COVID-19 Modeling
April 5, 2022

Presentation available at: dfr.vermont.gov
Overview

Week over week, Vermont’s COVID-19 case load increased by 70, with the state averaging 150 confirmed infections per day. This increase comes as the proportion of the BA.2 Omicron subvariant grew 11% to an estimated 84% of all New England cases.

Hospital admissions for COVID decreased this week. On average over the last seven days, four Vermonters per day were admitted to the hospital for the virus. Patients in the ICU remained in the low single digits. Three more fatalities were reported this week in Vermont.

The number of booster doses administered in Vermont increased this week with the recommendation that those 50 and older and those with certain underlying health conditions receive a second booster dose of either the Pfizer or Moderna vaccine.

Cases across New England increased this week from 2,480 to 3,020 cases per day (+22%), still down considerably from the 38,000 cases per day at the height of the Omicron wave. Case growth appears to be largely concentrated in southern New England, specifically Connecticut (+75%) and Massachusetts (+22%). Additionally, Boston wastewater testing shows an increase in viral levels, but current trends continue to remain far below Omicron peak levels.
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Vermont Case Data
The 7-day average has increased from 129 to 150 (+16%) cases per day over the last week.
Vermont reported 994 new COVID-19 cases this week, **70 more cases** compared to last week.
Week-over-week testing decreased, with the 7-day average **decreasing 5%**.
Test positivity increased over the last 7 days
The not fully vaccinated case rate has increased **17%** in the last 7 days.

The fully vaccinated rate has increased **3%** during the same period.

Source: VDH & CDC—April 2, 2022; Created with Datawrapper
Estimated Active Cases per Million in All Vermont Counties

Source: VDH—April 4, 2022; created with Datawrapper
Over the last 7 days, cases have:

- **Increased 16%** for ages **0 to 24**
- **Increased 7%** for ages **25 to 49**
- **Decreased 12%** for ages **50 to 64**
- **Increased 21%** for ages **65+**
COVID-19 cases stable across age groups.
Vermont COVID-19 cases are expected to remain relatively low over the coming weeks, however, there is some increased 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—April 4, 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>67</td>
</tr>
<tr>
<td>Springfield Rivers Nursing &amp; Rehab</td>
<td>66</td>
</tr>
<tr>
<td>Helen Porter Healthcare &amp; Rehabilitation Center</td>
<td>30</td>
</tr>
<tr>
<td>Greensboro Nursing home</td>
<td>24</td>
</tr>
<tr>
<td>Thompson House</td>
<td>12</td>
</tr>
<tr>
<td>Our Lady of Providence</td>
<td>9</td>
</tr>
<tr>
<td>Converse Home</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>214</strong></td>
</tr>
</tbody>
</table>

Source: Vermont Department of Health—April 5, 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
Average hospital admissions decreased this week.
Hospitalizations were stable this week.
The number of COVID-19 patients in the ICU decreased this week.
Vermont Hospital Metrics
(7-Day Averages)

Vermont Hospital Beds Available Since July 1, 2021
- 102 beds available on April 4, 2022

Vermont ICU Beds Available Since July 1, 2021
- 29 ICU beds available on April 4, 2022

Source: VDH—April 4, 2022; created with Datawrapper
Hospitalizations continue to be more common among older Vermonters.
Those 18+ & not fully vaccinated were nearly 3.1x more likely to be hospitalized from COVID-19 over the last 6 weeks compared to those fully vaccinated & boosted.
Vermont Fatality Data
Vermont COVID-19 Fatalities

Source: VDH—April 4, 2022; created with Datawrapper
Monthly Covid-19 Deaths In Vermont

620 COVID-19 deaths since the start of the pandemic

Source: VDH—April 4, 2022; created with Datawrapper; deaths attributed to month in which death occurred rather than reported
Vermont Vaccination Data
### Vermont CDC Vaccine Scorecard

<table>
<thead>
<tr>
<th>Vaccine Metric</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<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>

Source: CDC—April 4, 2022
Vermont: Booster Shots Administered By Week

Source: CDC—April 4, 2022; created with Datawrapper
Regional Data
New England COVID-19 Cases

New England cases increased from 2,480 to 3,020 cases per day (+22%) in the last week.

During the peak of the Omicron wave, New England recorded 38,000 cases per day.

Sources: State Health Depts.—April 4, 2022 (includes: CT, ME, MA, NH, RI & VT)
New England COVID-19 Case Trends

7-Day Average Cases Per 100K

- Massachusetts
- Connecticut
- Rhode Island
- Maine
- New Hampshire
- Vermont

Maine data processing issues

Sources: State Health Depts.—April 4, 2022 (includes: CT, ME, MA, NH, RI & VT)
New England COVID-19 Case Trends Since March 1st

7-Day Average Cases Per 100K

- Massachusetts
- Connecticut
- Rhode Island
- Maine
- New Hampshire
- Vermont

Maine data processing issues

Sources: State Health Depts.—April 4, 2022 (includes: CT, ME, MA, NH, RI & VT)
Boston COVID-19 wastewater data slightly elevated over the last week.
New England COVID-19 Hospitalizations

New England hospitalizations **increase 2%** over last 7 days & **decreased 5%** over last 14 days

Sources: HHS—April 4, 2022 (includes: CT, ME, MA, NH, RI & VT)
Hospitalizations generally stable across New England
National Data
National COVID-19 Case Rates Per 100K Last 7 Days

Source: CDC—April 4, 2022; created with Datawrapper
COVID-19 Testing Per 100K Last 7 Days

Source: CDC—April 4, 2022; created with Datawrapper
COVID-19 Deaths Per 100K Last 7 Days

Source: CDC—April 4, 2022; created with Datawrapper; variances in state reporting may influence ranking
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.

- **Northeast**
- **Midwest**
- **South**
- **West**

Source: JHU—April 4, 2022; 7-day averages; created with Datawrapper
US COVID-19 Infection Confidence Intervals

Calculated as a 7-day mean. Inner and outer bands represent 50% and 95% confidence intervals, respectively.
US COVID-19 Death Confidence Intervals

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

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

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