

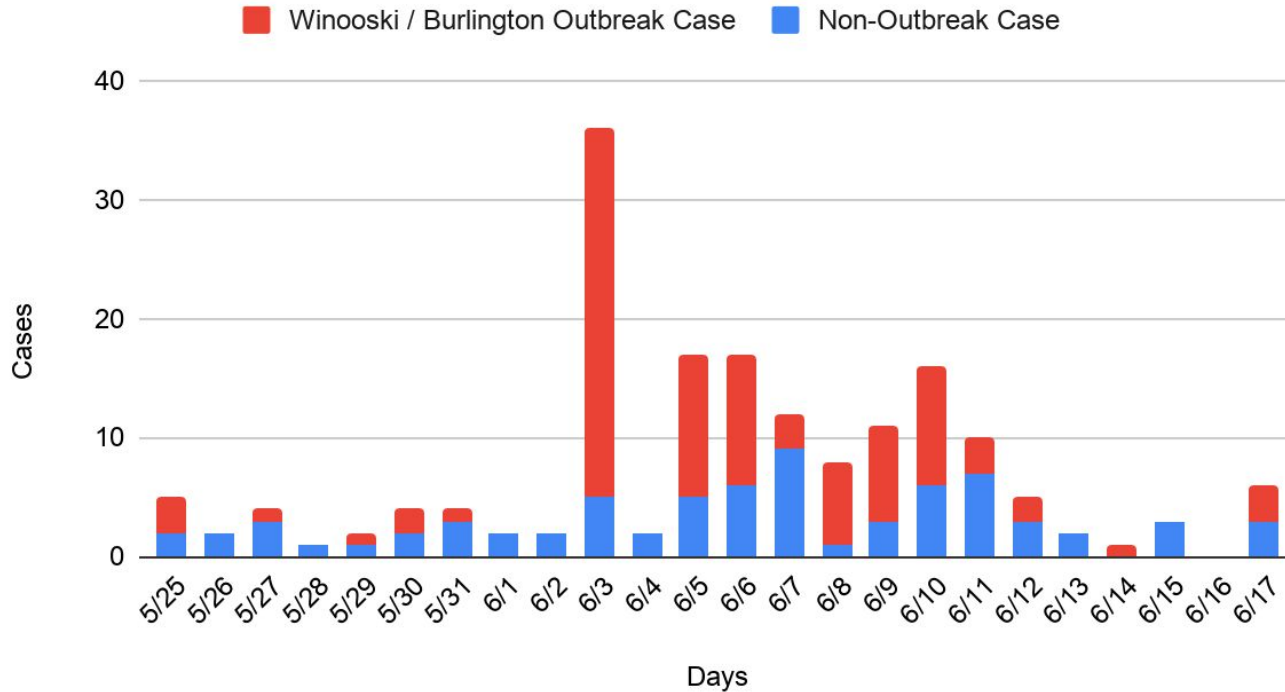
# COVID-19 Modeling

## June 19, 2020

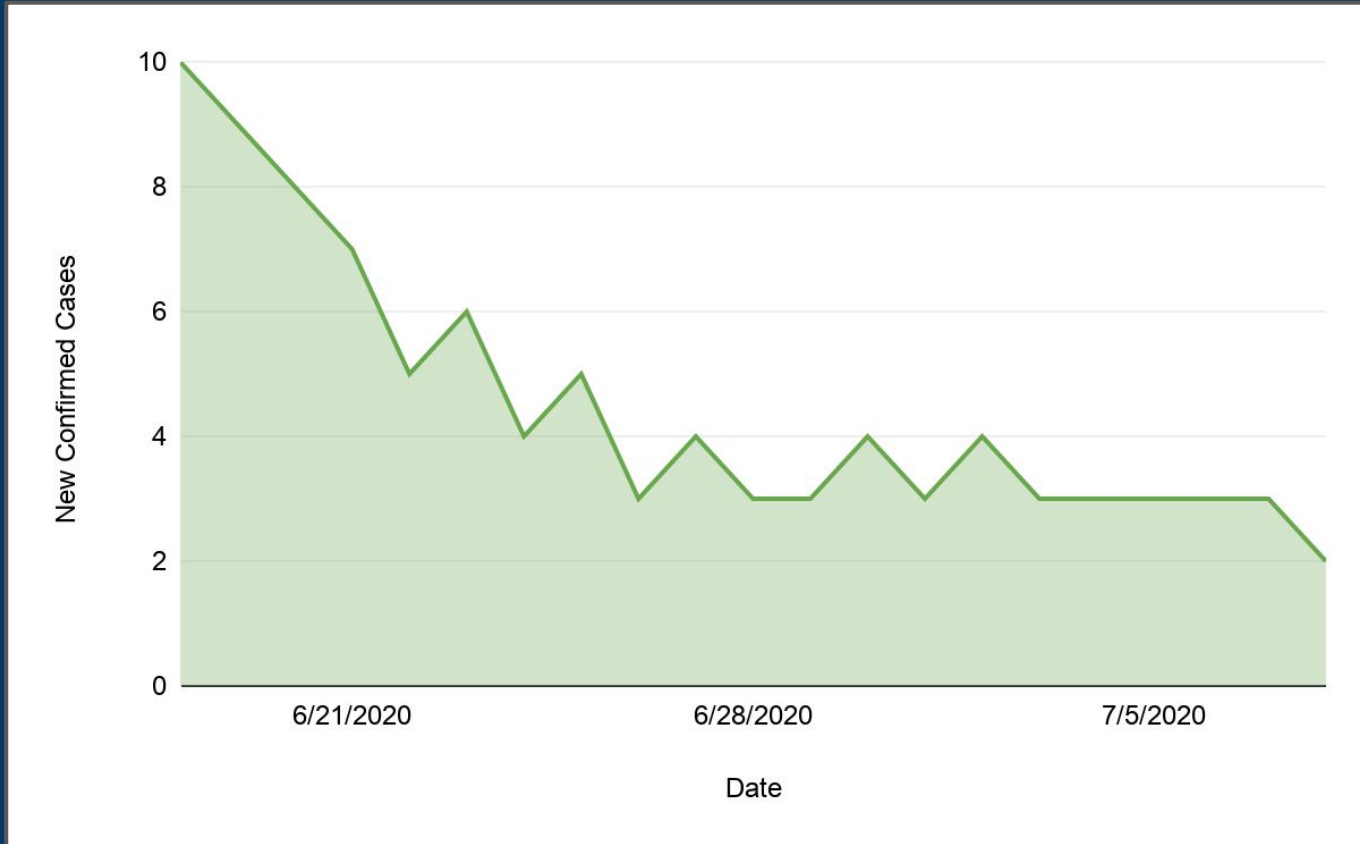
Presentation available at:  
[dfr.vermont.gov](https://dfr.vermont.gov)

# Winooski / Burlington Outbreak

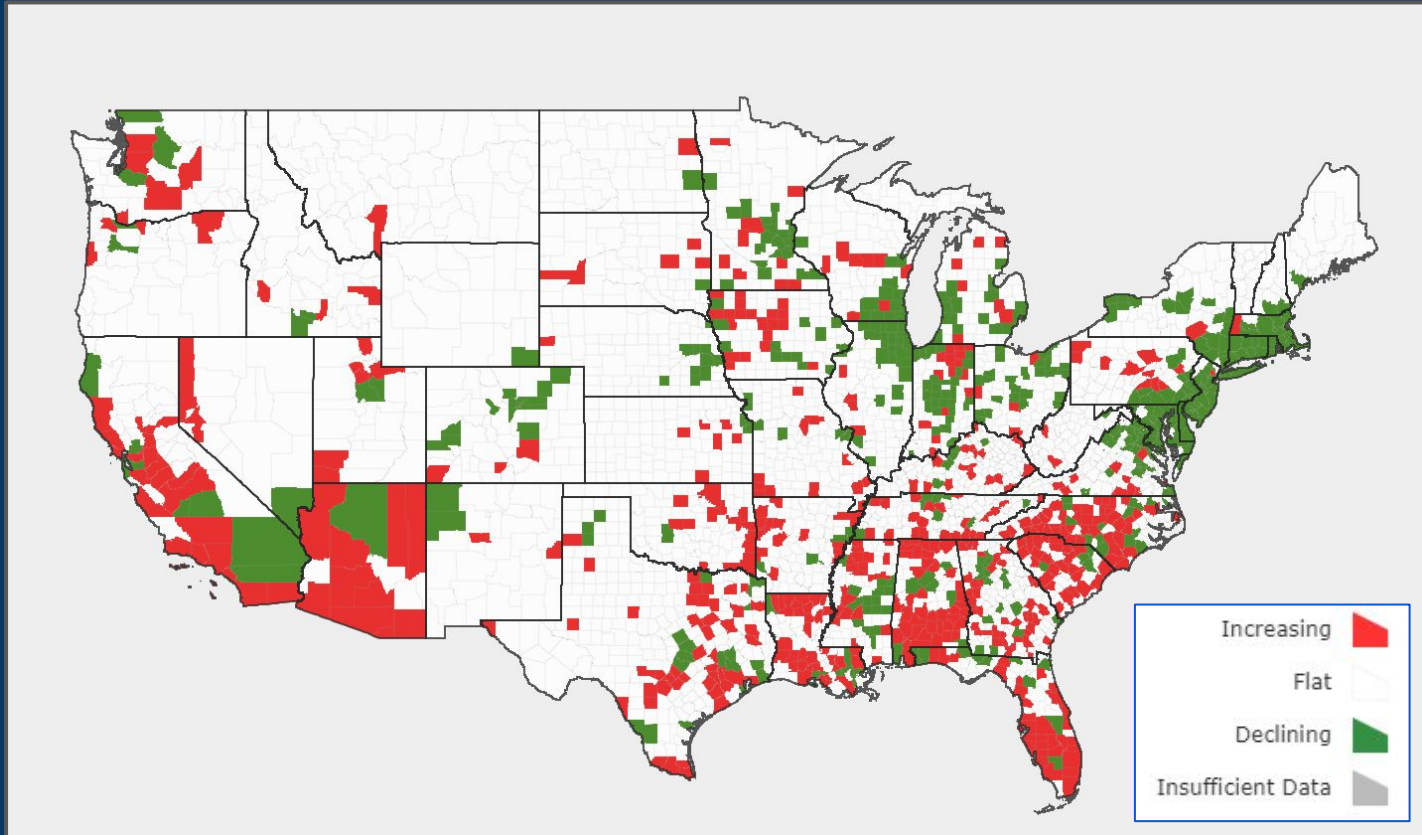
## New Cases: Winooski / Burlington Outbreak vs. Non-Outbreak



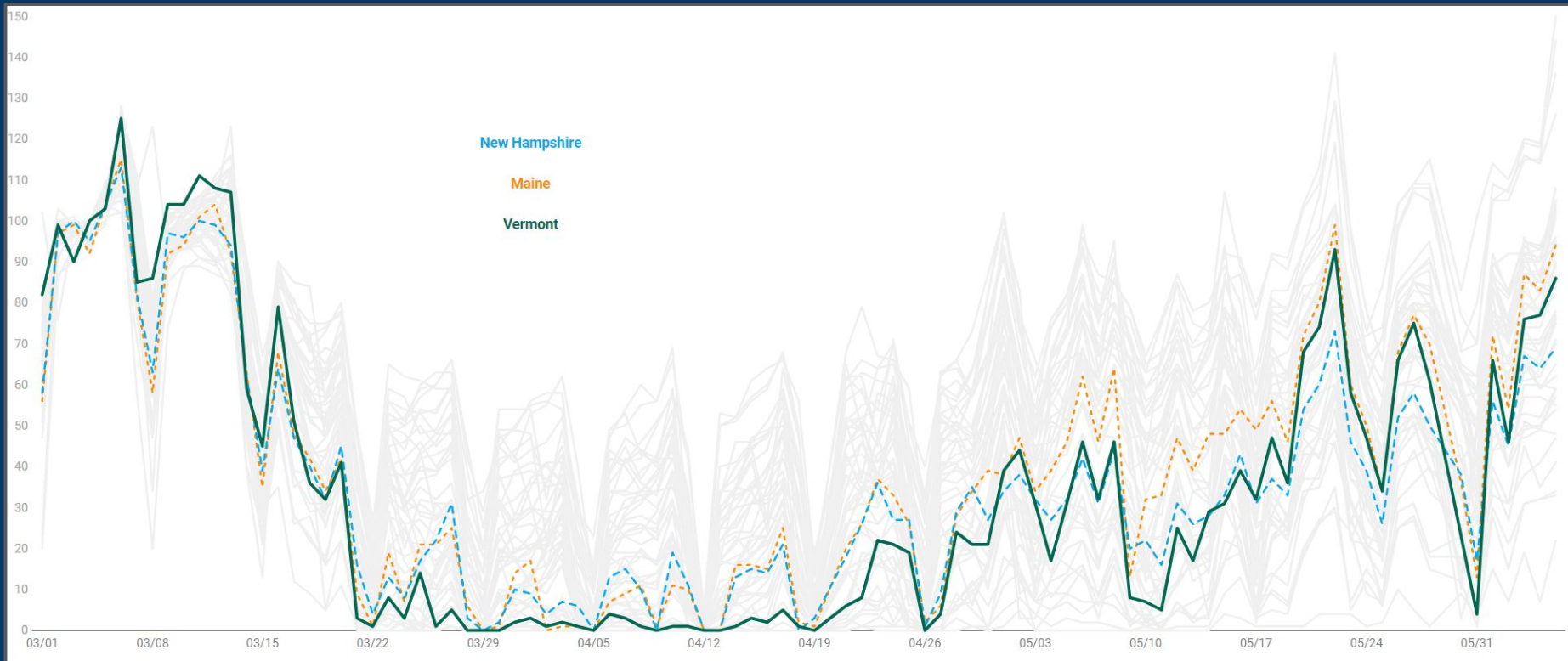
# Vermont Forecast June 18th to July 8th



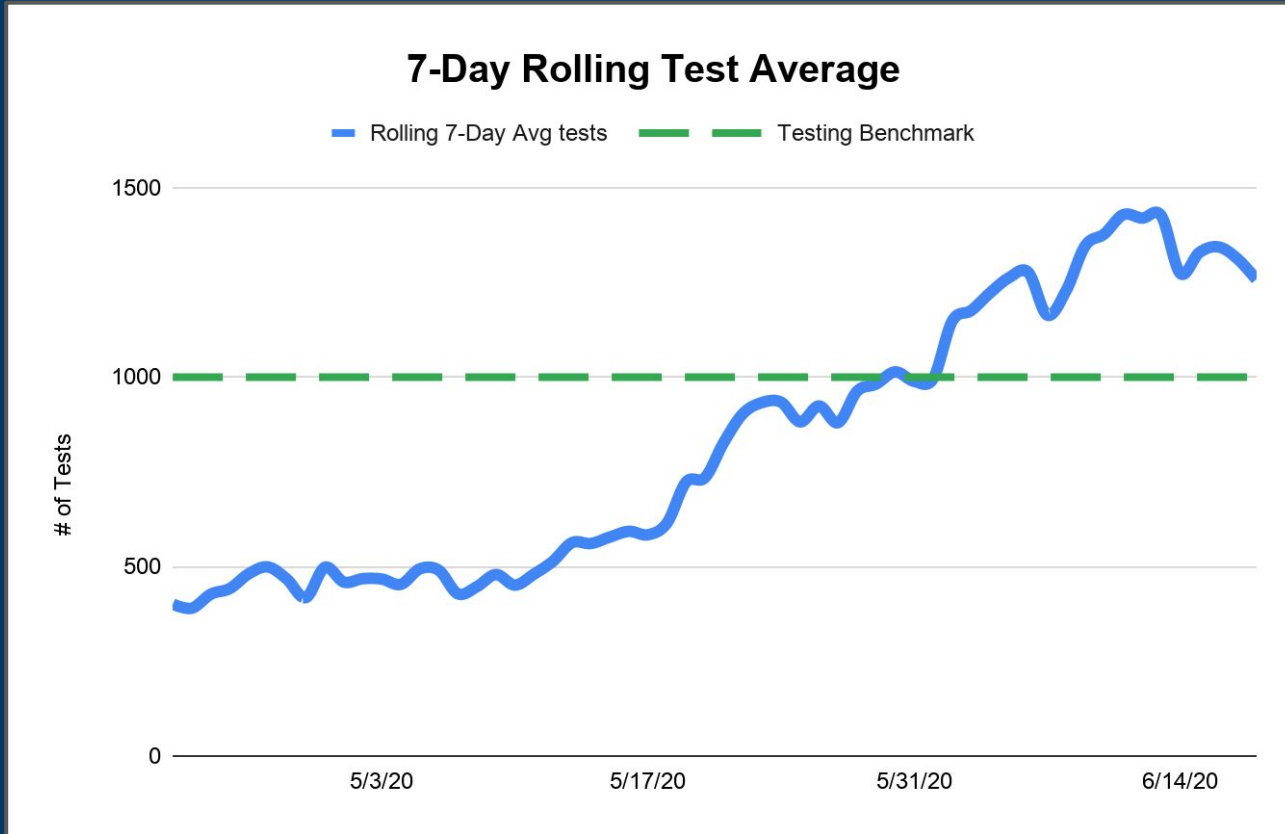
# National Forecast: Next Two Weeks



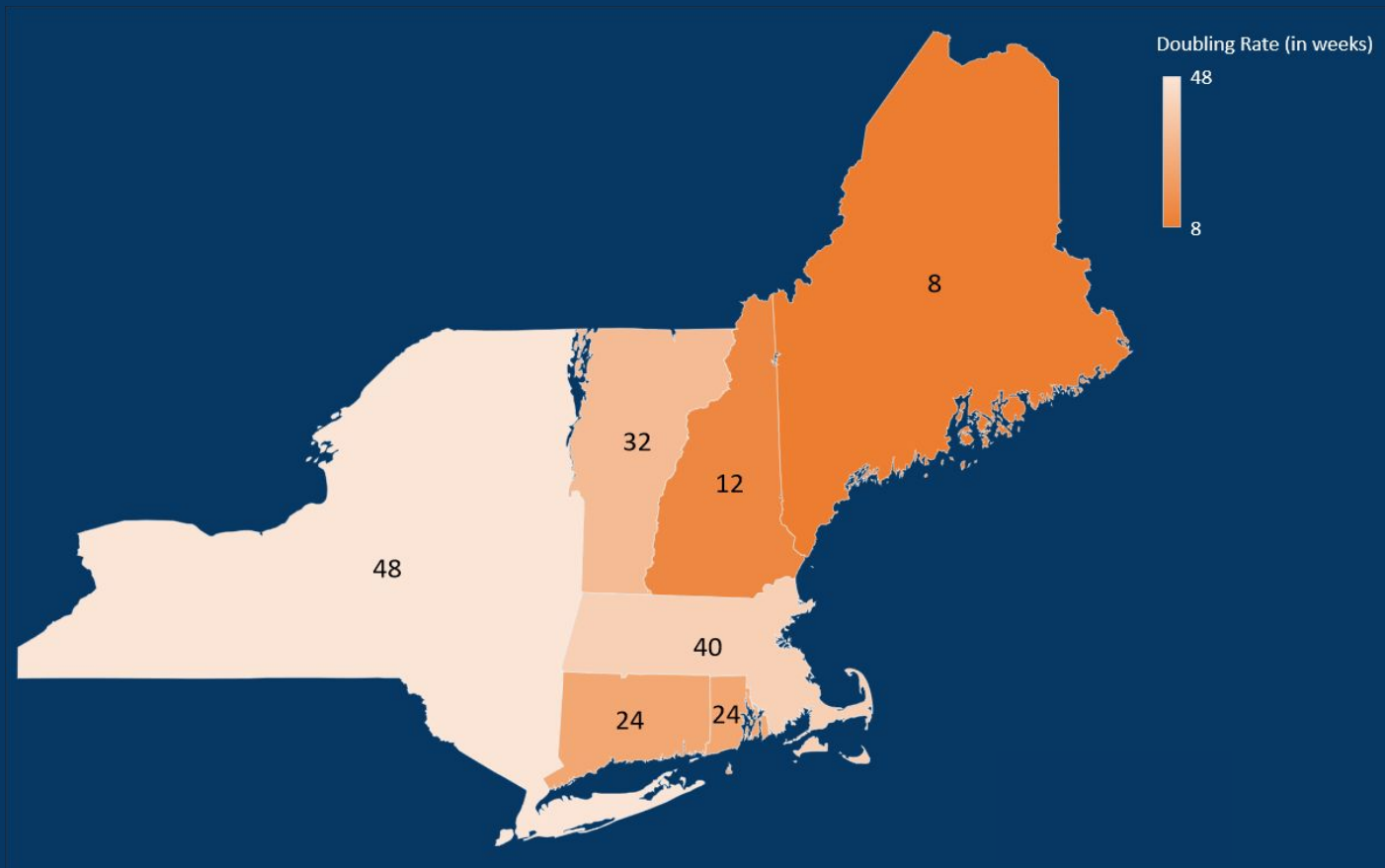
# Mobility Data: Continued Increased Movement



# Increased Vermont Testing



# Vermont's Doubling Rate: 32 Weeks



# RESTART VERMONT

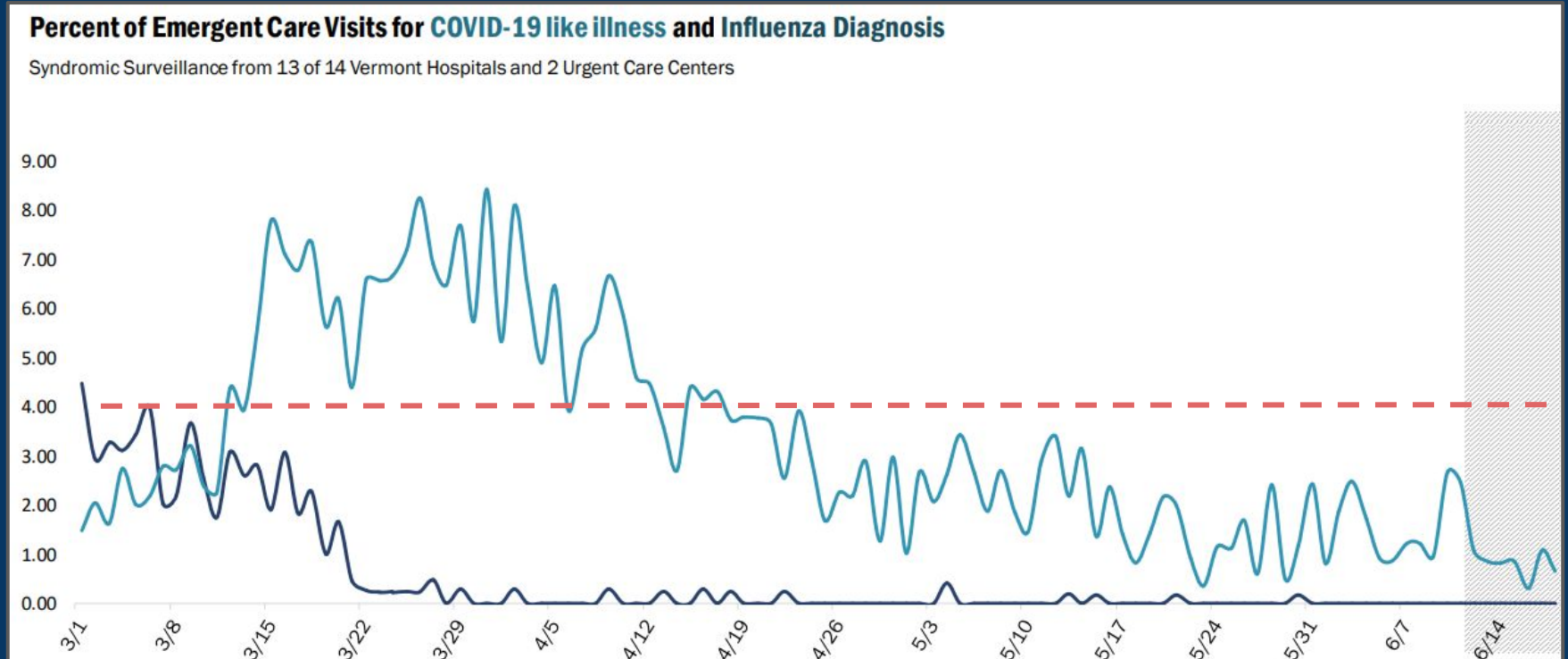
## Reopening Metrics

1. Syndromic Surveillance
2. Viral Growth & Reproductive Rates
3. Percentage of New Positive Tests
4. Hospital & Critical Care Bed Capacity



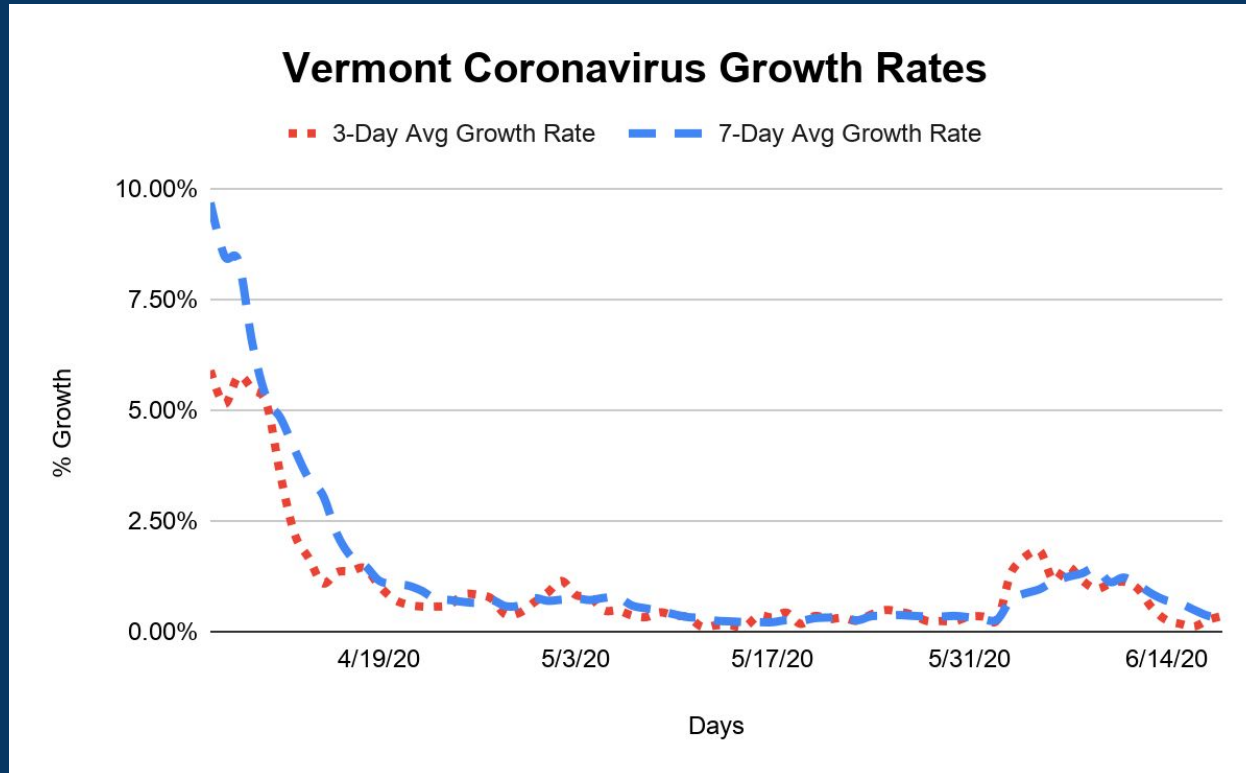
# Data Point 1: Syndromic Surveillance

- **Summary:** Percentage of visits with COVID-19 like illness and Influenza diagnosis
- **Warning Flag:** Percentage of visits exceeding 4% for multiple consecutive days



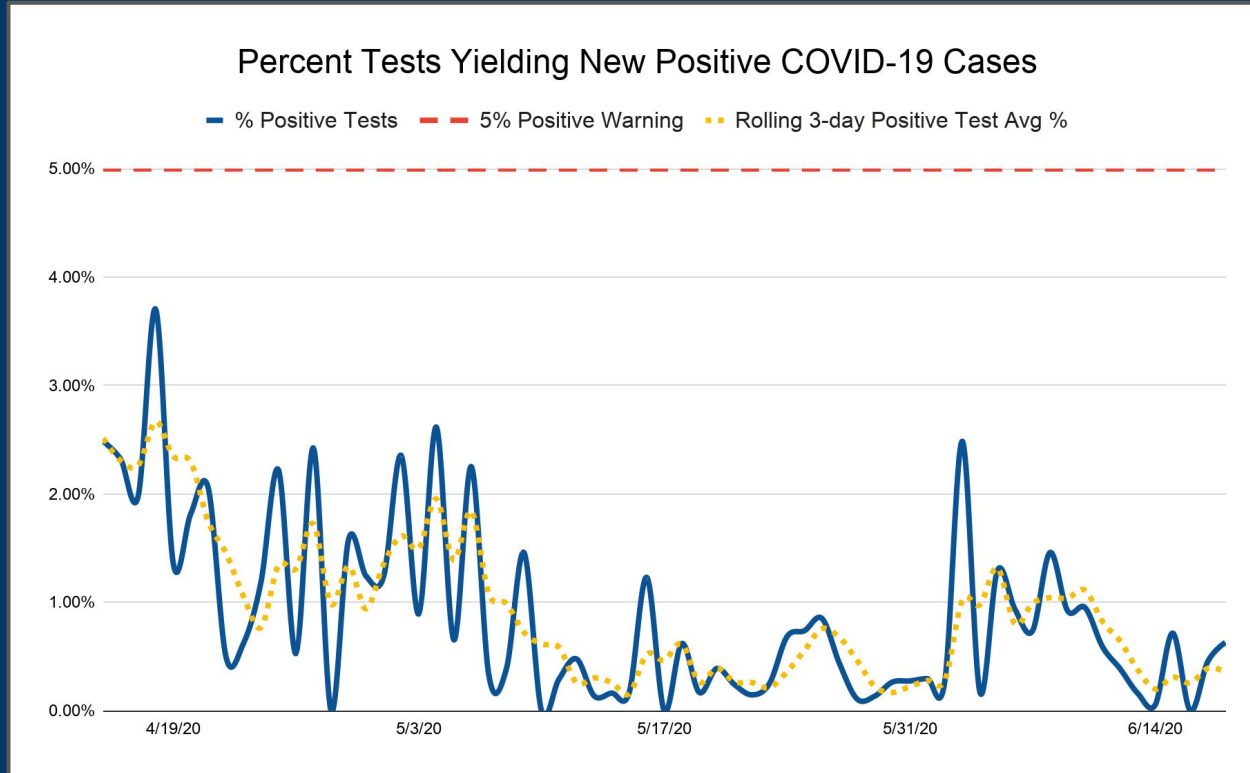
## Data Point 2: Viral Growth and Reproductive Rates

- **Summary:** Case growth measured by daily, 3-day, 7-day, and effective reproductive rate ( $R_t$ )
- **Warning Flags:** Sustained viral growth that would lead to <30% of open ICU beds



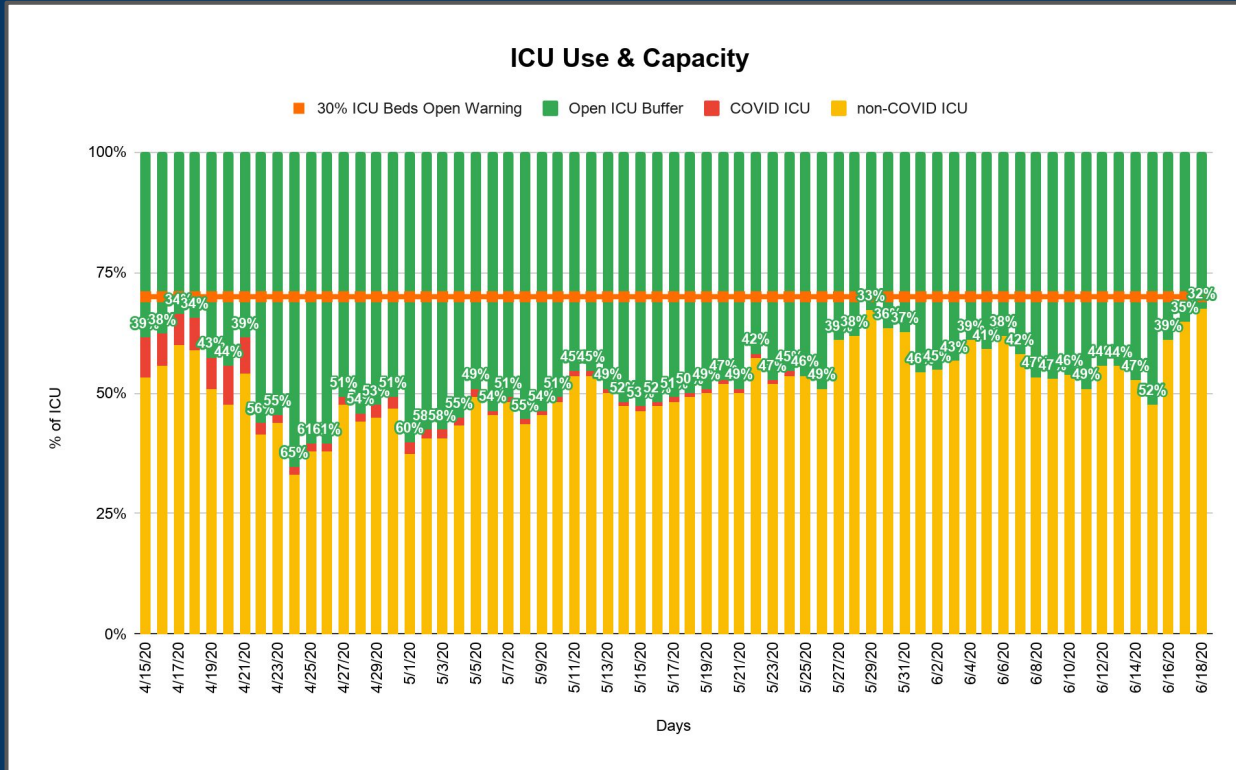
# Data Point 3: Percentage of New Positive Tests

- **Summary:** Percent of tests resulting in a new positive case
- **Warning Flags:** New positives represent >5% of daily results



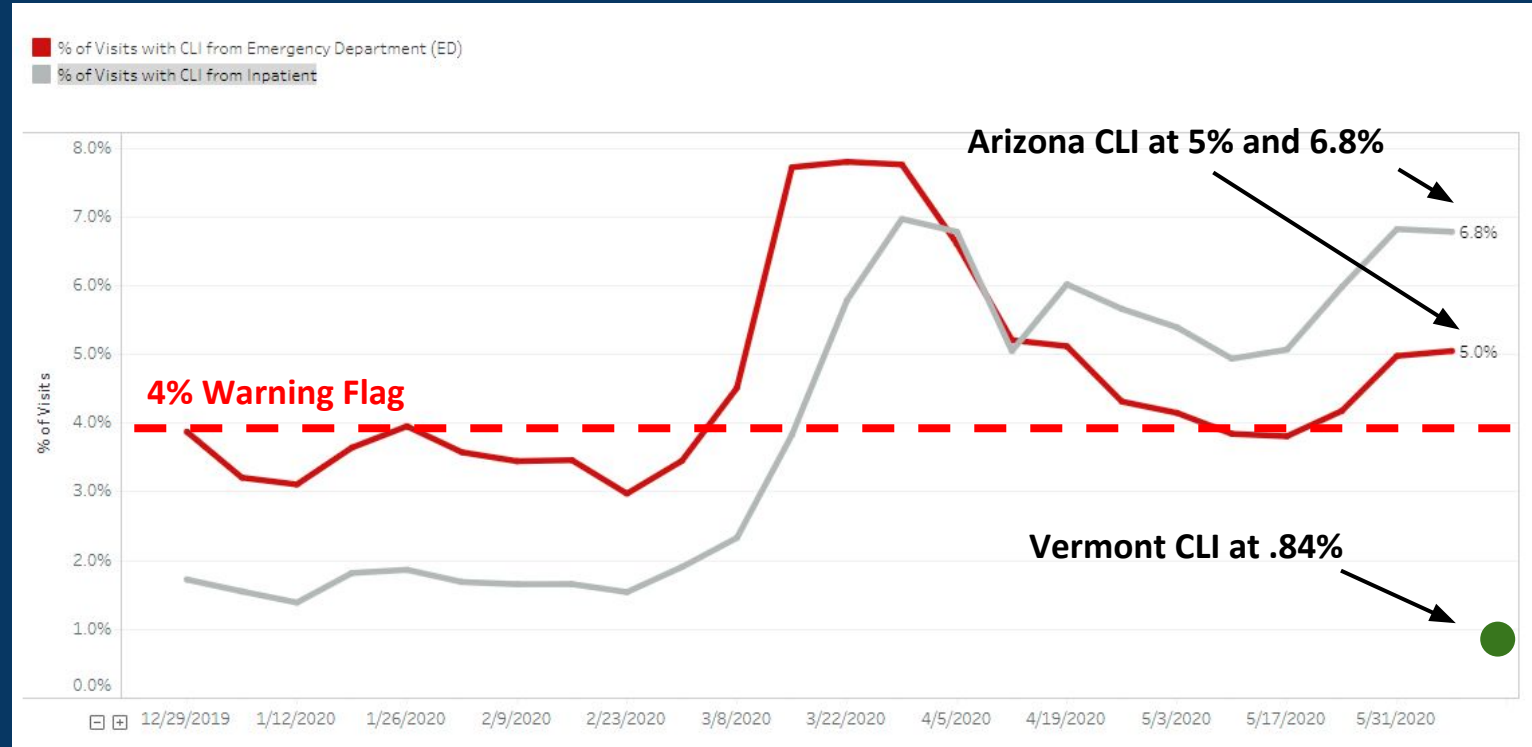
# Data Point 4: Hospital & Critical Care Beds

- **Summary:** Number of occupied and unoccupied medical surgical and ICU beds
- **Warning Flags:** Reduction in ICU open beds to less than 30%

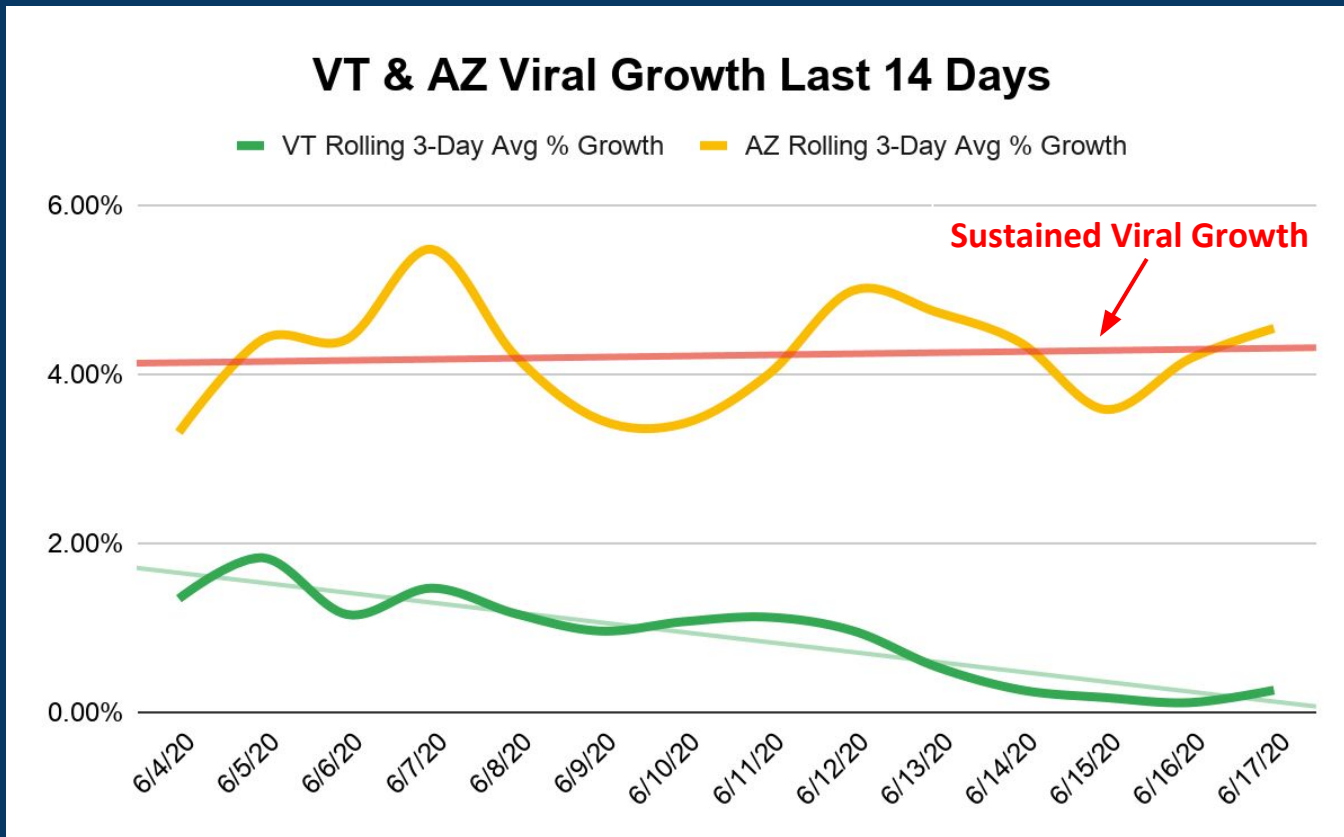


# Restart Metrics: Arizona & Vermont

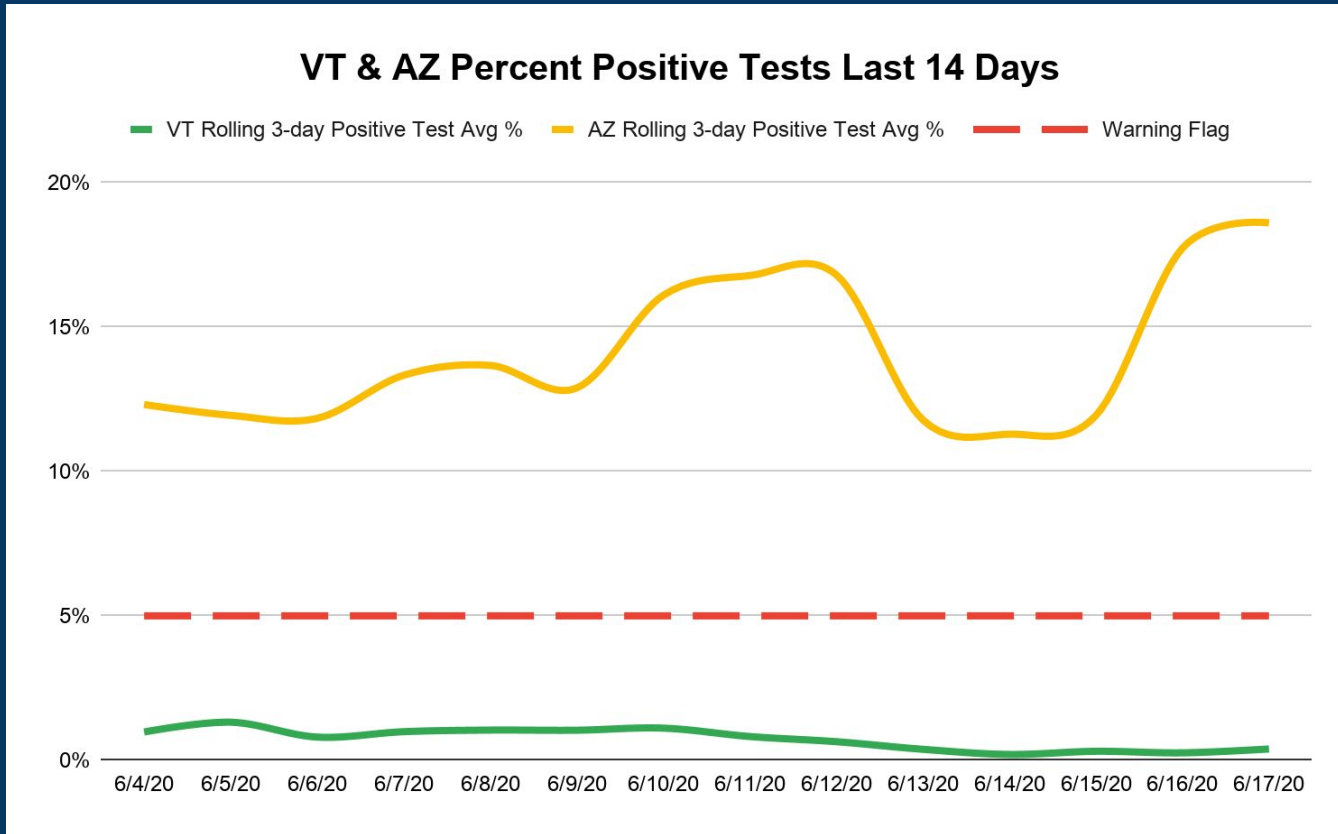
# Comparison: Syndromic Surveillance



# Comparison: Viral Growth Rate

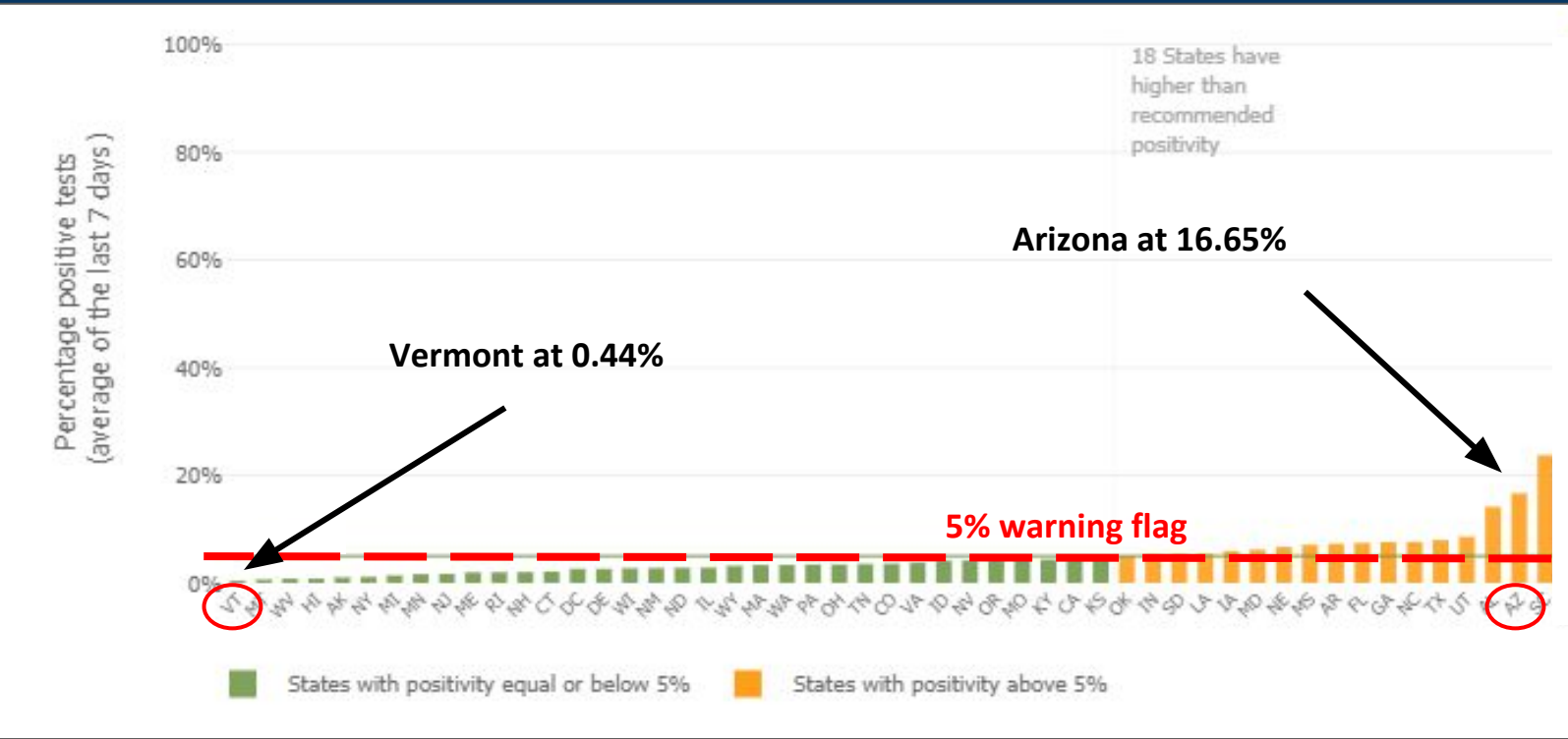


# Comparison: Percent Positive Tests



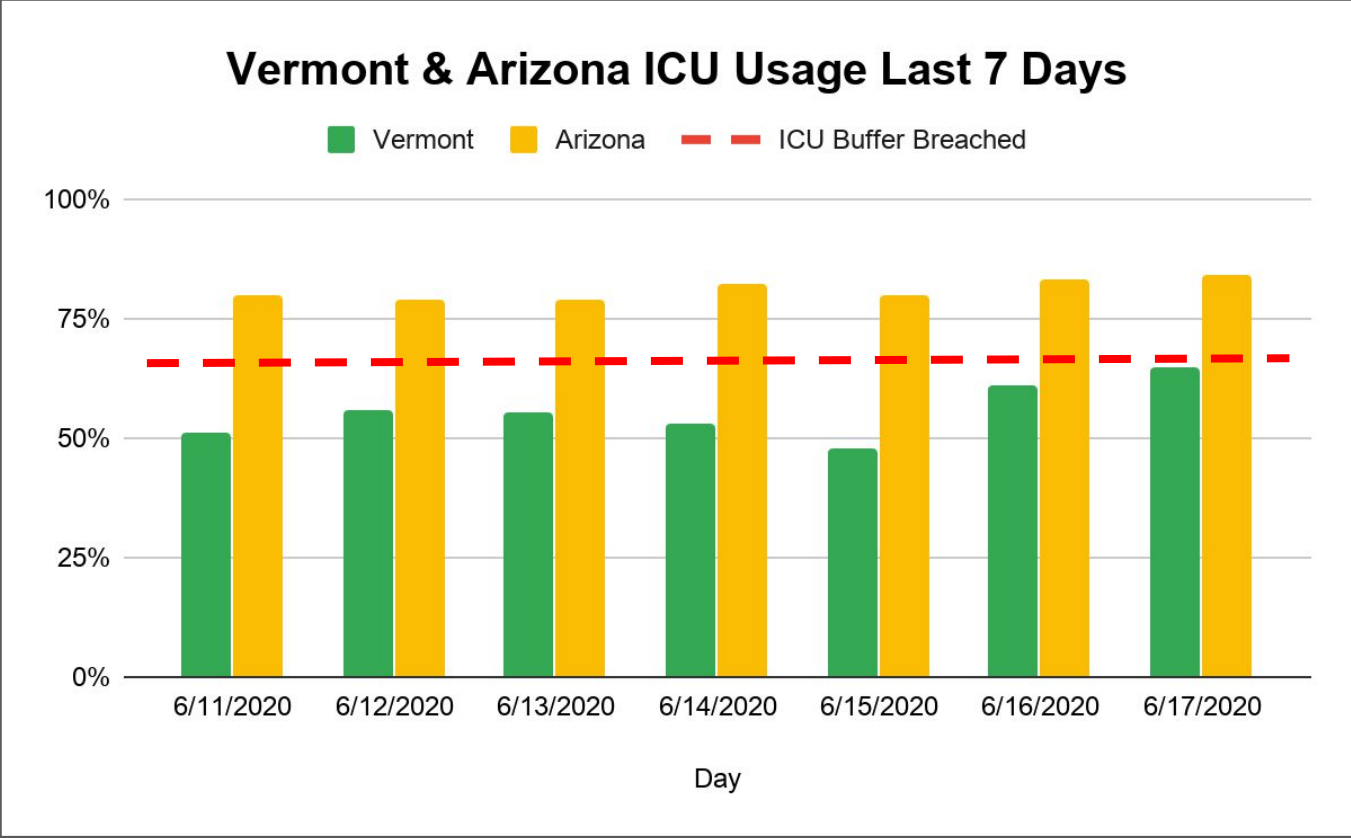


# Comparison: Percent Positive Tests Last 7 Days

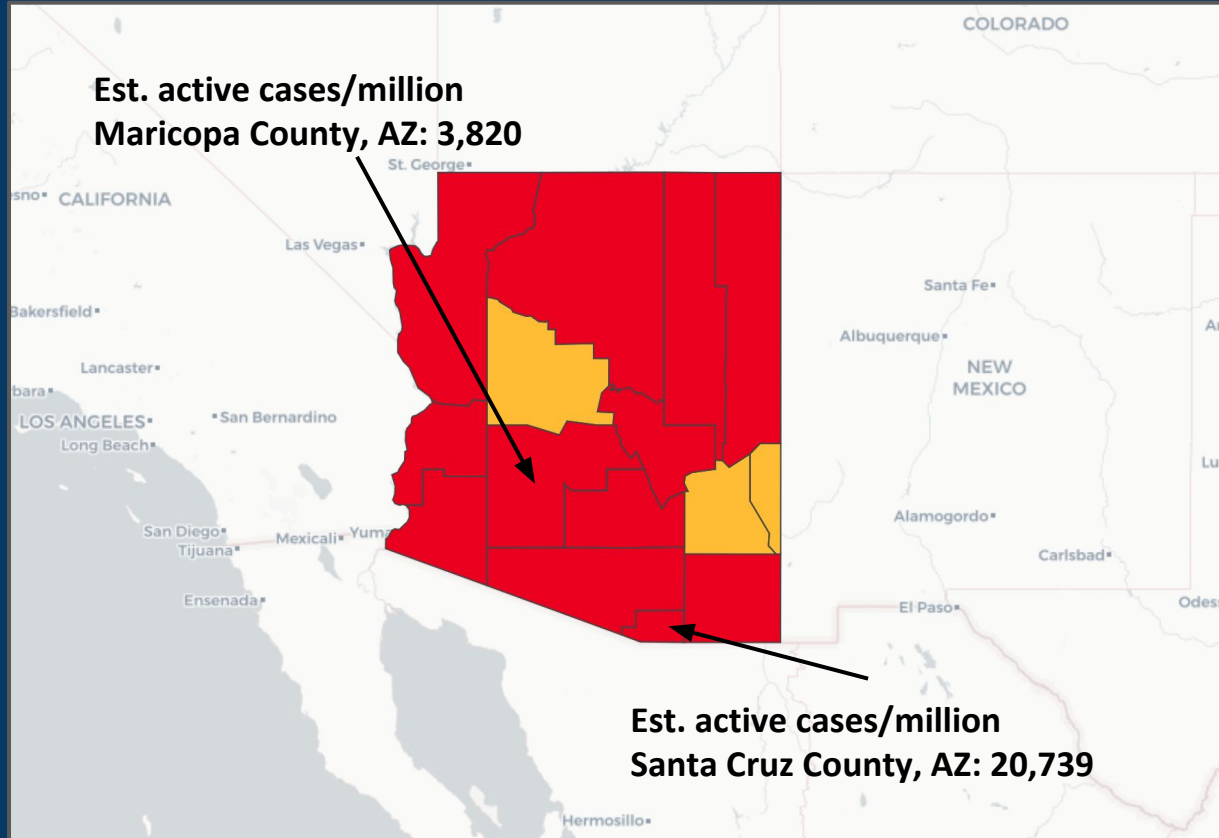


Source: Johns Hopkins University

# Comparison: ICU Usage

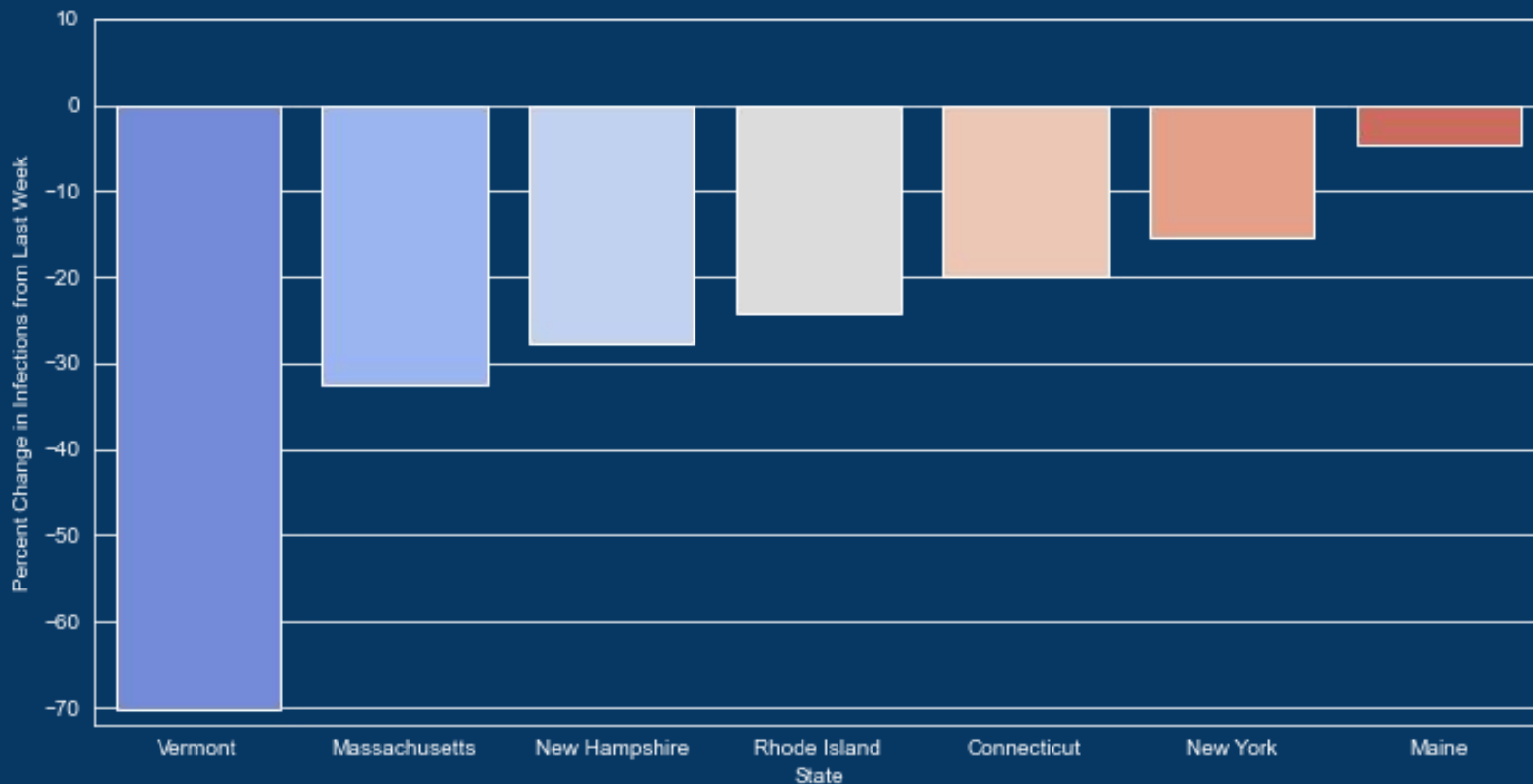


# Comparison: Estimated Active Cases

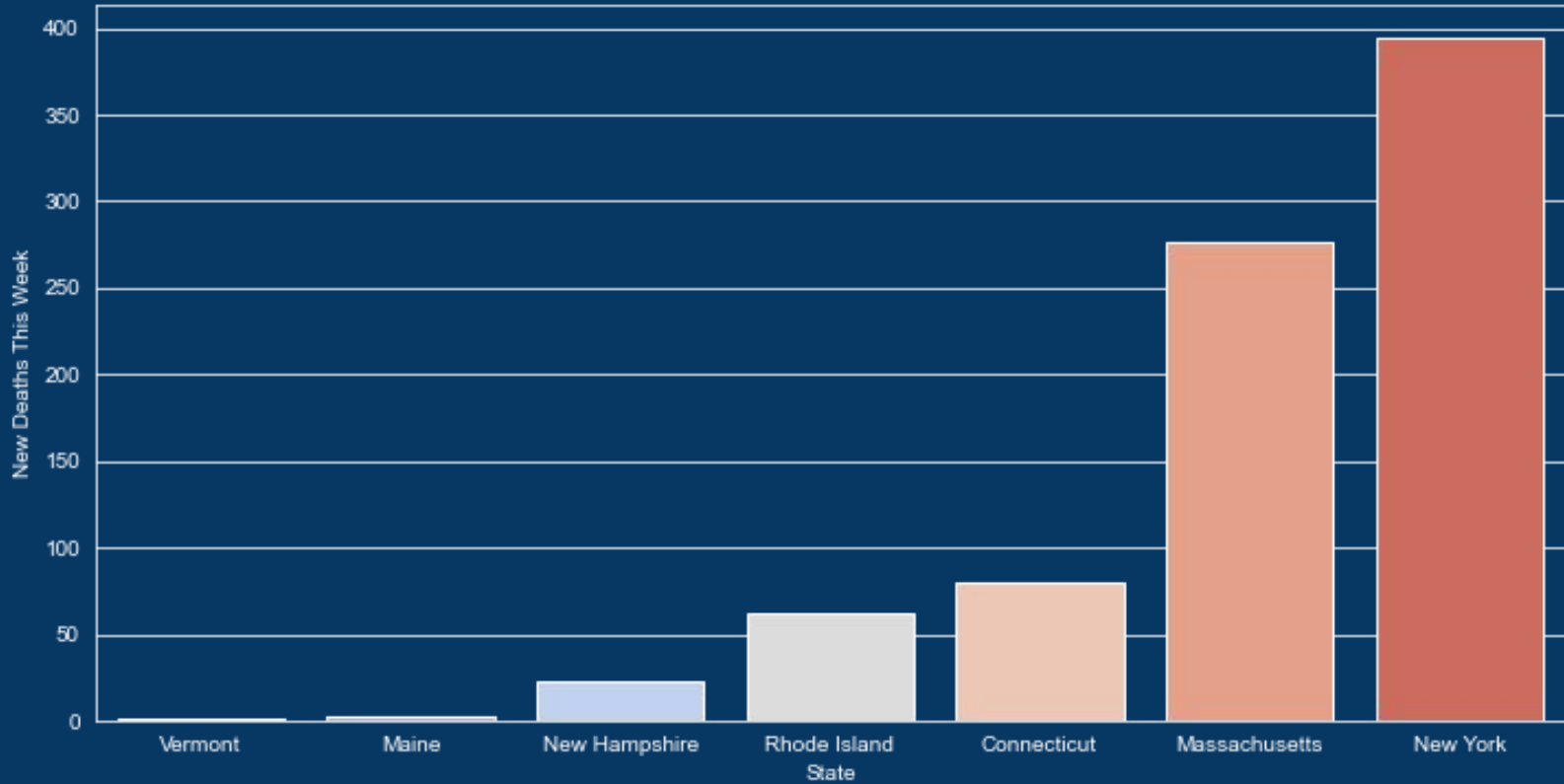


# Regional Data

# Weekly Percent Change: Infections



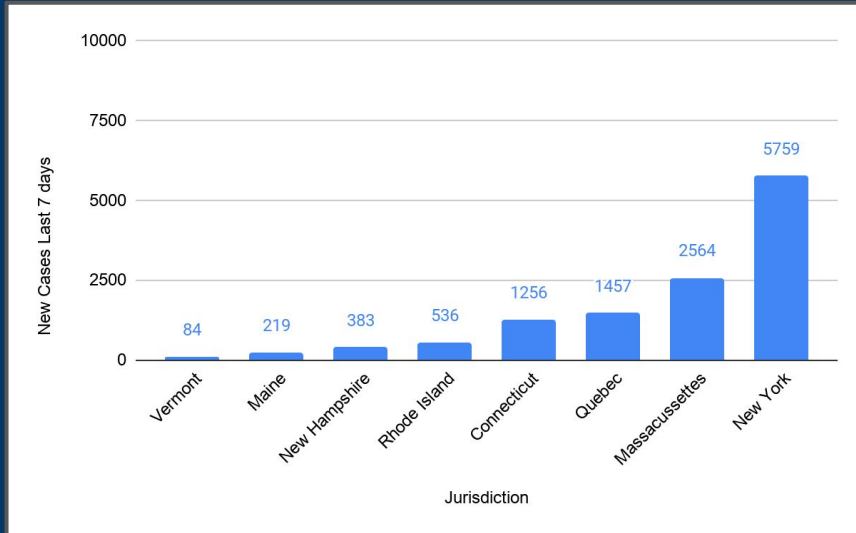
# Weekly Total: Deaths



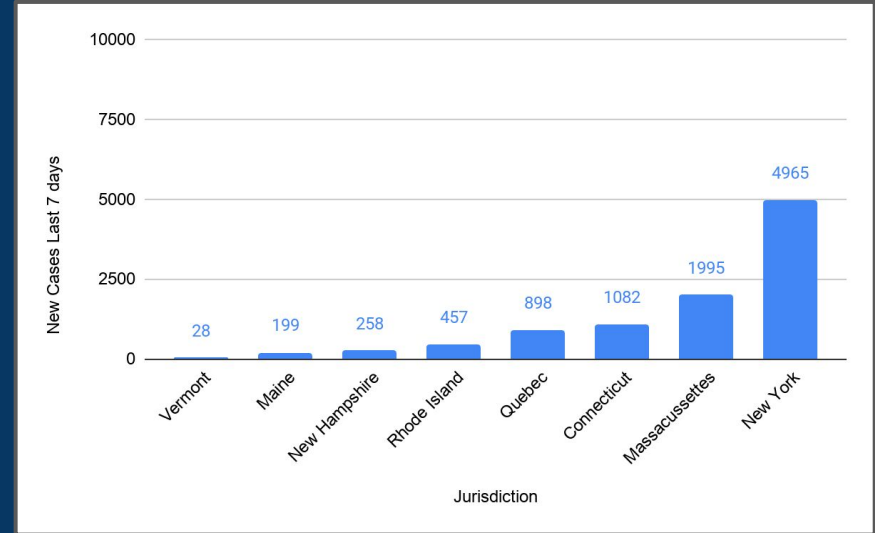
# Regional Monitoring: New Cases Last 7 Days

## 19% Reduction in New Confirmed Cases

Positive Cases June 5th to June 11th



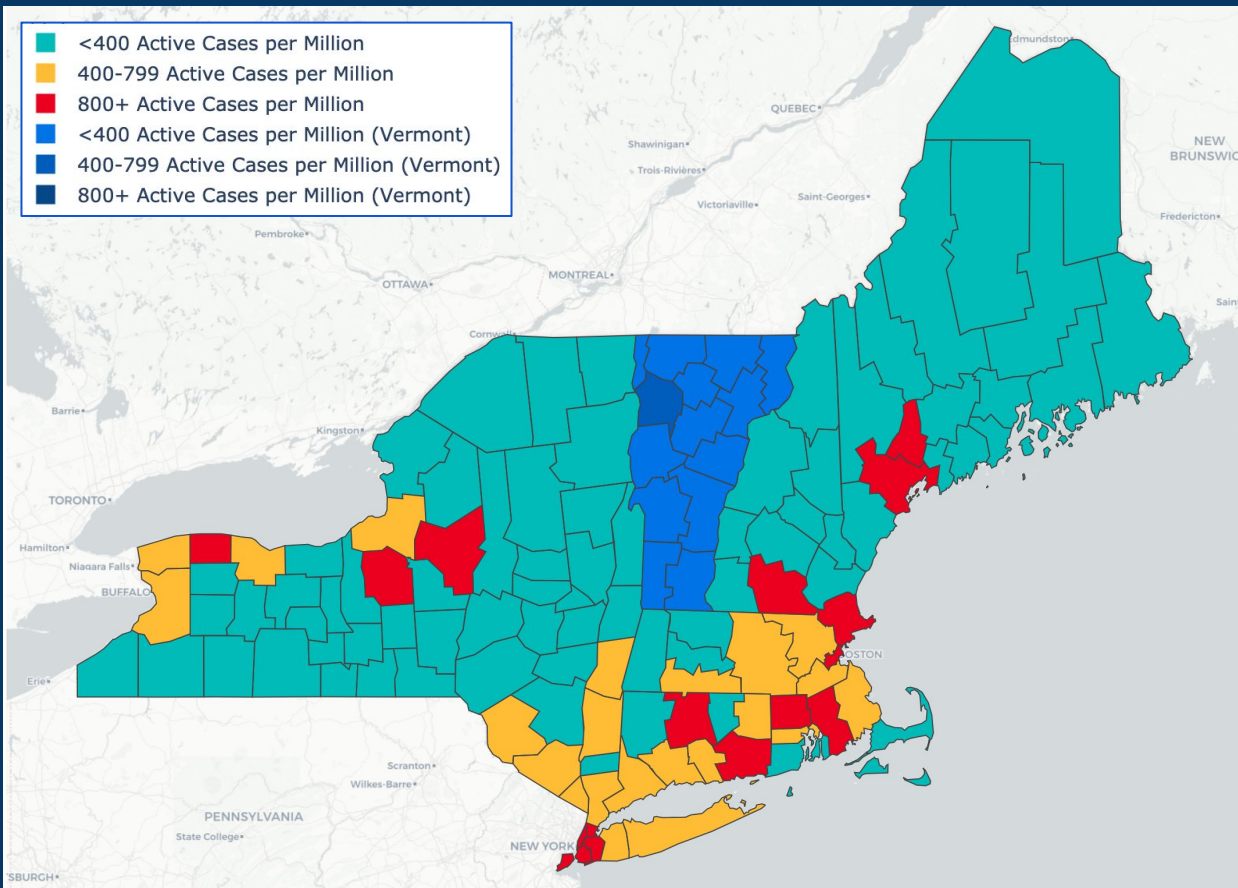
Positive Cases June 12th to June 18th



# Travel Policy

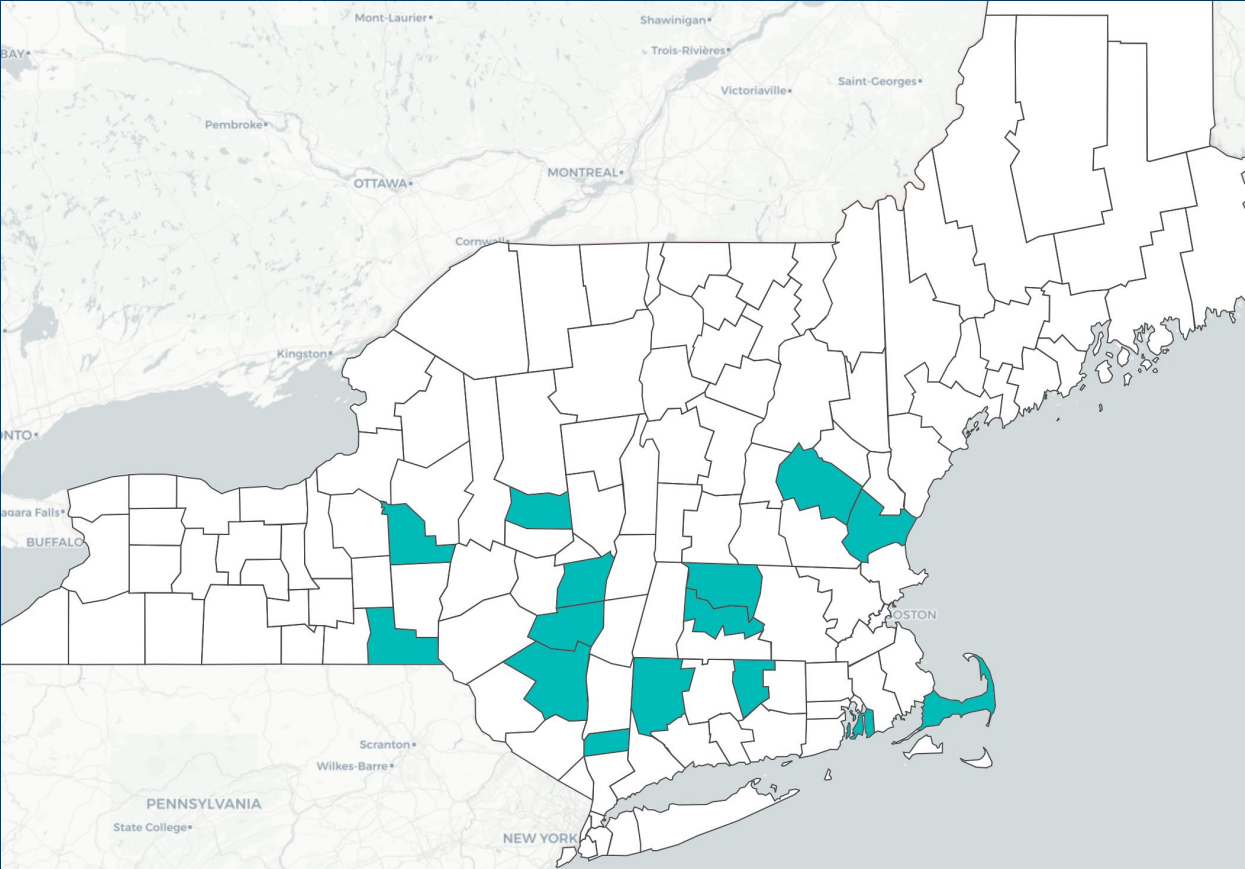


# Travel Policy: Data Updates



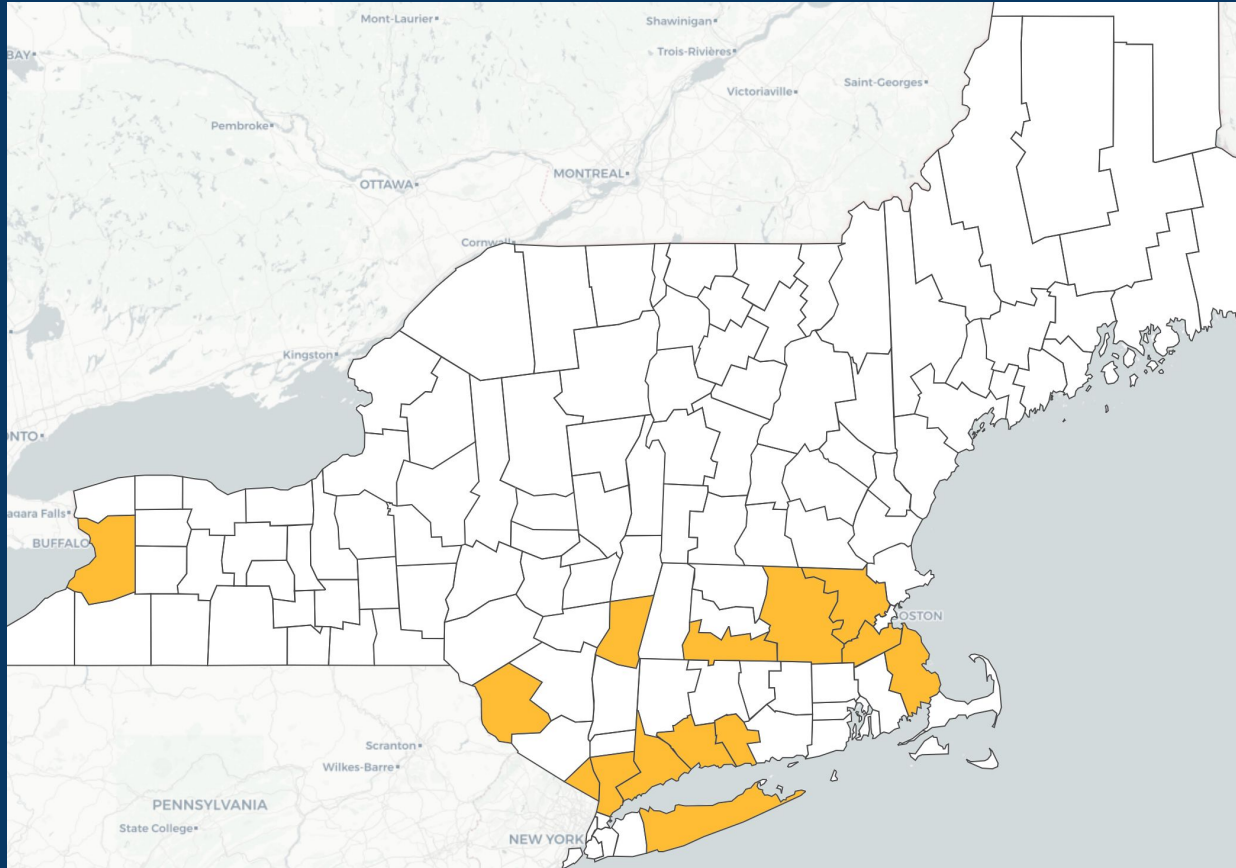
Source: Raw data from Johns Hopkins University date June 18, 2020 (dynamic map available at Vermont ACCD site)

# Travel Policy: Counties Newly Below 400-Case Threshold



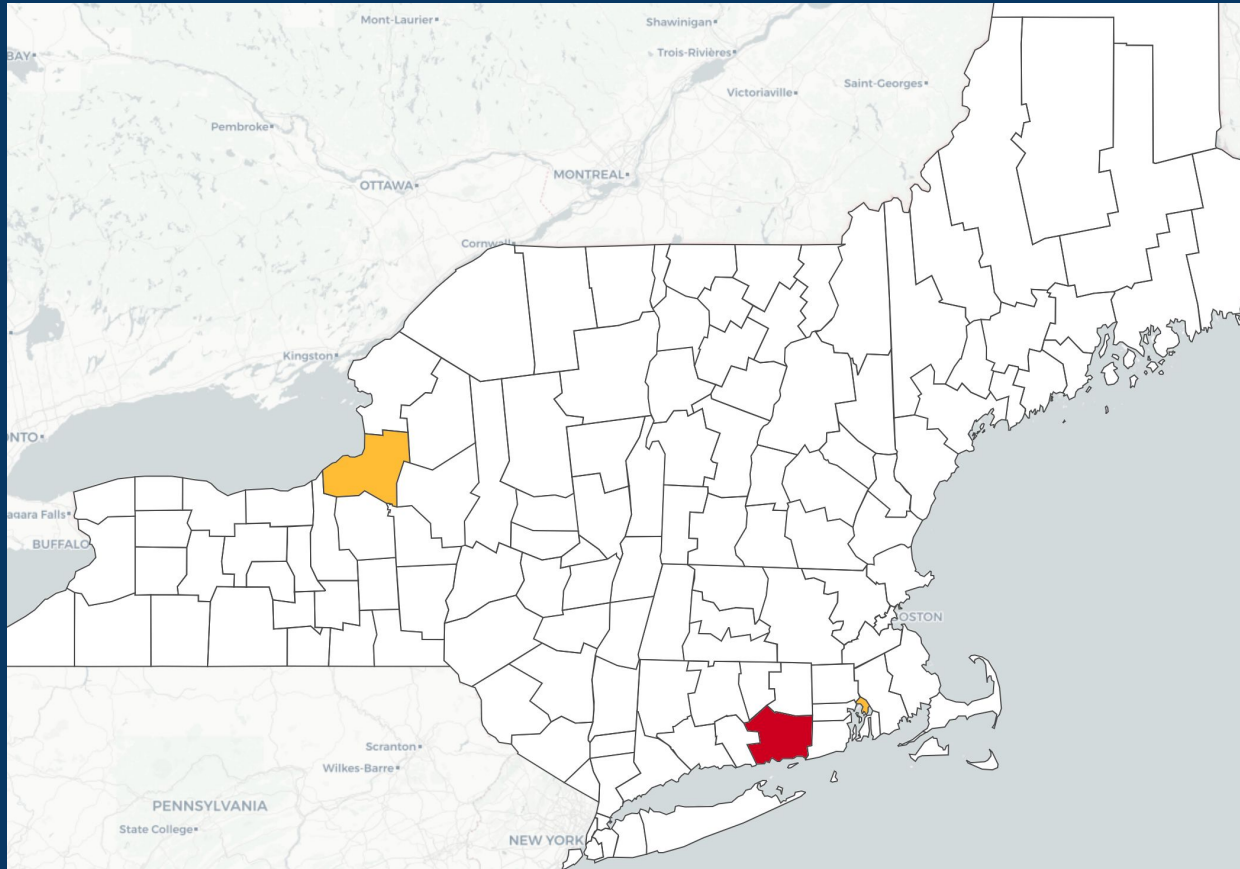
Source: Raw data from Johns Hopkins University date June 18, 2020 (dynamic map available at Vermont ACCD site)

# Travel Policy: Counties Now Below 800 Active Cases/Million



Source: Raw data from Johns Hopkins University date June 18, 2020 (dynamic map available at Vermont ACCD site)

# Travel Policy: Counties Worse Than Last Week



Source: Raw data from Johns Hopkins University date June 18, 2020 (dynamic map available at Vermont ACCD site)

# Travel Policy: Step 1 Updates

