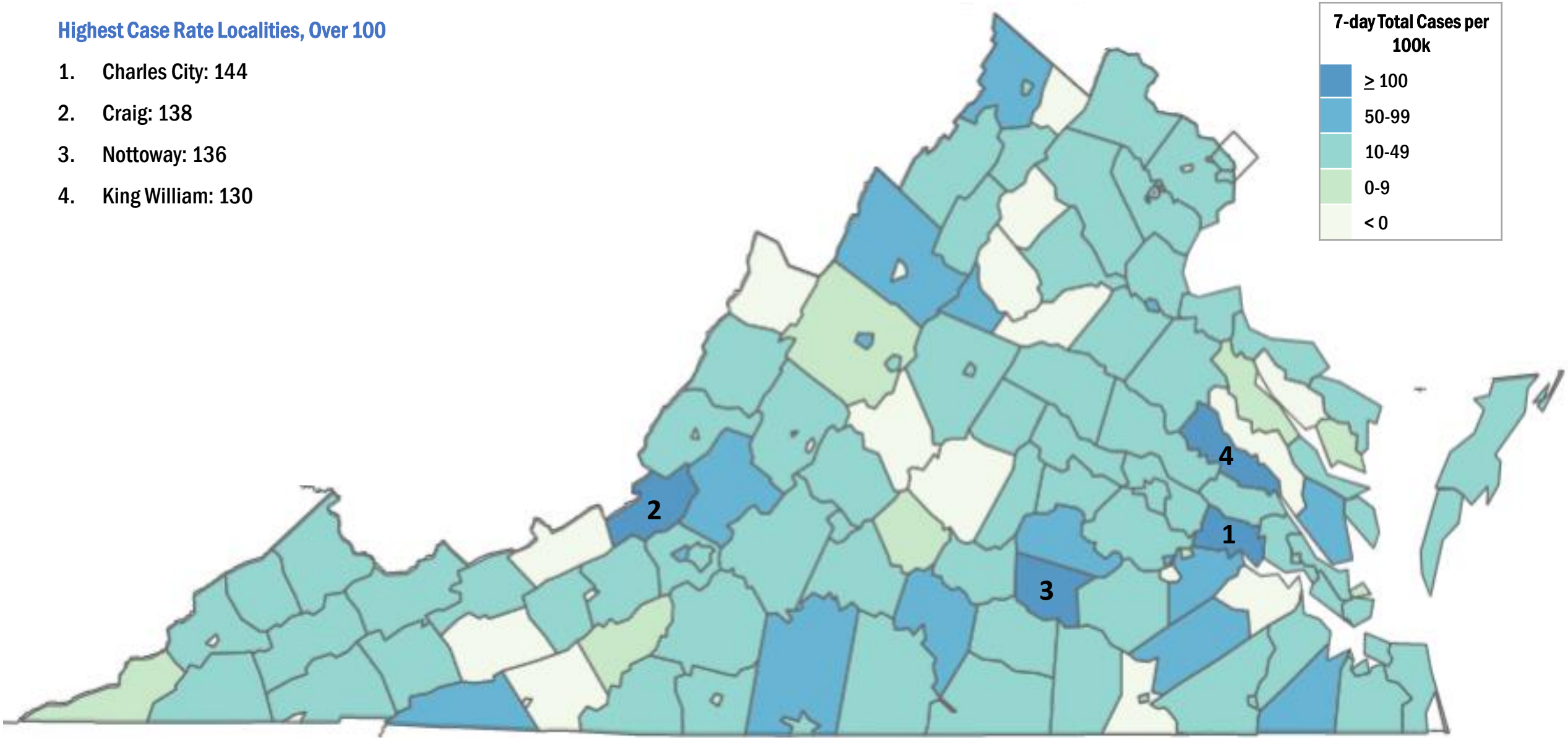
Level 4 Level 3 Level 2 Level 1 Level 0

# Virginia: Weekly Total of Cases per 100k by Locality

Updated 07/19

## Highest Case Rate Localities, Over 100

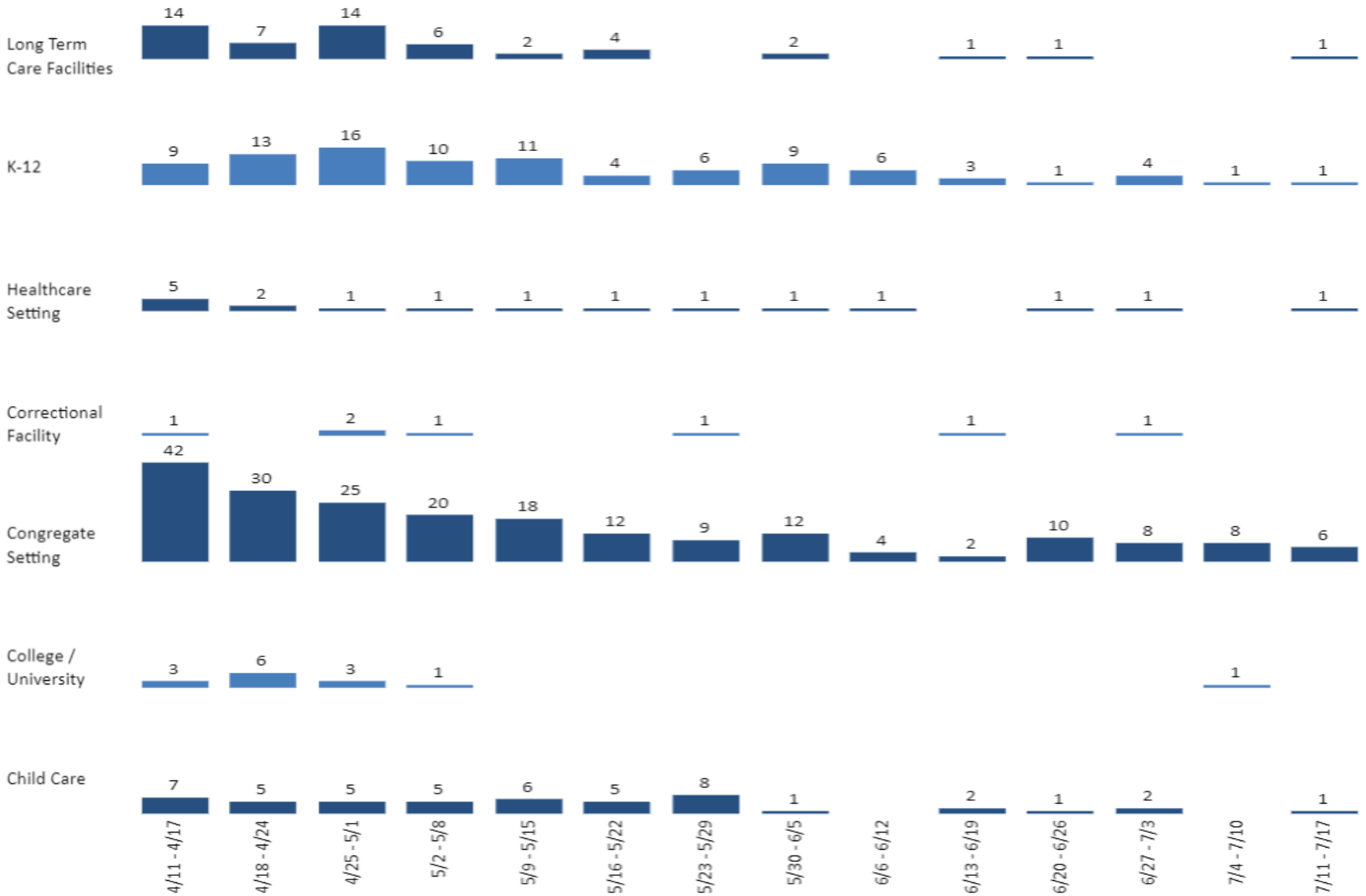
1. Charles City: 144
2. Craig: 138
3. Nottoway: 136
4. King William: 130




Source: Locality Metrics – Coronavirus (virginia.gov)

# Virginia: Number of Outbreaks by Facility Type, last 13 weeks

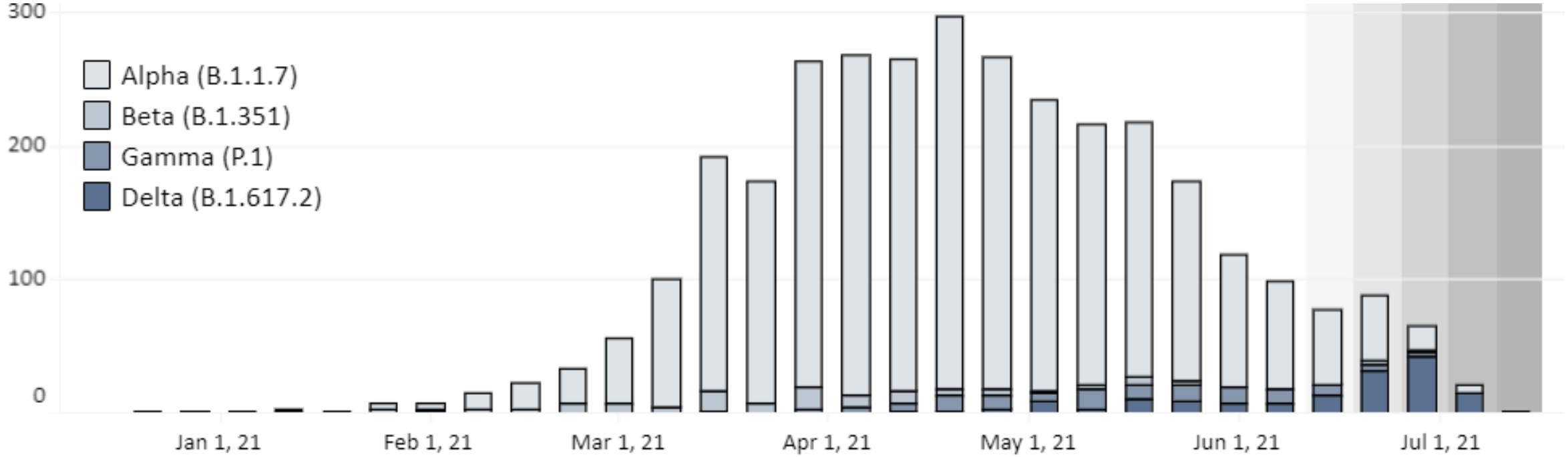
Updated 07/19




Sources: [Outbreaks – Coronavirus (virginia.gov)]

# Number of Variant of Concern Infections Reported to VDH by Week

Updated 07/16



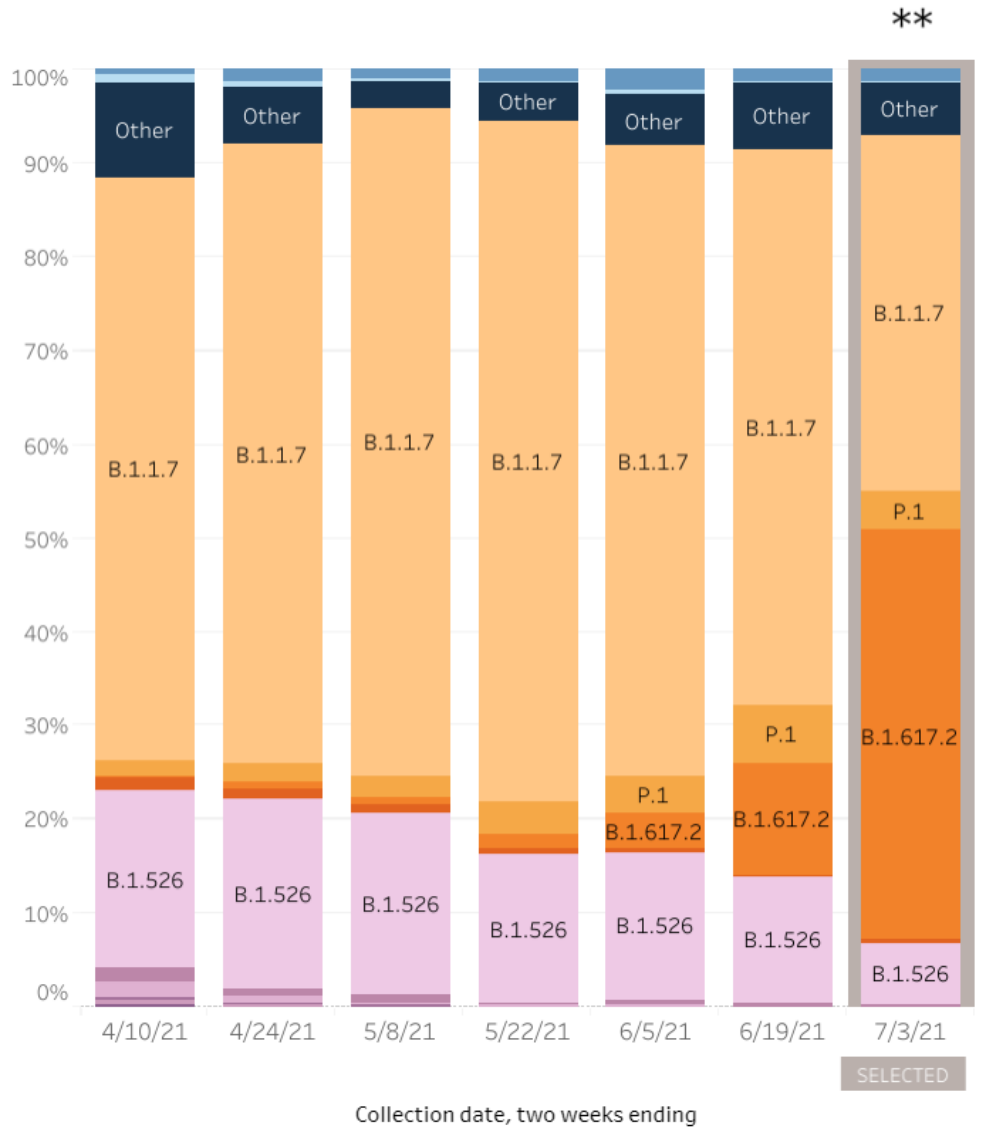

| | Week Ending 6/19/2021 | Week Ending 6/26/2021 | Percent Change |
|---|---|---|---|
| Alpha | 54.5% | 28.1% | -48.4% |
| Beta | 3.4% | 0% | -3.4% |
| Gamma | 5.7% | 4.7% | -17.5% |
| Delta | 36.4% | 67.2% | +84.6% |

Sources: Variants of Concern – Coronavirus (virginia.gov), Data updated on Fridays

# Virginia Region: CDC Estimated Proportions of SARS-CoV-2 Lineages



## HHS Region 3: 3/28/2021 – 7/3/2021




## HHS Region 3: 6/20/2021 – 7/3/2021 NOWCAST

**Region 3 - Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia**

| | Lineage | | Type | %Total | 95%PI |
|---|---|---|---|---|---|
| Most common lineages # | B.1.617.2 | Delta | VOC | 43.8% | 28.9-57.8% |
| | B.1.1.7 | Alpha | VOC | 37.9% | 24.4-53.3% |
| | B.1.526 | Iota | VOI | 6.7% | 0.0-15.6% |
| | P.1 | Gamma | VOC | 4.2% | 0.0-11.1% |
| | B.1 | | | 1.3% | 0.0-4.4% |
| | B.1.1.519 | | | 0.0% | 0.0-2.2% |
| Additional VOI/VOC lineages # | B.1.351 | Beta | VOC | 0.3% | 0.0-2.2% |
| | B.1.525 | Eta | VOI | 0.2% | 0.0-2.2% |
| | B.1.617.1 | Kappa | VOI | 0.0% | 0.0-2.2% |
| | B.1.429 | Epsilon | VOI | 0.0% | 0.0-2.2% |
| | B.1.427 | Epsilon | VOI | 0.0% | 0.0-2.2% |
| | P.2 | Zeta | VOI | 0.0% | 0.0-2.2% |
| Other* | Other | | | 5.6% | 0.0-13.3% |

* Other represents >200 additional lineages, which are each circulating at <1% of viruses

** These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates

\# Sublineages of P.1 and B.1.351 (P.1.1, P.1.2, B.1.351.2, B.1.351.3) are aggregated with the parent linteage and included in parent lineage's proportion. AY.1 and AY.2 are aggregated with B.1.617.2.

Sources: CDC COVID Data Tracker, Data updated on Tuesdays, ** These data include Nowcast estimates, which are modeled projections

# Recent Literature of Possible Interest to VDH

**The National Academies of Sciences, Engineering, and Medicine released an assessment of rental evictions and the pandemic as the federal moratorium on rental evictions is set to expire at the end of July**

- There are no comprehensive data on the number of people currently at risk of eviction, but 30 to 40 million people were estimated to have been at risk of eviction in August 2020
- Evictions could increase the rate of spread, lead to negative health outcomes, and slow the economic recovery
- The report outlines a series of both immediate and longer-term interventions including building on existing anti-poverty programs, efficiently channeling relief to renters and landlords, and reducing discriminatory practices

**Leng et al. examined the effect of testing strategies in English secondary schools on within-school transmission**

- Many secondary schools in England had twice weekly lateral flow testing during the 20-21 school year
- This serial testing substantially reduced the within-school transmission without a large increase in absences
- Serial testing plus isolation provided only a small additional transmission decline but with many more absences

**Shuffrey et al. studied the implications of the pandemic on infant neurodevelopment**

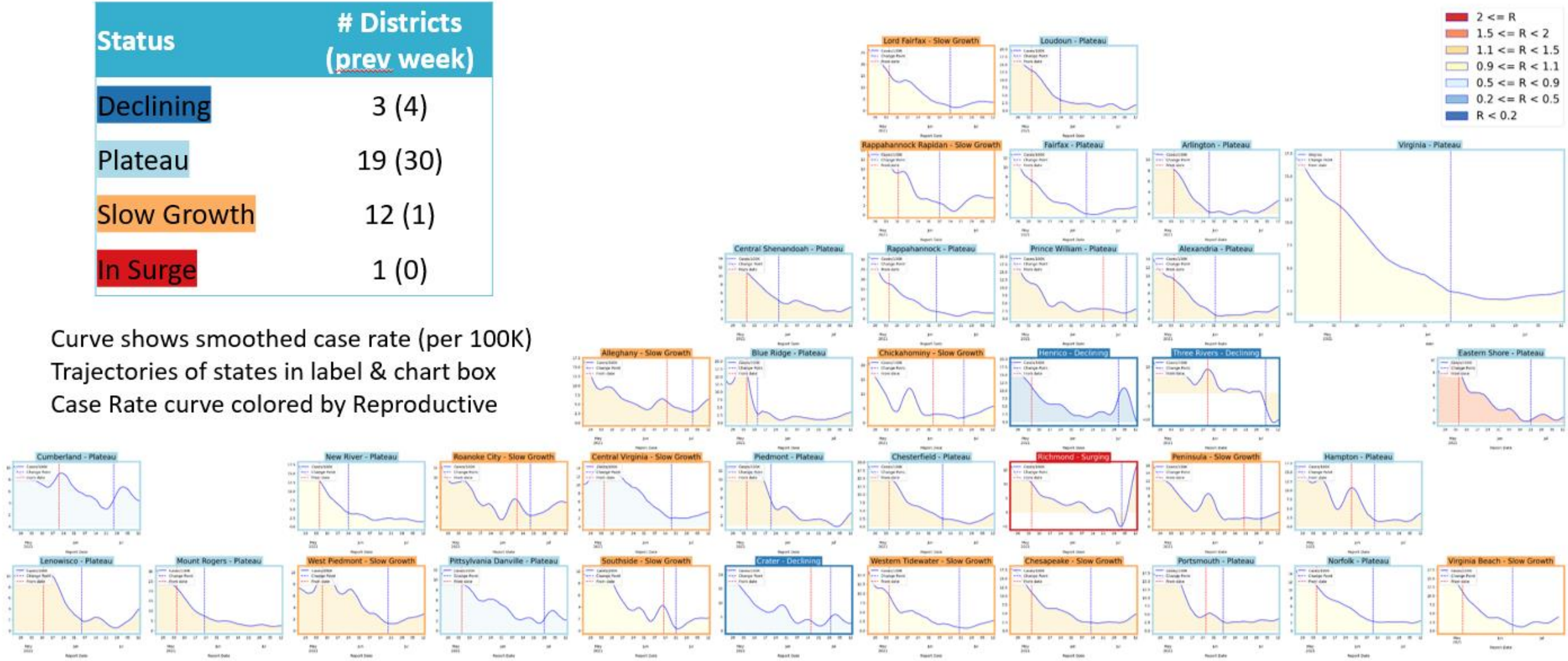
- The study compared 107 infants with in utero exposure to COVID and 131 unexposed infants born between March and December of 2020 to 62 infants born at least two months before the pandemic
- They found no statistically significant difference between those infants born during the pandemic by exposure to COVID, but they did find lower scores for gross motor, fine motor, and personal-social subdomain assessments between those born during the pandemic and those born before the pandemic
- This builds on the literature noting the long-term repercussions the pandemic may have on children

# UVA Modeling: District Trajectories, last 10 weeks



| Status | # Districts (prev week) |
|---|---|
| Declining | 3 (4) |
| Plateau | 19 (30) |
| Slow Growth | 12 (1) |
| In Surge | 1 (0) |

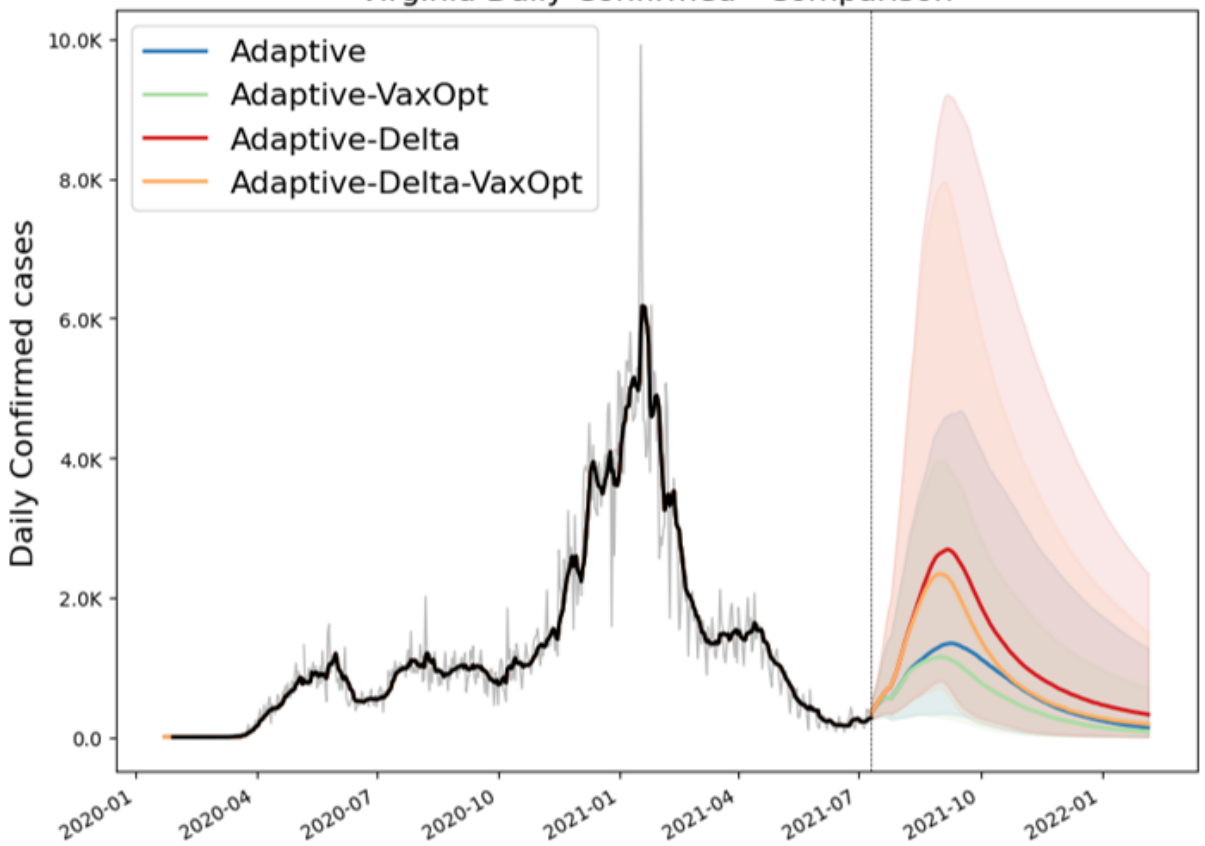
Curve shows smoothed case rate (per 100K)
Trajectories of states in label & chart box
Case Rate curve colored by Reproductive



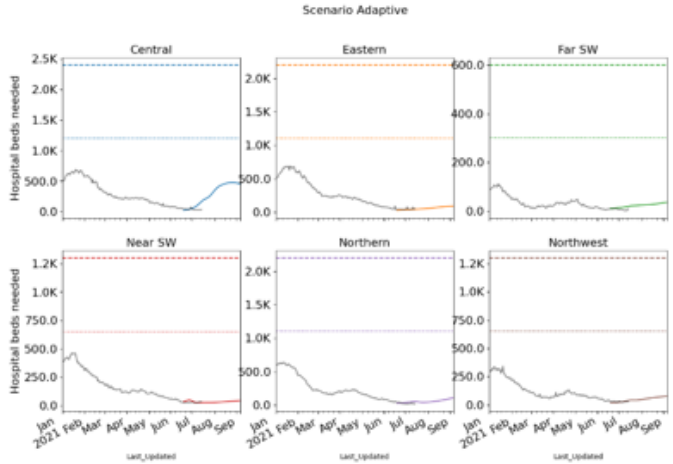
# UVA Modeling: Outcome Projections

Updated 07/14

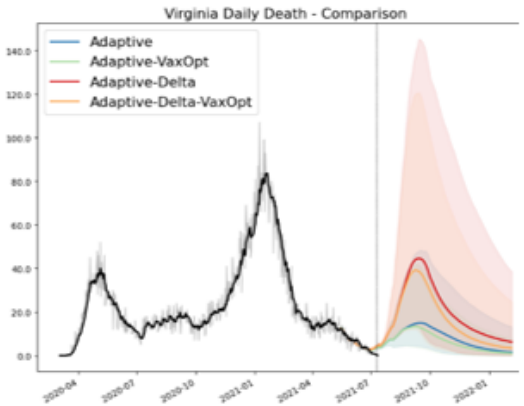
## Confirmed cases




## Estimated Hospital Occupancy

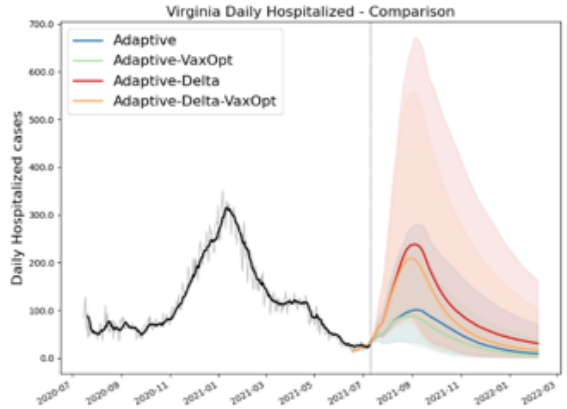



## Daily Deaths




Death ground truth from VDH "Event Date" data, most recent dates are not complete

## Daily Hospitalized

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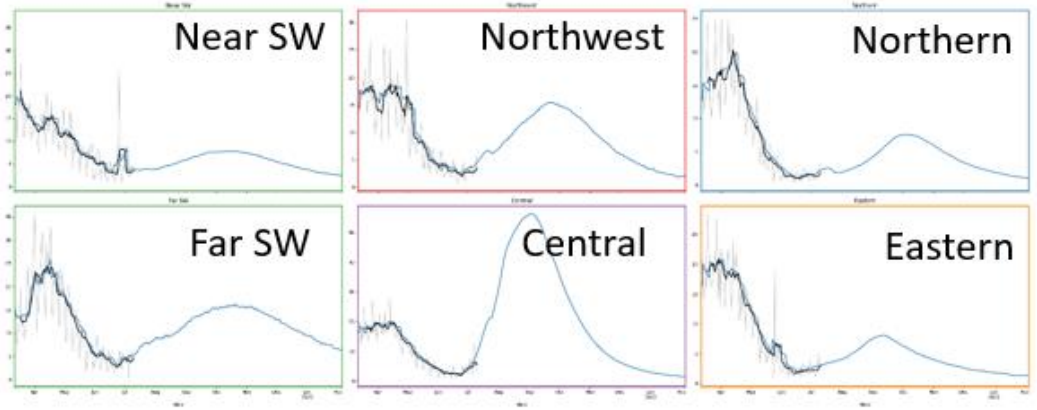
# UVA Modeling: District Projections, Adaptive

## Projections by Region



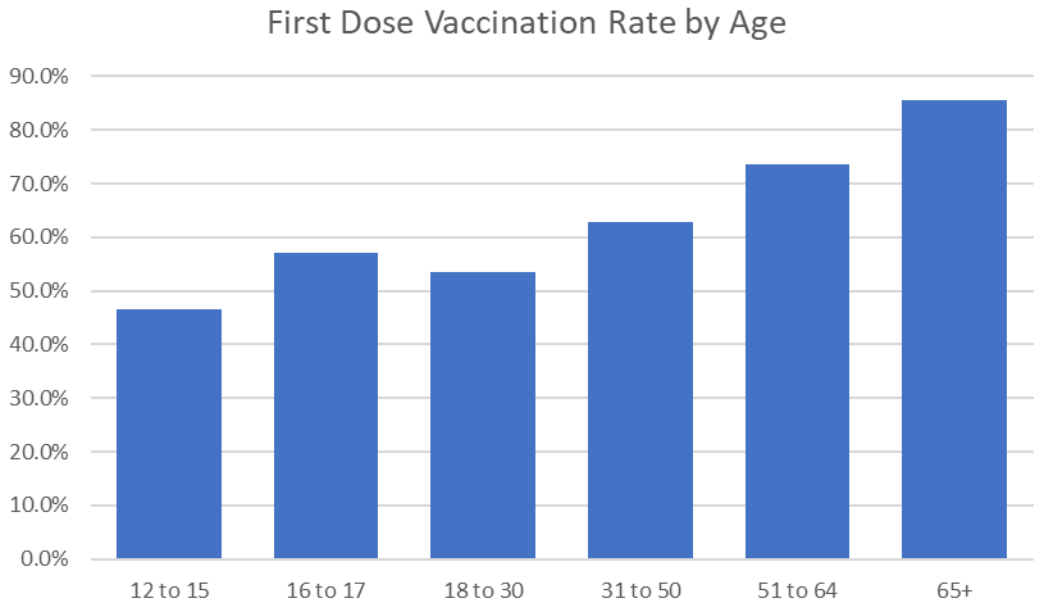

## Projections by District

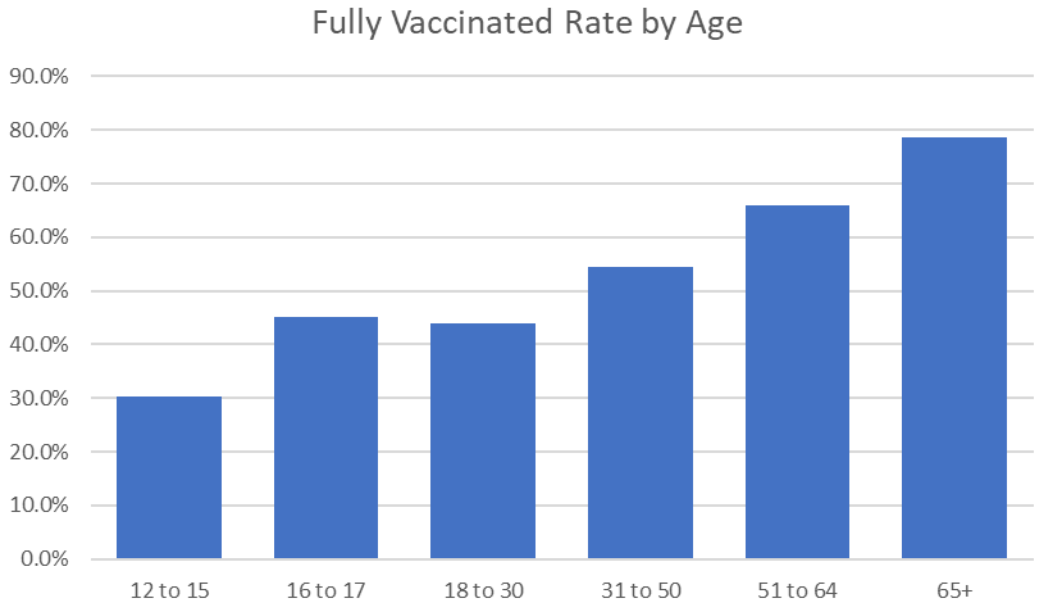



Daily confirmed cases rate (per 100K) by District (grey with 7-day average in black) with simulation colored by scenario

# Virginia: Vaccination by Age Groups

Updated 07/14




## Virginia Vaccination by Age

- ✓ **71.2%** of the Adult (18+) Population Vaccinated with at Least One Dose
- ✓ **62.8%** of the Adult (18+) Population Fully Vaccinated
- ✓ **79%** of Virginians 65+ and **50%** of 12 to 17 year olds have received at least one dose

## Metaculus Forecast for Herd Immunity:

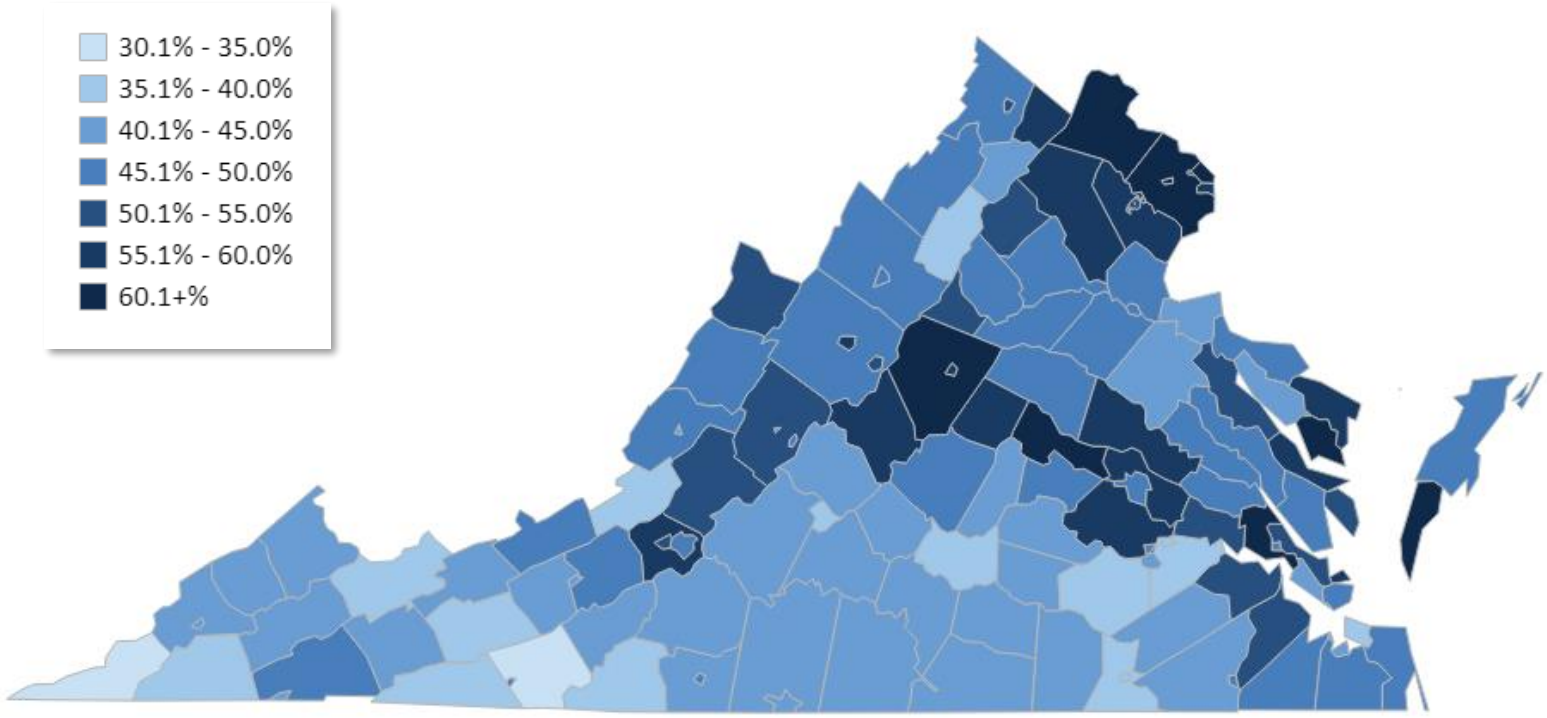
- Median Metaculus forecast for when 75% of all Virginians will have received at least one vaccine dose is **June 2022**
- The Interquartile range for the Metaculus forecast is Dec 2021 to July 2023.

Source: COVID-19 in Virginia: Vaccine Summary

# Virginia: Vaccination across the Commonwealth

Updated 07/14

## Percent of the Total Population with at Least One Dose by Locality




**The population with at least one dose varies by locality**

- 10 localities (7.5%) have more than 60 percent of their total population vaccinated
- 17 localities (12.8%) have less than 40 percent of their total population vaccinated

**Community immunity is estimated to require a vaccination rate around 70 to 80 percent for the total population**

**Regional Disparities in Vaccinations Remain Prevalent**

| Region Name | First Dose Vaccination |
|---|---|
| Central | 50.3% |
| Eastern | 45.9% |
| Northern | 60.1% |
| Northwest | 49.5% |
| Southwest | 43.2% |

Federal doses not included in this number
Source: COVID-19 Vaccine Summary – Coronavirus (virginia.gov)

# Virginia: Vaccination by Race and Ethnicity



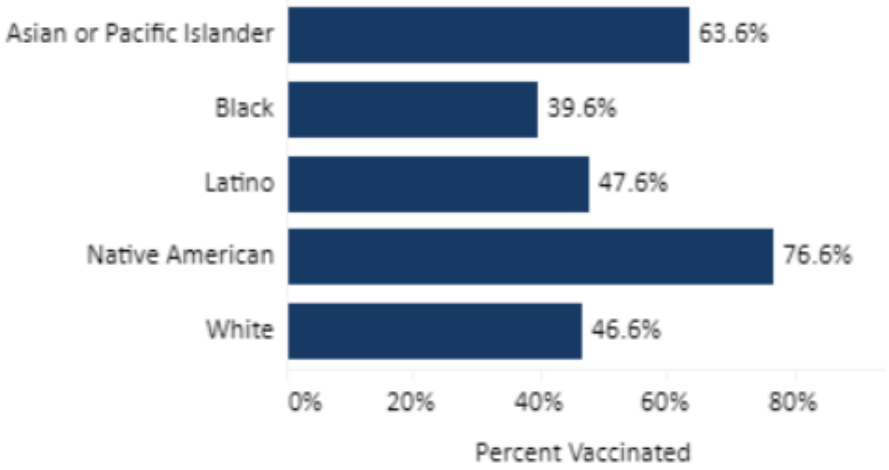
**There are Varying Rates of Vaccination across Race/ Ethnicity groups**

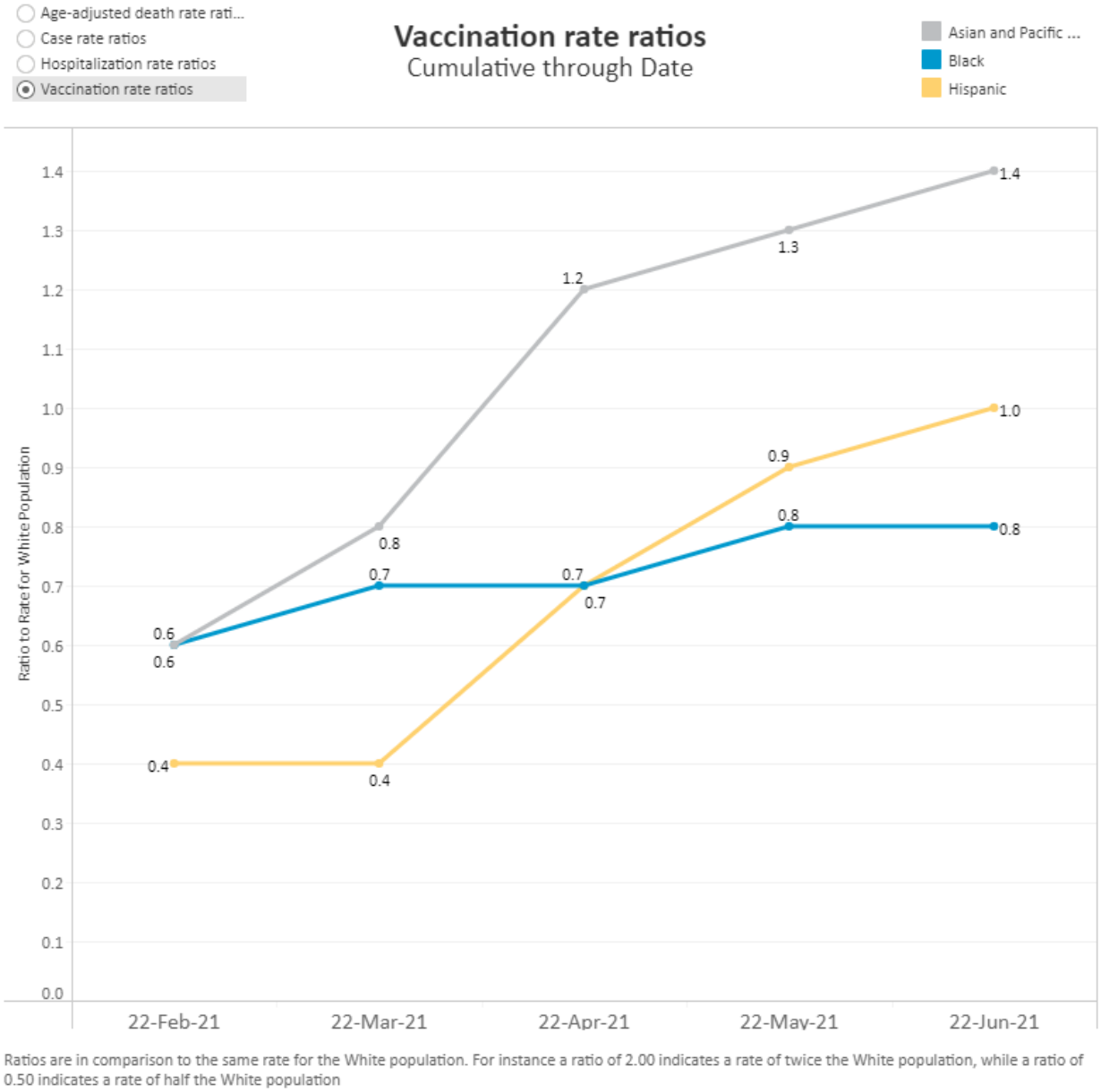
- Native Americans (76.6%) and Asian or Pacific Islanders (63.6%) have the highest rates of vaccination
- Black Virginians have the lowest rate of vaccinations at 39.6%

**Vaccination Rate Ratios show Changing Rates of Minority Vaccinations vs Whites**

- Blacks have been vaccinated at 0.8 per White person
- Latinos have been vaccinated at 1.0 per White person

## First Dose Vaccination Rate by Race / Ethnicity



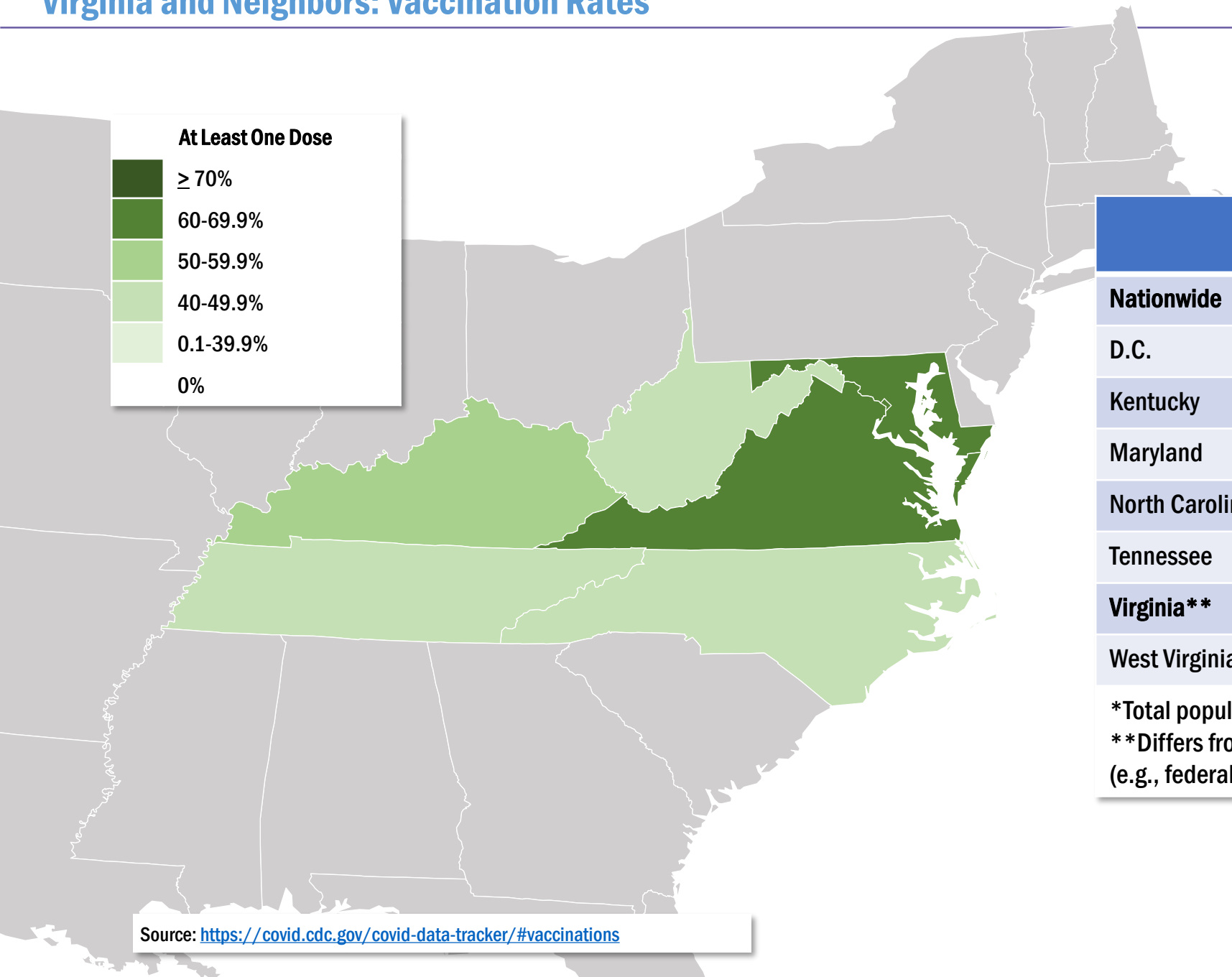

Ratios are in comparison to the same rate for the White population. For instance a ratio of 2.00 indicates a rate of twice the White population, while a ratio of 0.50 indicates a rate of half the White population

Federal doses not included in this number

Source: [COVID-19 Vaccine Summary – Coronavirus (virginia.gov)]

# Virginia and Neighbors: Vaccination Rates

Updated 07/13




| | Partially Vaccinated* | Fully Vaccinated* |
|---|---|---|
| **Nationwide** | **7.5%** | **48.1%** |
| D.C. | 8.9% | 53.5% |
| Kentucky | 5.9% | 44.4% |
| Maryland | 5.7% | 57.3% |
| North Carolina | 6.8% | 42.7% |
| Tennessee | 4.9% | 38.1% |
| **Virginia**** | **6.9%** | **53.1%** |
| West Virginia | 7.0% | 38.7% |

*Total population, includes out-of-state vaccinations
**Differs from previous slide because all vaccination sources (e.g., federal) are included

Source: https://covid.cdc.gov/covid-data-tracker/#vaccinations