

Network Systems
Science & Advanced
Computing
Biocomplexity Institute
& Initiative
University of Virginia

Foresight and Analysis of Infectious Disease Threats to Virginia's Public Health

April 27th, 2023

(data current to April 20th – April 26th)

Biocomplexity Institute Technical report: TR BI-2023-66



BIOCOMPLEXITY INSTITUTE

biocomplexity.virginia.edu

About Us

- Biocomplexity Institute at the University of Virginia
 - Using big data and simulations to understand massively interactive systems and solve societal problems
- Over 20 years of crafting and analyzing infectious disease models
 - Pandemic response for Influenza, Ebola, Zika, and others



Points of Contact

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Overview

- **Goal:** Understand impact of current and emerging Infectious Disease threats to the Commonwealth of Virginia using modeling and analytics
- **Approach:**
 - Provide analyses and summaries of current infectious disease threats
 - Survey existing forecasts and trends in these threats
 - Analyze and summarize the current situation and trends of these threats in the broader context of the US and world
 - Provide broad overview of other emerging threats

Key Takeaways

Projecting future cases precisely is impossible and unnecessary.

Even without perfect projections, we can confidently draw conclusions:

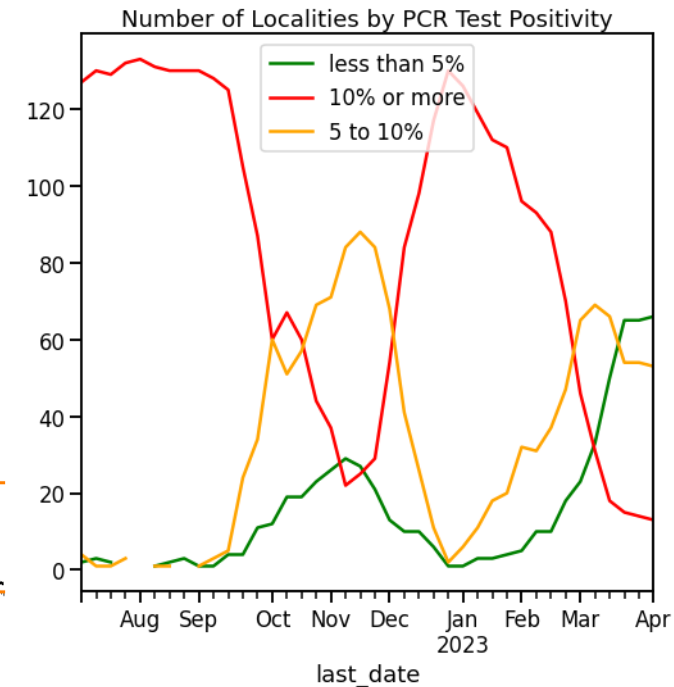
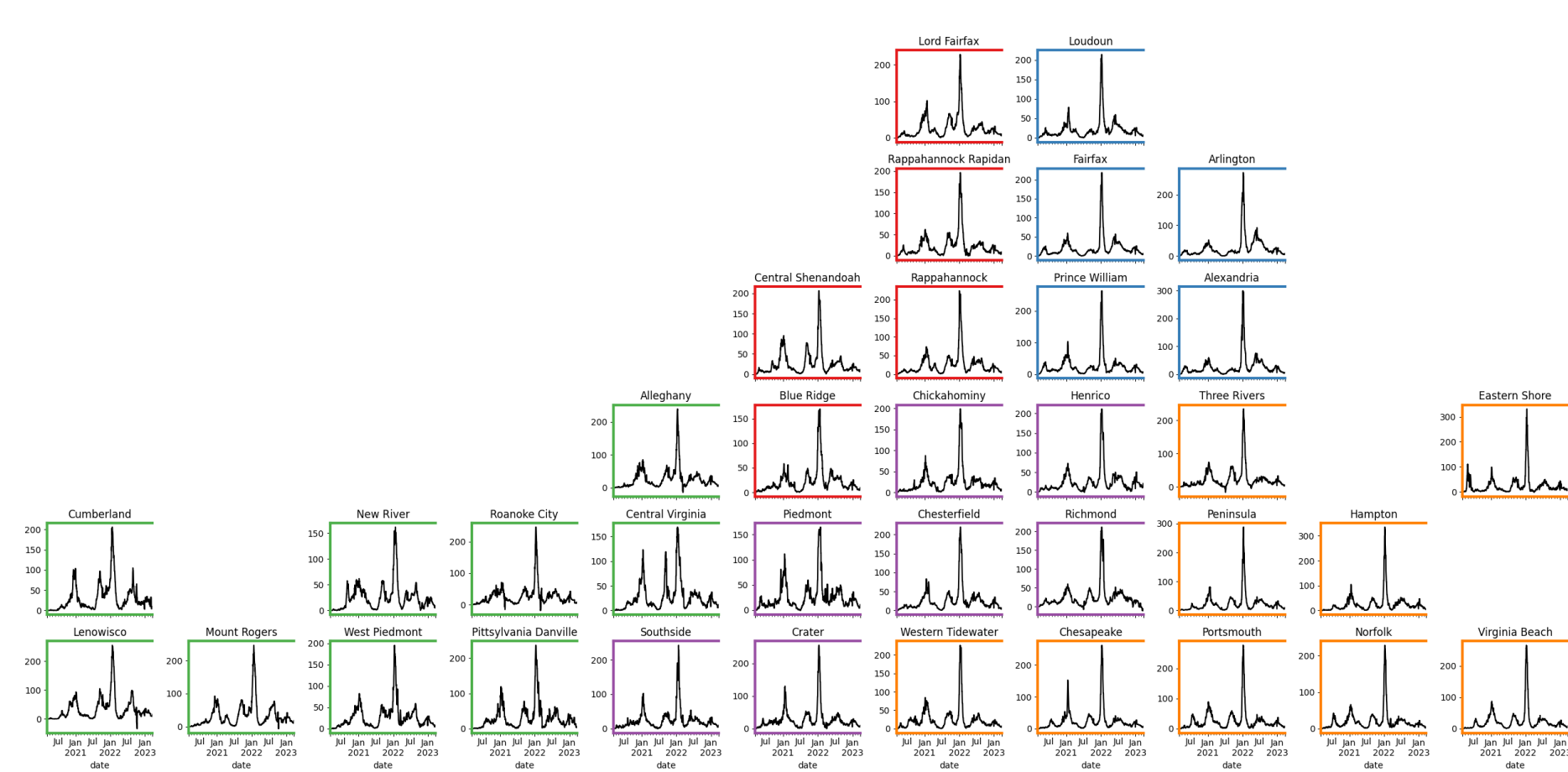
- Case rates and hospitalizations from COVID-19 continue declines but rate has slowed and has seemingly entered a plateau
 - Hospital occupancy down to levels last seen in early May of 2022
- Nearly all indicators point to this trend continuing in near term
- Influenza hospitalizations remain very low and ILI activity remains below seasonal threshold

Model Updates

- Projected Trajectories from previous rounds remain on target, no new projections made this round

COVID-19 Surveillance

Case Rates (per 100k) and Test Positivity



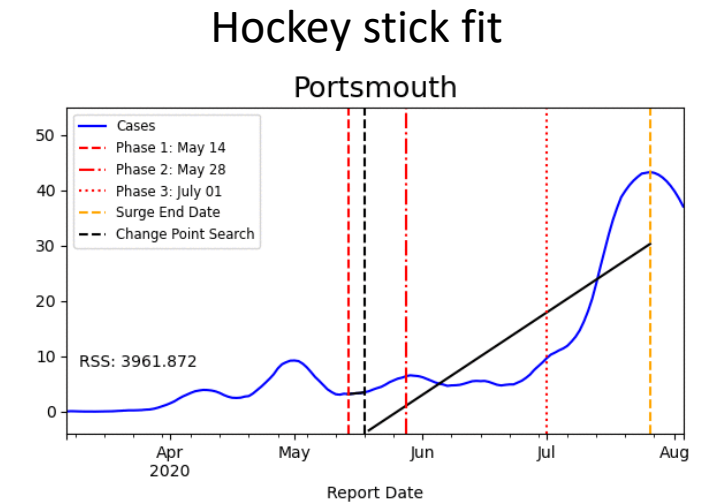
County level RT-PCR test positivity

Green: <5.0% (or <20 tests in past 14 days)
Orange: 5.0%-10.0% (or <500 tests and <2000 tests/100k and >10% positivity over 14 days)
Red: >10.0% (and not "Green" or "Yellow")

District Trajectories

Goal: Define epochs of a Health District's COVID-19 incidence to characterize the current trajectory

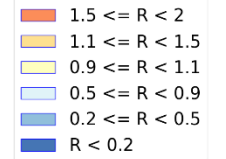
Method: Find recent peak and use hockey stick fit to find inflection point afterwards, then use this period's slope to define the trajectory



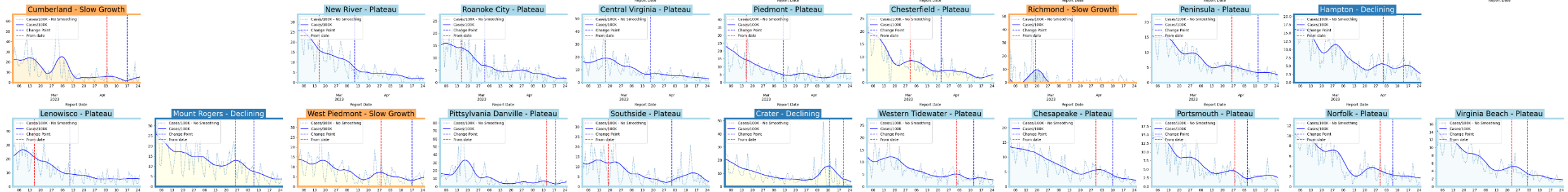
Trajectory	Description	Weekly Case Rate Slope (per 100k)	Weekly Hosp Rate Slope (per 100k)
Declining	Sustained decreases following a recent peak	slope < -0.88/day	slope < -0.07/day
Plateau	Steady level with minimal trend up or down	-0.88/day < slope < 0.42/day	-0.07/day < slope < 0.07/day
Slow Growth	Sustained growth not rapid enough to be considered a Surge	0.42/day < slope < 2.45/day	0.07/day < slope < 0.21/day
In Surge	Currently experiencing sustained rapid and significant growth	2.45/day < slope	0.21/day < slope

District Case Trajectories – last 10 weeks

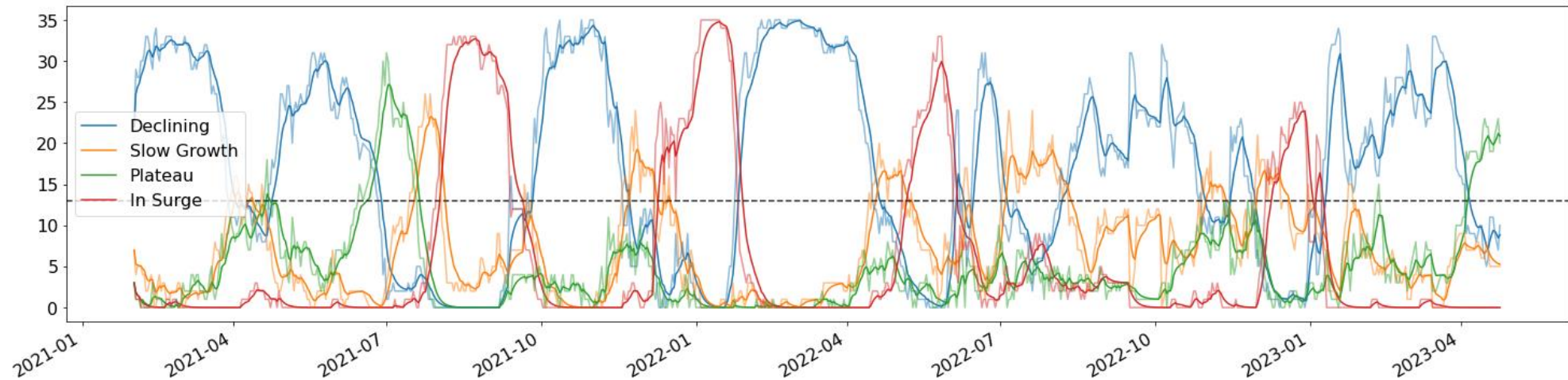
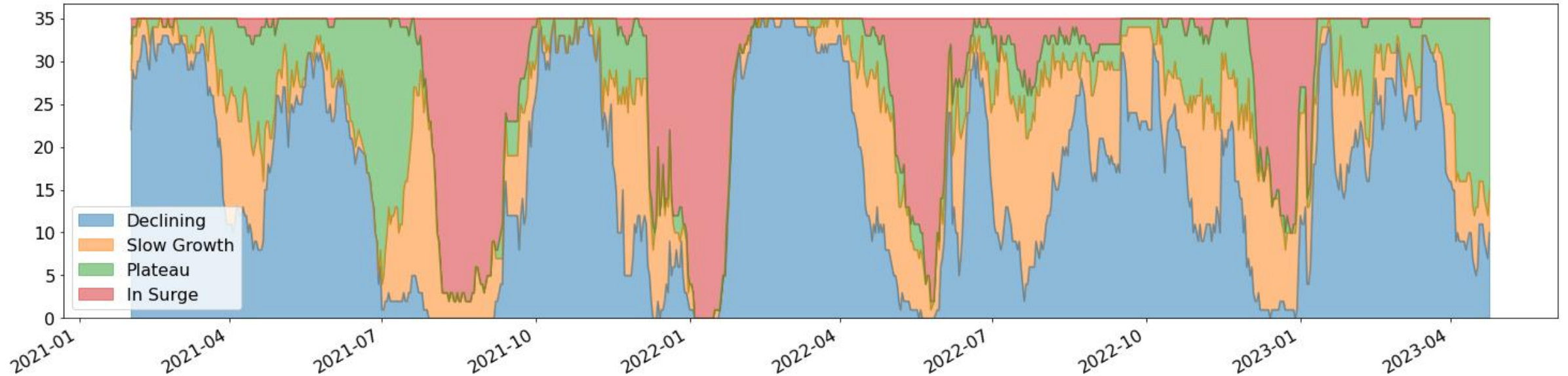
Status	Number of Districts	
	Current Week	Last Week
Declining	6	(11)
Plateau	26	(19)
Slow Growth	3	(5)
In Surge	0	(0)



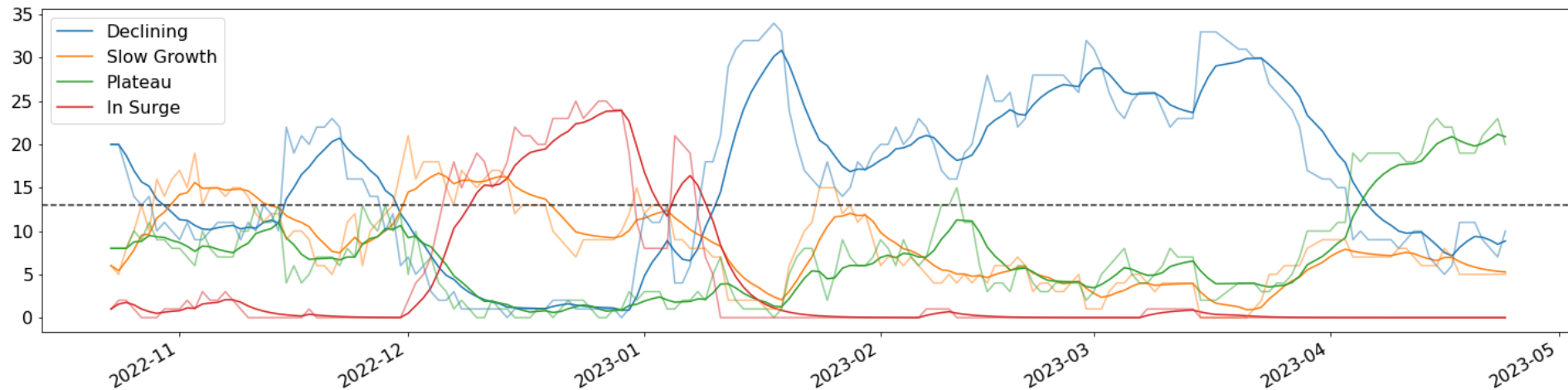
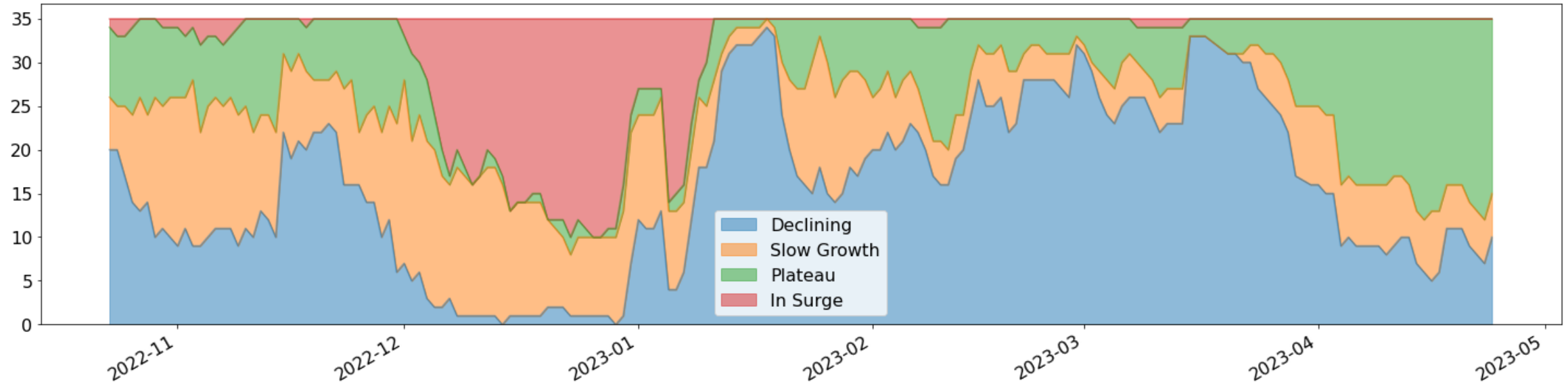
Curve shows smoothed case rate (per 100K)
 Trajectories of states in label & chart box
 Case Rate curve colored by Reproductive number



District Case Trajectories – Full History



District Case Trajectories – Recent 6 months

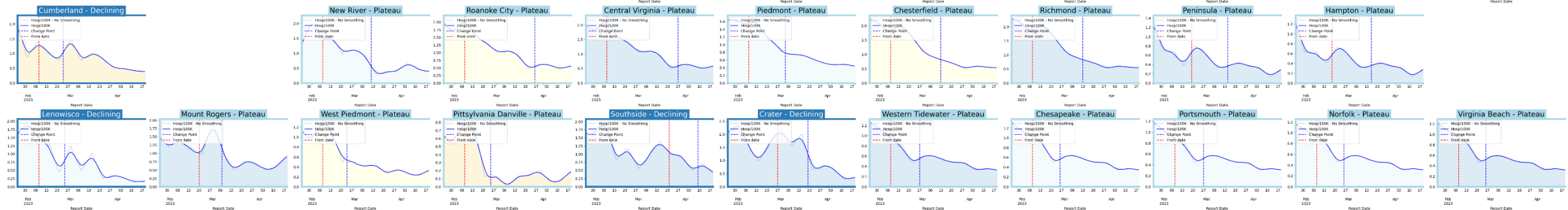
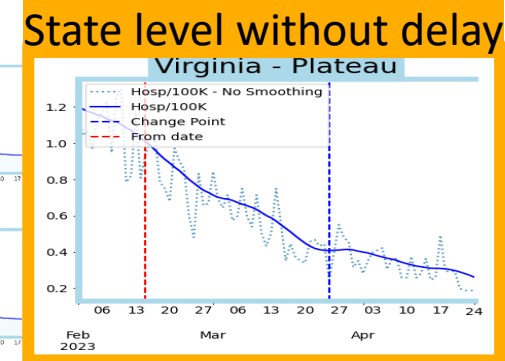
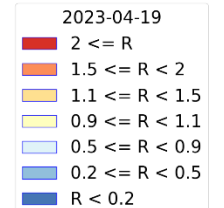


District Hospital Trajectories – last 10 weeks

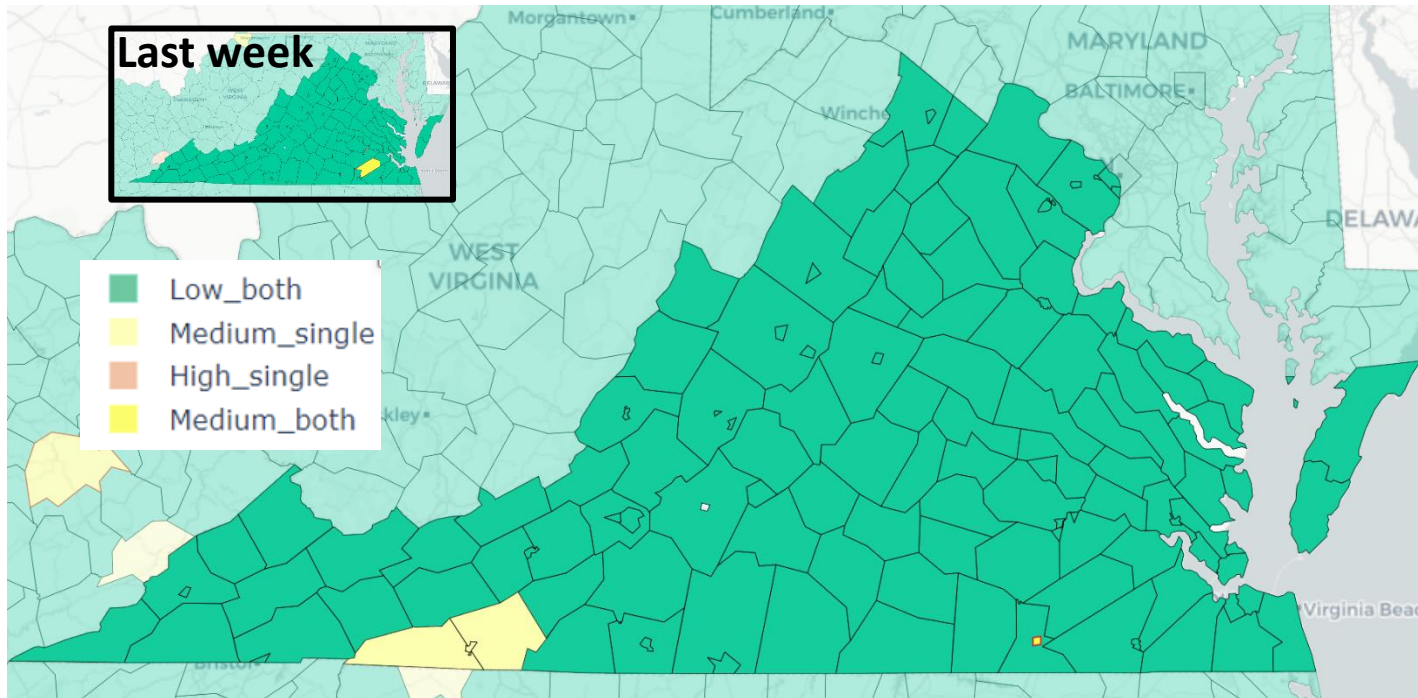
Status	Number of Districts	
	Current Week	Last Week
Declining	8	(17)
Plateau	27	(18)
Slow Growth	0	(0)
In Surge	0	(0)

Hospitalization by county is delayed, these data are current as of
April 19th

Curve shows smoothed hospitalization rate (per 100K) by district
Hosp rate curve colored by R_e number



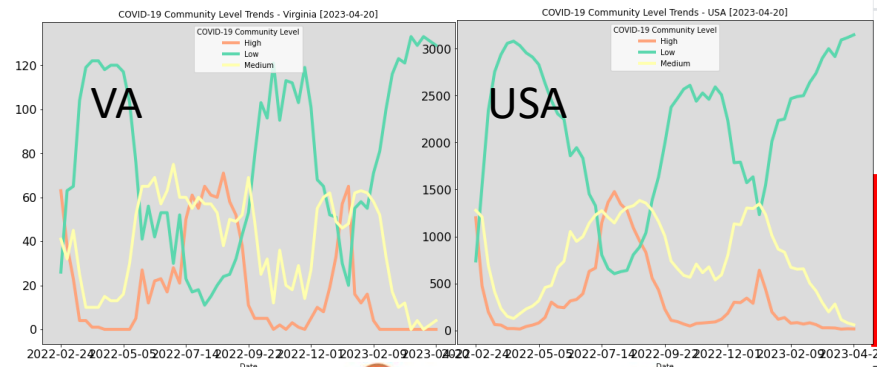
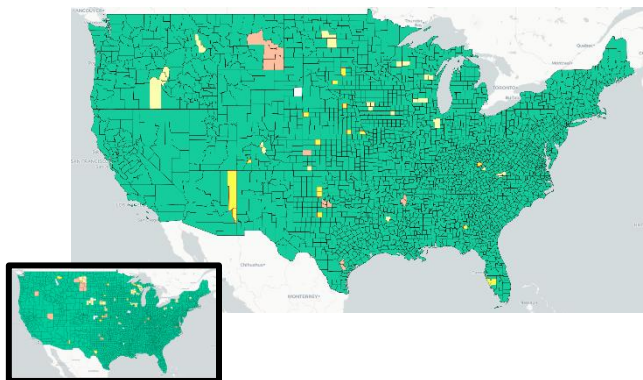
CDC's COVID-19 Community Levels



Red outline indicates county had 200 or more cases per 100k in last week

Pale color indicates either beds or occupancy set the level for this county

Dark color indicates both beds and occupancy set the level for this county



COVID-19 Community Levels – Use the Highest Level that Applies to Your Community				
New COVID-19 Cases Per 100,000 people in the past 7 days	Indicators	Low	Medium	High
Fewer than 200	New COVID-19 admissions per 100,000 population (7-day total)	<10.0	10.0-19.9	≥20.0
	Percent of staffed inpatient beds occupied by COVID-19 patients (7-day average)	<10.0%	10.0-14.9%	≥15.0%
200 or more	New COVID-19 admissions per 100,000 population (7-day total)	NA	<10.0	≥10.0
	Percent of staffed inpatient beds occupied by COVID-19 patients (7-day average)	NA	<10.0%	≥10.0%

The COVID-19 community level is determined by the higher of the new admissions and inpatient beds metrics, based on the current level of new cases per 100,000 population in the past 7 days

Last week

28-Apr-23

District Trajectories with Community Levels

Community Level
(Title Color)

- High
- High-Med
- Med-High
- Medium
- Med-Low
- Low-Med
- Low

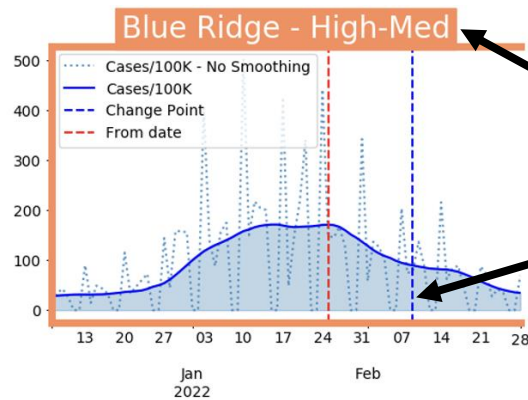
Curve shows smoothed case rate (per 100K)
CDC's new [Community Level](#) aggregated to district level in label & chart box color
Case Rate curve colored by Trajectory

Trajectory
(Curve Shading)

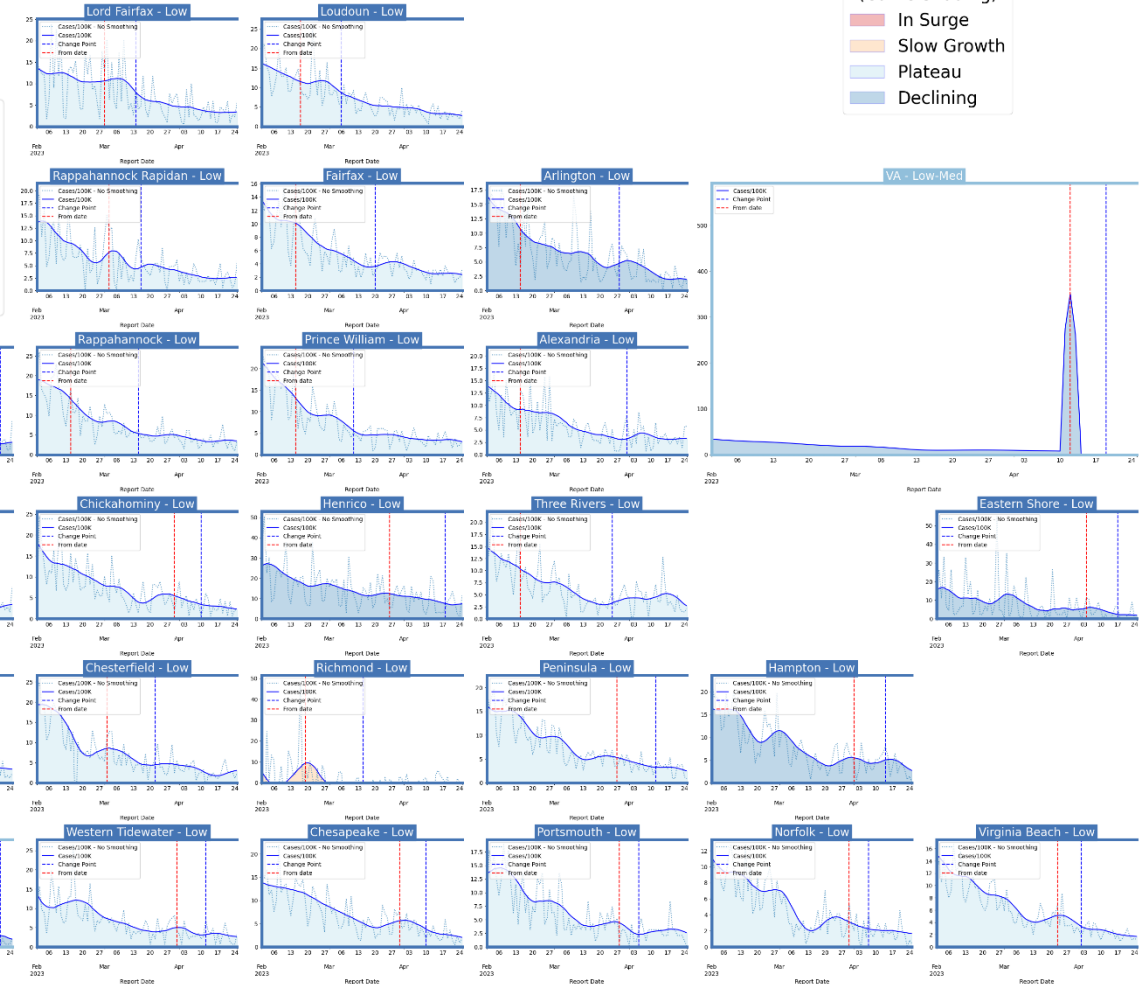
- In Surge
- Slow Growth
- Plateau
- Declining

Trajectory
(Curve Shading)

- In Surge
- Slow Growth
- Plateau
- Declining



District's Aggregate Community Level
Aggregate level a simple mean of all levels for counties in district
Case rate Trajectory



COVID-19 Growth Metrics

Estimating Daily Reproductive Number – VDH report dates

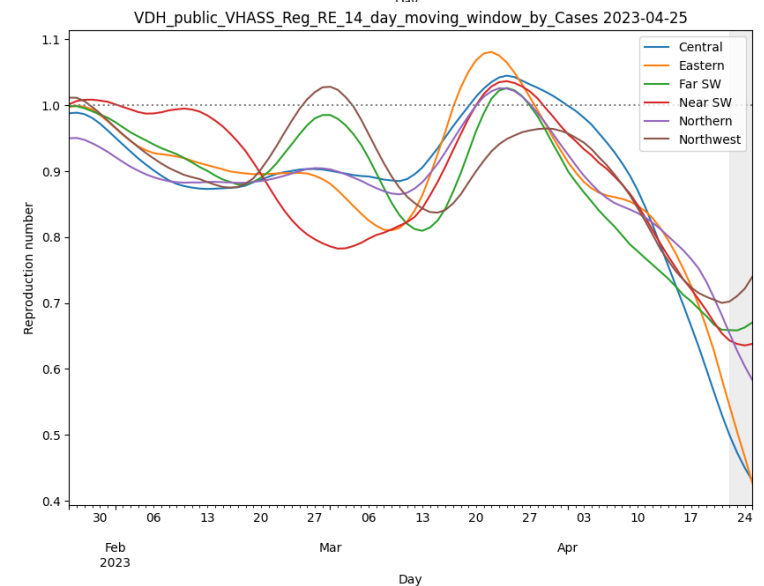
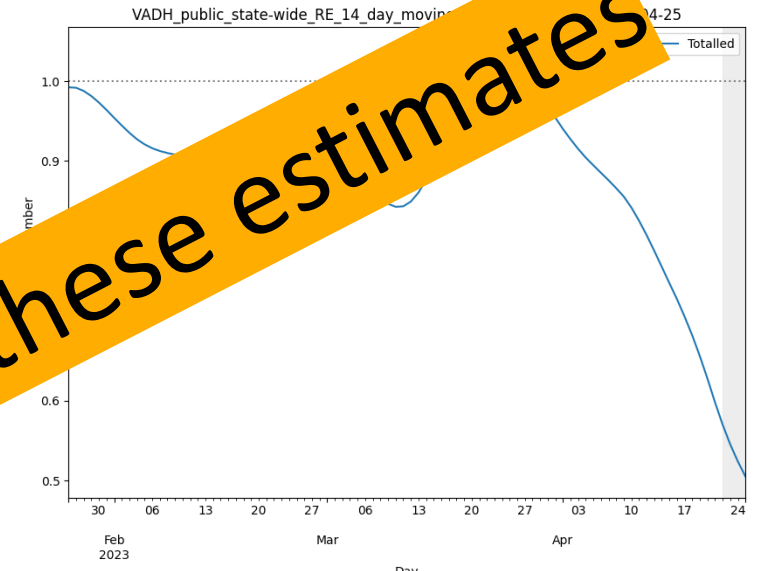
April 25th Estimates

Region	Date Confirmed R_e	Date Confirmed Diff Last Week
State-wide	0.505	-0.382
Central	0.430	-0.342
Eastern	0.426	-0.580
Far SW	0.671	-0.1
Near SW	0.638	-0.17
Northern	0.583	-0.17
Northwest	0.7	-0.084

Methodology

- Wallinga et al. (2011) for cases by confirmation date
- Serial interval to discrete distribution from observations (mean=4.3, Flaxman et al, Nature 2020)
- Using Confirmation date since due to increasingly unstable estimates from onset date due to backfill

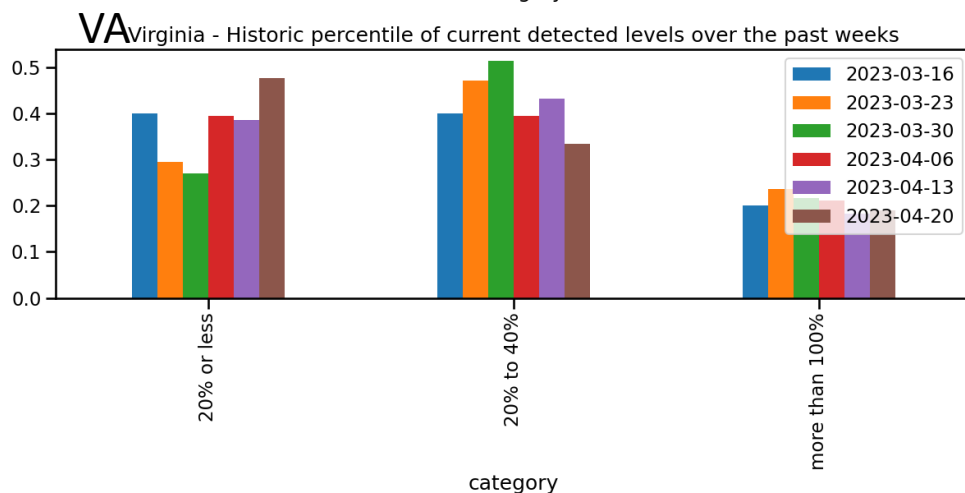
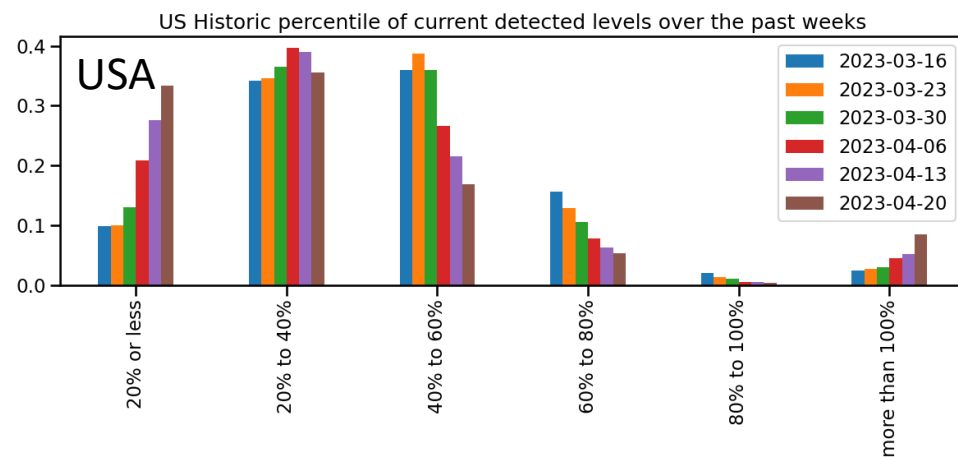
1. Anne Cori, Neil M. Ferguson, Christophe Fraser, Simon Cauchemez. A New Framework and Software to Estimate Time-Varying Reproduction Numbers During Epidemics. American Journal of Epidemiology, Volume 178, Issue 9, 1 November 2013, Pages 1505–1512, <https://doi.org/10.1093/aje/kwt133>



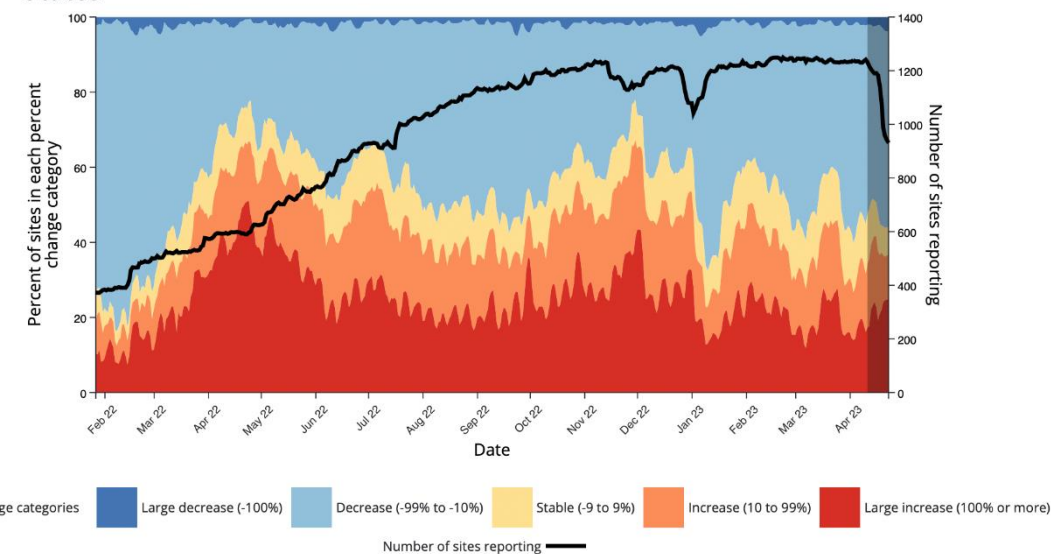
Data anomalies have disrupted these estimates

Wastewater Monitoring

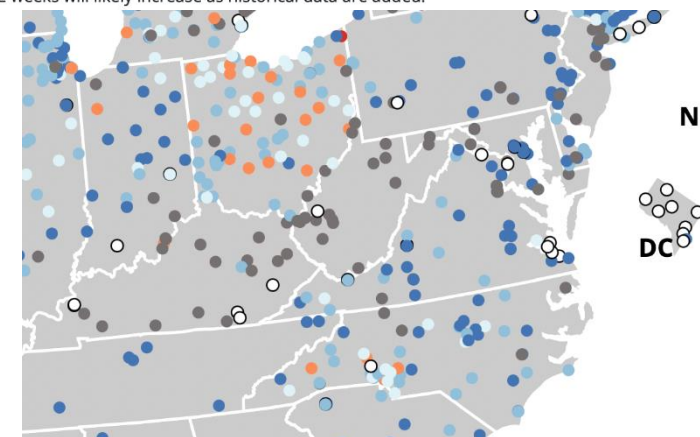
Wastewater provides a coarse estimate of COVID-19 levels in communities and can be a good indicator of activity levels



Percent of sites in each percent change category over time, United States*



*The darker bar on the right side of the figure highlights the most recent 2 weeks, which may be subject to reporting delays. The actual number of sites reporting during those 2 weeks will likely increase as historical data are added.

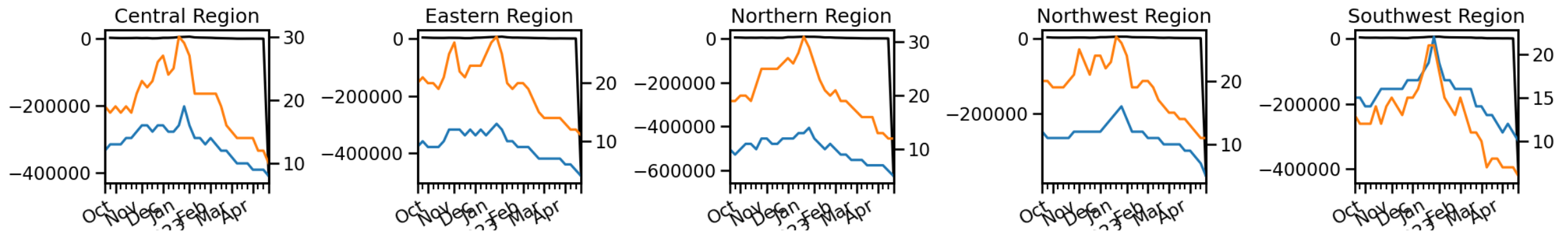
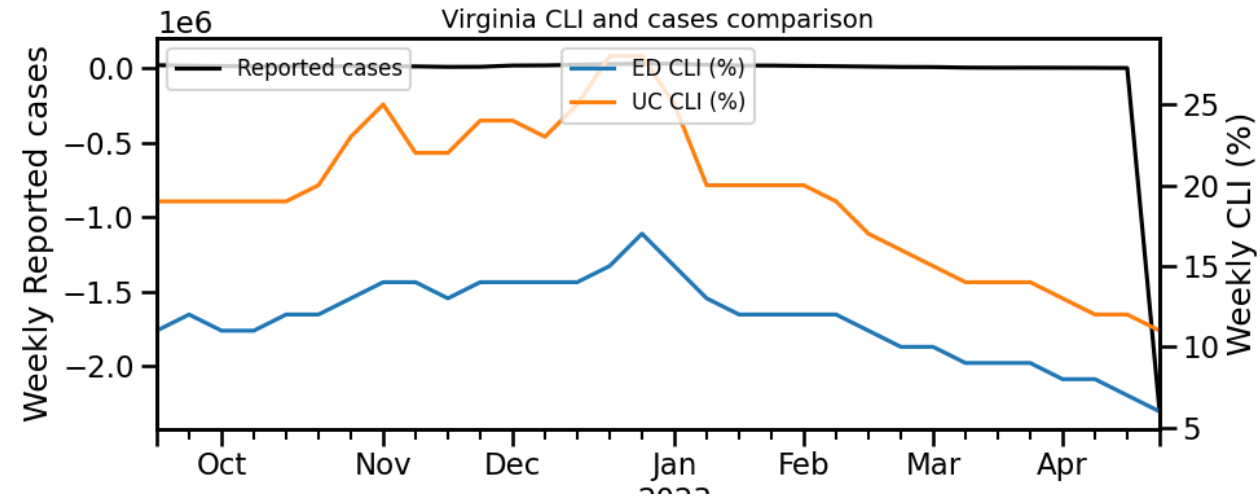


Data Source: [CDC Data Tracker](https://data.cdc.gov/)

COVID-like Illness Activity

COVID-like Illness (CLI) gives a measure of COVID transmission in the community

- Emergency Dept (ED) based CLI is more correlated with case reporting
- Urgent Care (UC) is a leading indicator but may be influenced by testing for other URIs
- Case reporting anomaly disturbs left y-axis
- **Levels continue to decline into lowest levels in past 8 months**



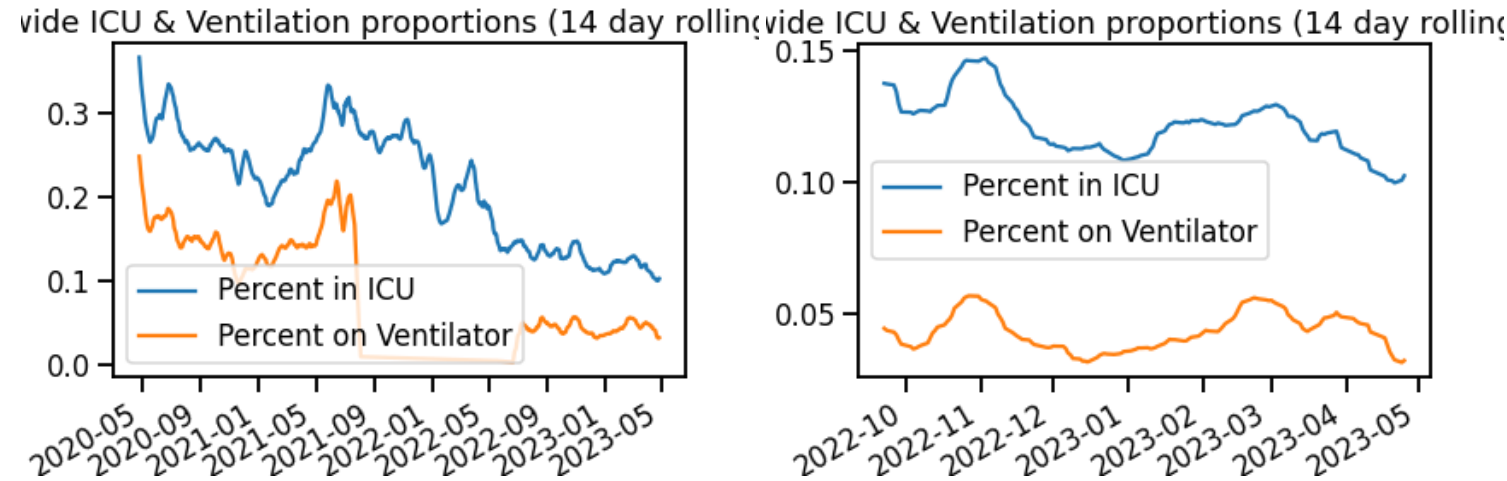
COVID-19 Severity Metrics

Hospitalizations and Severe Outcomes

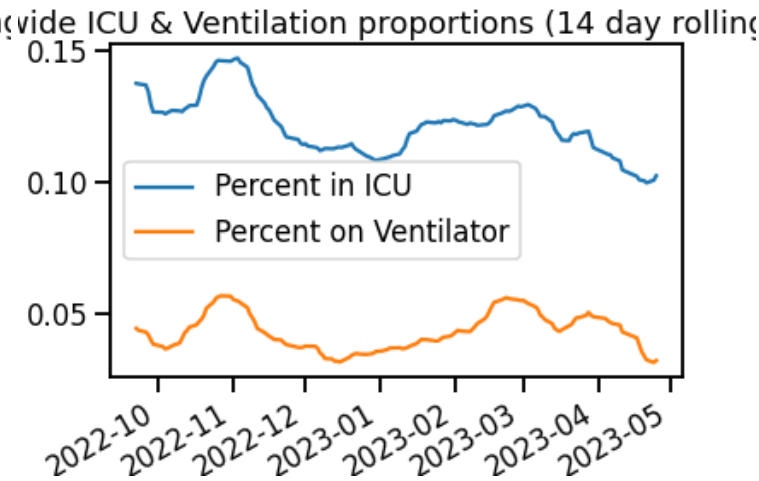
Proportion of most severe outcomes decreasing among those who are hospitalized

- ICU has declined from ~20% of hospitalized to 10-15% since initial Omicron wave
- Levels remain near all-time lows, though have entered an oscillating plateau
- Regional trends are similar to state levels

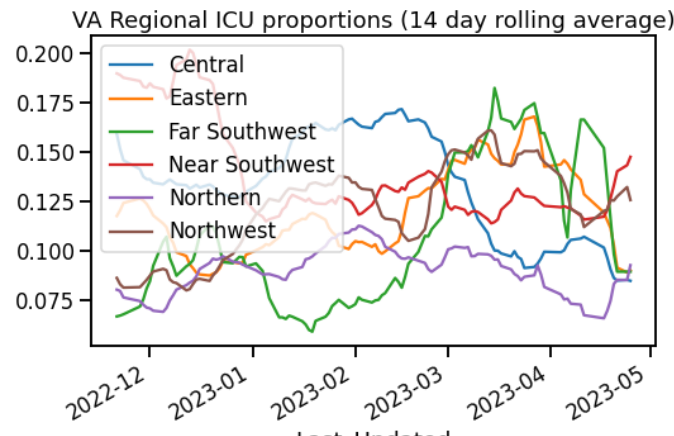
Virginia-wide – full pandemic



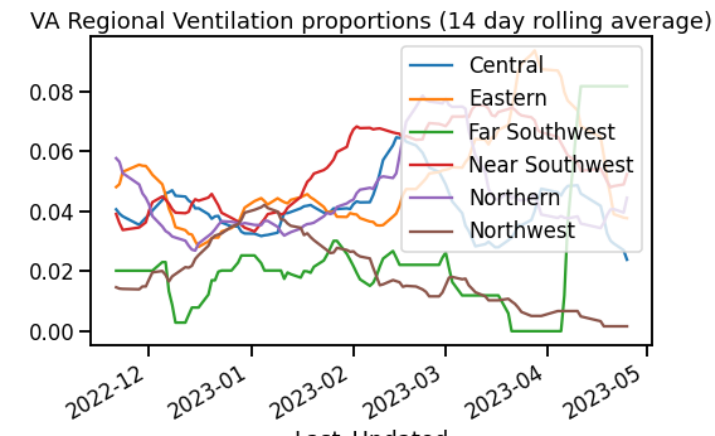
Virginia-wide – recent



Virginia Regional ICU percent



Virginia Regional Ventilation %



Hospitalizations in VA by Age

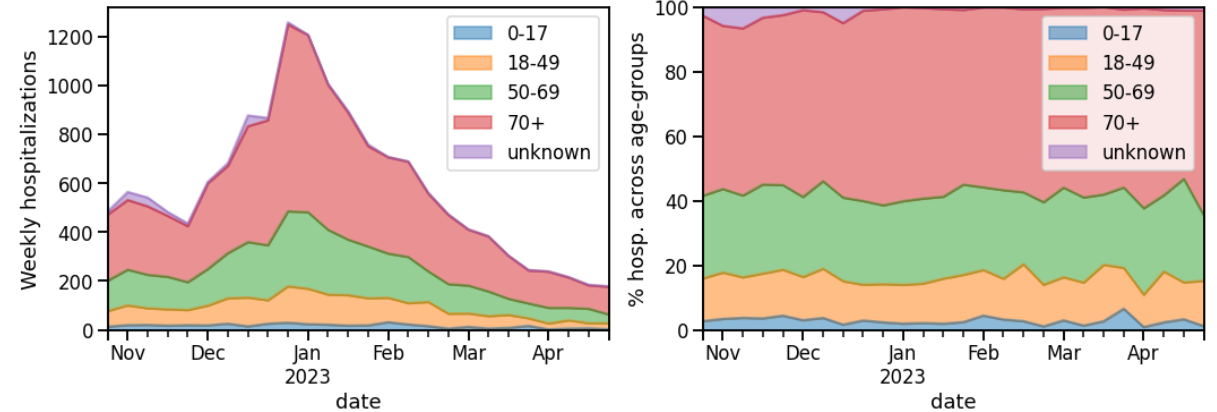
Age distribution in hospitals relatively stable

- Uptick in hospitalizations mostly fueled by 70+ age group
- Pediatric hospitalizations level off after uptick last week

Note: These data are lagged and based on HHS hospital reporting

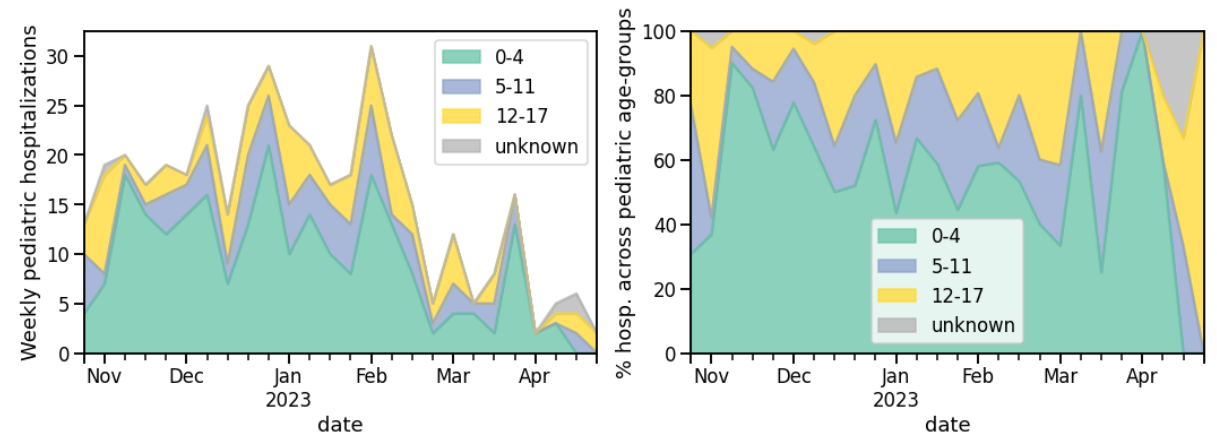
Virginia Hospitalizations by Age (all ages)

Hospitalizations - VA



Pediatric Hospitalizations by Age (0-17yo)

Pediatric hospitalizations - VA



COVID-19 Spatial Epidemiology

Zip code level weekly Case Rate (per 100K)

Case Rates in the last week by zip code

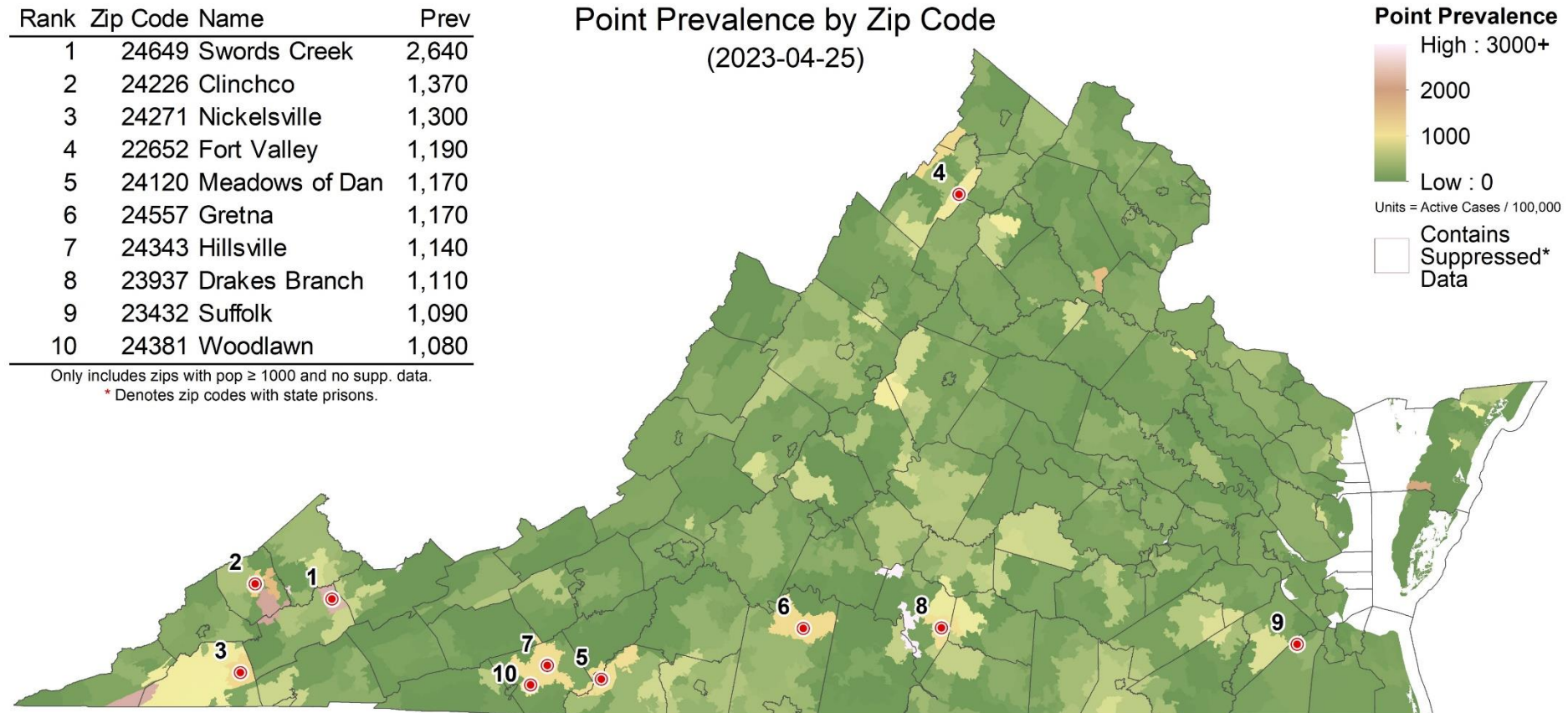
- Note the new color scale (max is half of last week: 0-3,000 versus 0-6,000)
- Only one major zip code reports a prevalence above 2,000 per 100k
- No prisons in top 10.
- High prevalence values are primarily found in SWVA and Southside.
- Some counts are low and suppressed to protect anonymity. They are shown with a red outline.

Rank	Zip Code	Name	Prev
1	24649	Swords Creek	2,640
2	24226	Clinchco	1,370
3	24271	Nickelsville	1,300
4	22652	Fort Valley	1,190
5	24120	Meadows of Dan	1,170
6	24557	Gretna	1,170
7	24343	Hillsville	1,140
8	23937	Drakes Branch	1,110
9	23432	Suffolk	1,090
10	24381	Woodlawn	1,080

Only includes zips with pop ≥ 1000 and no supp. data.

* Denotes zip codes with state prisons.

Point Prevalence by Zip Code
(2023-04-25)



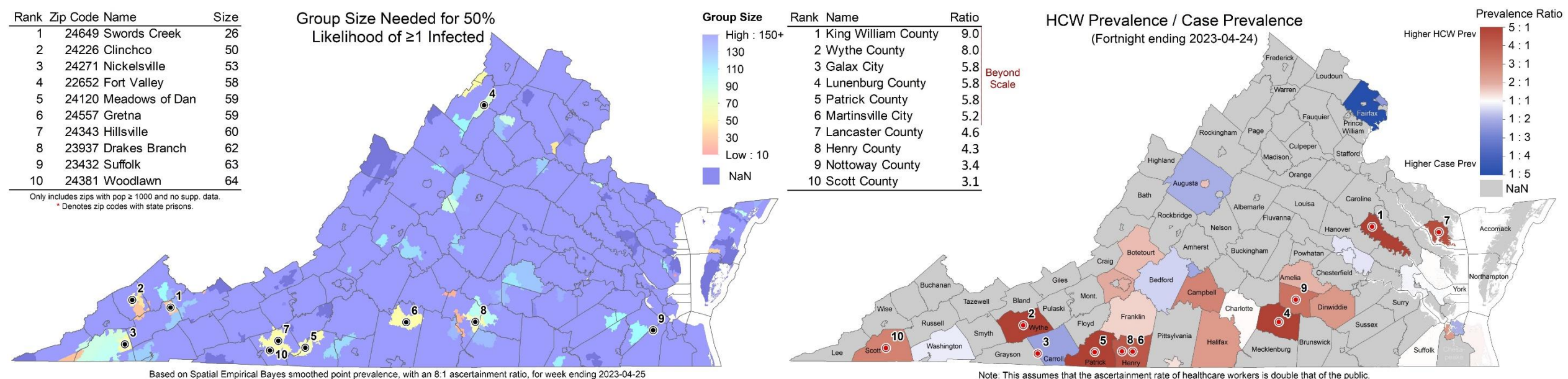
Based on Spatial Empirical Bayes smoothed point prevalence, with an 8:1 ascertainment ratio, for week ending 2023-04-25

Note: New Color Scale

Risk of Exposure by Group Size and HCW prevalence

Case Prevalence in the last week by zip code used to calculate risk of encountering someone infected in a gathering of randomly selected people

- **Group Size:** Assumes **8 undetected infections** per confirmed case (ascertainment rate from recent seroprevalence survey) and shows minimum size of a group with a 50% chance an individual is infected by zip code (e.g., in a group of 26 in Sword's Creek, there is a 50% chance someone will be infected).
- **HCW ratio:** Case rate among health care workers (HCW) in the last fortnight using patient facing health care workers as the numerator / population's case prevalence. High HCW ratios are concentrated in the South.

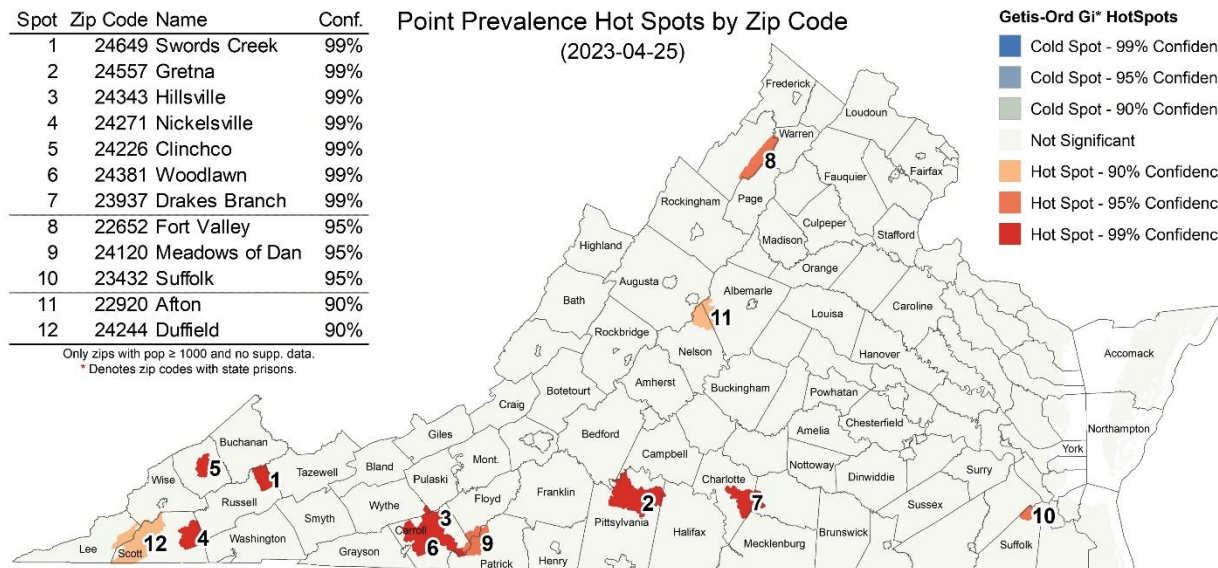


Current Hot-Spots

Case rates that are significantly different from neighboring areas or model projections

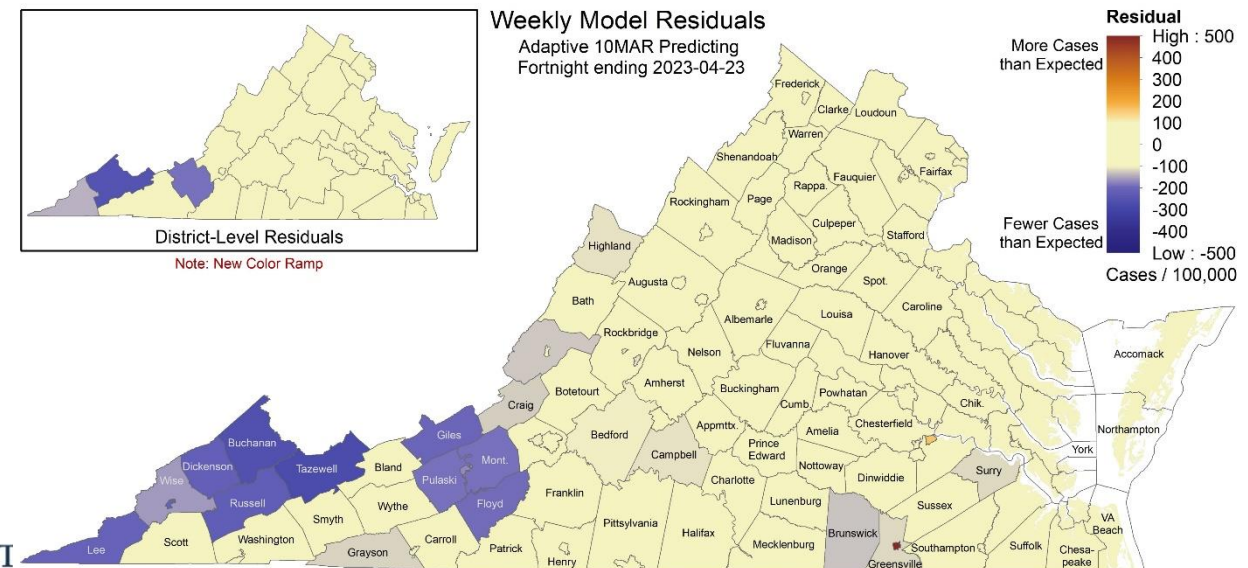
- **Spatial:** Getis-Ord Gi* based hot spots compare clusters of zip codes with weekly case prevalence higher than nearby zip codes to identify larger areas with statistically significant deviations
- **Temporal:** The weekly case rate (per 100K) projected last month compared to those observed by county, which highlights temporal fluctuations that differ from the model's projections.
- Low prevalence rates result in sporadic hot spots, mostly concentrated in the Southwest. Fortnightly model residuals show no autocorrelation, but overpredictions in New River, Lenowisco, and Cumberland Plateau.

Spatial Hotspots



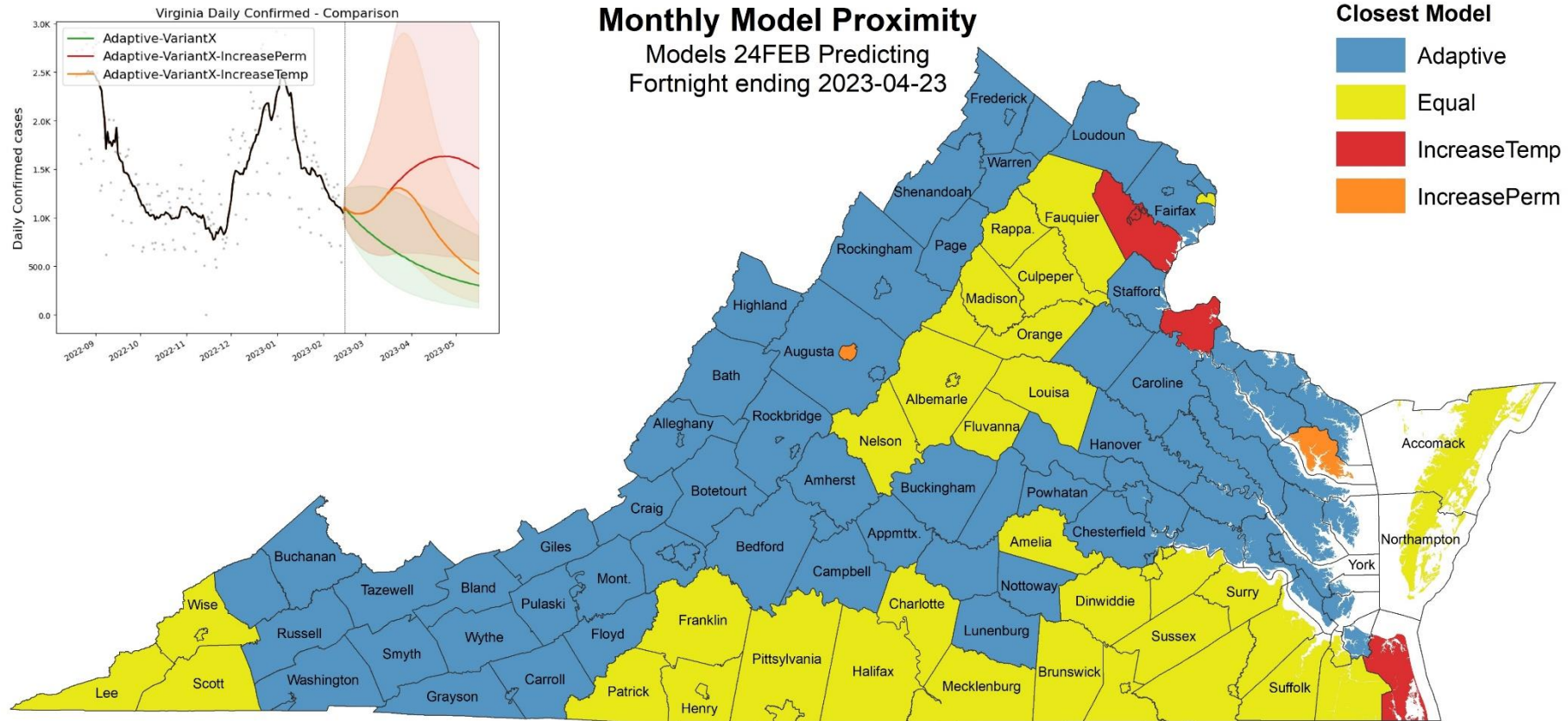
Based on Global Empirical Bayes smoothed point prevalence for week ending 2023-04-25.

Clustered Temporal Hotspots



28-Apr-23

Which scenario from two months ago did each county track closest?

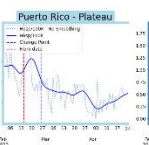
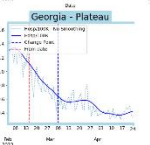
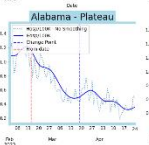
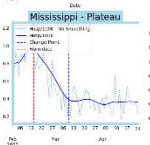
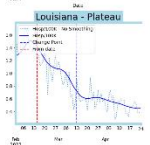
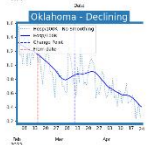
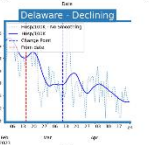
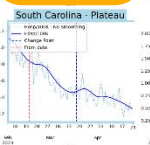
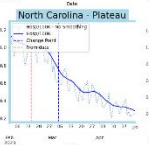
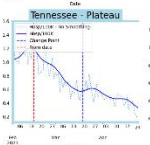
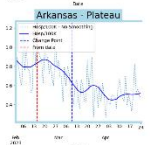
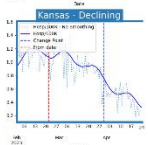
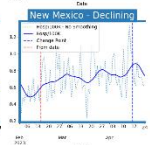
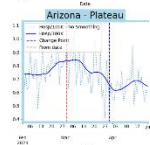
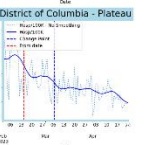
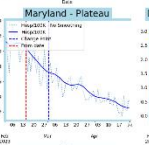
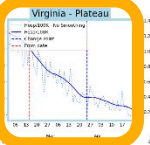
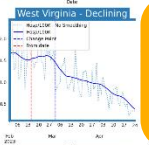
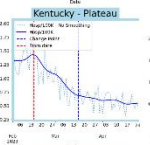
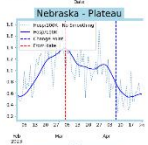
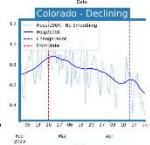
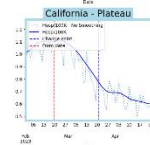
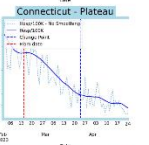
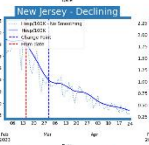
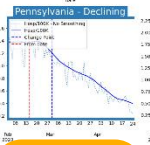
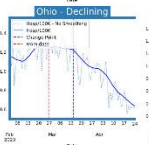
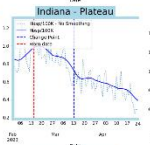
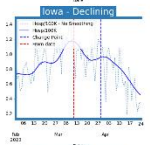
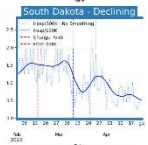
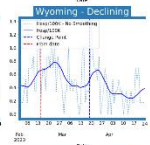
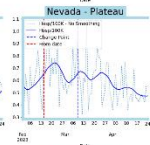
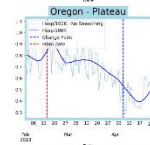
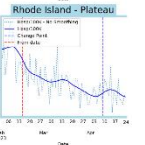
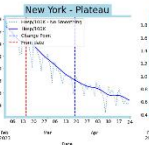
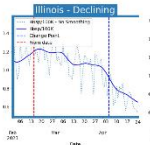
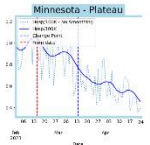
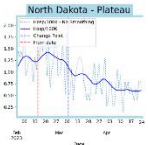
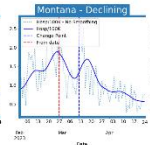
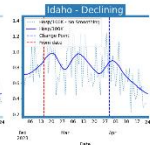
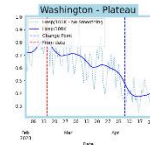
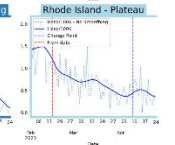
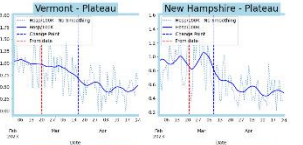
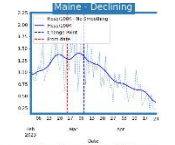
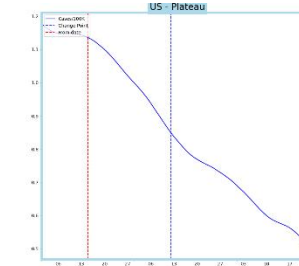
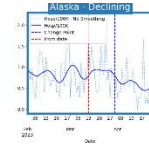


- Fortnightly projections separate the scenarios more clearly and reveal overall patterns.
- Most counties still track the Adaptive (current course) scenario from late February.
- Only four counties tracked the IncreasedTemp and IncreasedPerm scenarios better.

COVID-19 Broader Context

United States Hospitalizations

Status	Number of States	
	Current Week	Last Week
Declining	22	(20)
Plateau	31	(32)
Slow Growth	0	(0)
In Surge	0	(1)

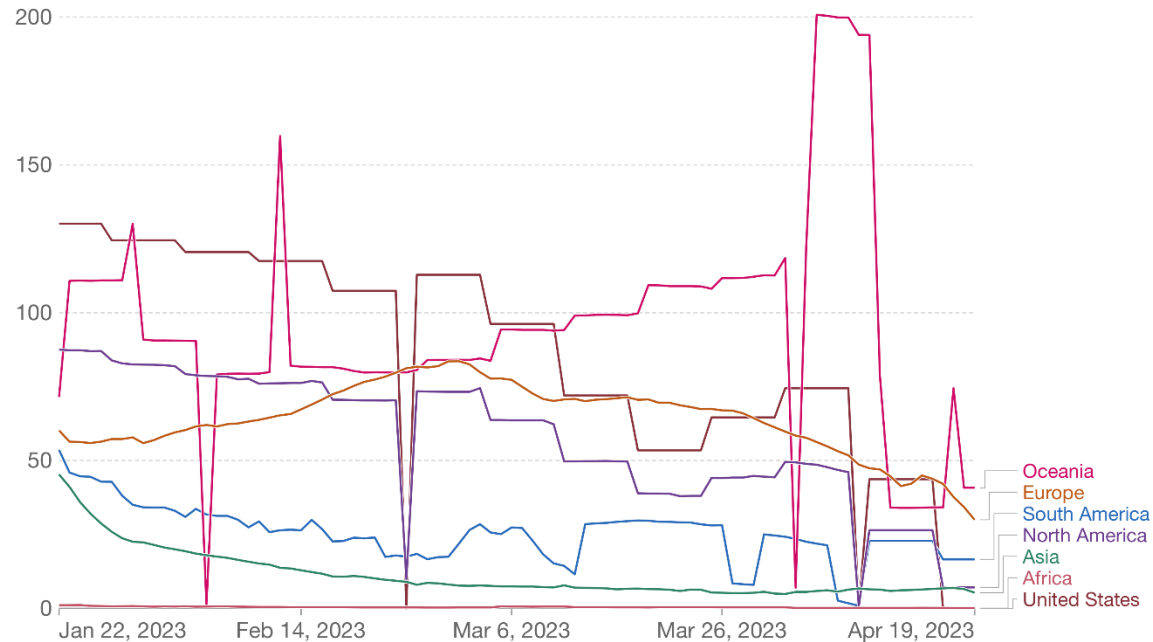


Around the World – Various trajectories

Confirmed cases

Daily new confirmed COVID-19 cases per million people

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.



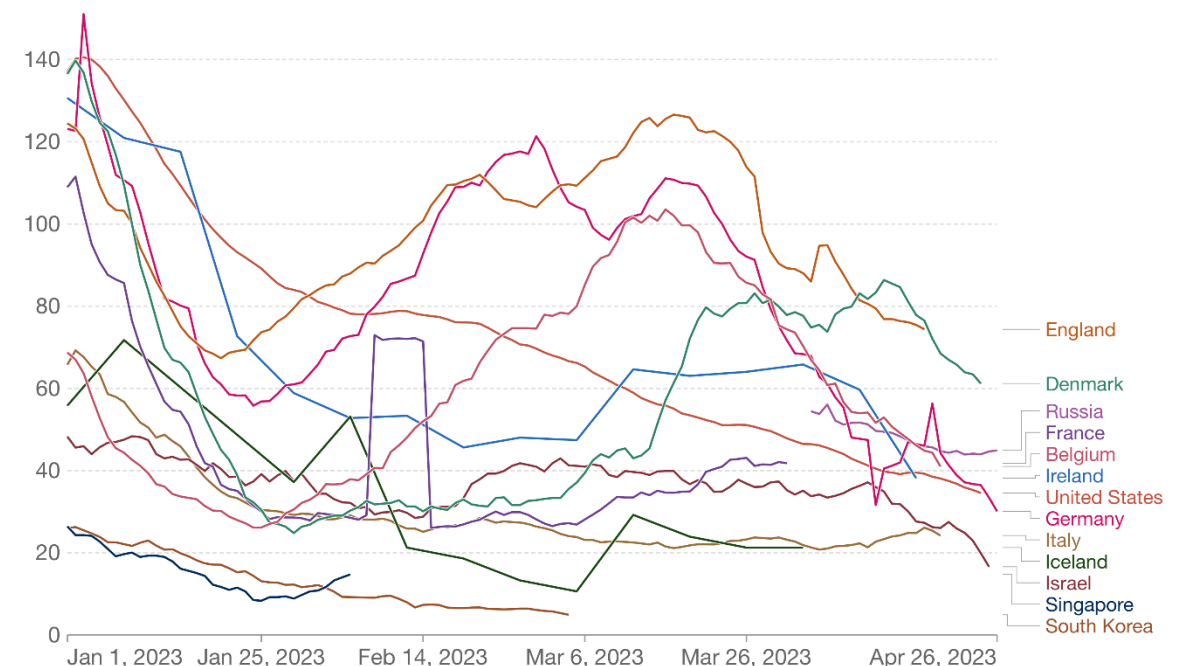
Source: WHO COVID-19 Dashboard

CC BY

Hospitalizations

Weekly new hospital admissions for COVID-19 per million people

Weekly admissions refer to the cumulative number of new admissions over the previous week.



Source: Official data collated by Our World in Data

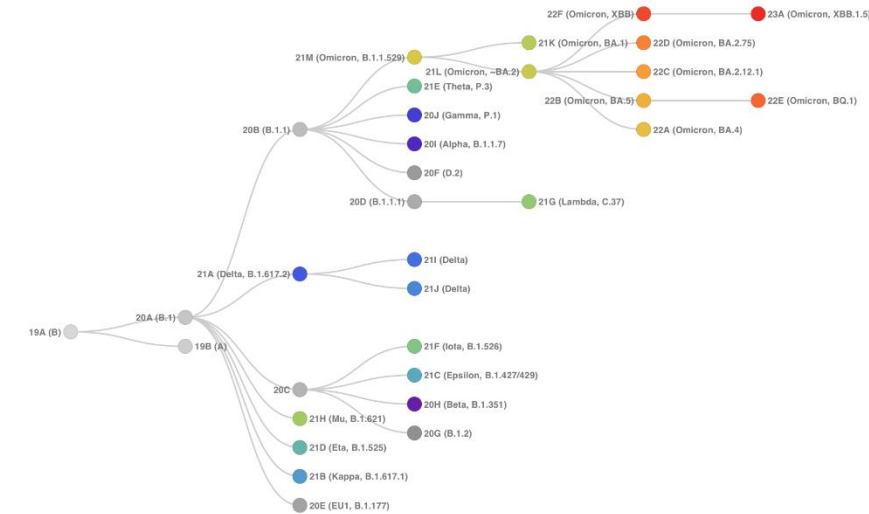
CC BY

COVID-19 Genomic Update

SARS-CoV2 Variants of Concern

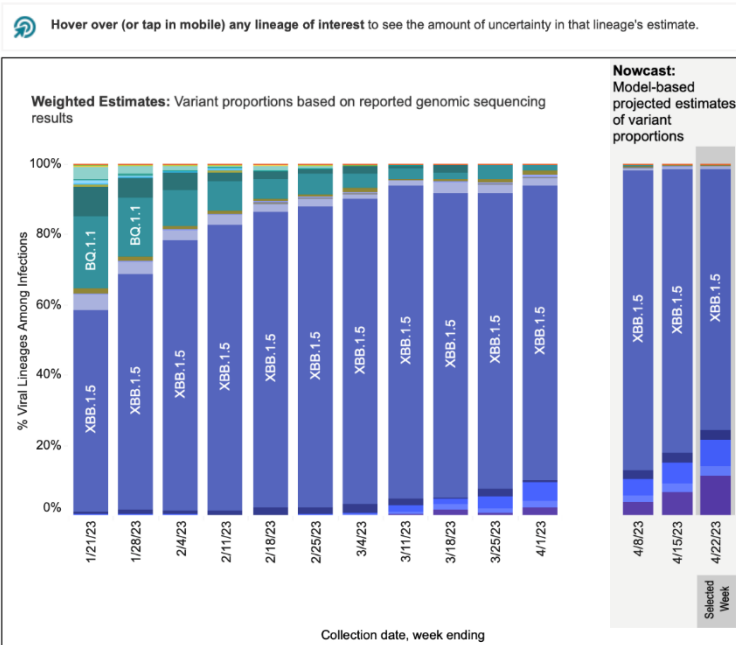
Emerging variants have potential to continue to alter the future trajectories of pandemic and have implications for future control

- **Variants have been observed to:** increase transmissibility, increase severity (more hospitalizations and/or deaths), and limit immunity provided by prior infection and vaccinations



Weighted and Nowcast Estimates in HHS Region 3 for Weeks of 1/15/2023 – 4/22/2023

Nowcast Estimates in HHS Region 3 for 4/16/2023 – 4/22/2023



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

WHO label	Lineage #	US Class	%Total	95%PI
Omicron	XBB.1.5	VOC	74.3%	66.8-80.6%
	XBB.1.16	VOC	11.1%	6.3-18.6%
	XBB.1.9.1	VOC	7.5%	5.4-10.3%
	XBB.1.9.2	VOC	3.0%	2.2-4.1%
	XBB.1.5.1	VOC	2.7%	1.9-3.9%
	XBB	VOC	1.0%	0.4-2.5%
	BQ.1.1	VOC	0.2%	0.1-0.2%
	CH.1.1	VOC	0.1%	0.1-0.2%
	FD.2	VOC	0.1%	0.0-0.2%
	BQ.1	VOC	0.0%	0.0-0.0%
	BN.1	VOC	0.0%	0.0-0.0%
	BA.5	VOC	0.0%	0.0-0.0%
	BA.2.75	VOC	0.0%	0.0-0.0%
	BF.7	VOC	0.0%	0.0-0.0%
	BA.2.75.2	VOC	0.0%	0.0-0.0%
	BA.5.2.6	VOC	0.0%	0.0-0.0%
	BA.2	VOC	0.0%	0.0-0.0%
	BF.11	VOC	0.0%	0.0-0.0%
	BA.4.6	VOC	0.0%	0.0-0.0%
Other	Other*		0.0%	0.0-0.0%

<https://clades.nextstrain.org>

Omicron Updates*

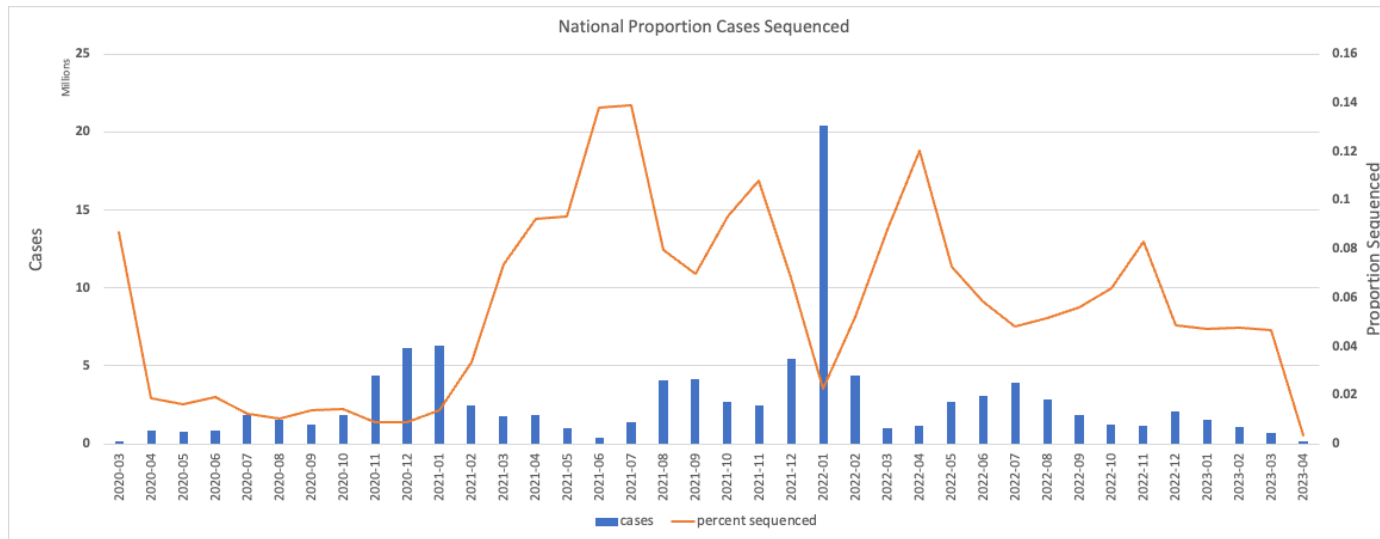
- XBB.1.5 proportions have fallen to 75%
- XBB.1.16.1 continues to grow to 11% from 7% last week
- XBB.1.9.X now at 10% up from 4% last week
- XBB.1.5.1 steady at ~3%

*percentages are CDC NowCast Estimates

SARS-CoV2 Sequencing

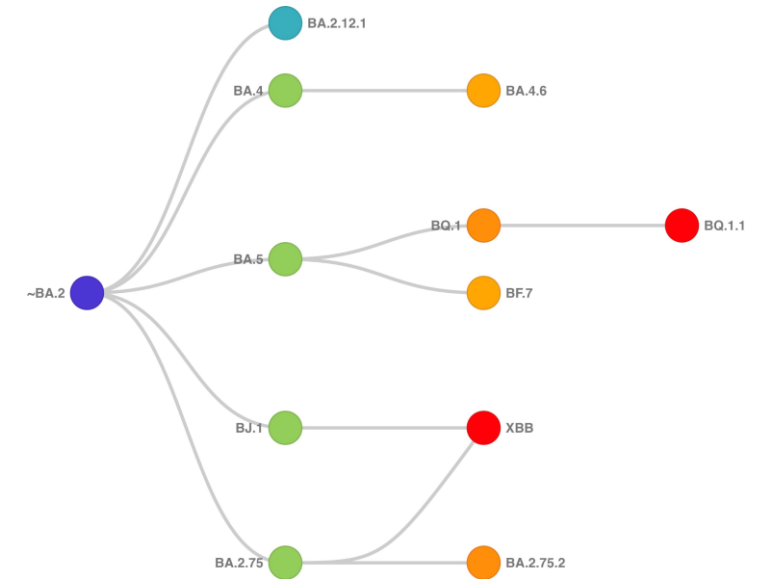
Emerging variants have potential to continue to alter the future trajectories of pandemic and have implications for future control

- Current proportion of cases being sequenced is on a downward trend nationally.
- Leveraging additional resources such as wastewater sequencing and adopting into existing infrastructure will be an important supplement



28-Apr-23

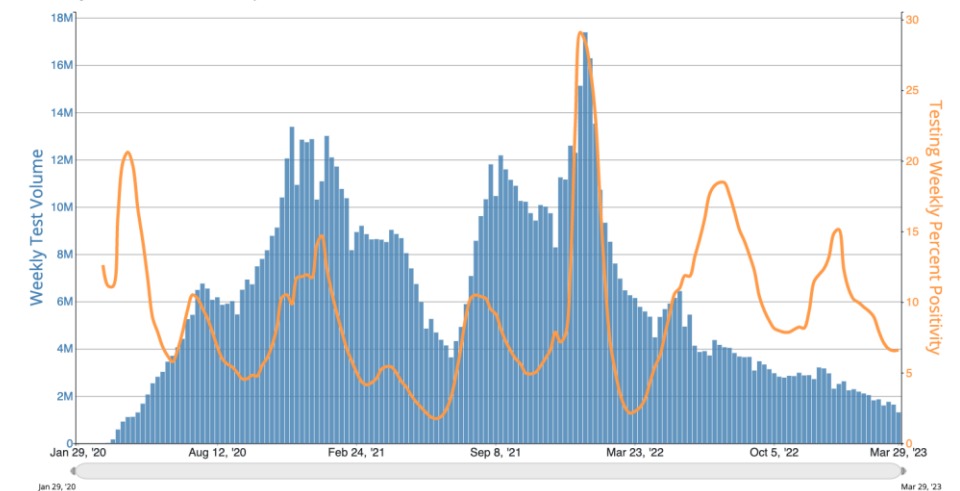
<https://cov-spectrum.org/explore/United%20States/AllSamples/Past6M/sequencing-coverage>



<https://clades.nextstrain.org>

United States

Weekly Nucleic Acid Amplification Tests (NAATs) Performed and COVID-19 Nucleic Acid Amplification Tests (NAATs) 7-day Percent Positivity in The United States Reported to CDC



https://covid.cdc.gov/covid-data-tracker/#trends_7daytestresultsreported_7daytestingpositive_00

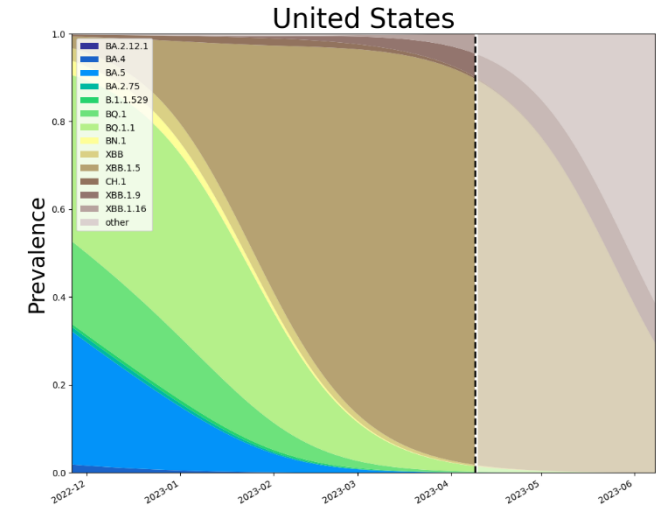
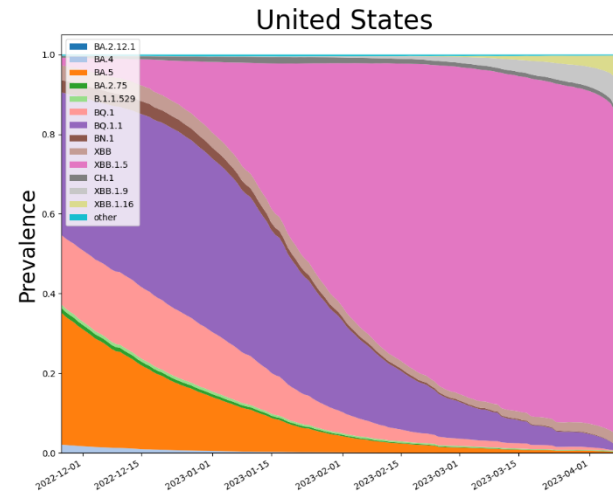
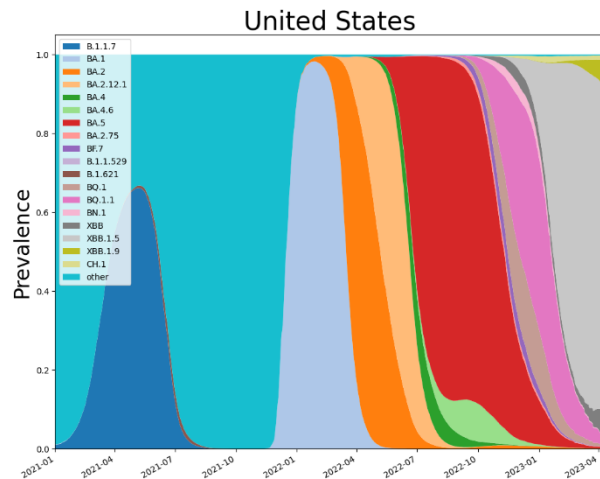
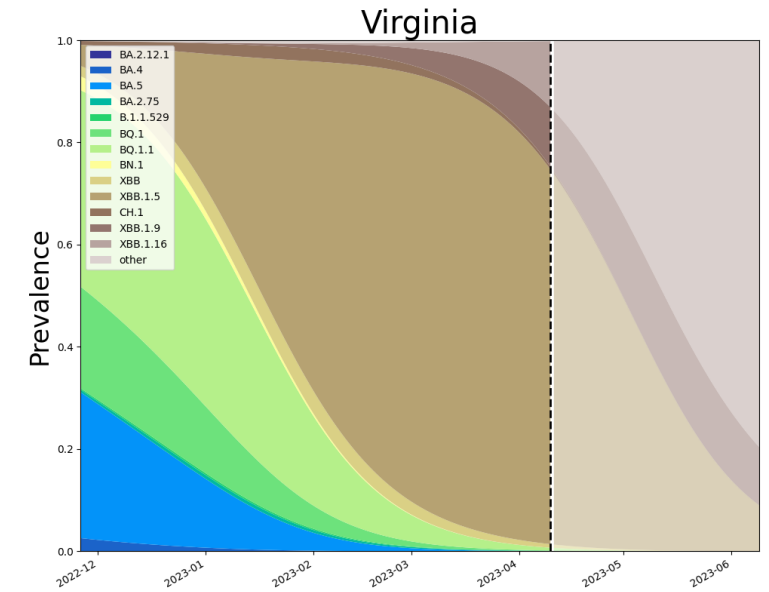
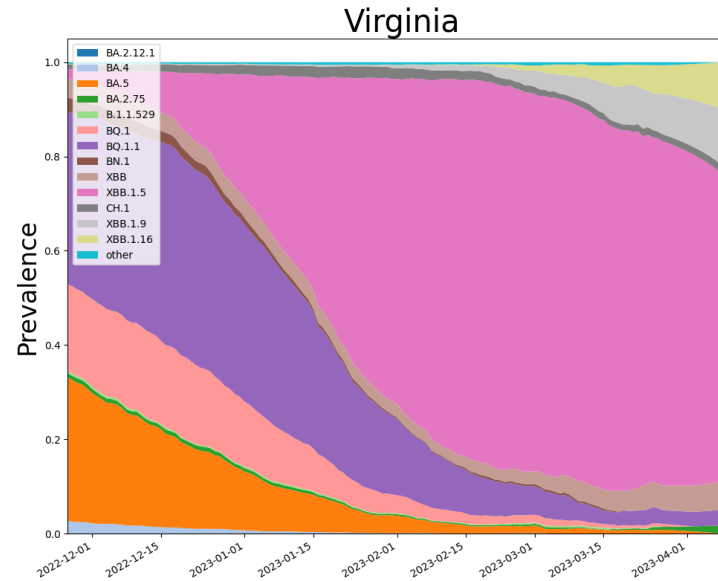
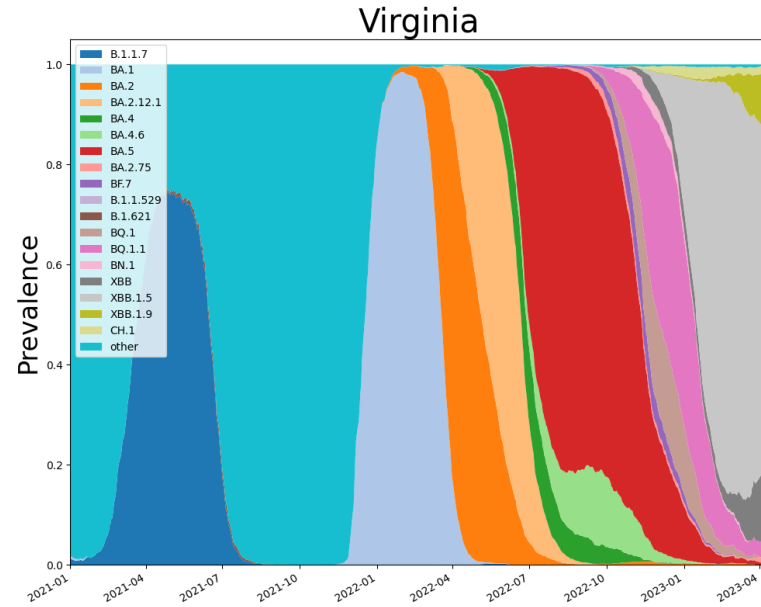
SARS-CoV2 Omicron Sub-Variants

As detected in whole genomes in public repositories

covSPECTRUM

Enabled by data from GISAID

VoC Polynomial Fit Projections



Note:
Everything
from dotted
line forward is
a projection.

28-Apr-23

SARS-CoV2 Omicron Sub-Variants

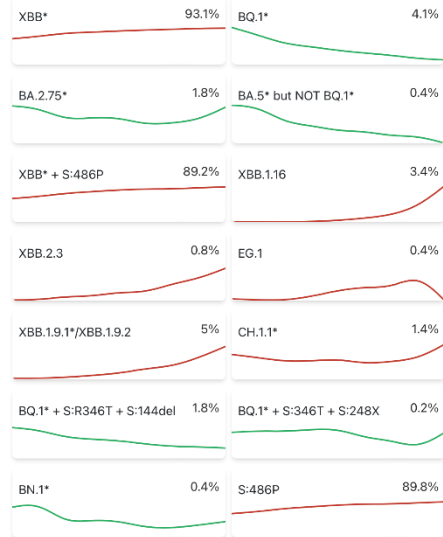
COV-spectrum

“Editor’s choice” Variants to watch

Known variants

Which variant would you like to explore?

Editor's choice ▼

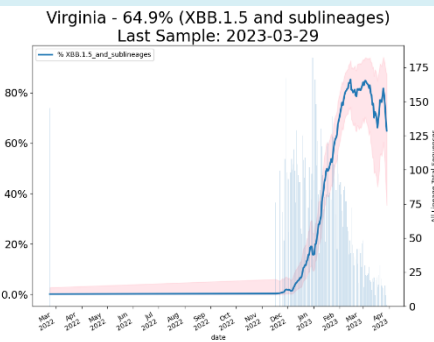
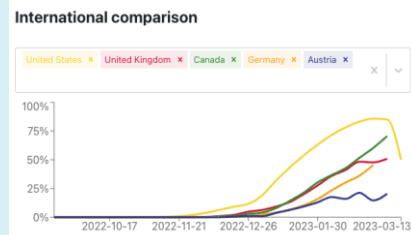
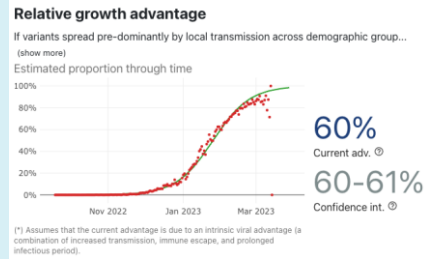


covSPECTRUM

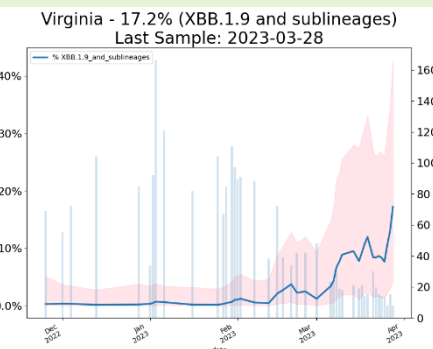
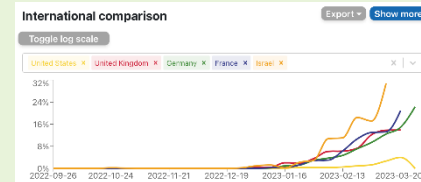
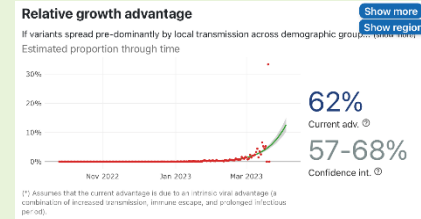
Enabled by data from **GISAID**

28-Apr-23

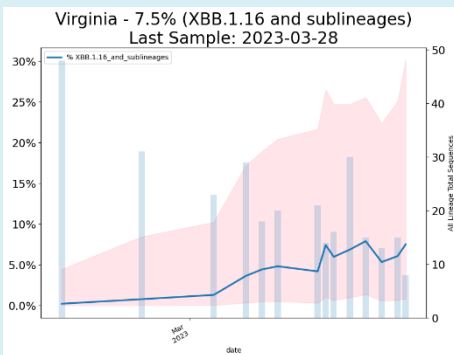
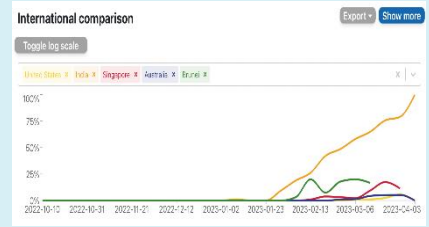
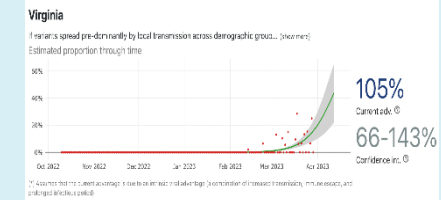
XBB.1.5



XBB.1.9*



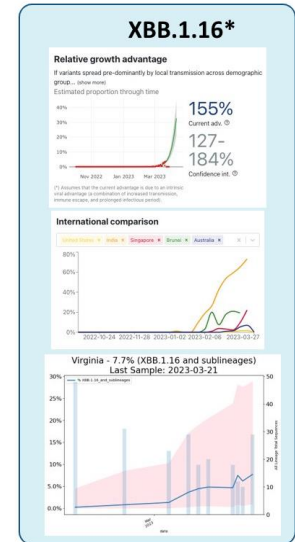
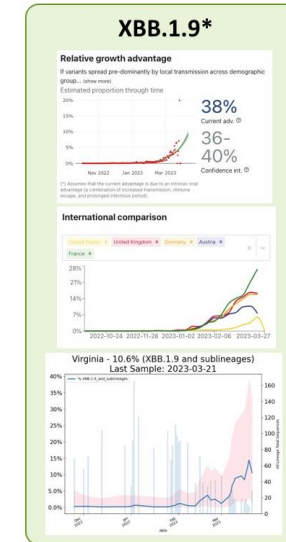
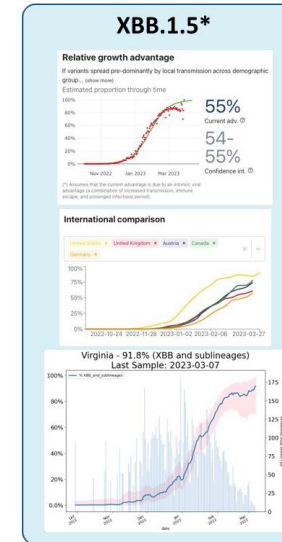
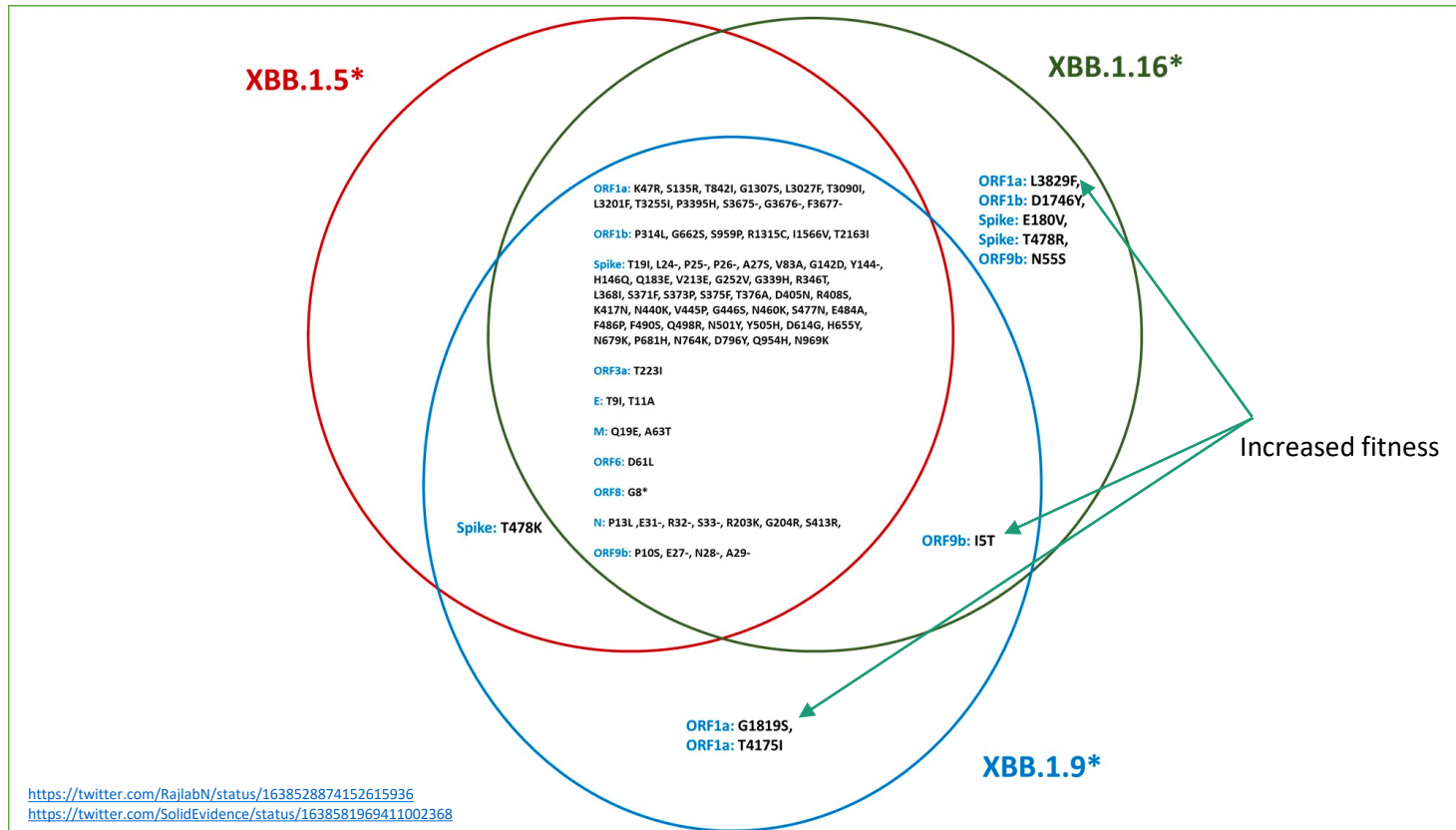
XBB.1.16*



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BIOCOMPLEXITY INSTITUTE

SARS-CoV2 Omicron Sub-Variants



covSPECTRUM

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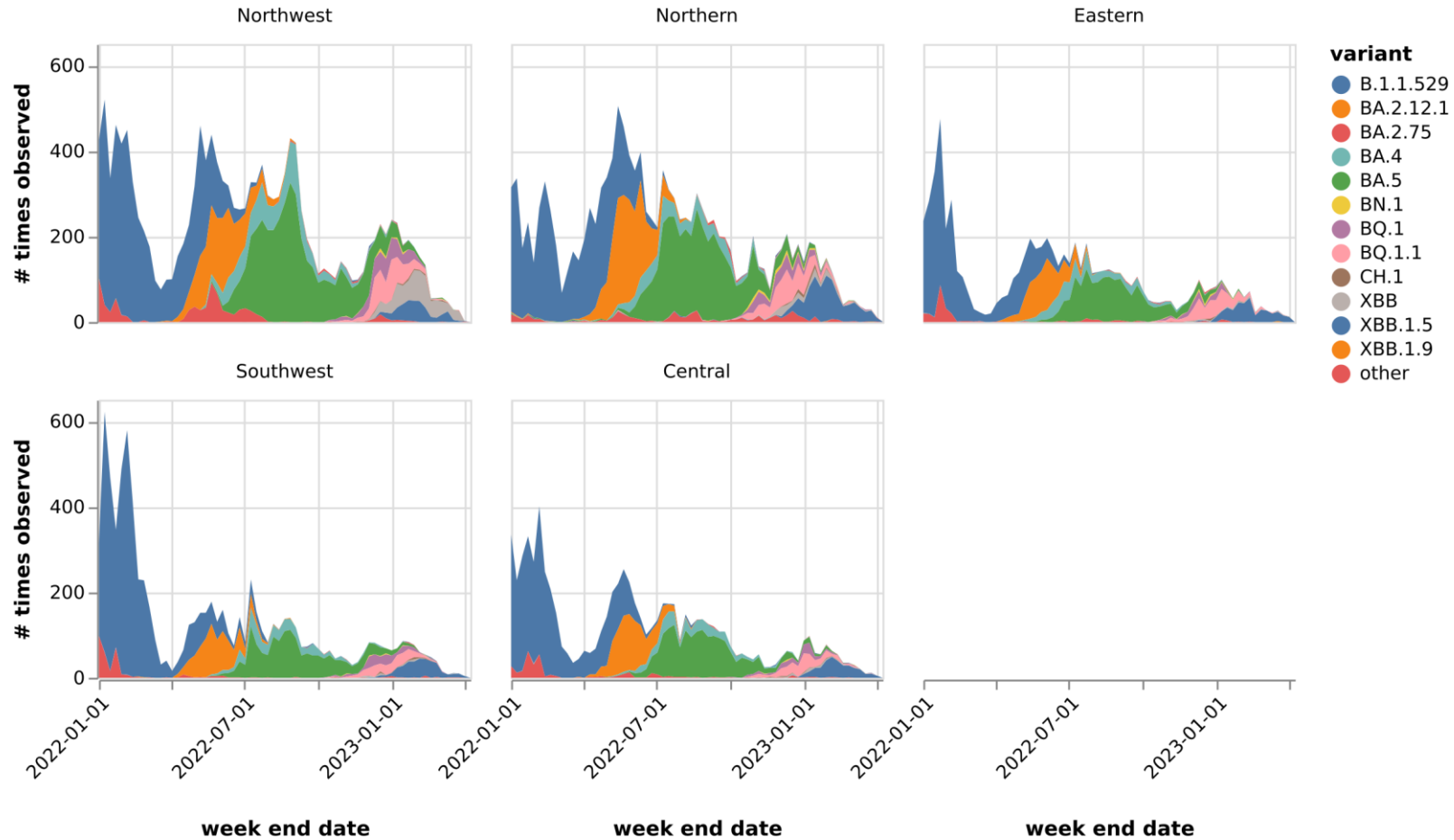
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UNIVERSITY of VIRGINIA

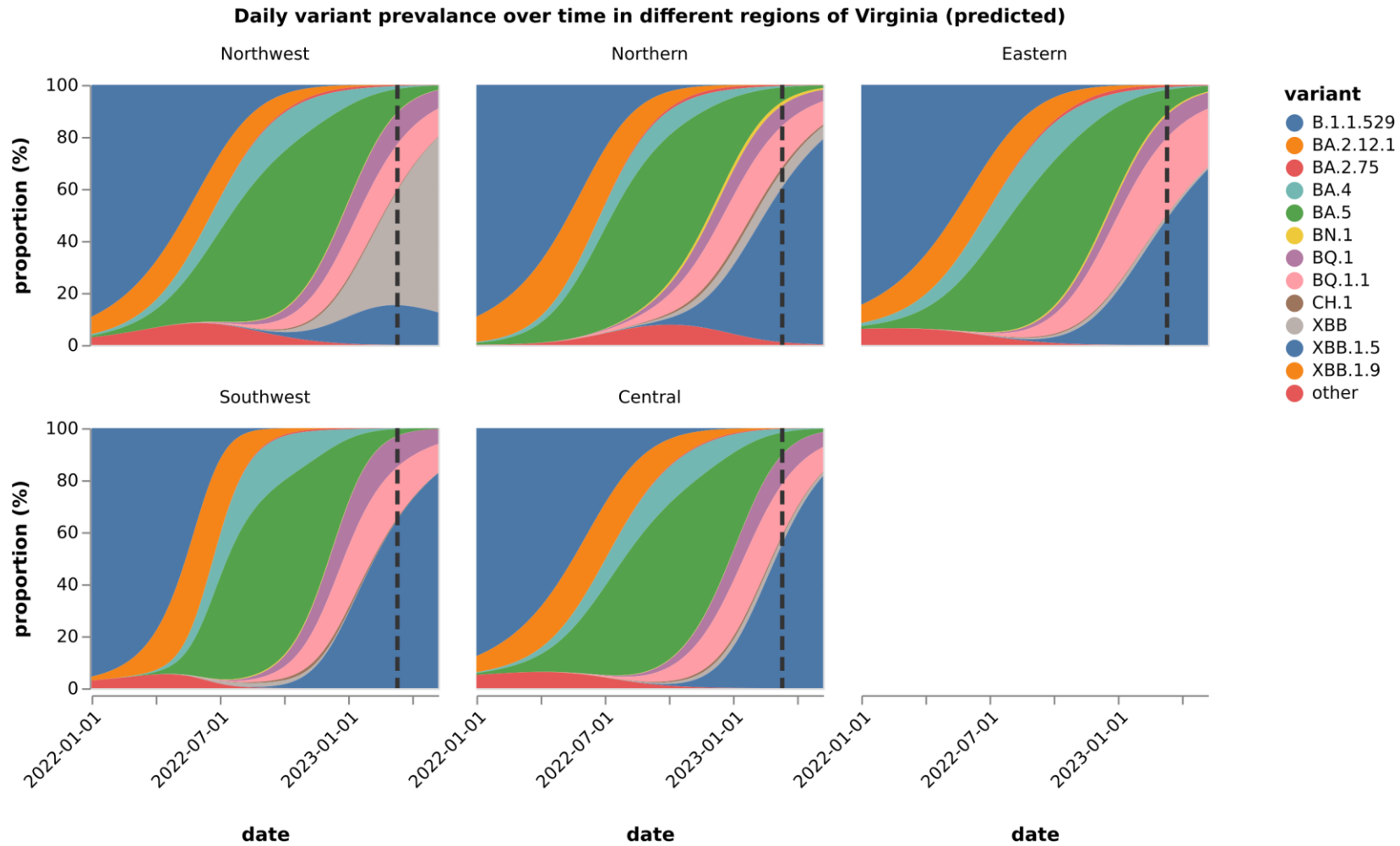
BIOCOMPLEXITY INSTITUTE

SARS-CoV2 Omicron Sub-Variants

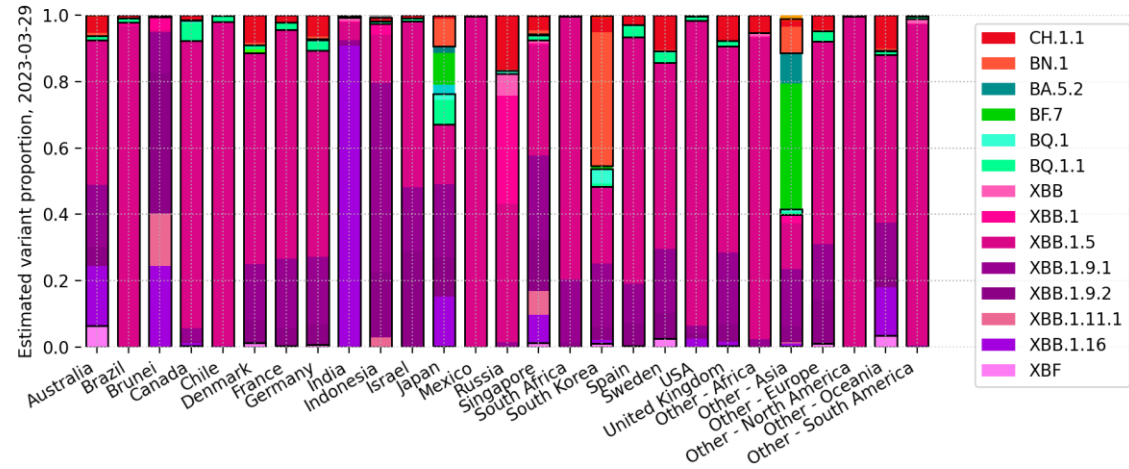
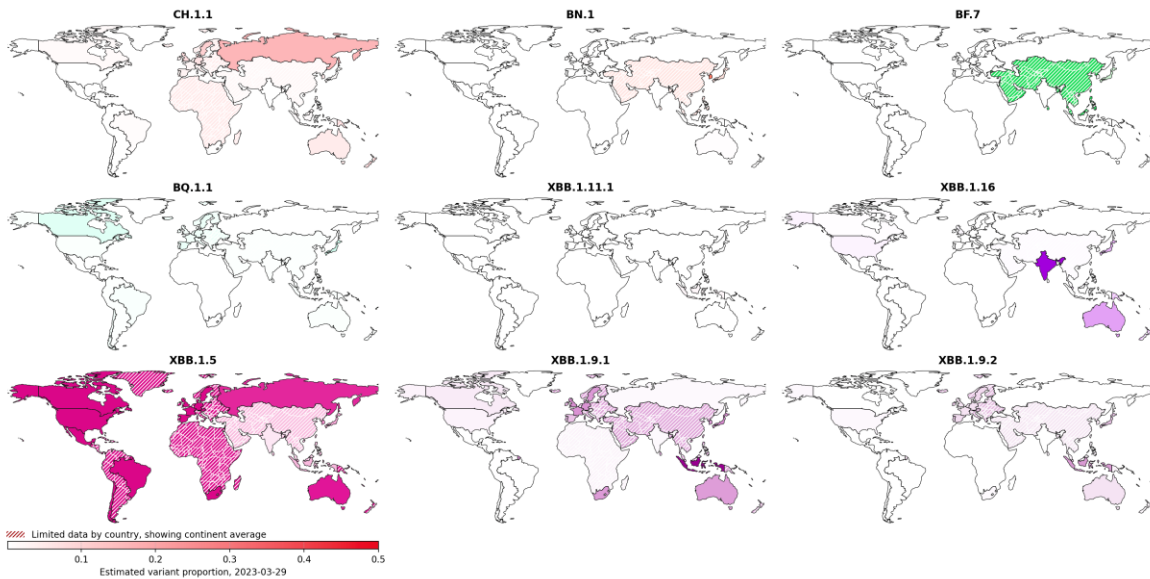
Weekly variant count observations over time in different regions of Virginia



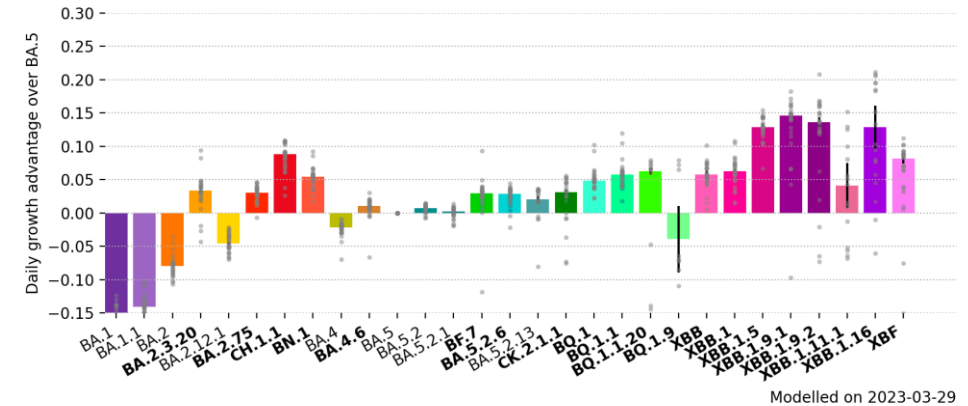
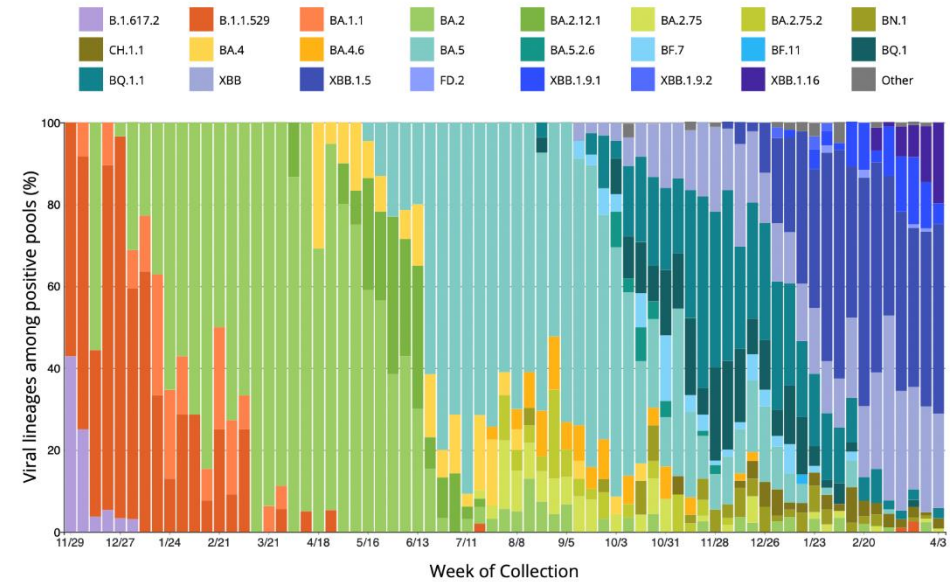
SARS-CoV2 Omicron Sub-Variants



Global SARS-CoV2 Variant Status

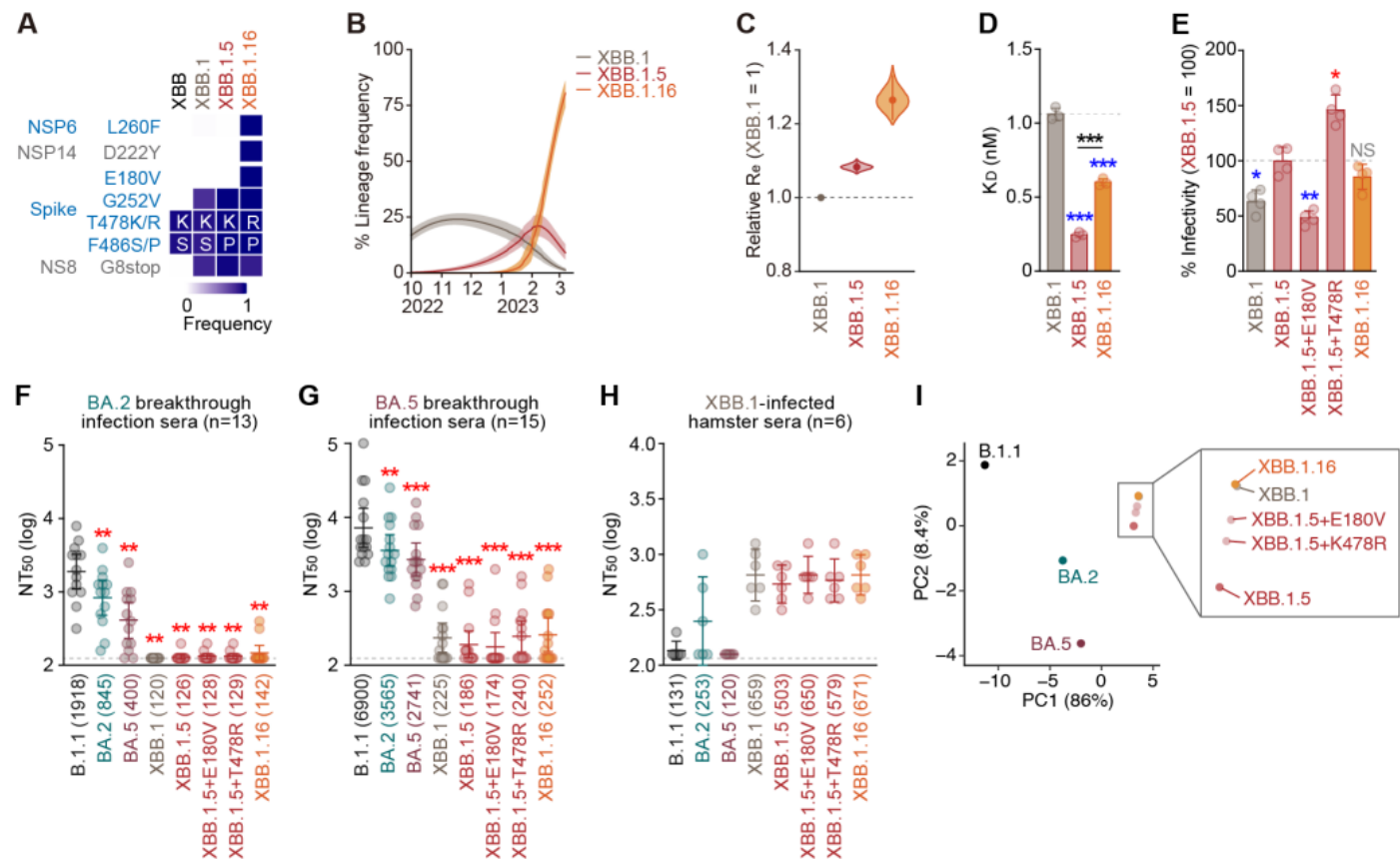


Variants Detected, by Collection Week



Pandemic Pubs (April 19th, 2023)

1. XBB.1.16 shows a similar resistance profile to XBB.1 and XBB.1, in that it is resistant to a variety of anti-SARS-CoV-2 antibodies from breakthrough infections. Scientists suggest this parity indicates it's growth advantage may come from some other transmission property such as a change in antigenicity or in viral growth efficiency.

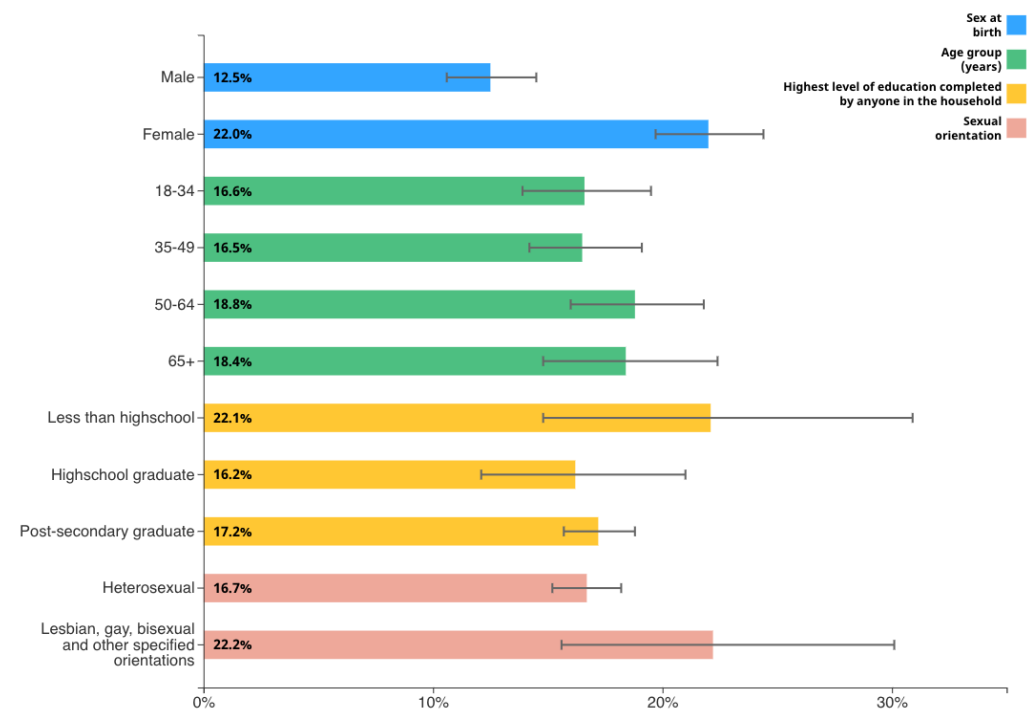


Scientists in Japan characterized the antibody neutralization of XBB.1.16. Panels F, G, H indicate as similar neutralization profile to other XBB variants relative to breakthrough infections. Panels D and E show the ACE2 binding affinity and infectivity respectively. A change in antigenicity relative to XBB 1.5 is inferred from a PCA of neutralization assays F and G (neutralization cartography).

Pandemic Pubs (April 05th, 2023)

1. Canadian national survey indicates that female sex, pre-existing comorbidities, more severe initial SARS-CoV-2 infection symptoms, obesity, identifying as a person with a disability, and being infected earlier in the COVID-19 pandemic were all associated with an increased risk of reporting longer-term symptoms, while having received more vaccine doses prior to infection was associated with a reduced risk of longer-term symptoms.

Figure 2: Percent of adults (aged 18+) self-reporting longer-term symptoms after a positive COVID-19 test or suspected infection by sociodemographics, Canada, January 2020 to August 2022



The Public Health Agency of Canada partnered with Statistics Canada to conduct the 2nd Canadian COVID-19 Antibody and Health Survey (CCAHS-2). The survey aimed to identify population subgroups disproportionately affected by longer-term symptoms and the risk and protective factors associated with experiencing longer-term symptoms. Respondents completed an electronic questionnaire between April 1, 2022 and August 31, 2022. Longer-term symptoms are defined as self-reported persistent, recurring, or new symptoms 3 or more months after a confirmed (via PCR or RAT) or suspected SARS-CoV-2 infection.

<https://health-infobase.canada.ca/covid-19/post-covid-condition/spring-2023-report.html>

Figure 7: Percent of adults (aged 18+) self-reporting longer-term symptoms after a positive COVID-19 test or suspected infection by time period of infection, Canada, January 2020 to August 2022

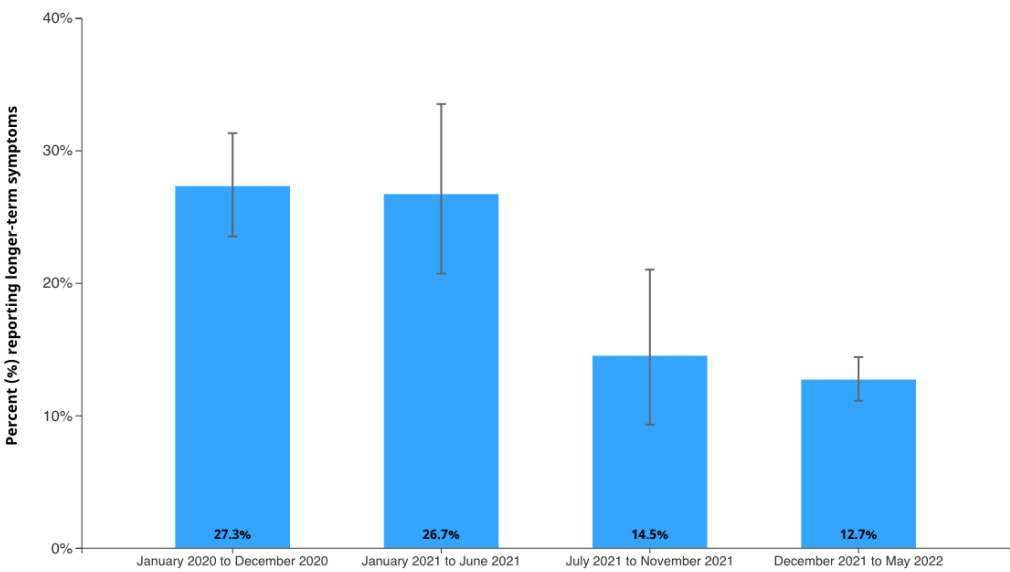
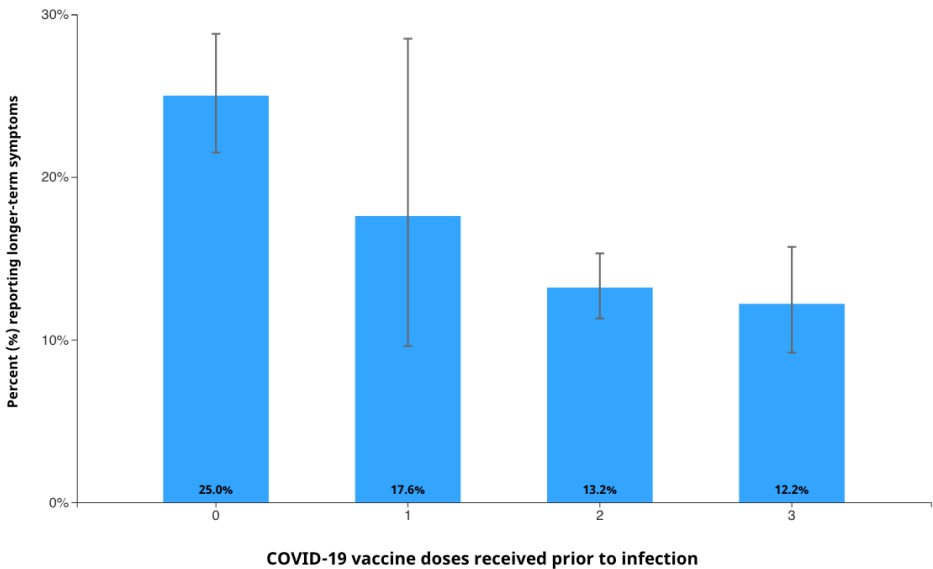
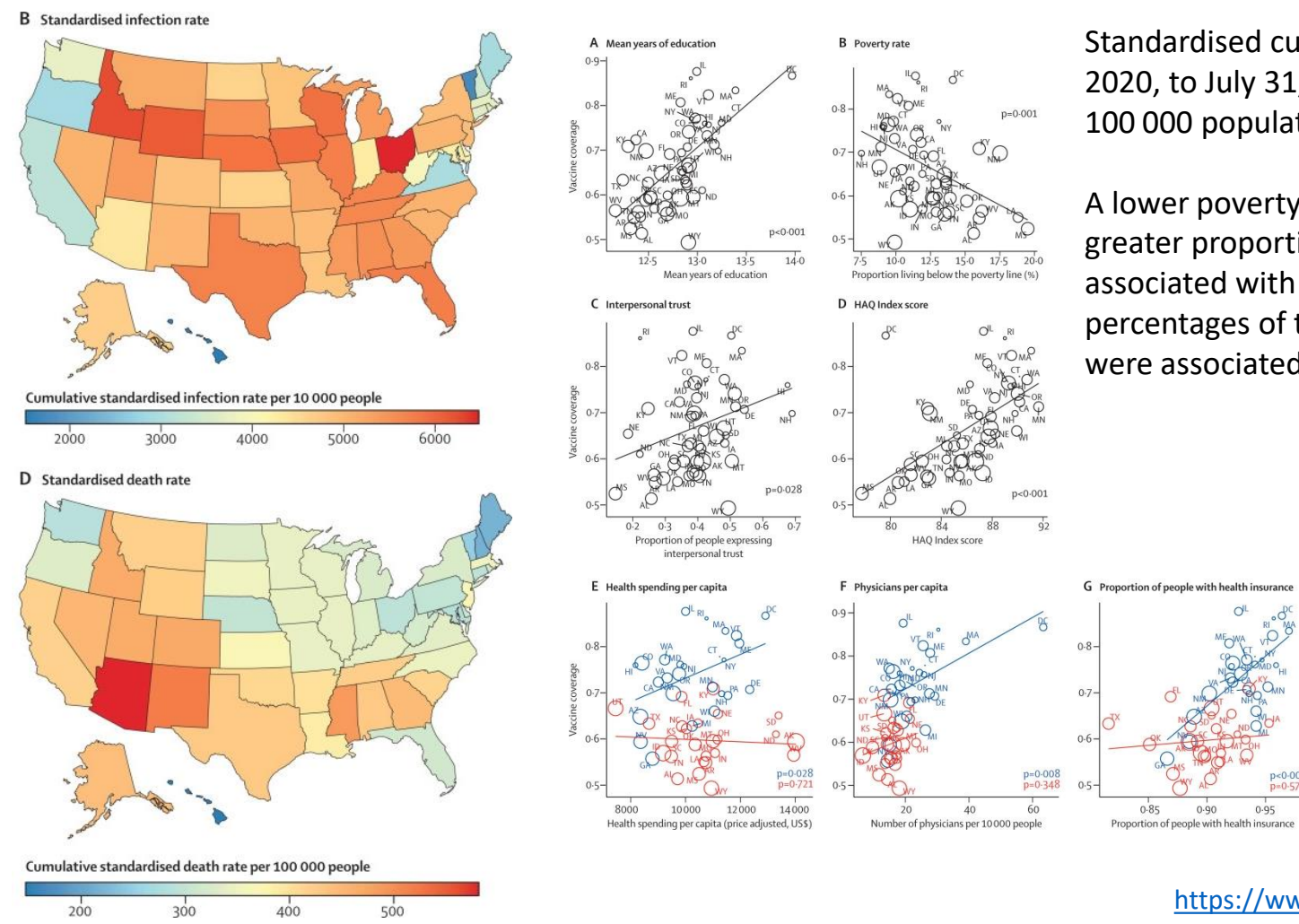


Figure 8: Percent of adults (aged 18+) self-reporting longer-term symptoms after a positive COVID-19 test or suspected infection by number of COVID-19 vaccine doses received prior to infection, Canada, January 2020 to August 2022



Pandemic Pubs (March 30th , 2023)

1. A comprehensive assessment of factors associated with standardized infection, hospitalization, and death rates were performed, including healthcare, social, and political factors that vary by state. Virginia's standardized death rate was lower than the national average. Many other outcomes and factors were assessed. [Lancet](#)



Standardised cumulative COVID-19 death rates for the period from Jan 1, 2020, to July 31, 2022 varied across the USA (national rate 372 deaths per 100 000 population [95% uncertainty interval [UI] 364–379]),

A lower poverty rate, higher mean number of years of education, and a greater proportion of people expressing interpersonal trust were statistically associated with lower infection and death rates, and states where larger percentages of the population identify as Black (non-Hispanic) or Hispanic were associated with higher cumulative death rates.

Access to quality health care (measured by the IHME's Healthcare Access and Quality Index) was associated with fewer total COVID-19 deaths and SARS-CoV-2 infections, but higher public health spending and more public health personnel per capita were not, at the state level. The political affiliation of the state governor was not associated with lower SARS-CoV-2 infection or COVID-19 death rates, but worse COVID-19 outcomes were associated with the proportion of a state's voters who voted for the 2020 Republican presidential candidate. State governments' uses of protective mandates were associated with lower infection rates, as were mask use, lower mobility, and higher vaccination rate, while **vaccination rates were associated with lower death rates**. State GDP and student reading test scores were not associated with state COVID-19 policy responses, infection rates, or death rates.

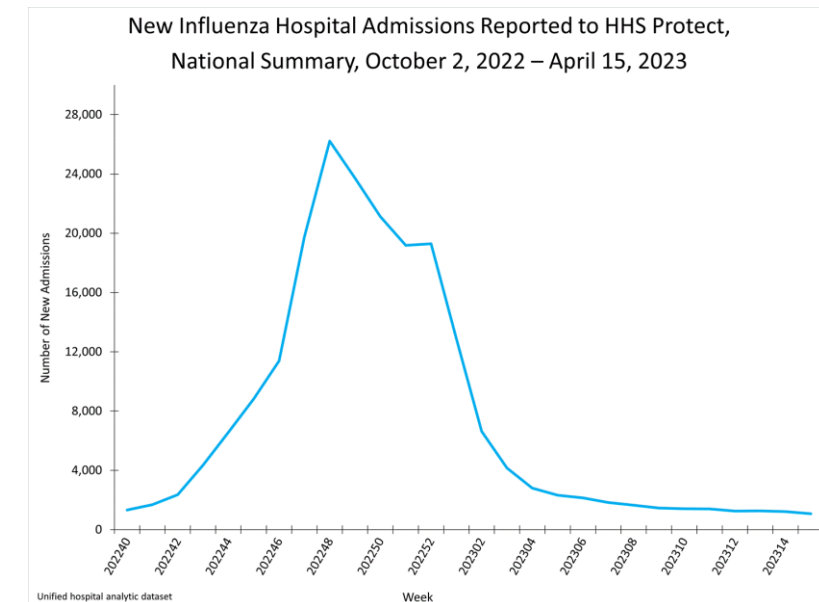
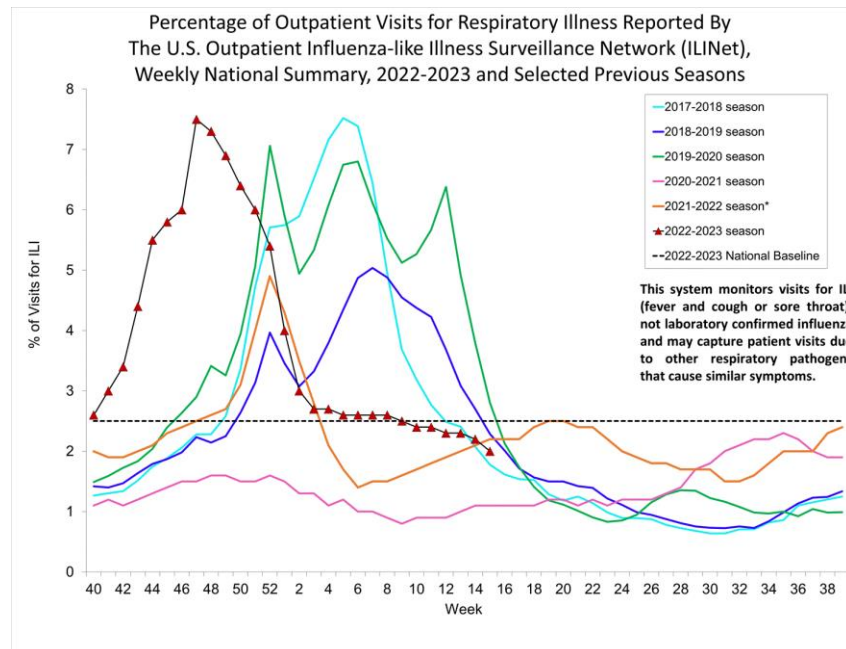
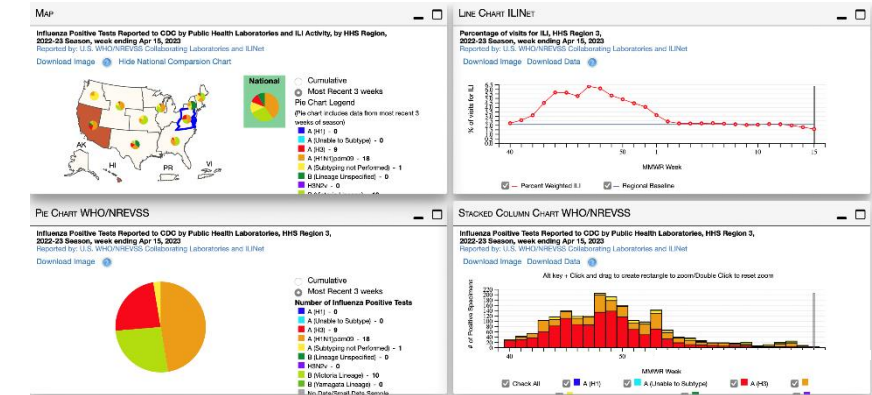
Influenza Update

Current Influenza Situation – ILI Activity

Region 3

Influenza Activity remains below threshold

- Virginia remains at a "Low" level as is most of the nation
- National ILI activity has also consistently declined since a peak in late November, and remains below threshold
- Most regions and the nation are now below the seasonal threshold for ILI activity, though a region has ticked above threshold in recent weeks

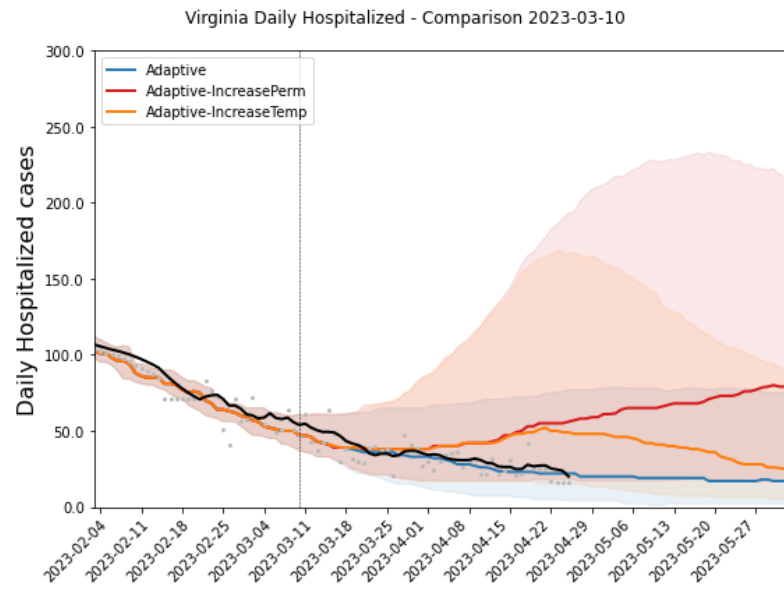


Model Results

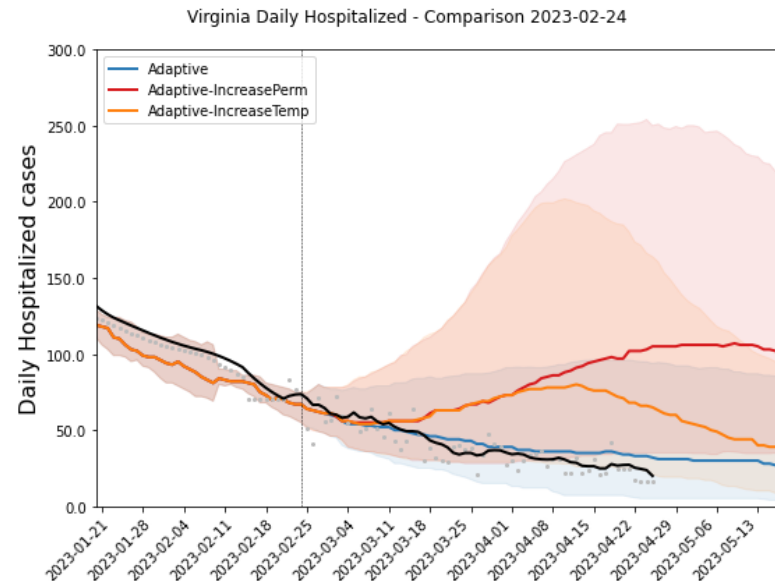
Previous projections comparison - Hospitalizations

- Previous projections have tracked observed hospitalizations well
- Past 10 weeks have stayed steady and indicate no increases in transmissions

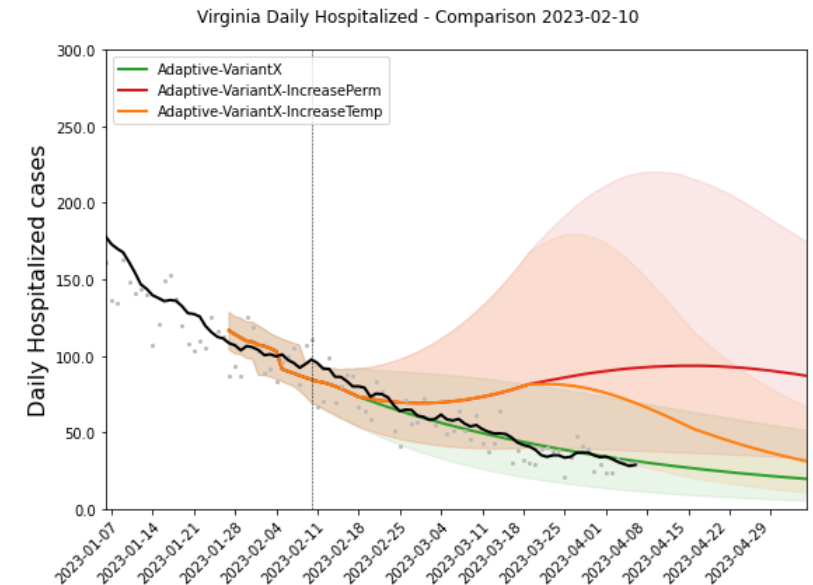
Previous round – 6 weeks ago



Previous round – 8 weeks ago



Previous round – 10 weeks ago



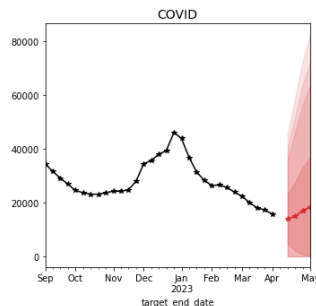
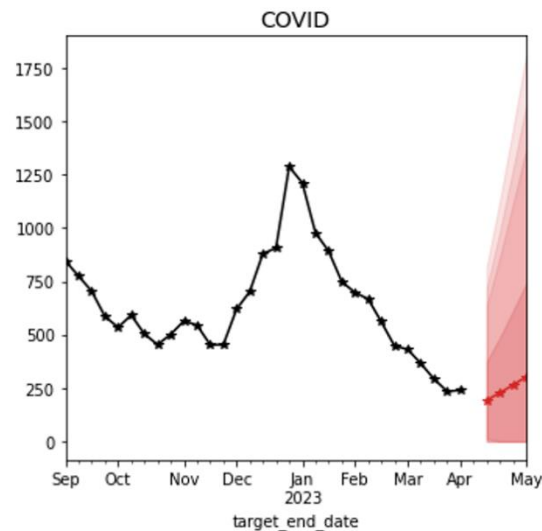
National Modeling Hub Updates

Current COVID-19 Hospitalization Forecast

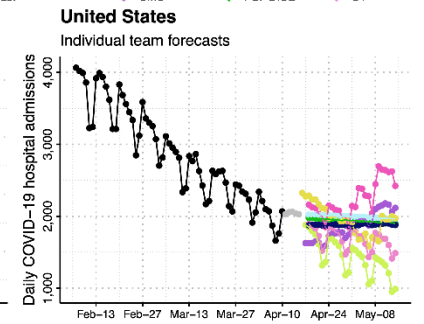
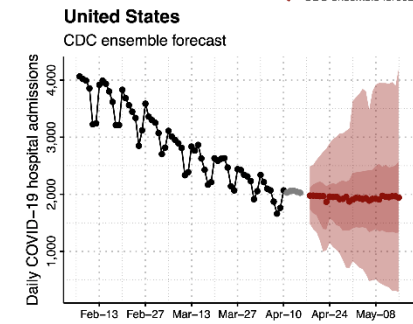
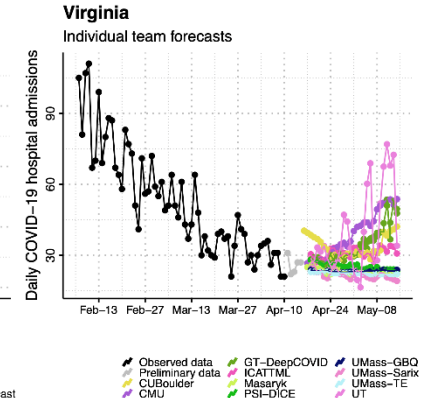
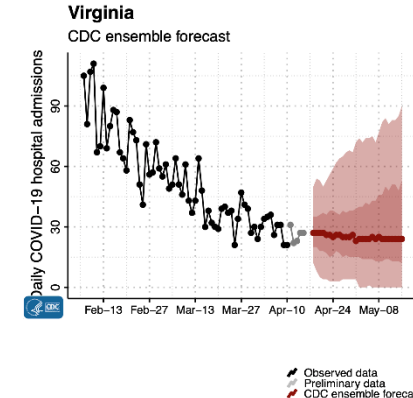
Statistical models for submitting to CDC FluSight forecasting challenge

- Uses a variety of statistical and ML approaches to forecast weekly hospital admissions for the next 4 weeks for all states in the US

Hospital Admissions for COVID-19 and Forecast for next 4 weeks (UVA ensemble)



Hospital Admissions for COVID-19 and Forecast for next 4 weeks (CDC COVID Ensemble)



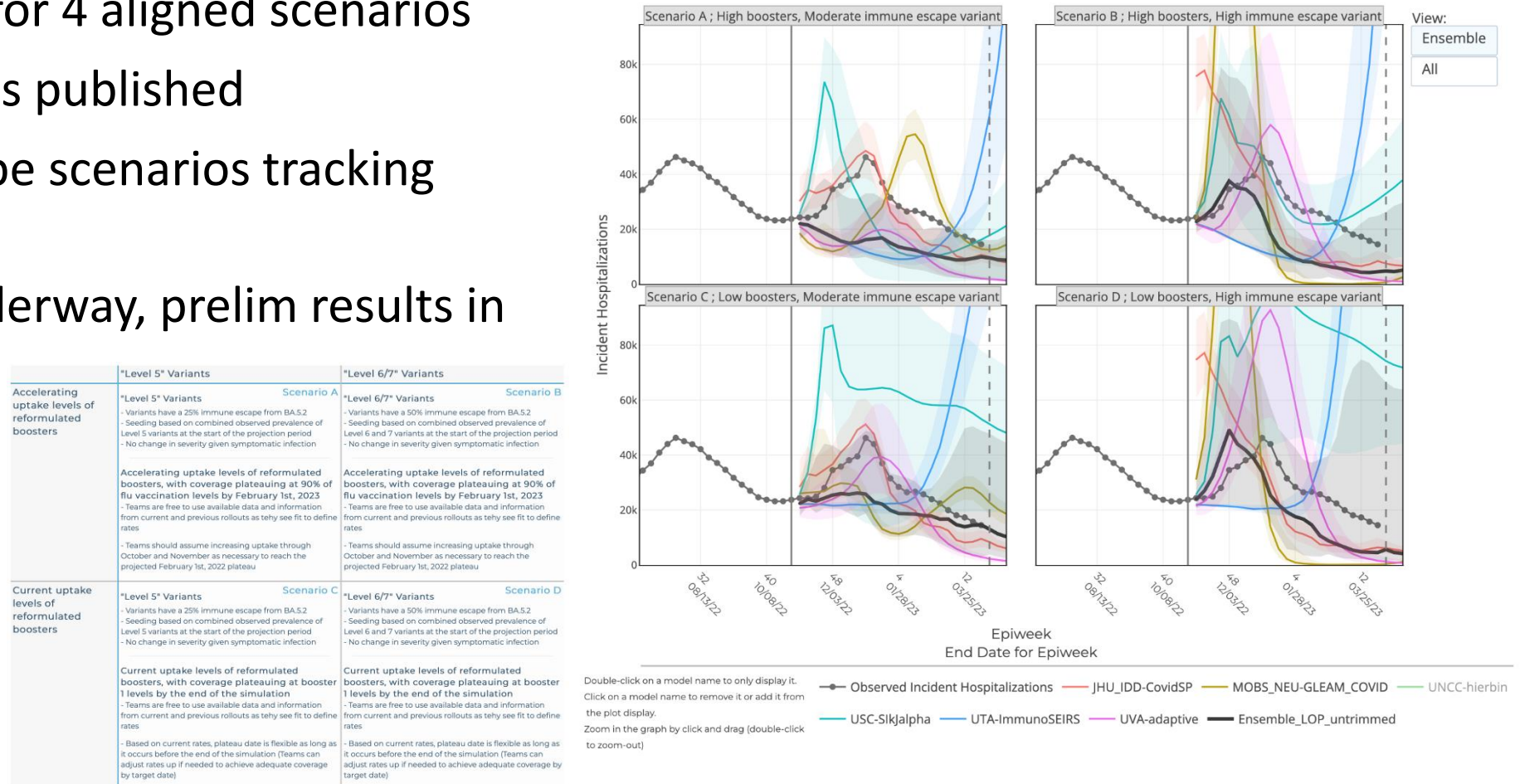
Scenario Modeling Hub – COVID-19 (Round 16)

Collaboration of multiple academic teams to provide national and state-by-state level projections for 4 aligned scenarios

- Round 16 results published
- Moderate escape scenarios tracking best
- Round 17 is underway, prelim results in coming weeks

<https://covid19scenariomodelinghub.org/viz.html>

Projected Incident Hospitalizations by Epidemiological Week and by Scenario for Round 16 - US
(- Projection Epiweek; -- Current Week)



Key Takeaways

Projecting future cases precisely is impossible and unnecessary.

Even without perfect projections, we can confidently draw conclusions:

- Case rates and hospitalizations from COVID-19 continue declines but rate has slowed and has seemingly entered a plateau
 - Hospital occupancy down to levels last seen in early May of 2022
- Nearly all indicators point to this trend continuing in near term
- Influenza hospitalizations remain very low and ILI activity remains below seasonal threshold

Model Updates

- Projected Trajectories from previous rounds remain on target, no new projections made this round

Questions?

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