COVID-19 Modeling
July 10, 2020

Presentation available at: dfr.vermont.gov
Weekly Data & Forecast

July 3, 2020 to July 10, 2020
Forecast vs Actual June 18th to July 15th
7-Day Rolling Average

Source: Oliver Wyman (OW) July 9, 2020 Model
Vermont: Data Update

COVID-19 Hospitalizations and % Infection Growth (14 Day Average)

Source: Raw data from VDH - July 10, 2020
Vermont: Data Update

COVID-19 Hospitalizations and Average Age of Infected Individuals (14 Day Average)

Source: Raw data from VDH - July 10, 2020
Mobility Data: Continued Increased Movement

Source: Descartes Labs – July 6, 2020
Vermont COVID-19 PCR Testing

7-Day Rolling Test Average

Source: Vermont Department of Health; tests measured as results reported to VDH by day
Vermont’s Doubling Rate: 20 Weeks

Data Source: Johns Hopkins University - July 10, 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

Source: Vermont Department of Health
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

Source: Vermont Department of Health
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

Source: Vermont Department of Health
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%

Source: Vermont Department of Health
National & Regional Data
National Data

Cumulative COVID-19 Infections by Census Region

Source: Raw data from Johns Hopkins University - July 10, 2020
National Data

Cumulative COVID-19 Infections per Million by Census Region

Source: Raw data from Johns Hopkins University - July 10, 2020
Regional Monitoring: New Cases Last 7 Days

1.33% Increase in New Confirmed Cases

Positive Cases June 26th to July 1st

Positive Cases July 2nd to July 8th

Source: Johns Hopkins University
Weekly Infections per Million

Source: Johns Hopkins University, July 3 - July 10, 2020
Weekly Deaths per Million

Source: Johns Hopkins University, July 3 - July 10, 2020
Travel Policy Update
Travel Policy: Data Updates

Source: Raw data from Johns Hopkins University—July 10, 2020 (dynamic map available at Vermont ACCD site)
Trending Favorably: Counties Moving from Yellow or Red to Green

Source: Raw data from Johns Hopkins University—July 10, 2020 (dynamic map available at Vermont ACCD site)
Trending Favorably: Counties Moving from Red to Yellow

Source: Raw data from Johns Hopkins University—July 10, 2020 (dynamic map available at Vermont ACCD site)
Trending Unfavorably: Counties Moving to Yellow or Red

Source: Raw data from Johns Hopkins University—July 10, 2020 (dynamic map available at Vermont ACCD site)