

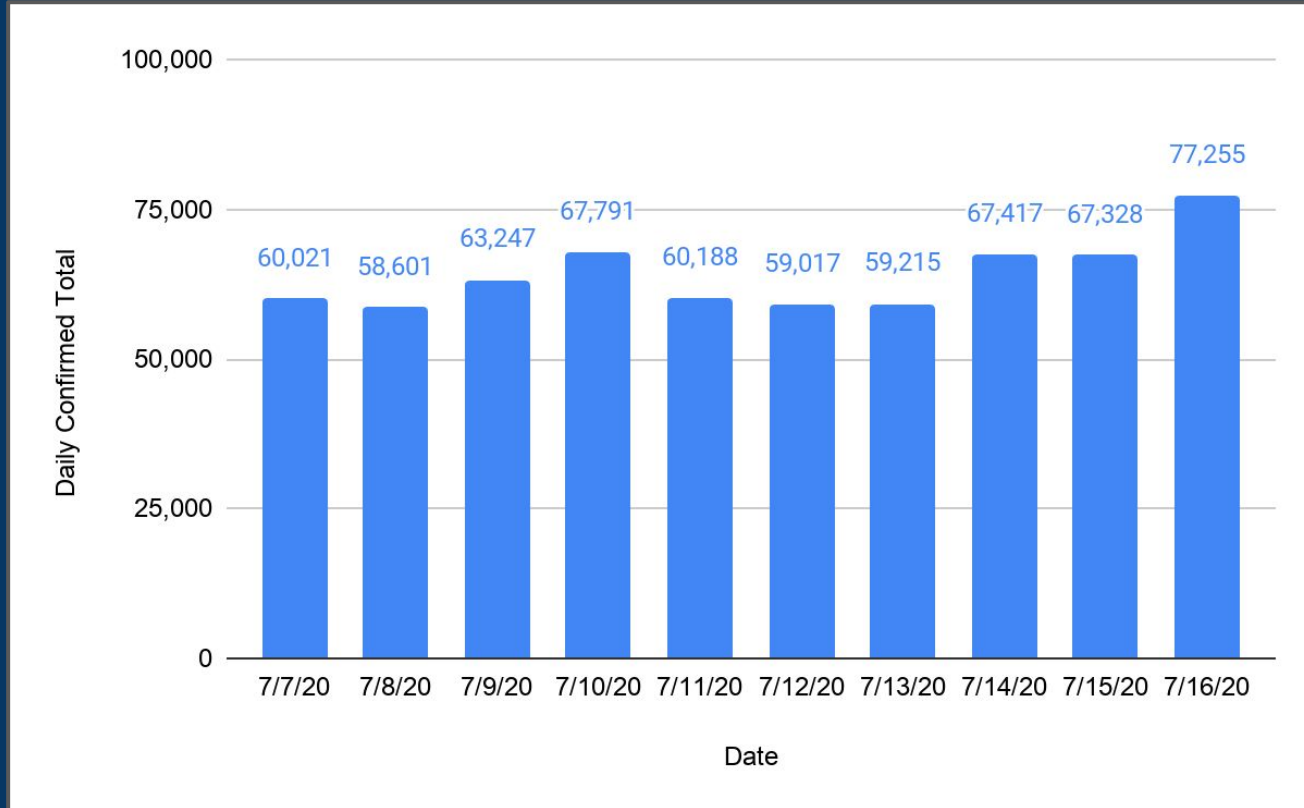
# COVID-19 Modeling

## July 17, 2020

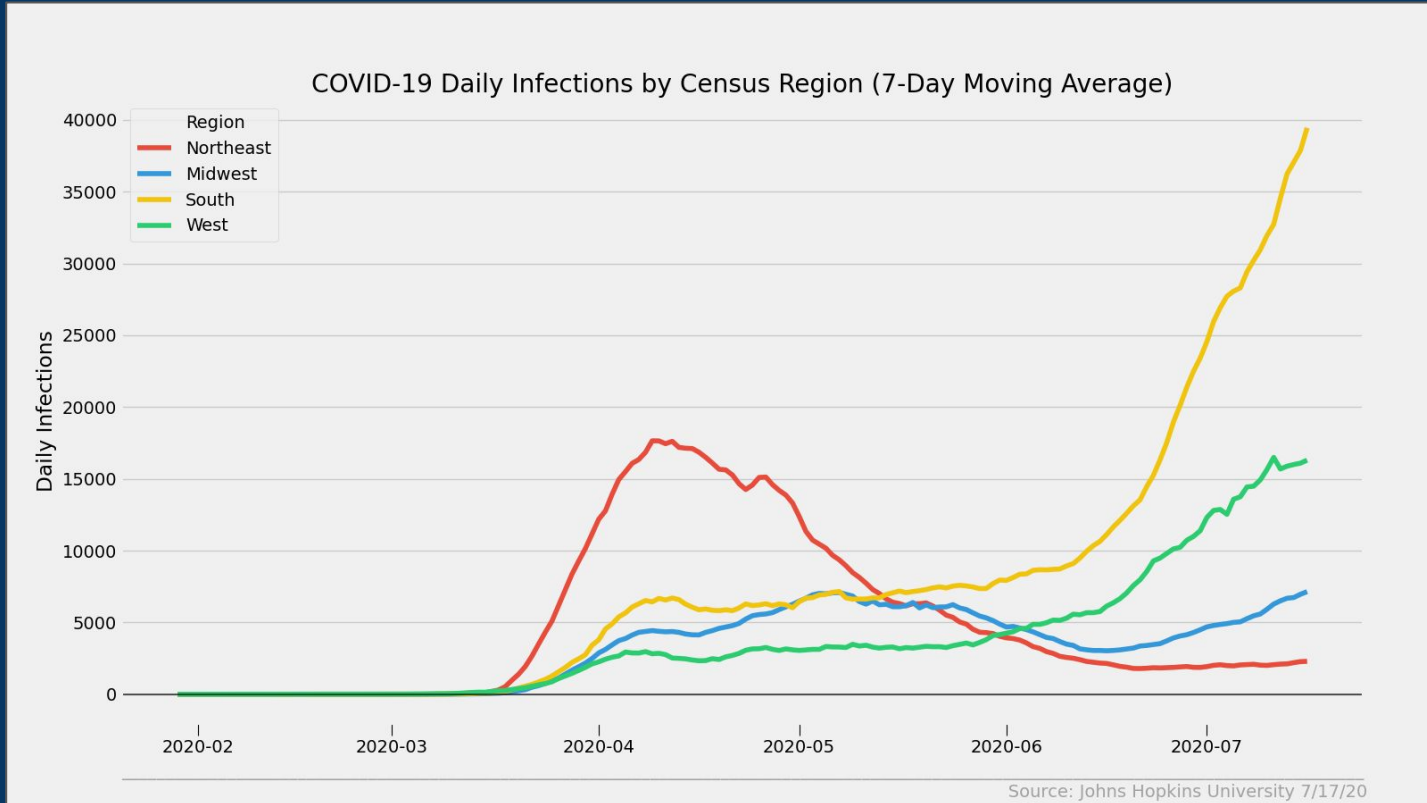
Presentation available at:  
[dfr.vermont.gov](https://dfr.vermont.gov)

# National Data

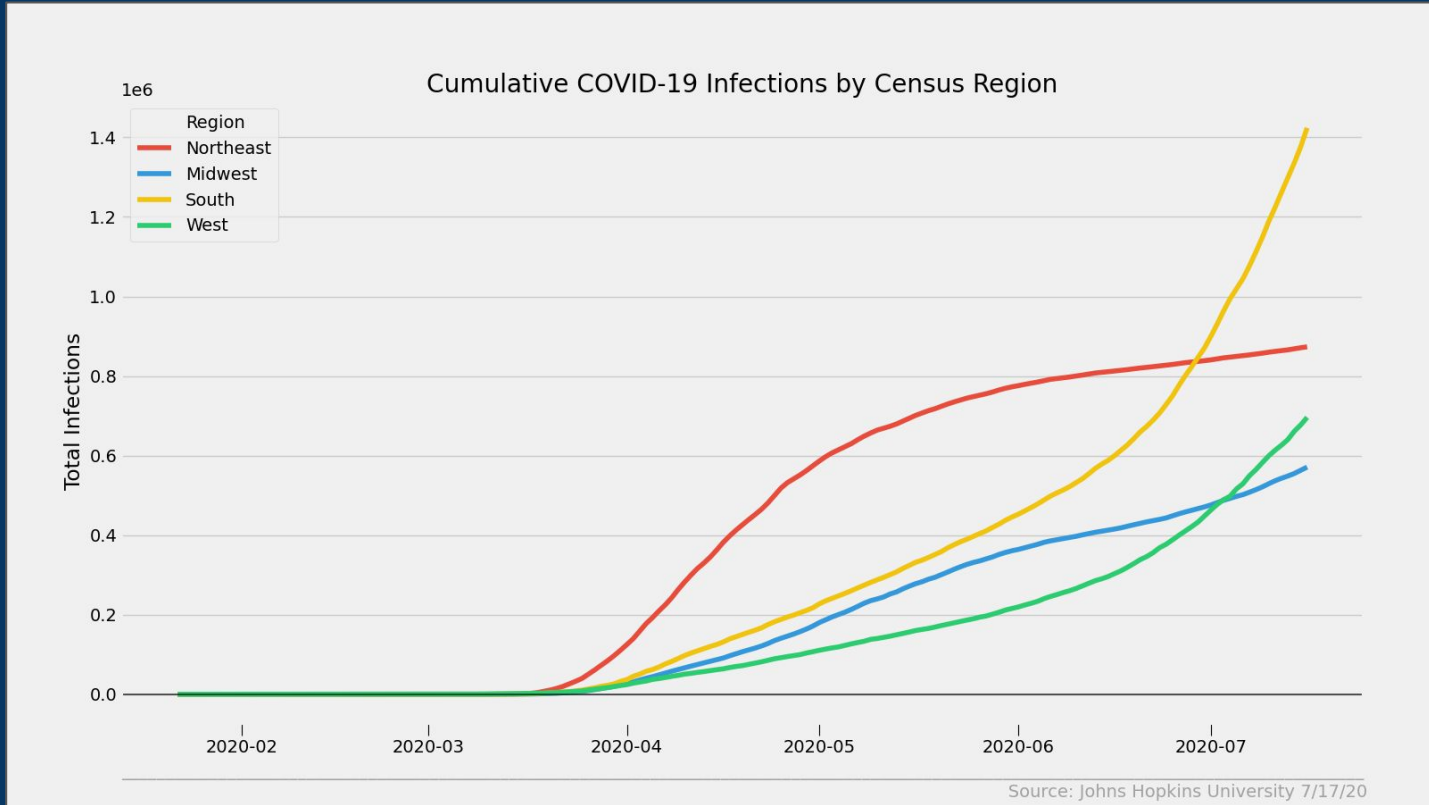
# Confirmed U.S. Cases Last 10 Days



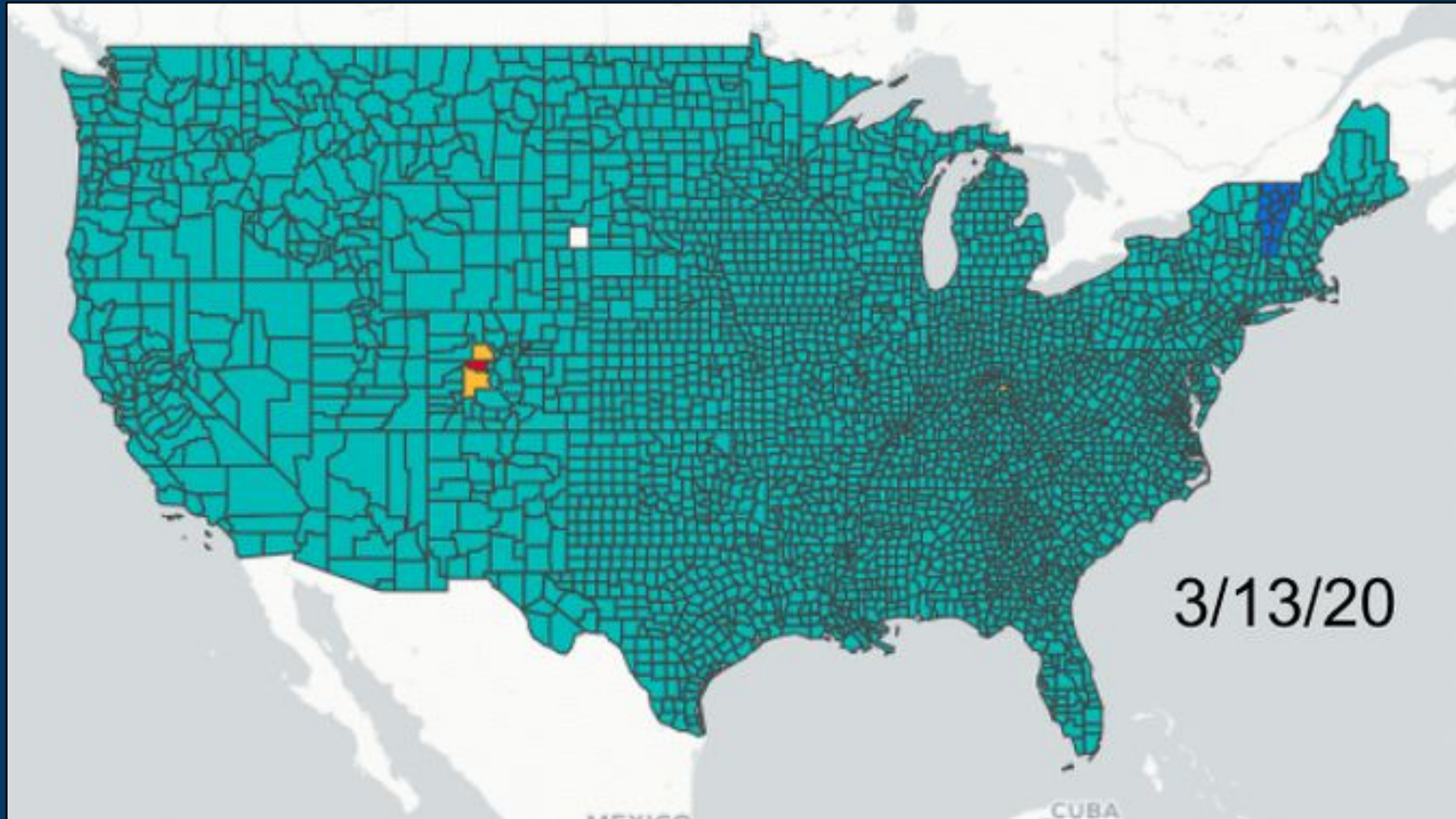
# National Data



# National Data



# National Trends: Unfavorable Trajectory



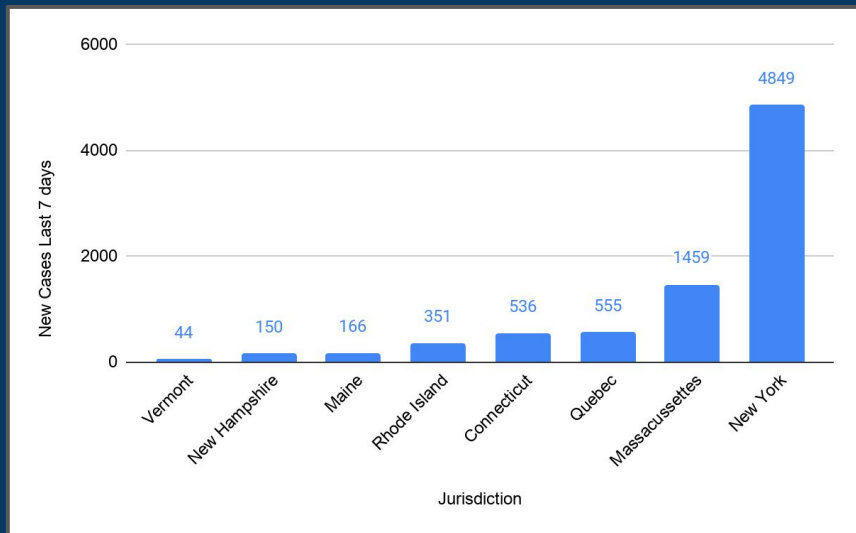
Source: Raw data from Johns Hopkins University—July 17, 2020

# Regional Data

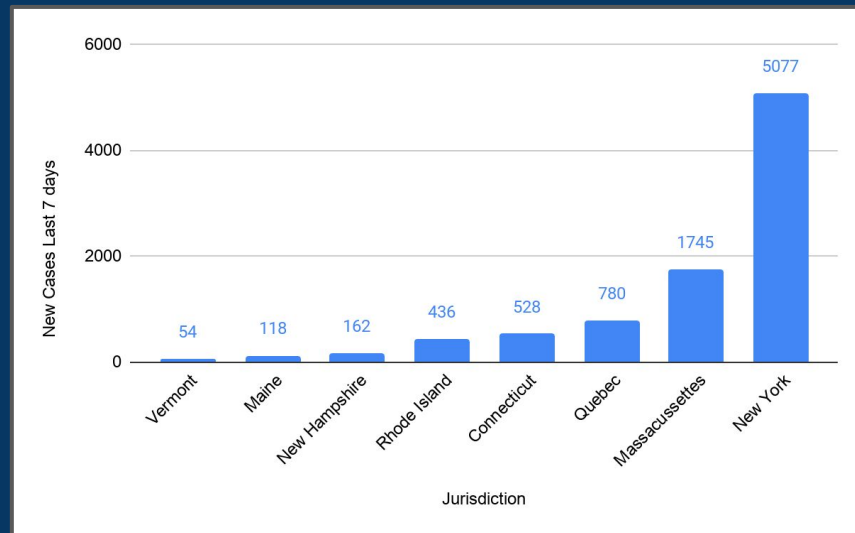
# Regional Monitoring: New Cases Last 7 Days

**9.74% Increase in New Confirmed Cases**

Positive Cases July 2nd to July 8th

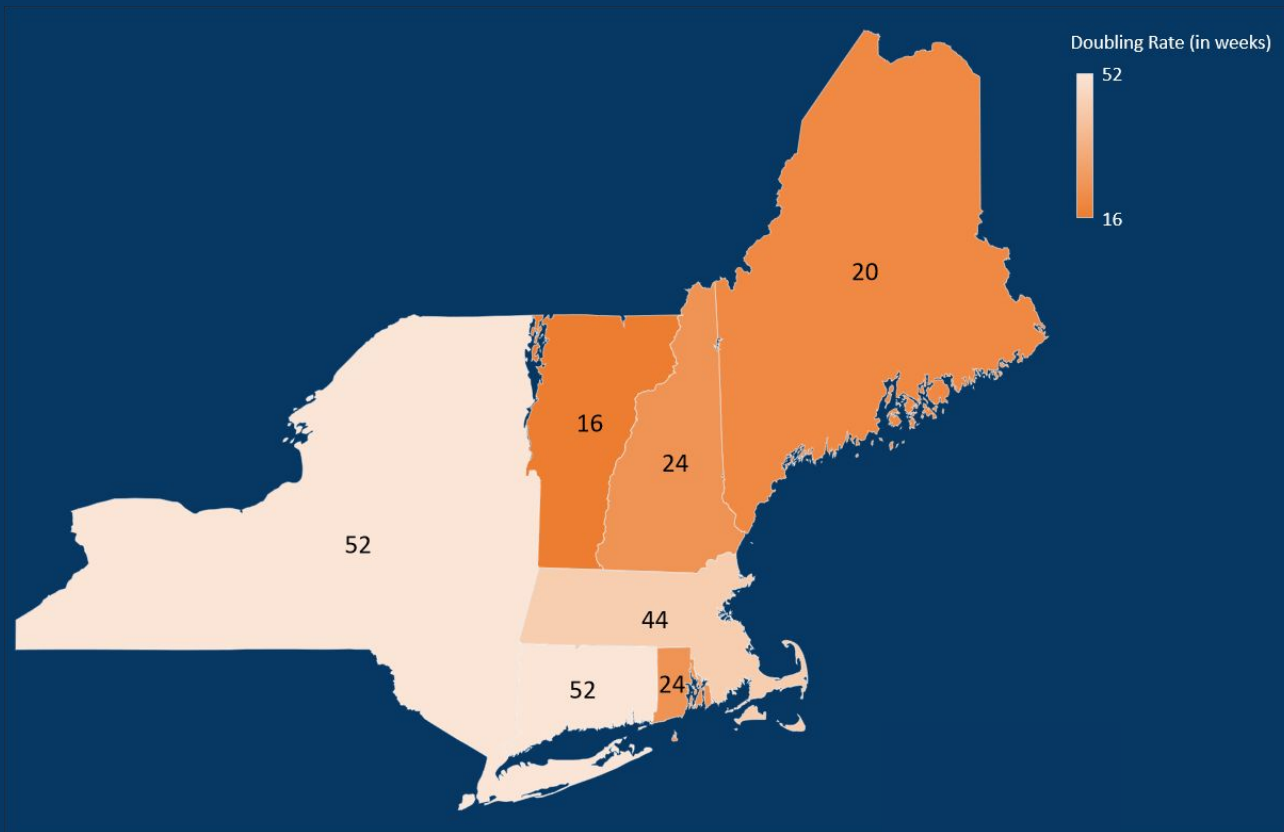


Positive Cases July 9nd to July 16th

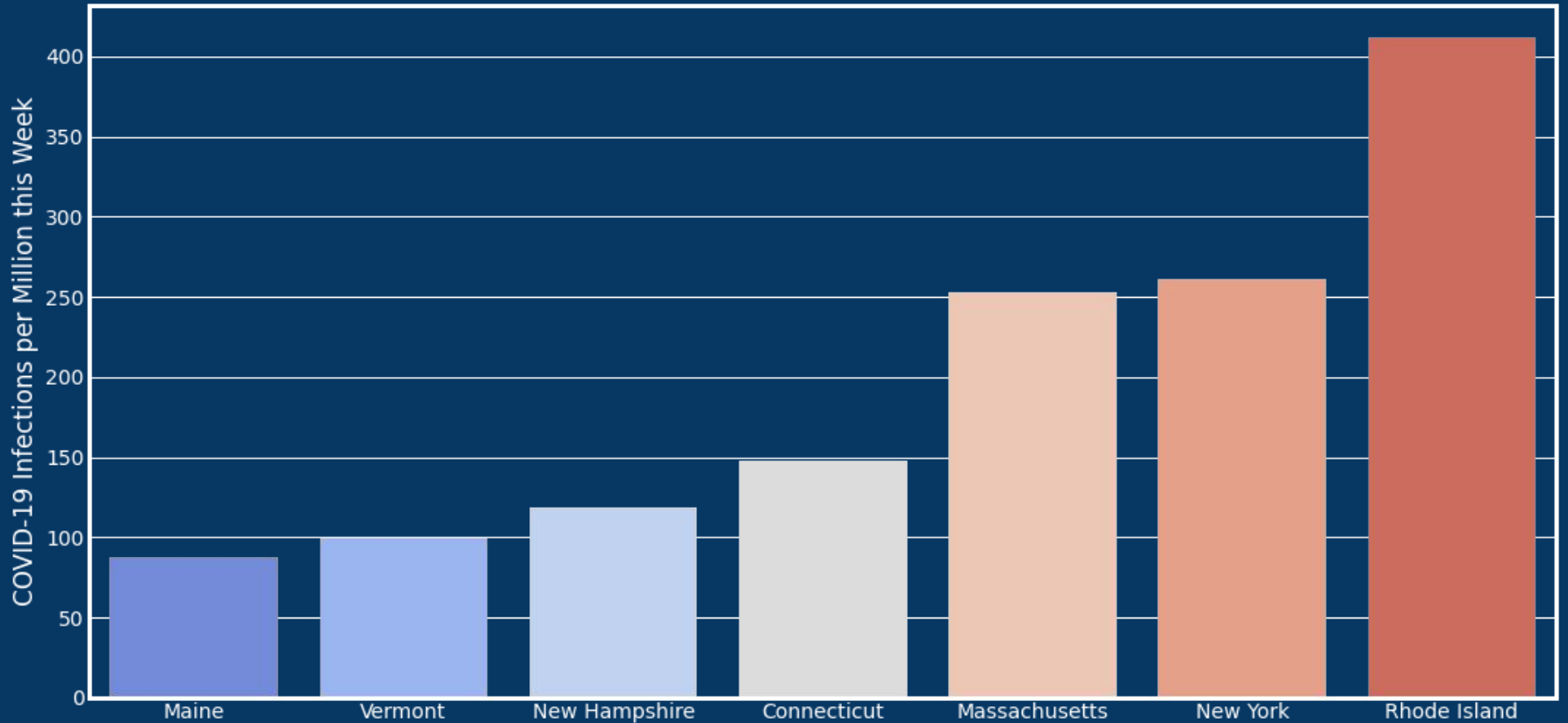




# Vermont's Doubling Rate: 16 Weeks

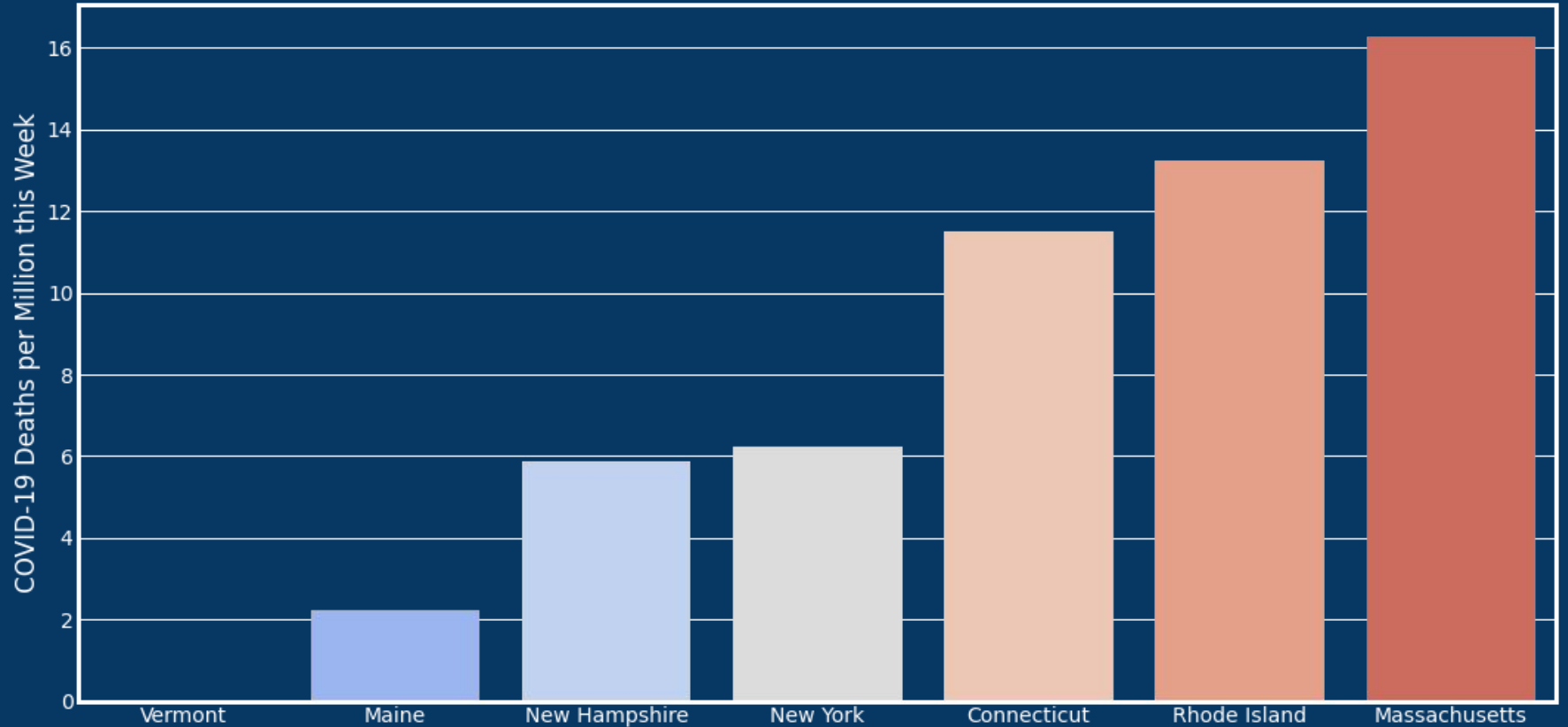


# Weekly Infections per Million



Source: Johns Hopkins University, July 10 - July 17, 2020

# Weekly Deaths per Million



Source: Johns Hopkins University, July 10 - July 17, 2020

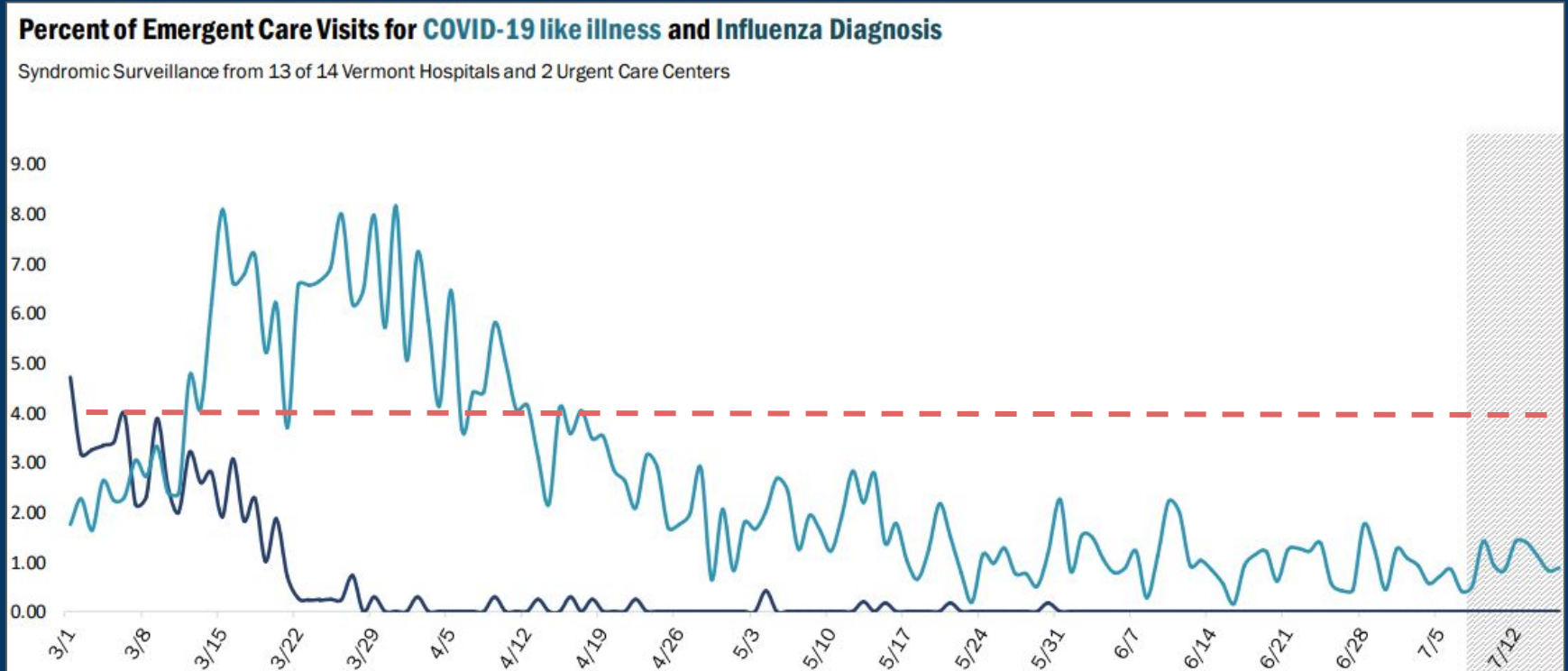
# RESTART VERMONT

## Reopening Metrics

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

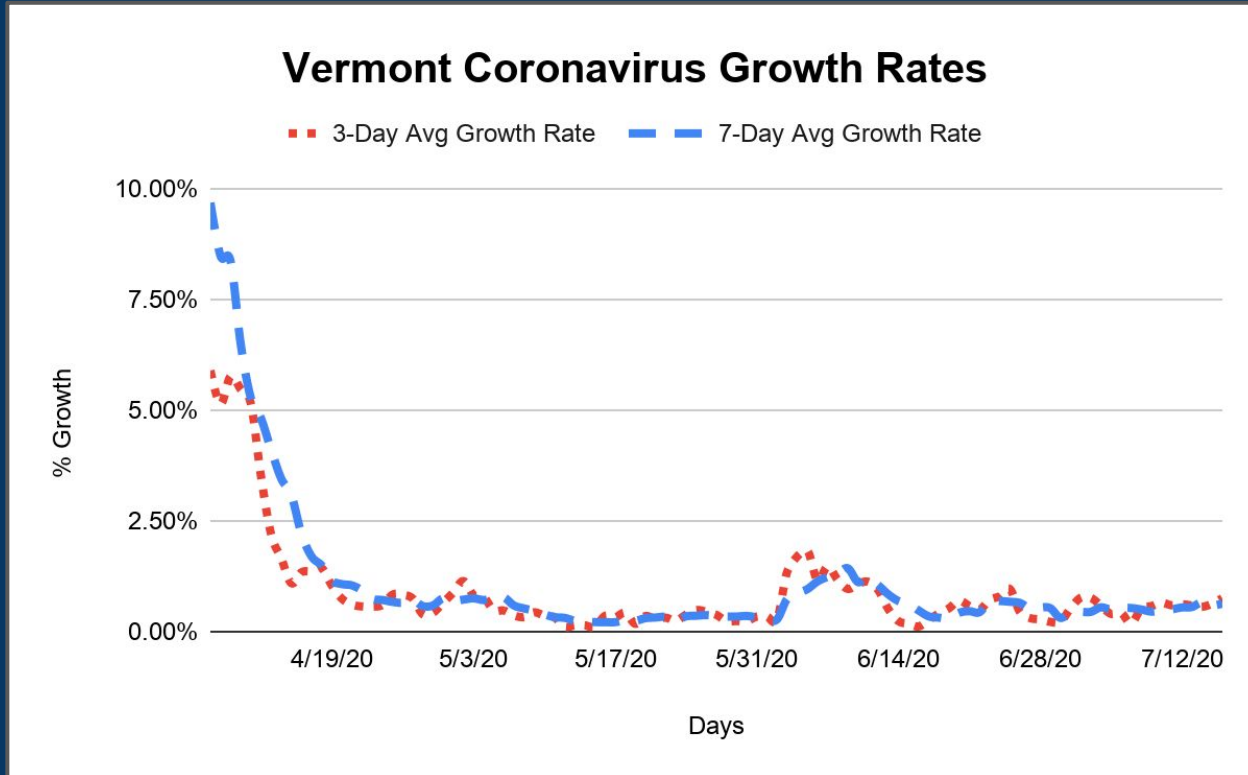
# Data Point 1: Syndromic Surveillance

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



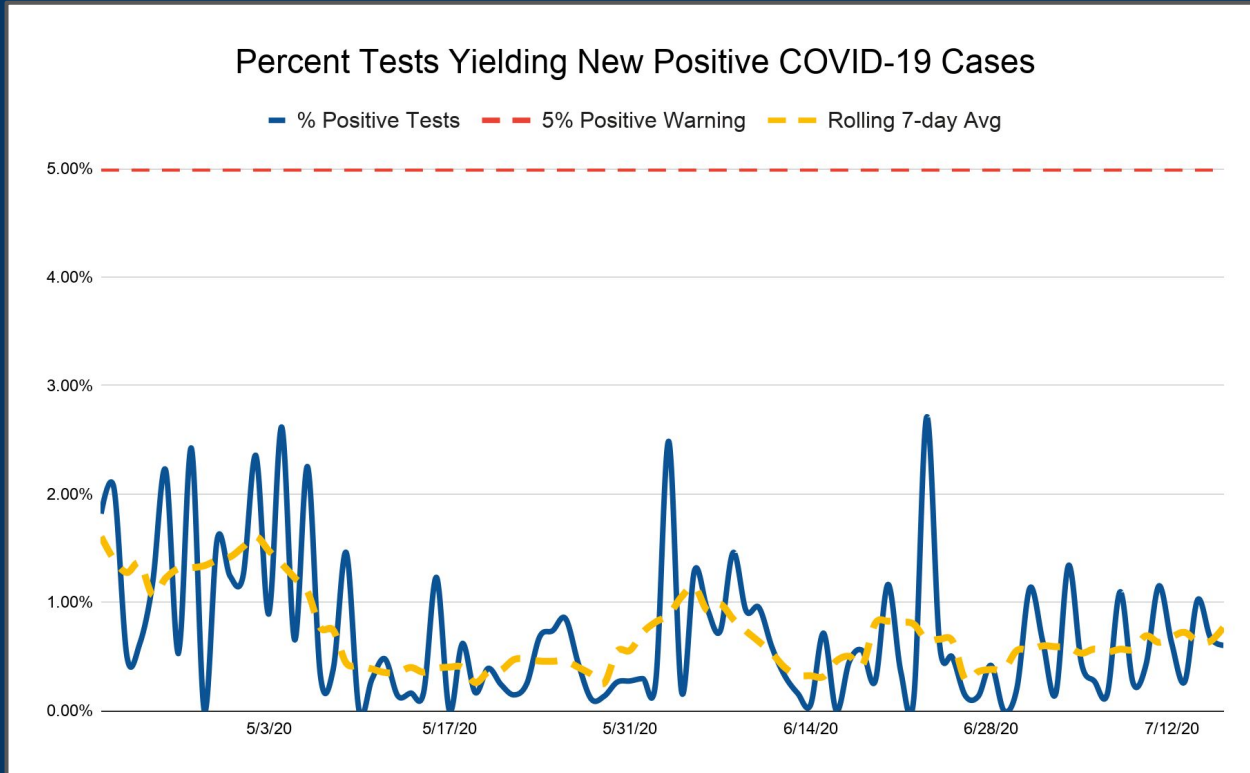
## Data Point 2: Viral Growth and Reproductive Rates

- **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



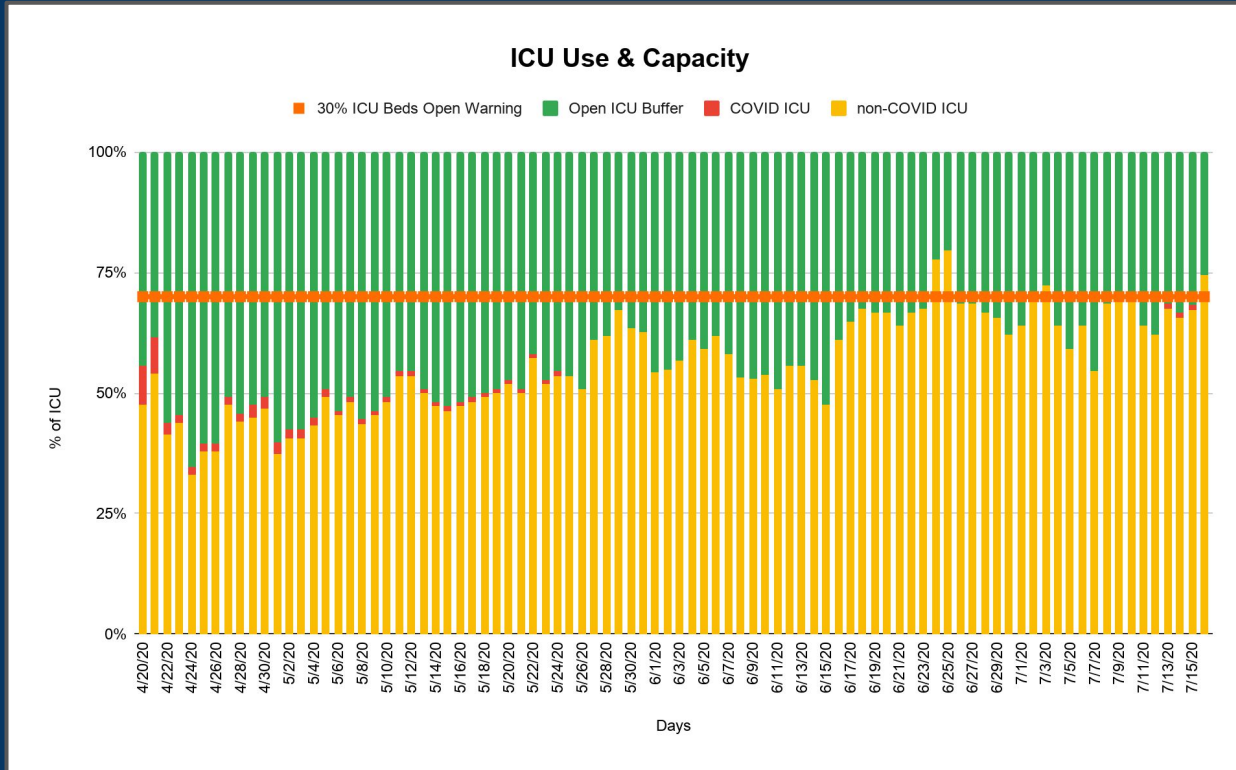
# Data Point 3: Percentage of New Positive Tests

- **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%

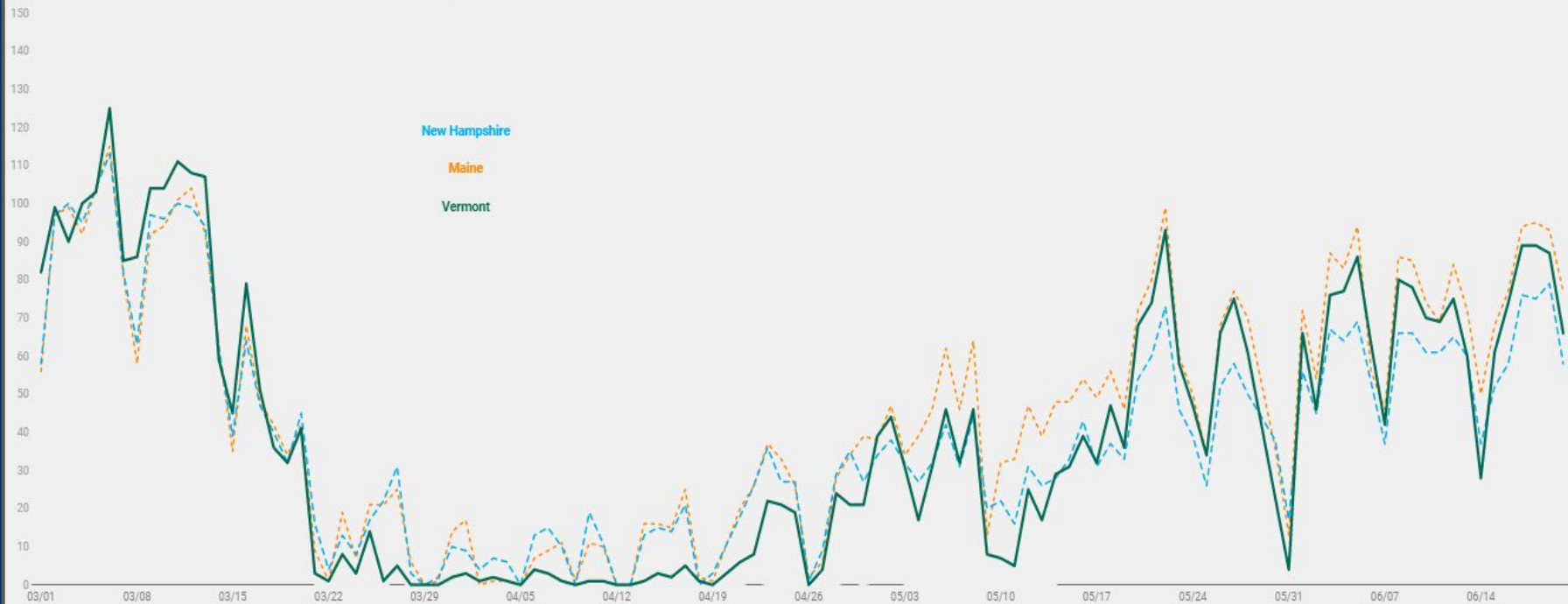




# Mobility Data: Small Weekly Increases in Movement

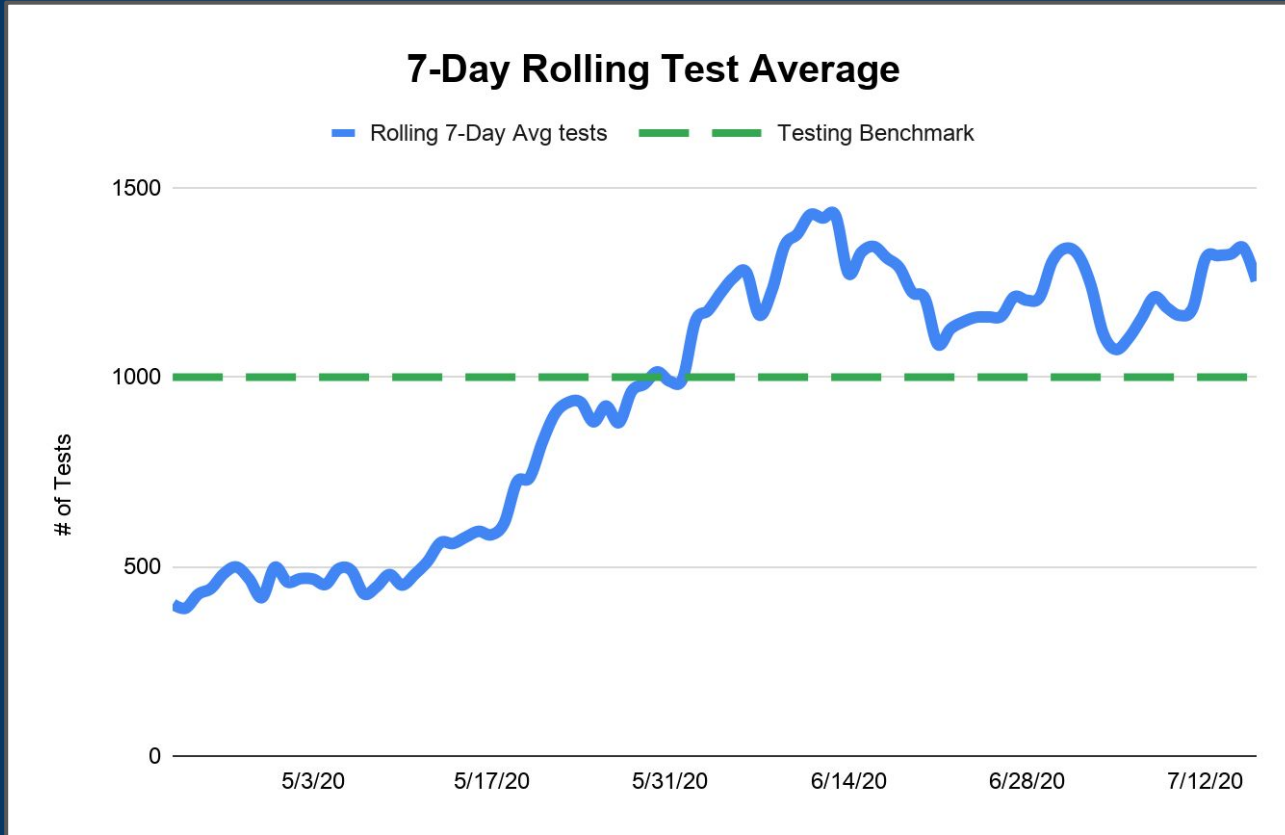
## Percent Change in Median Distance Traveled by Individuals

'Median distance' defined during 2020-02-17 to 2020-03-07. Values depict % change for individual with median distance traveled of sample population by state.



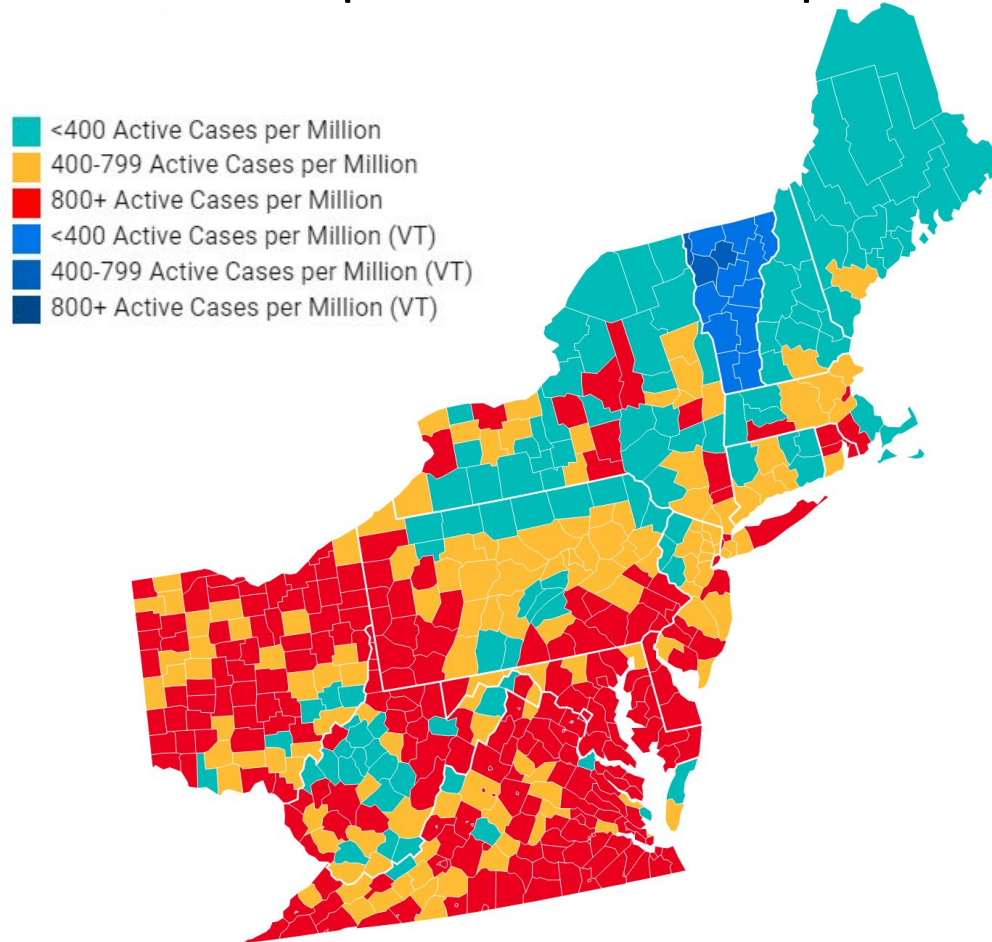
Updated Daily (3 day data processing delay)

# Vermont COVID-19 PCR Testing



# Travel Policy Update

# Updated Travel Map

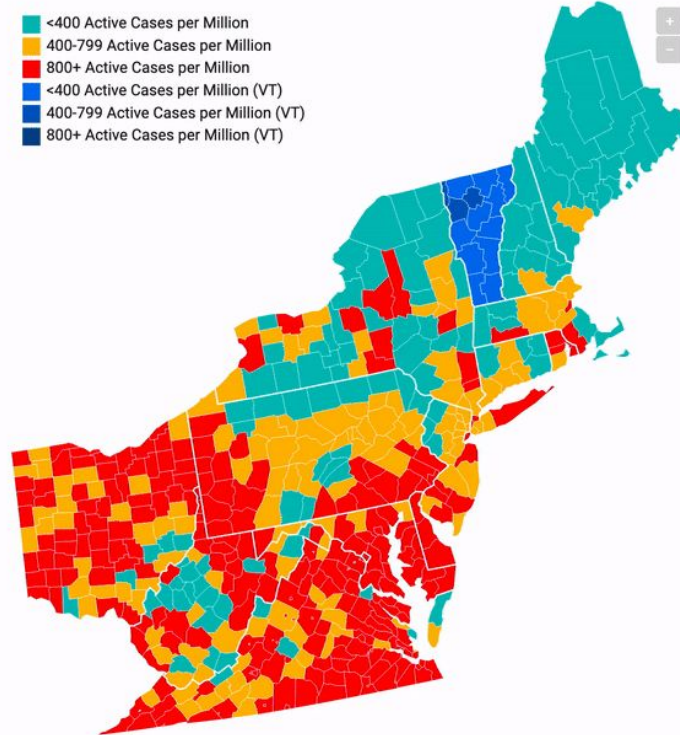


Source: Raw data from Johns Hopkins University—July 17, 2020 (dynamic map available at Vermont ACCD site)

# Travel Map: Updated Formatting

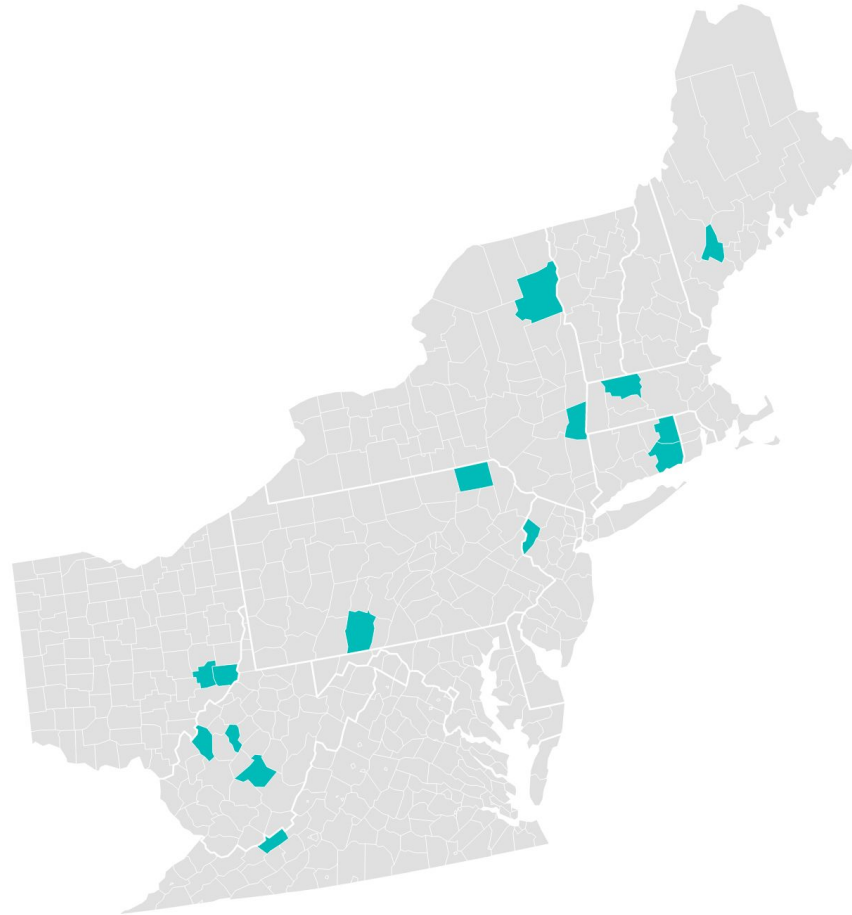
## Estimated Active Cases per Million in VT Travel Region

Visitors from **green** counties may travel to Vermont with no quarantine, while those from **yellow** or **red** counties are subject to travel restrictions. **Vermont** counties are evaluated via different metrics, and so are exempt from travel restrictions.

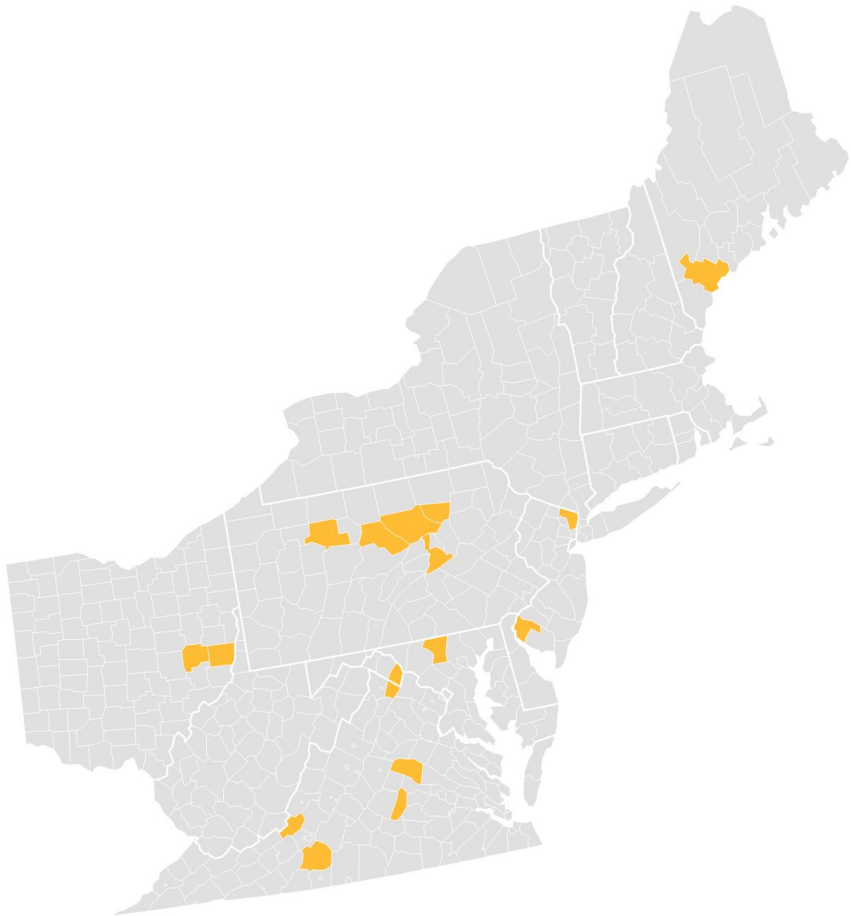


Source: Raw data from Johns Hopkins University—July 17, 2020 (dynamic map available at Vermont ACCD site)

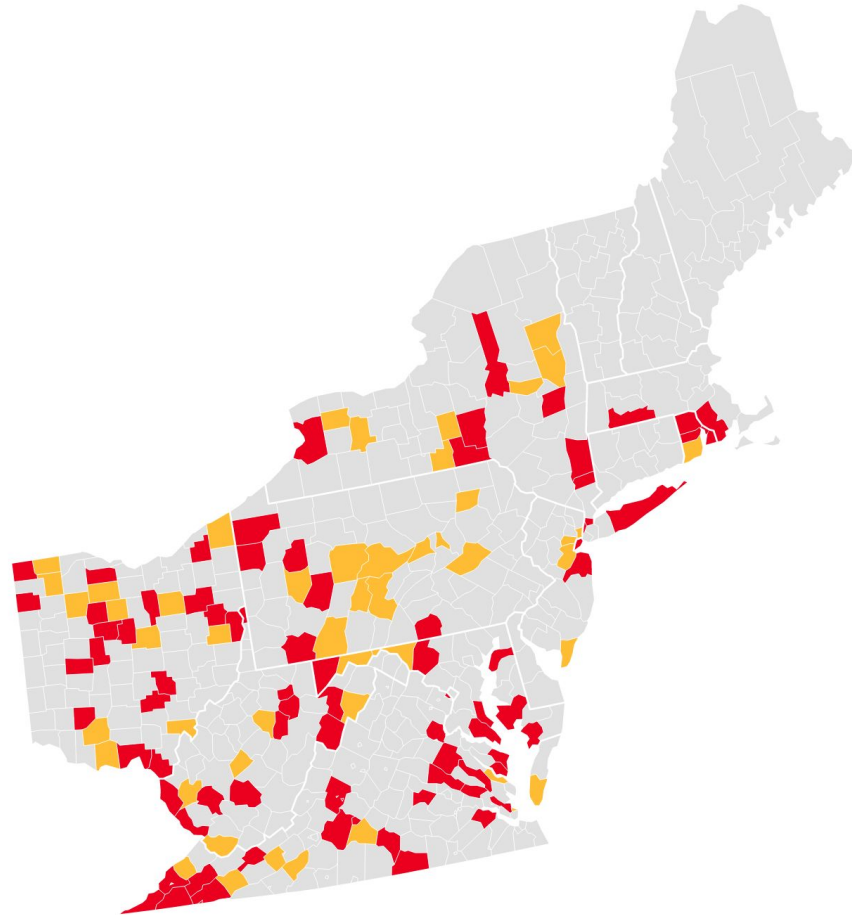
# Travel Map: New Green Counties



# Travel Map: Counties Falling from Red to Yellow



# Travel Map: Counties with Unfavorable Growth





# Travel Policy Standards

New York/Connecticut/New Jersey

Vermont

European Union

