COVID-19 Modeling
March 29, 2022

Presentation available at: dfr.vermont.gov
Cases of COVID-19 in Vermont remain stable, with confirmed cases averaging 131 per day over the last week. Reported infections remain flat across age groups.

Hospital admissions and inpatient counts declined this week. The number of Vermonters hospitalized for COVID-19 is down 87% from the Omicron peak, and those requiring ICU care has decreased 94%. Today, Vermont is reporting no individuals in the ICU for COVID-19. Hospitalizations for the virus continue to be most common among unvaccinated and older Vermonters.

COVID-19 fatalities have fallen this month, with 13 confirmed COVID-19 deaths thus far in March, down from 59 last month. March is on track to record the lowest fatality count since July of 2021. A total of 617 Vermonters have been lost to COVID-19.

While the spread of the Omicron BA.2 variant and rise in international infections remain a cause for concern, cases across New England are rising slowly, increasing 11% over the past week, with growth concentrated in Massachusetts and Connecticut. According to the CDC, the BA.2 subvariant is now the predominant form of COVID-19 in the United States. The subvariant is more prevalent in New England, where it makes up more than an estimated 70% of cases.
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Vermont Case Data
Vermont is averaging **131 cases** over the last 7 days

The 7-day average has **decreased 11%** over the last 7 days & **increased 13%** over the last 14 days

Source: VDH—March 28, 2022; created with Datawrapper
Vermont reported 916 new COVID-19 cases this week, 109 fewer cases compared to last week.
Week-over-week testing decreased, with the 7-day average **decreasing 5.5%**
Vermont PCR Test Positivity

Test positivity **was flat** over the last 7 days

Source: VDH—March 28, 2022; created with Datawrapper
The not fully vaccinated case rate has **decreased 24%** in the last 7 days.

The fully vaccinated rate has **increased 12%** during the same period.

Source: VDH & CDC—March 26, 2022; Created with Datawrapper
Estimated Active Cases per Million in All Vermont Counties

Source: VDH—March 28, 2022; created with Datawrapper
Over the last 7 days, cases have:

- Decreased 18% for ages 0 to 24
- Decreased 19% for ages 25 to 49
- Increased 13% for ages 50 to 64
- Decreased 5% for ages 65+
COVID-19 cases stable across age groups

Vermont Case Rates Per 100K By Age (7-Day Average) Since March 1st
VT COVID-19 Infections per 100K by Age Group

Source: VDH—March 28, 2022; created with Datawrapper
VT COVID-19 Infection Confidence Intervals

Calculated as a 7-day mean. Inner and outer bands represent 50% and 95% confidence intervals, respectively.

Vermont COVID-19 cases are expected to remain relatively low over the coming weeks, however, there is some uncertainty with the spread of the Omicron BA.2 subvariant.
VT COVID-19 Death Confidence Intervals

Calculated as a 7-day mean. Inner and outer bands represent 50% and 95% confidence intervals, respectively.

COVID-19 fatalities are expected to remain low over the next 4 weeks

Source: Johns Hopkins University & CDC—March 29, 2022; created with Datawrapper
### Active Outbreaks in Long Term Care Facilities

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Total COVID-19 Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bel-Aire Center</td>
<td>66</td>
</tr>
<tr>
<td>Springfield Rivers Nursing &amp; Rehab</td>
<td>62</td>
</tr>
<tr>
<td>Greensboro Nursing home</td>
<td>24</td>
</tr>
<tr>
<td>LTCF A</td>
<td>24</td>
</tr>
<tr>
<td>Loretto Home</td>
<td>13</td>
</tr>
<tr>
<td>Thompson House</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>201</strong></td>
</tr>
</tbody>
</table>

Source: Vermont Department of Health—March 28, 2022 (reporting Monday through previous Sunday); 'Active' defined as less than 28 days since most recent case’s specimen collection date or illness start date (whichever is later); *privacy suppressions include facility w/ <25 staff and residents and/or >75% of facility infected
Vermont Hospitalization Data
Vermont New COVID-19 Hospital Admissions

Average hospital admissions decreased this week

Source: HHS—March 28, 2022; created with Datawrapper
Hospitalizations continued to decrease this week and are down 87% from the Omicron peak.

Source: VDH—March 28, 2022; created with Datawrapper
The number of COVID-19 patients in the ICU decreased this week and is **down 94%** since the Omicron Peak.
Vermont Hospital Metrics
(7-Day Averages)

Vermont Hospital Beds Available Since July 1, 2021

- 80 beds available on March 28, 2022

Vermont ICU Beds Available Since July 1, 2021

- 26 ICU beds available on March 28, 2022

Source: VDH—March 28, 2022; created with Datawrapper
COVID-19 Hospitalization Rate Per 100K By Age Over The Last 6 Weeks

Hospitalizations continue to be more common among older Vermonters

Source: VDH—March 26, 2022; created with Datawrapper
COVID-19 Hospitalizations By Vaccination Status Per 100K

Measured Over the Last 6 Weeks

Those 18+ & **not fully vaccinated** were nearly **2.6x more** likely to be hospitalized from COVID-19 over the last 6 weeks compared to those **fully vaccinated & boosted**.
Vermont Fatality Data
617 COVID-19 deaths since the start of the pandemic

Source: VDH—March 29, 2022; created with Datawrapper; deaths attributed to month in which death occurred rather than reported
Vermont Vaccination Data
## Vermont CDC Vaccine Scorecard

<table>
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<tr>
<th>Vaccine Metric</th>
<th>Ranking</th>
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<tr>
<td>Doses Administered per 100K</td>
<td>1</td>
</tr>
<tr>
<td>% At Least 1 Dose (5+ Population)</td>
<td>1 (tied)</td>
</tr>
<tr>
<td>% Fully Vaccinated (5+ Population)</td>
<td>2</td>
</tr>
<tr>
<td>% At Least 1 Dose (Full Population)</td>
<td>3</td>
</tr>
<tr>
<td>% Fully Vaccinated (Full Population)</td>
<td>2</td>
</tr>
<tr>
<td>% Fully Vaccinated (65 &amp; Over)</td>
<td>1 (tied)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Booster Metric</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Fully Vaccinated w/ booster dose</td>
<td>1</td>
</tr>
<tr>
<td>% of Fully vaccinated 12+ w/ booster doses</td>
<td>1</td>
</tr>
<tr>
<td>% of Fully vaccinated 18+ w/ booster doses</td>
<td>1</td>
</tr>
<tr>
<td>% of Fully vaccinated 65+ w/ booster doses</td>
<td>3</td>
</tr>
</tbody>
</table>
Vermont: Booster Shots Administered By Week

Source: CDC—March 28, 2022; created with Datawrapper
Regional Data
New England COVID-19 Cases

New England cases increased 11% over last 7 days & increased 18% over last 14 days

Sources: State Health Depts.—March 28, 2022 (includes: CT, ME, MA, NH, RI & VT)
COVID-19 cases stable across New England

Sources: State Health Depts.—March 28, 2022 (includes: CT, ME, MA, NH, RI & VT)
COVID-19 cases are up slightly in Massachusetts and Connecticut but generally stable across New England.
New England hospitalizations decreased 13% over last 7 days & decreased 25% over last 14 days.
New England COVID-19 Hospitalizations Trends

7-Day Average Hospitalizations Per 100K

Sources: HHS—March 28, 2022 (includes: CT, ME, MA, NH, RI & VT)
National Data
National COVID-19 Case Rates Per 100K Last 7 Days

Source: CDC—March 28, 2022; created with Datawrapper
COVID-19 Testing Per 100K Last 7 Days

Source: CDC—March 28, 2022; created with Datawrapper
COVID-19 Deaths Per 100K Last 7 Days

Source: CDC—March 28, 2022; created with Datawrapper
Daily COVID-19 Cases per Million in US Regions

Calculated as a 7-day moving average. Definitions of North, Midwest, South, and West taken from the U.S. Census bureau.

Source: JHU—March 29, 2022; 7-day averages; created with Datawrapper
RESTART VERMONT

Reopening Metrics

1. Syndromic Surveillance (*retired*)
2. Viral Growth & Reproductive Rates
3. Percentage of New Positive Tests
4. Hospital & Critical Care Bed Capacity
5. Testing Volume
Viral Growth & Reproductive Rates

Source: Vermont Department of Health
Test Positivity

Source: Vermont Department of Health; 7-day positivity calculated as positive tests last seven days/tests last seven days
Critical Care Beds

Source: Vermont Department of Health
Vermont Testing

Source: Vermont Department of Health; results reported to VDH daily