COVID-19 Modeling April 26, 2022

Presentation available at:
dfr.vermont.gov

Overview

Cases of COVID-19 this week in Vermont increased again, growing from an average of 261 to 283 (+8.5%) cases per day over the last seven days while testing was flat.

Hospital admissions and inpatient numbers increased this week, with those hospitalized for COVID in Vermont growing 42% over the last seven days. However, the average number of Vermonters in the ICU has fallen this week, although low counts create instability in the percentage change. One more Vermonter has died of the virus. The total death toll is now 630 lives lost.

Regionally, Boston COVID-19 wastewater data started to trend down over the last week, though with school vacations fewer people may have been in metro Boston last week. National modeling projects cases may ease slightly in the coming weeks, perhaps signaling the Omicron BA.2 variant wave could begin to subside in the Northeast.
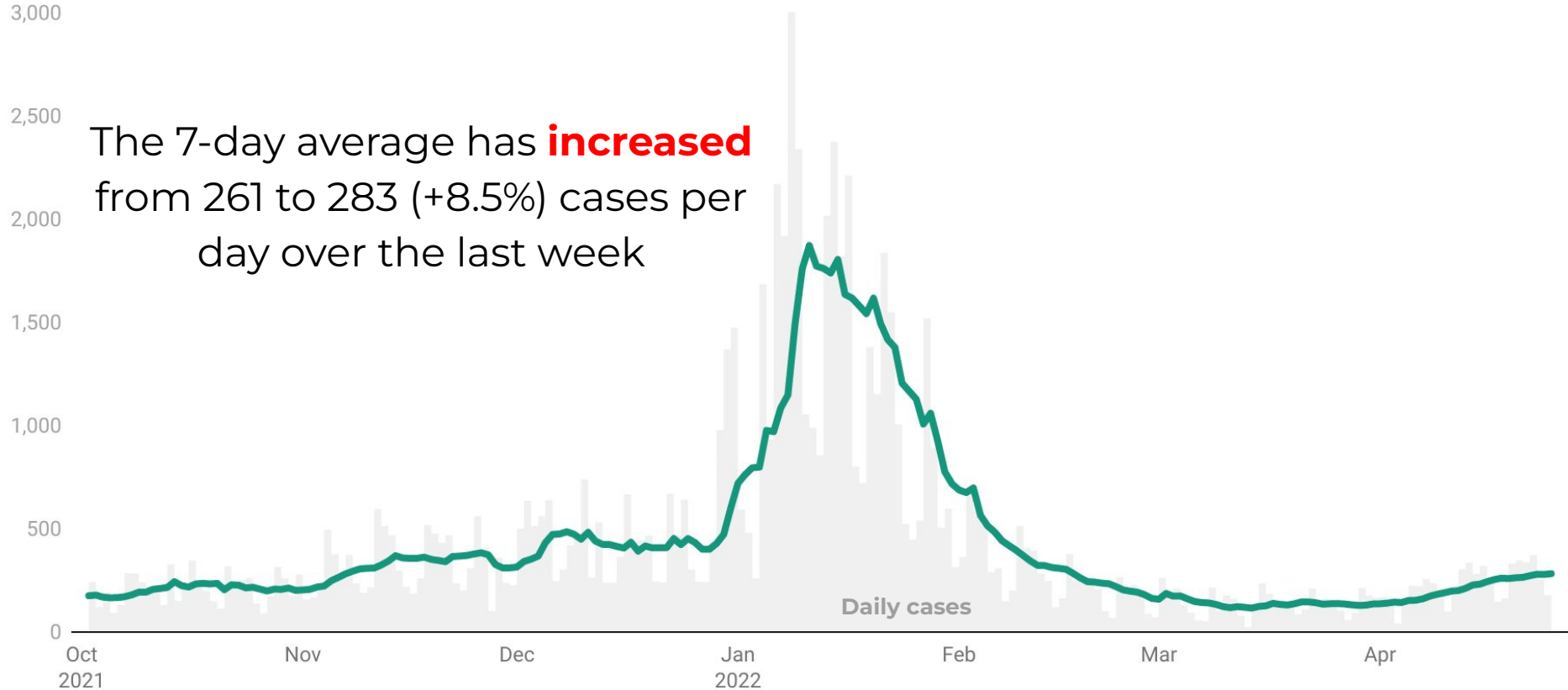
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Vermont Case Data

Vermont New COVID-19 Cases

— **7-Day Average**

The 7-day average has **increased** from 261 to 283 (+8.5%) cases per day over the last week

Daily cases

3,000

2,500

2,000

1,500

1,000

500

0

Oct
2021

Nov

Dec

Jan
2022

Feb

Mar

Apr

Vermont New Weekly COVID-19 (
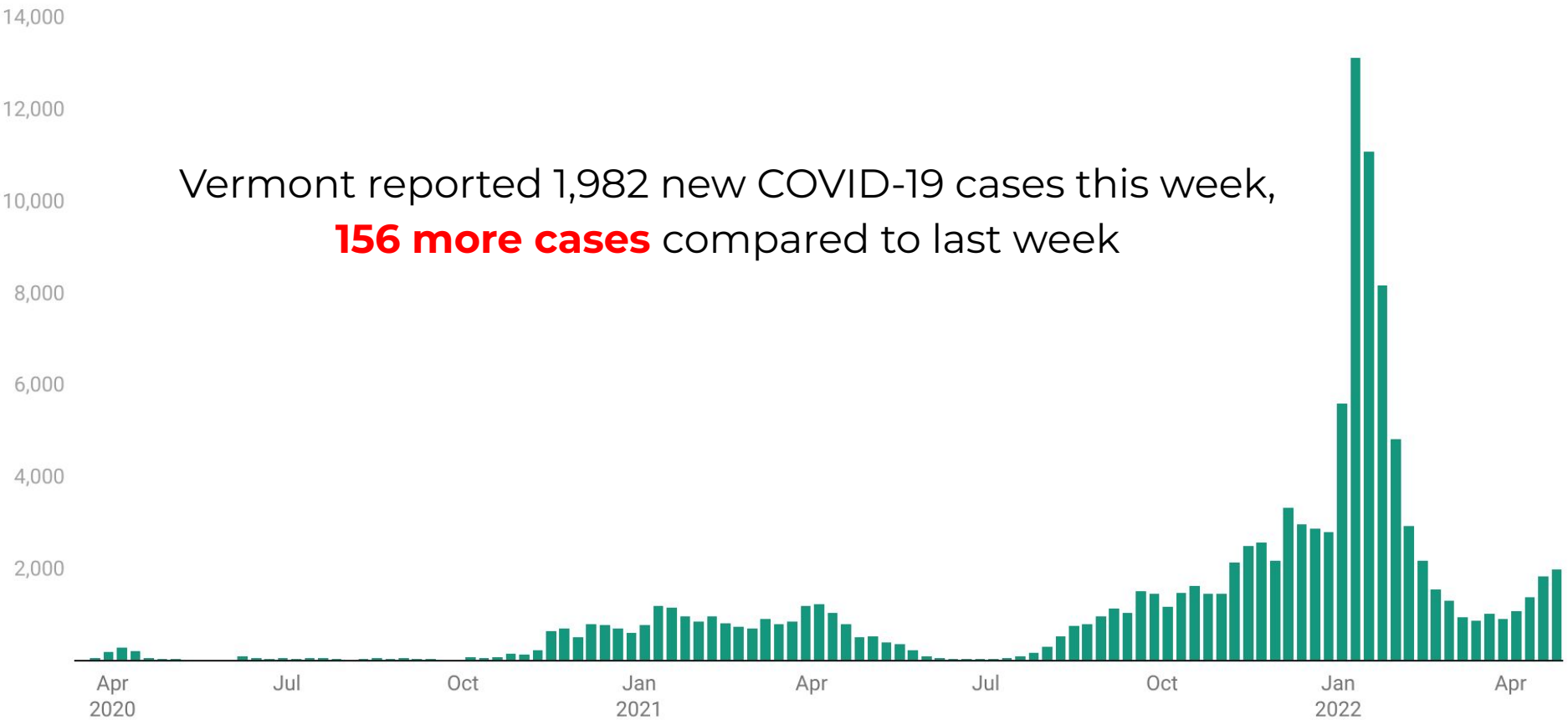
Vermont reported 1,982 new COVID-19 cases this week,
156 more cases compared to last week

Vermont COVID-19 PCR Testing

— 7-Day Average
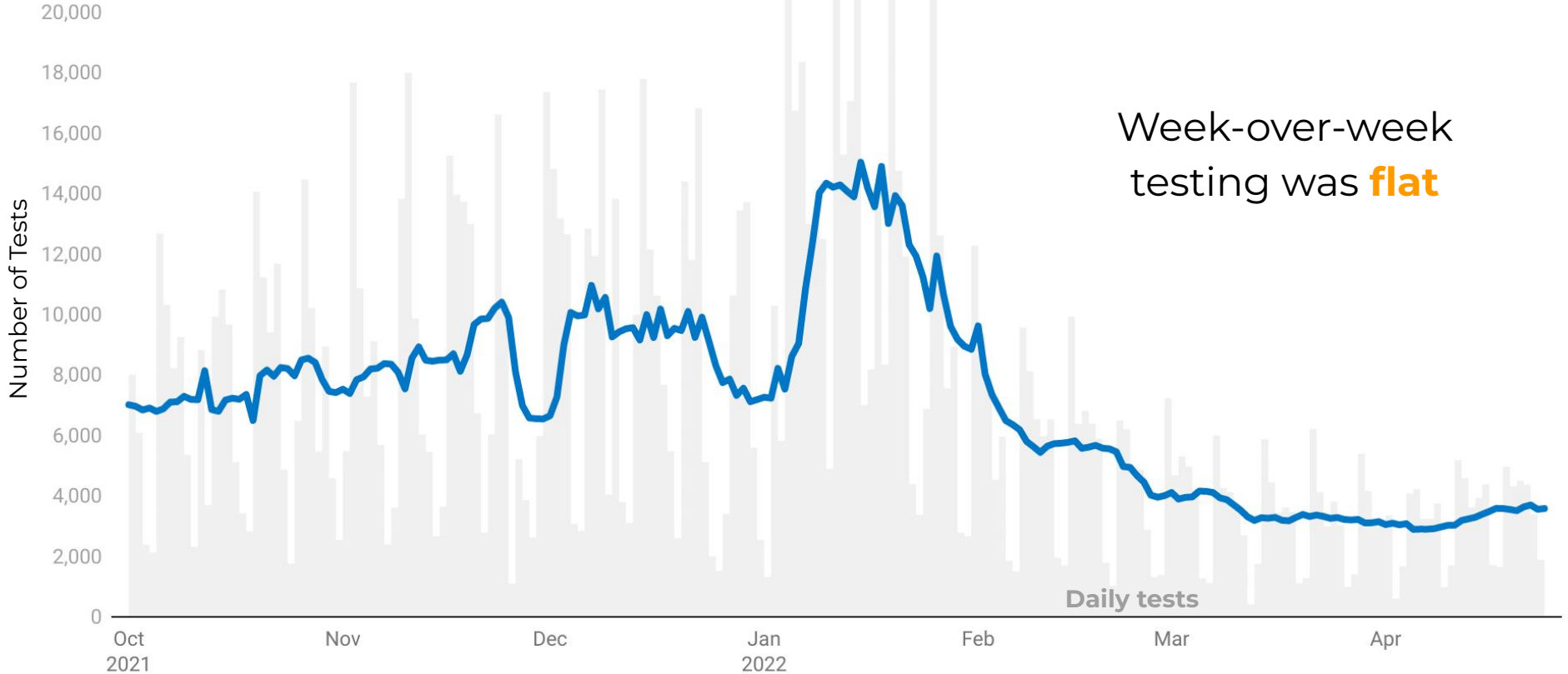
Week-over-week testing was **flat**

Daily tests

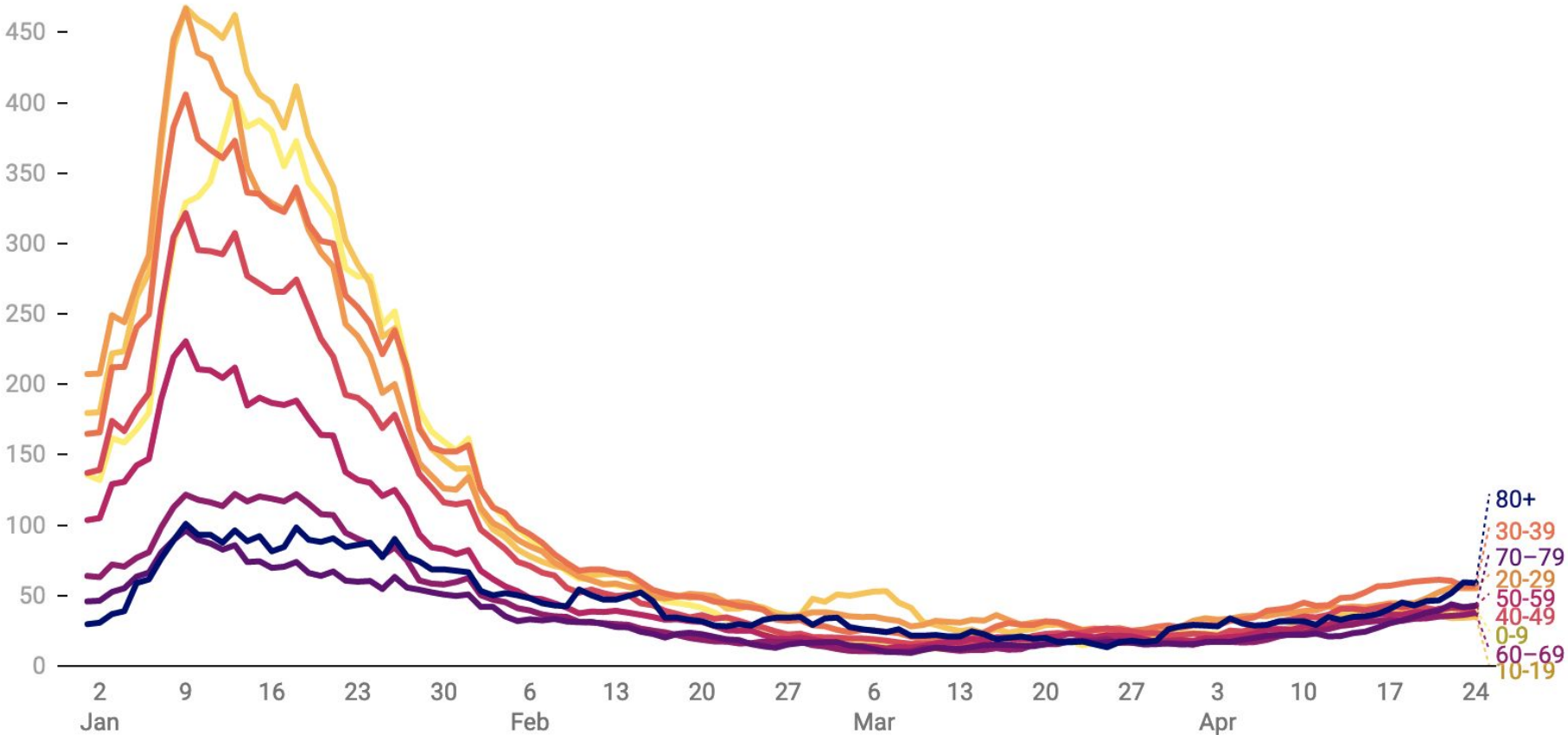# Vermont PCR Test Positivity

— 7-Day Positivity Rate

Test positivity **increased**
over the last 7 days

Daily PCR test positivity

Positivity %

18
16
14
12
10
8
6
4
2
0

Oct
2021

Nov

Dec

Jan
2022

Feb

Mar

Apr
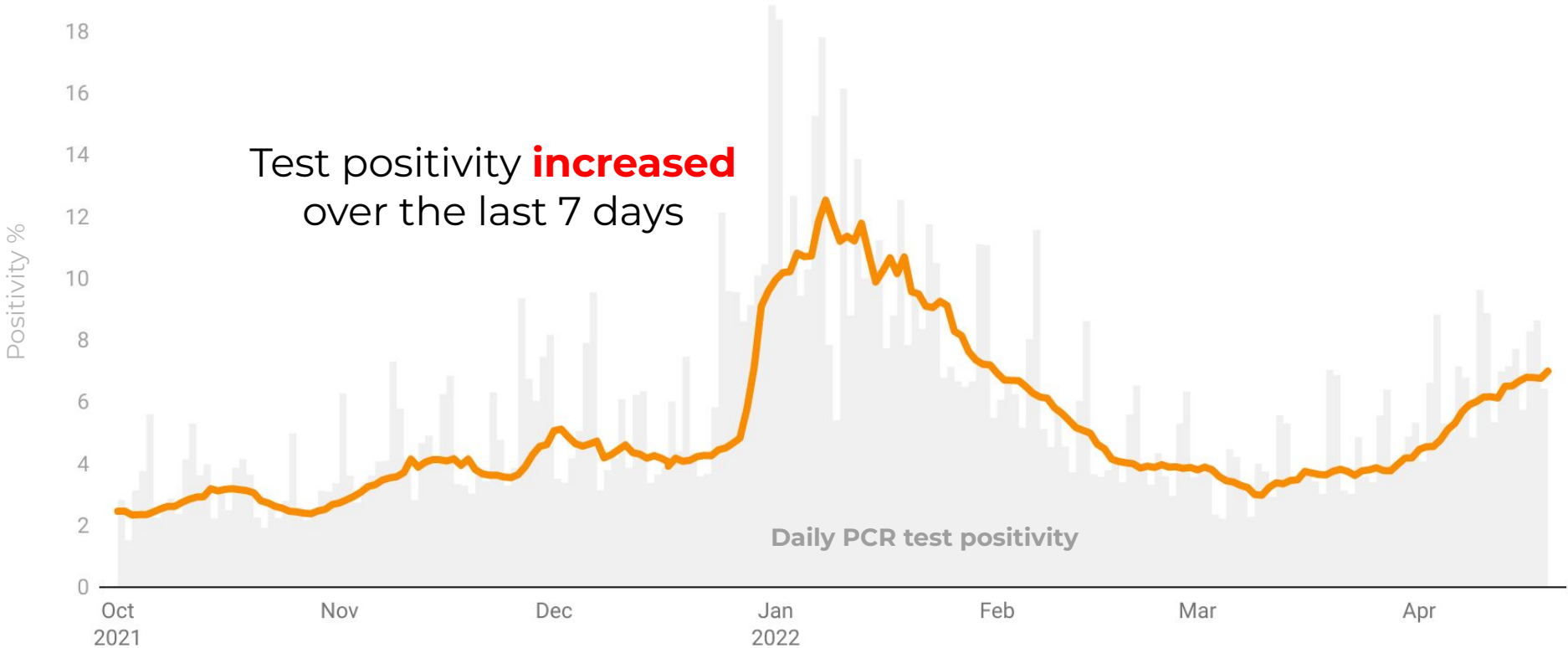
Estimated Active Cases per Million in All Vermont Counties

Legend:
- Chittenden
- Franklin
- Washington
- Vermont
- Addison
- Grand Isle
- Orleans
- Orange
- Windham
- Bennington
- Lamoille
- Caledonia

Source: VDH—April 26, 2022; created with Datawrapper

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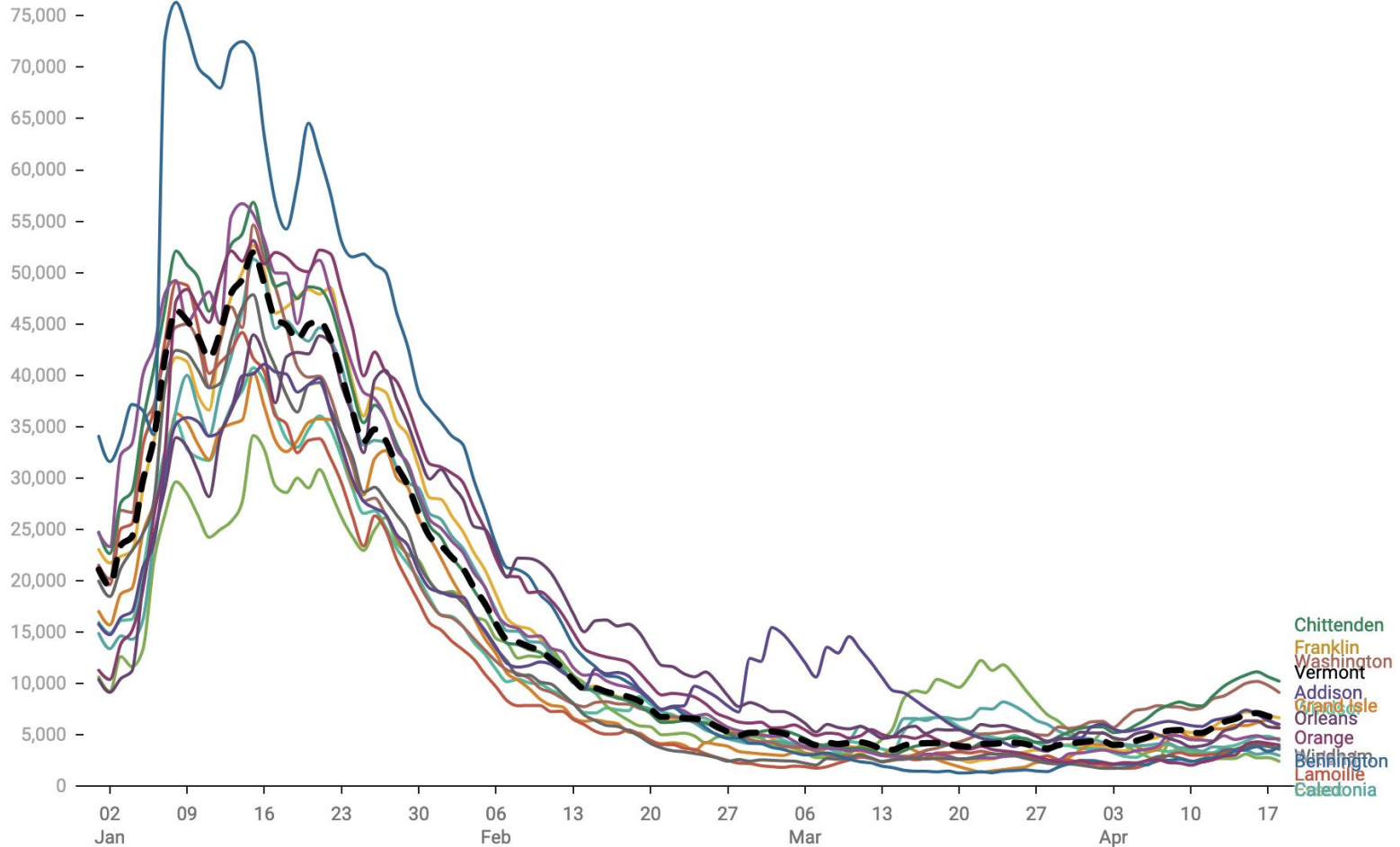
# VT COVID-19 Infections per 100K by Age Group

Sars-Cov-2 in Burlington Wastewater

Average Across Plants by Week, Weighted by Population
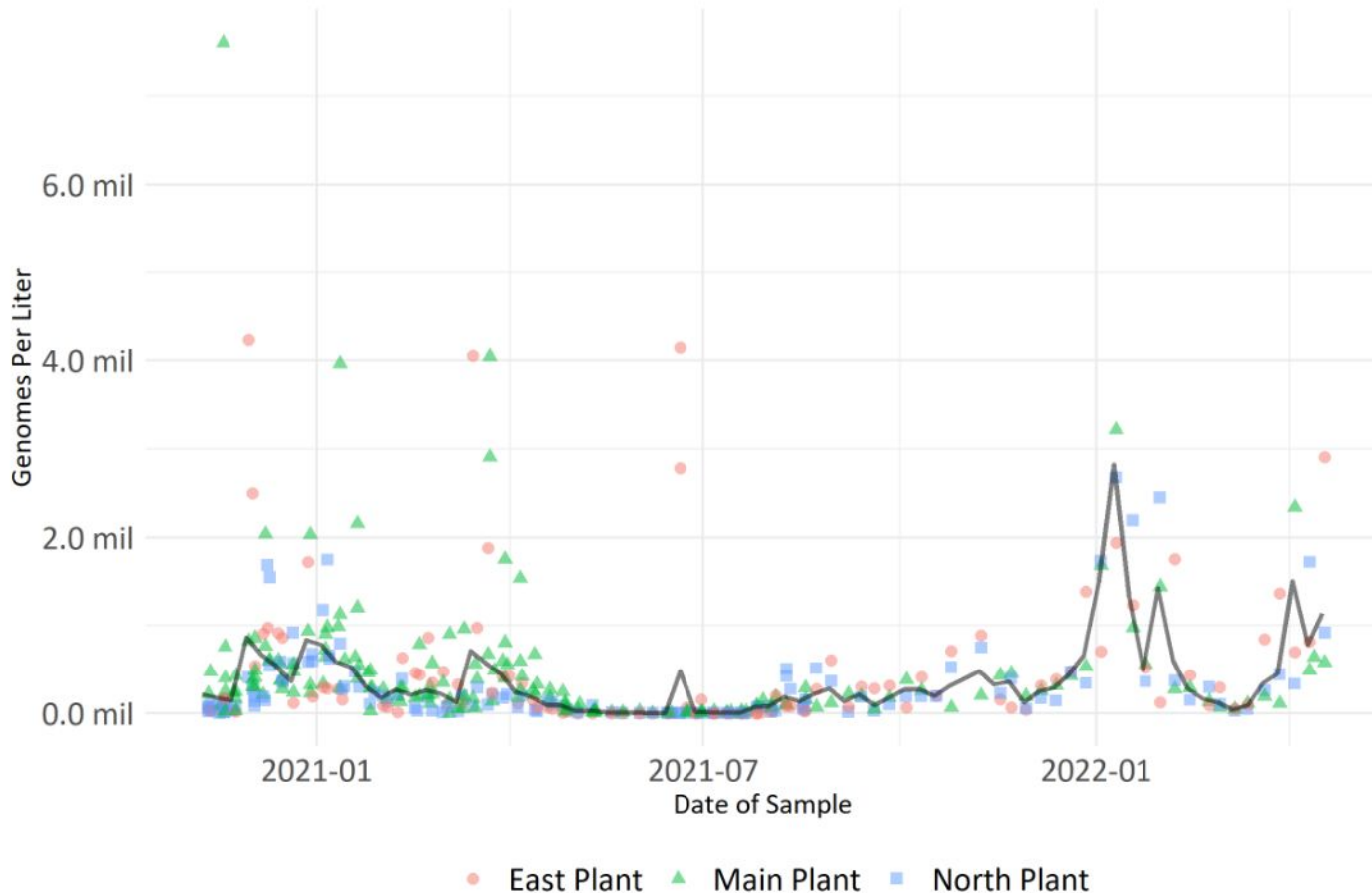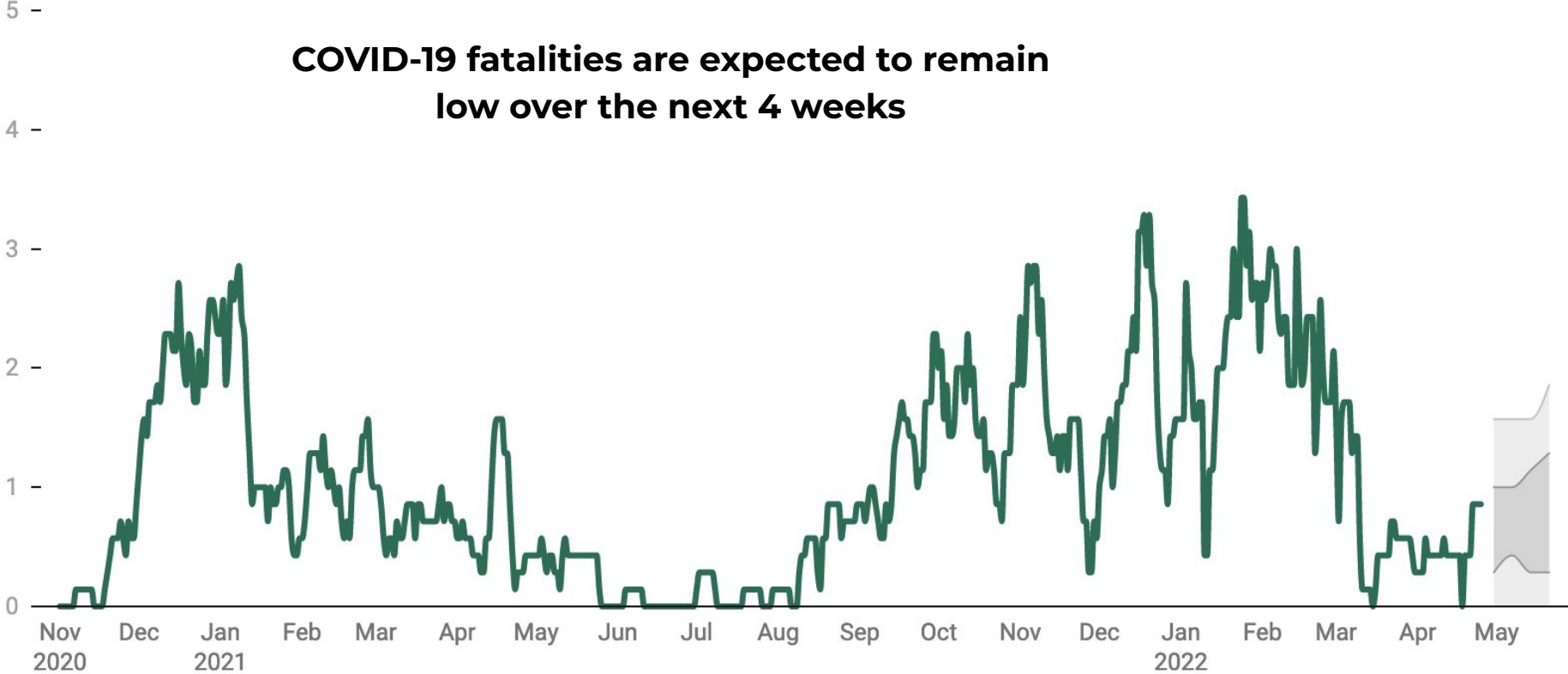
VT COVID-19 Infection Confidence Intervals

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

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
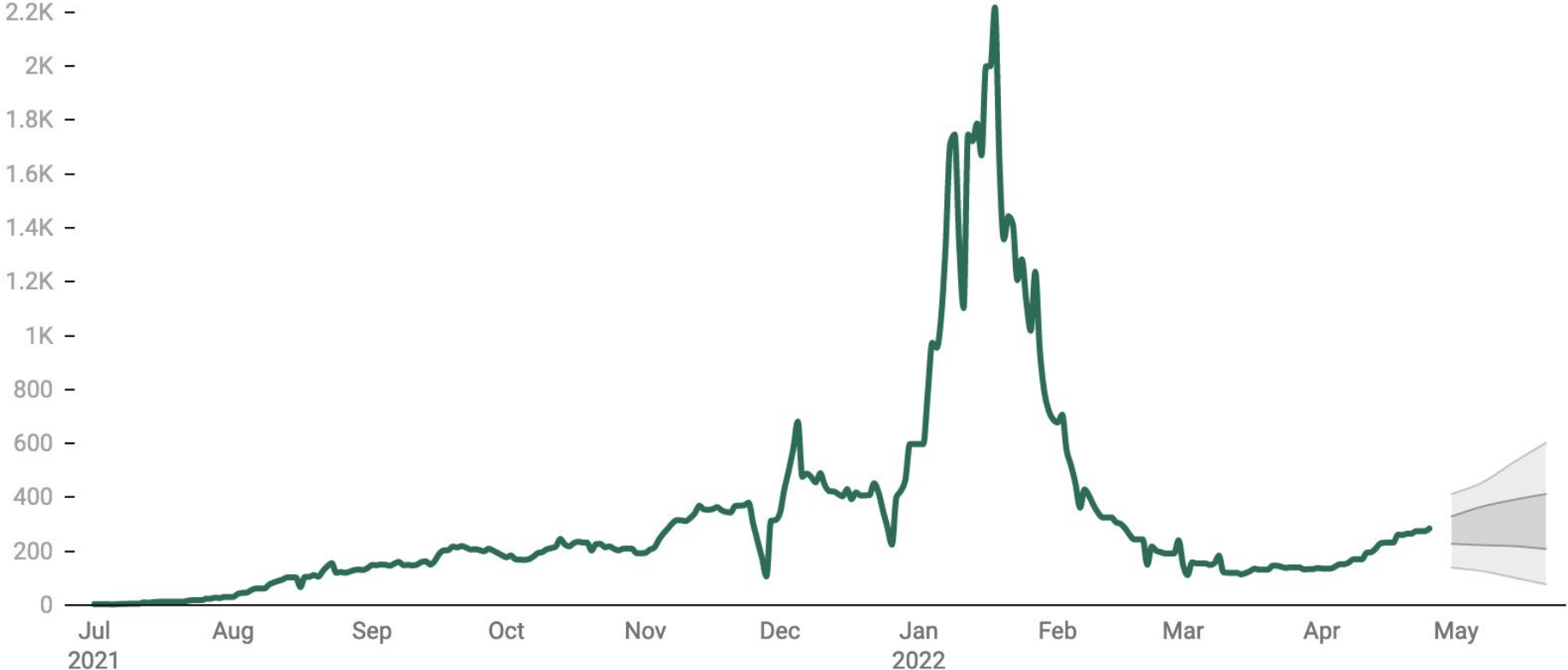
Source: Johns Hopkins University & CDC—April 26, 2022; created with Datawrapper

Active Outbreaks in Long Term Care Facilities

Facility Name	Total COVID-19 Cases
Helen Porter Healthcare and Rehabilitation Center	51
Centers for Living & Rehabilitation	42
The Residence at Quarry Hill	38
Converse Home INC	30
Barre Gardens	28
Villa Rehab Center	20
Pine Heights at Brattleboro	18
Harbor Village Senior Living	11
Brownway Residence	9
The Residence at Shelburne Bay	8
Loretto Home	6
Arioli Community Care Home	6
HCRS Meadowview	Not Shown
Residence at Otter Creek	Not Shown
Total	**267**

Source: Vermont Department of Health—April 26, 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*
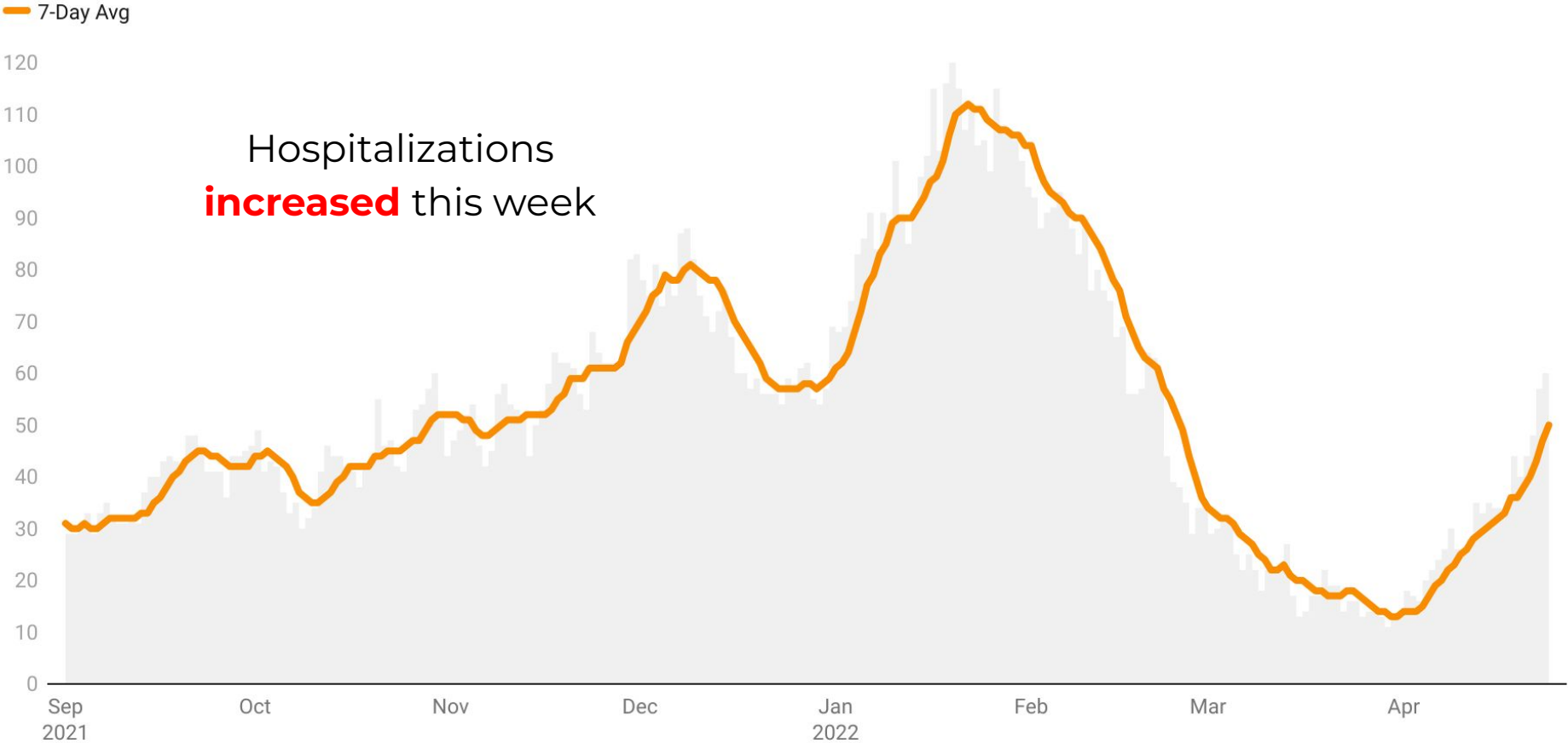
Vermont Hospitalization Data

Vermont New COVID-19 Hospital Admissions

— **7-Day Average**

Average hospital admissions
increased this week from
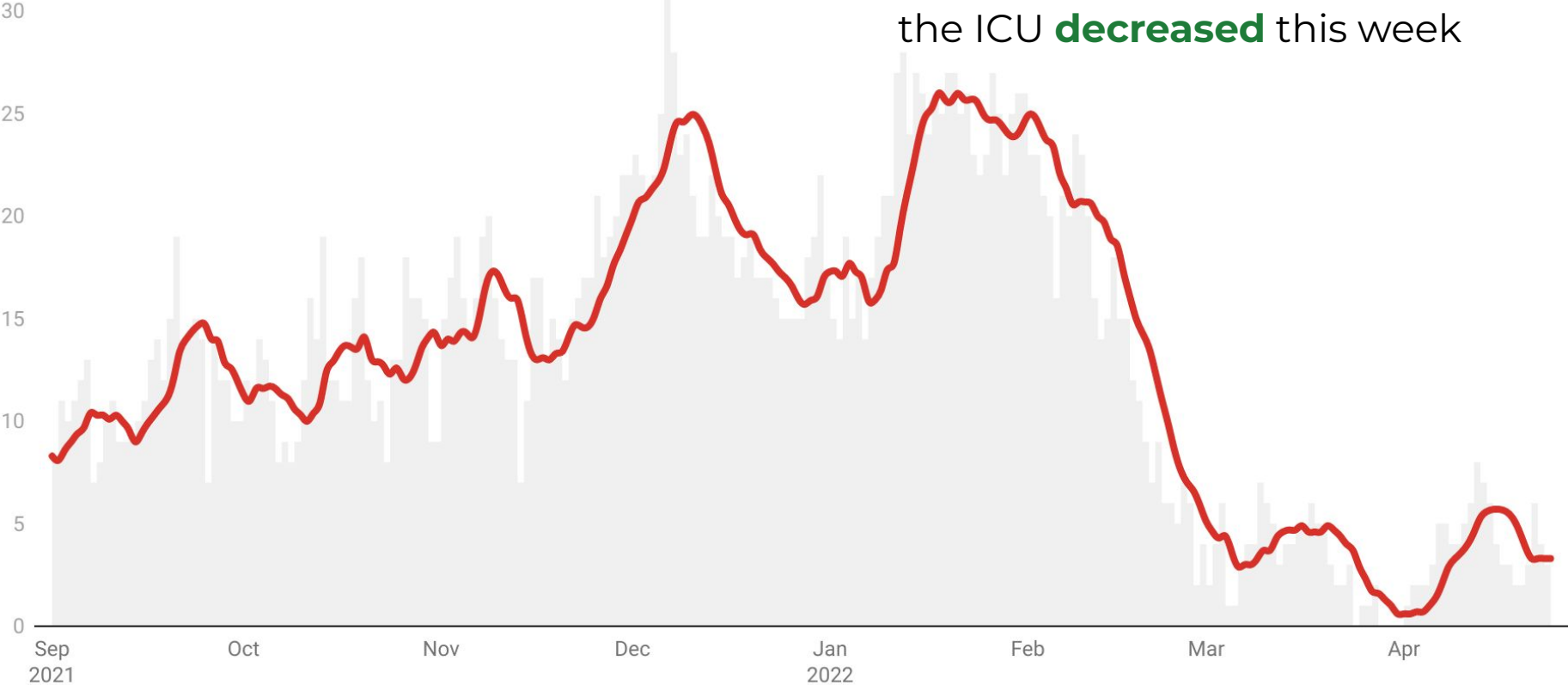6 to 11.7 per day
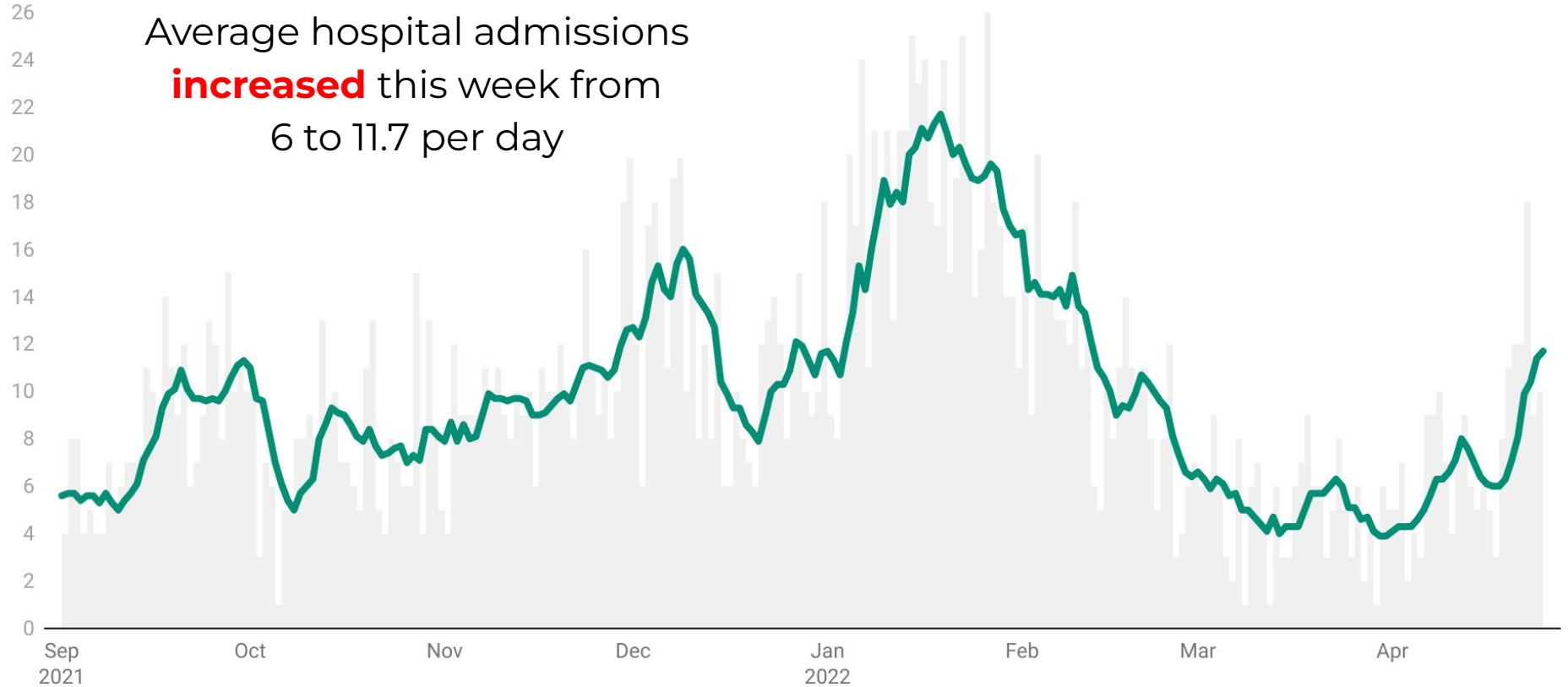
Vermont COVID-19 Patients Currently Hospitalized

Source: VDH—April 25, 2022; created with Datawrapper

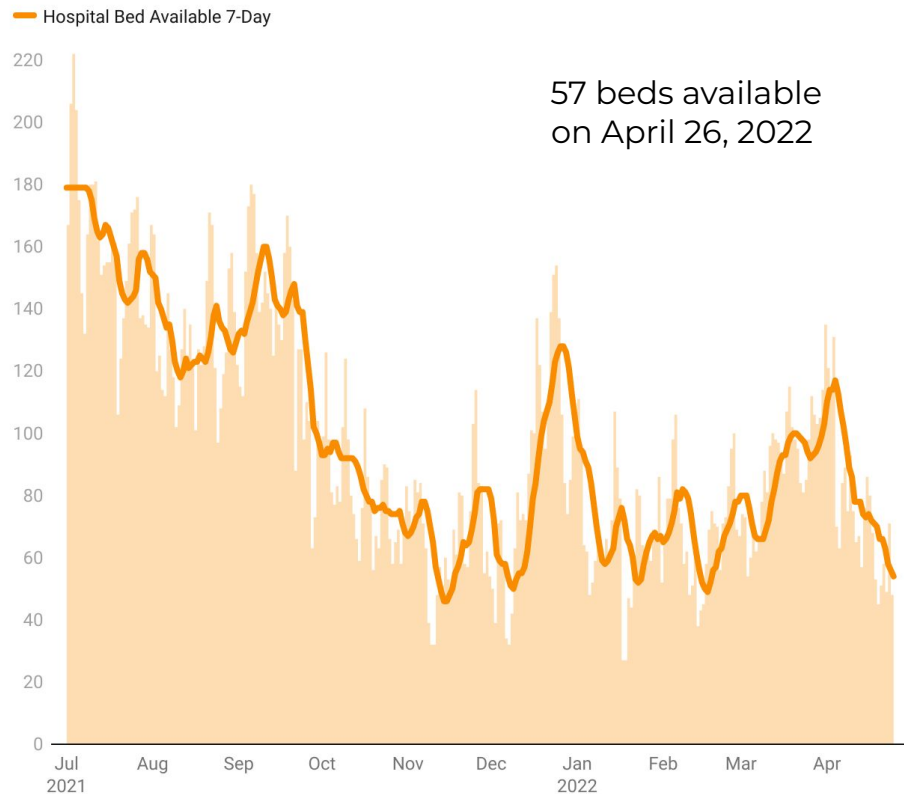# Vermont COVID-19 Patients Currently in the ICU

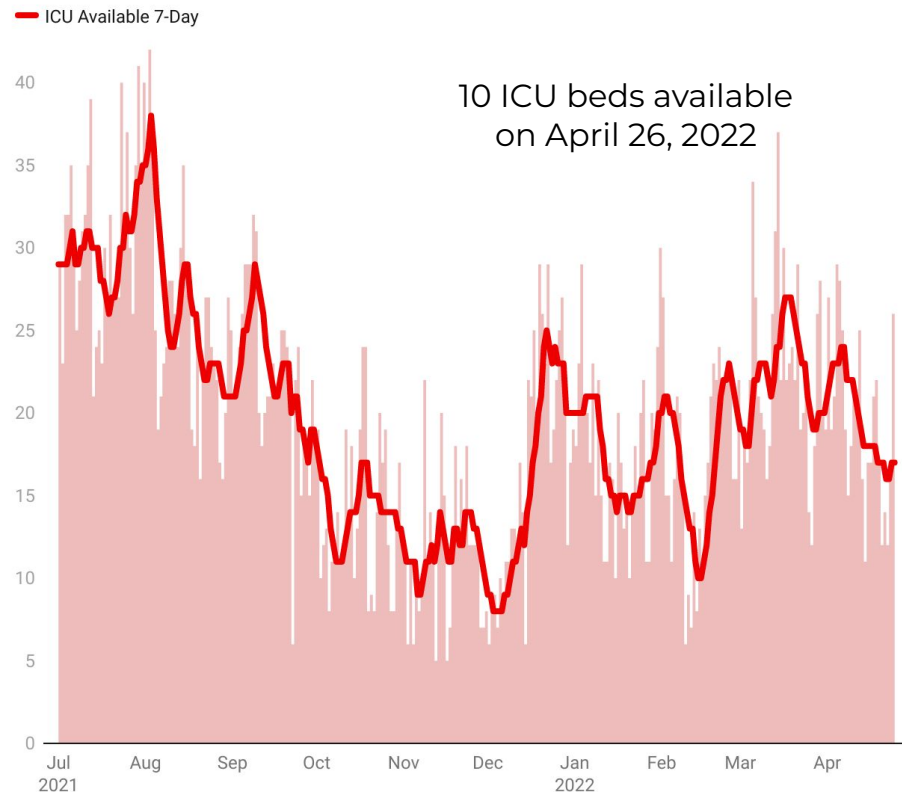— **7-Day Avg**

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

— Hospital Bed Available 7-Day

57 beds available
on April 26, 2022

Vermont ICU Beds Available Since July 1, 2021

— ICU Available 7-Day

10 ICU beds available
on April 26, 2022

Source: VDH—April 26, 2022; created with Datawrapper
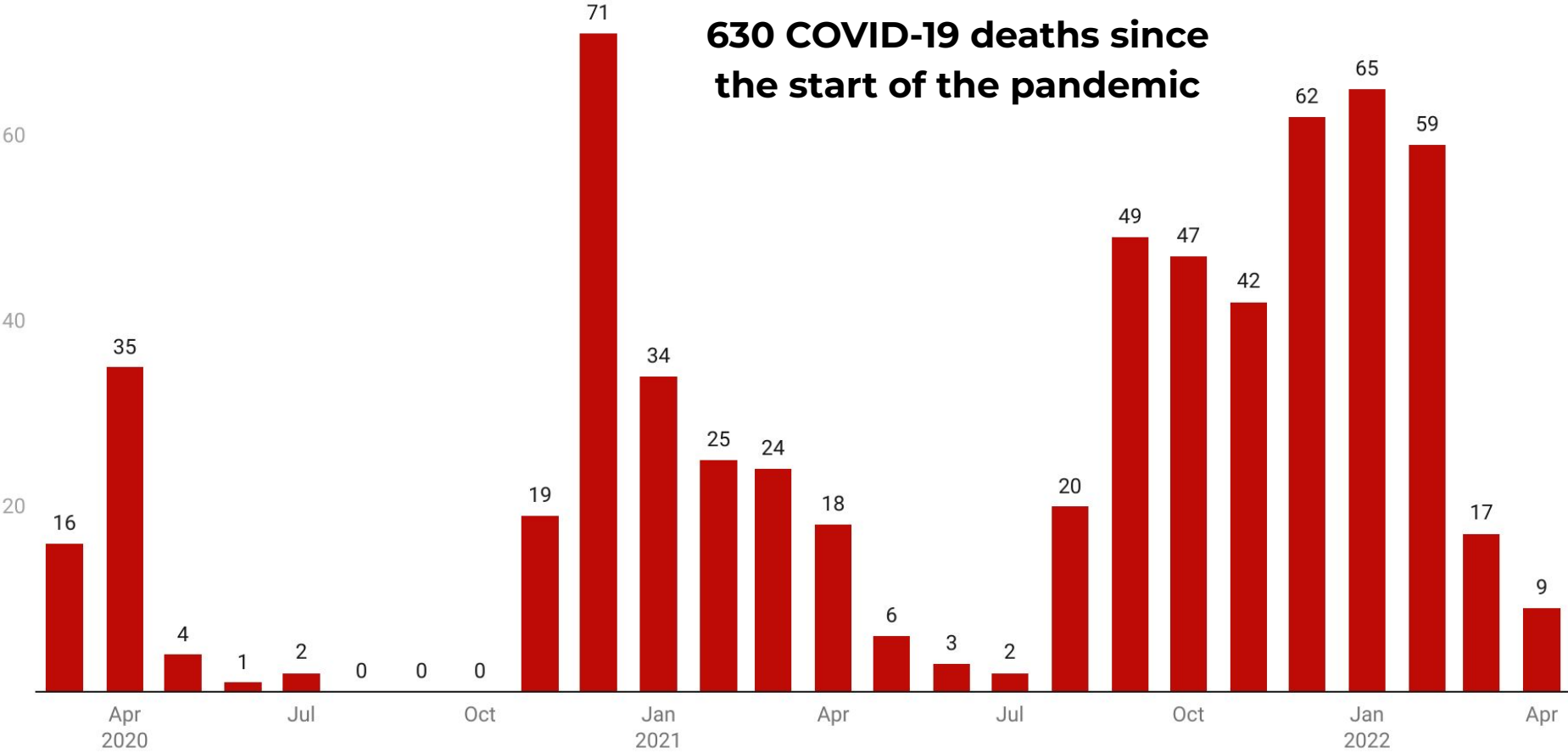
Vermont Fatality Data

Vermont COVID-19 Fatalities

— 7-Day Average
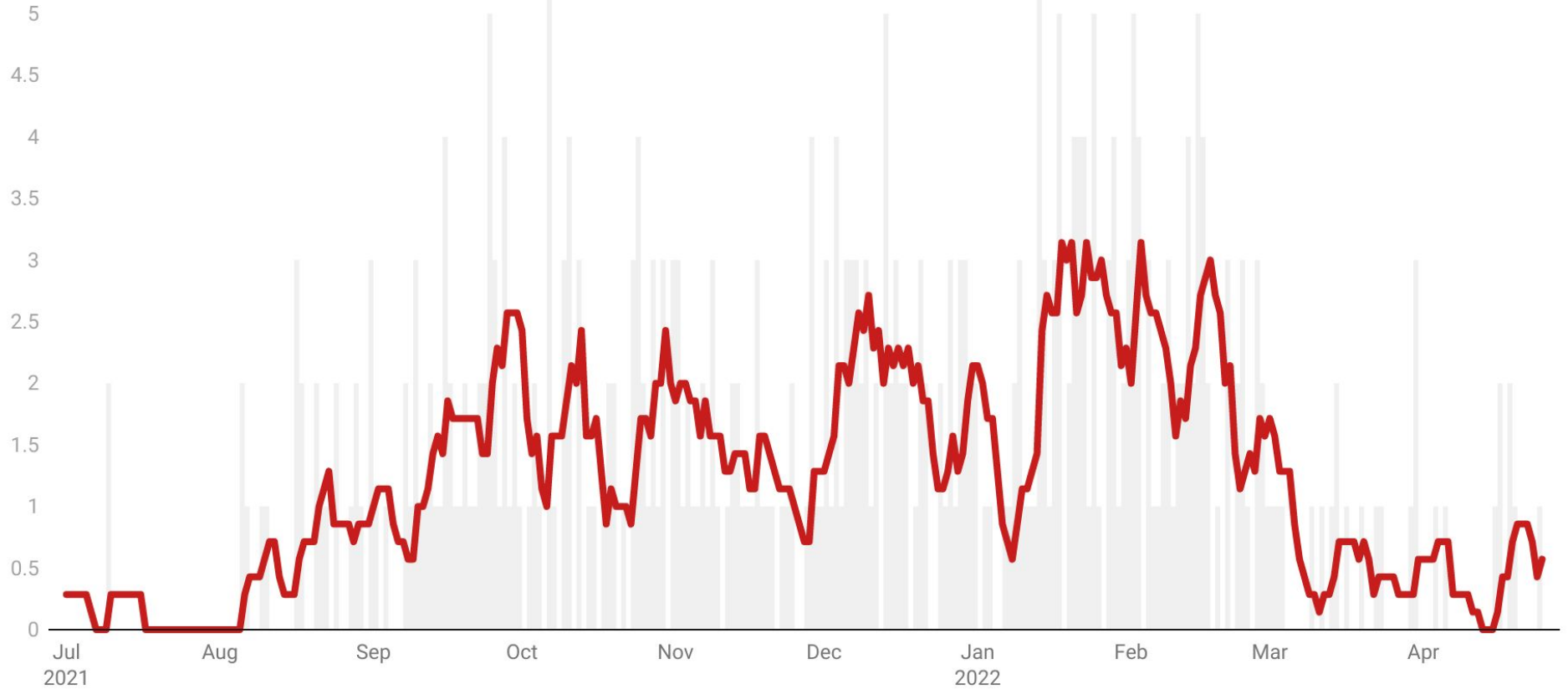
Monthly Covid-19 Deaths In Vermont

630 COVID-19 deaths since the start of the pandemic

Source: VDH—April 26, 2022; created with Datawrapper; deaths attributed to month in which death occurred rather than reported
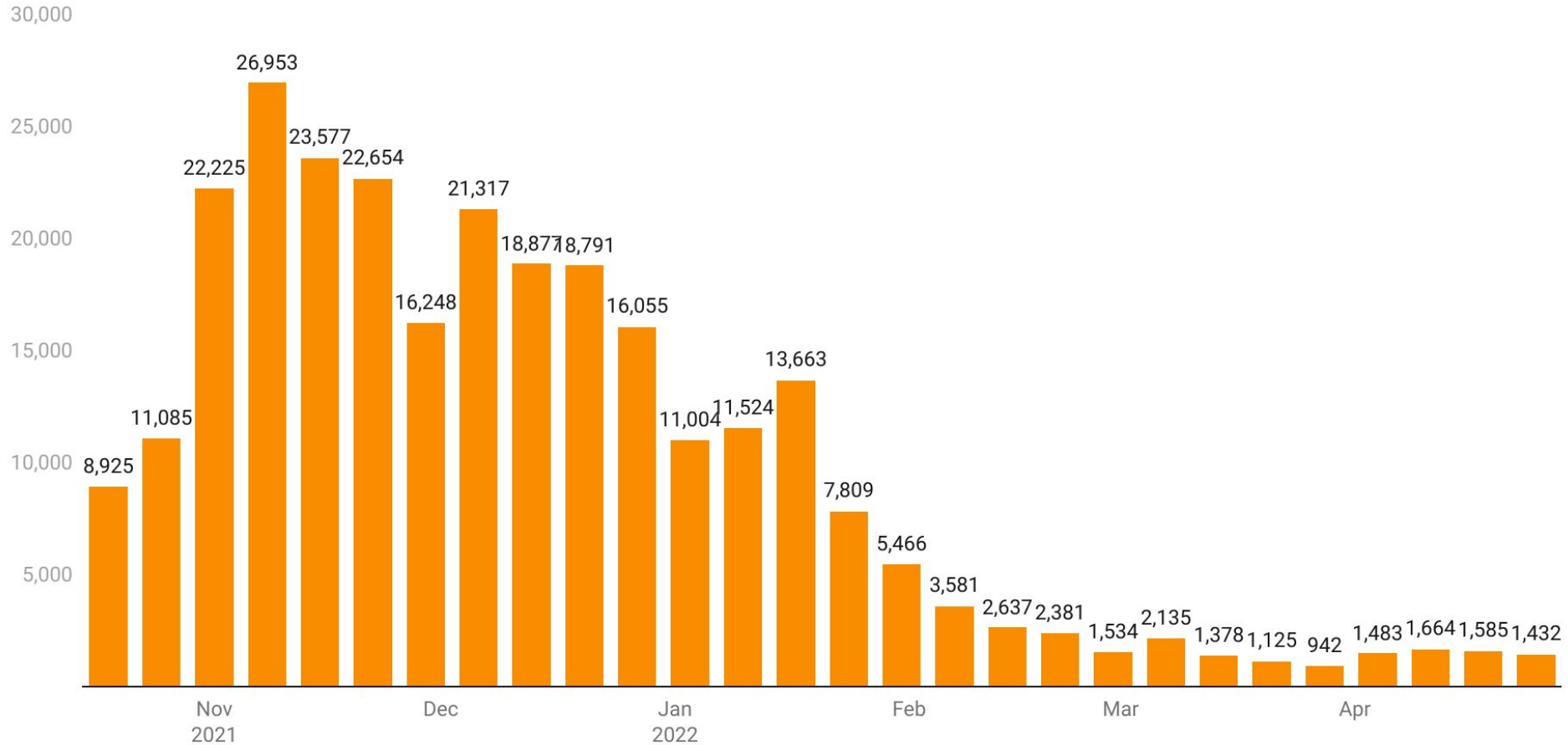
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Vermont Vaccination Data

Vermont CDC Vaccine Scorecard

Vaccine Metric	Ranking
Doses Administered per 100K	1
% At Least 1 Dose (5+ Population)	1 (tied)
% Fully Vaccinated (5+ Population)	2
% At Least 1 Dose (Full Population)	2
% Fully Vaccinated (Full Population)	2
% Fully Vaccinated (65 & Over)	1 (tied)

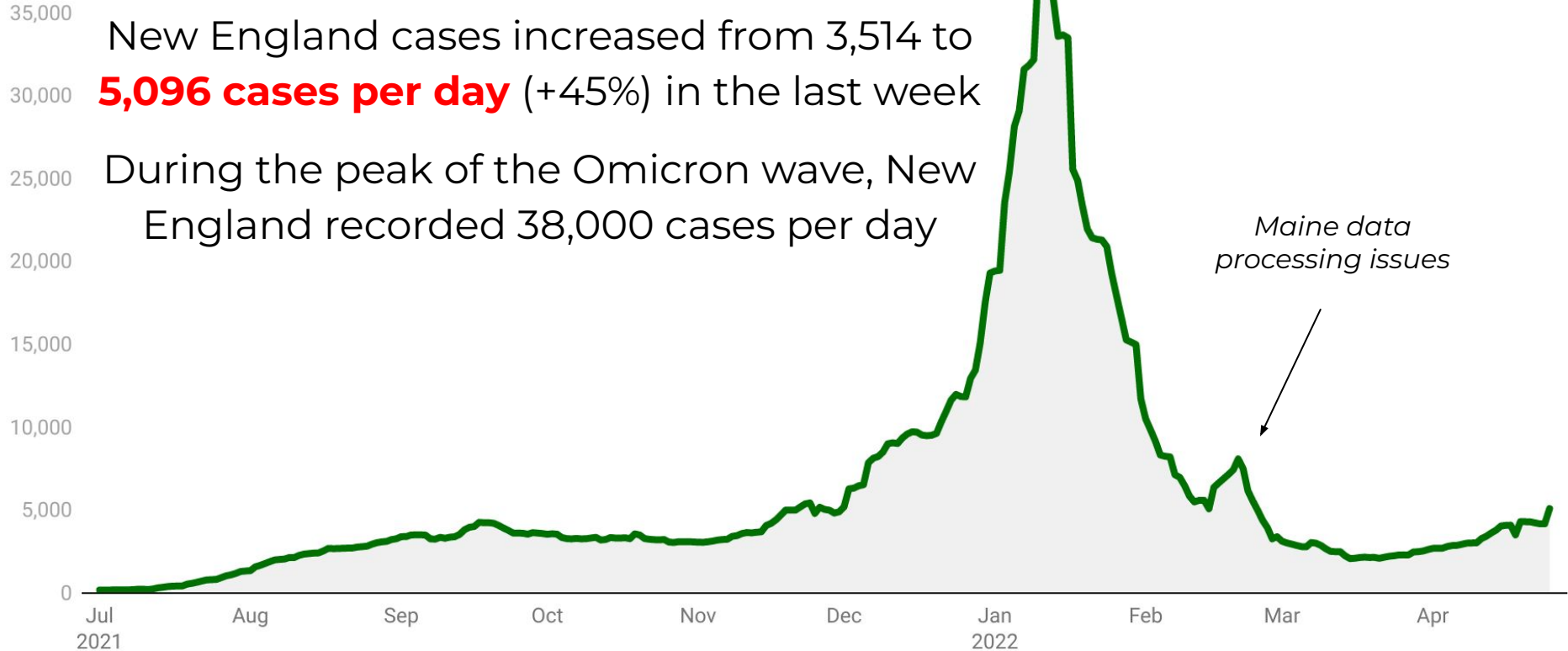| Booster Metric	Ranking
% of Fully Vaccinated w/ booster dose	1
% of Fully vaccinated 12+ w/ booster doses	1
% of Fully vaccinated 18+ w/ booster doses	1
% of Fully vaccinated 65+ w/ booster doses	3

Vermont: Booster Shots Administered By Week

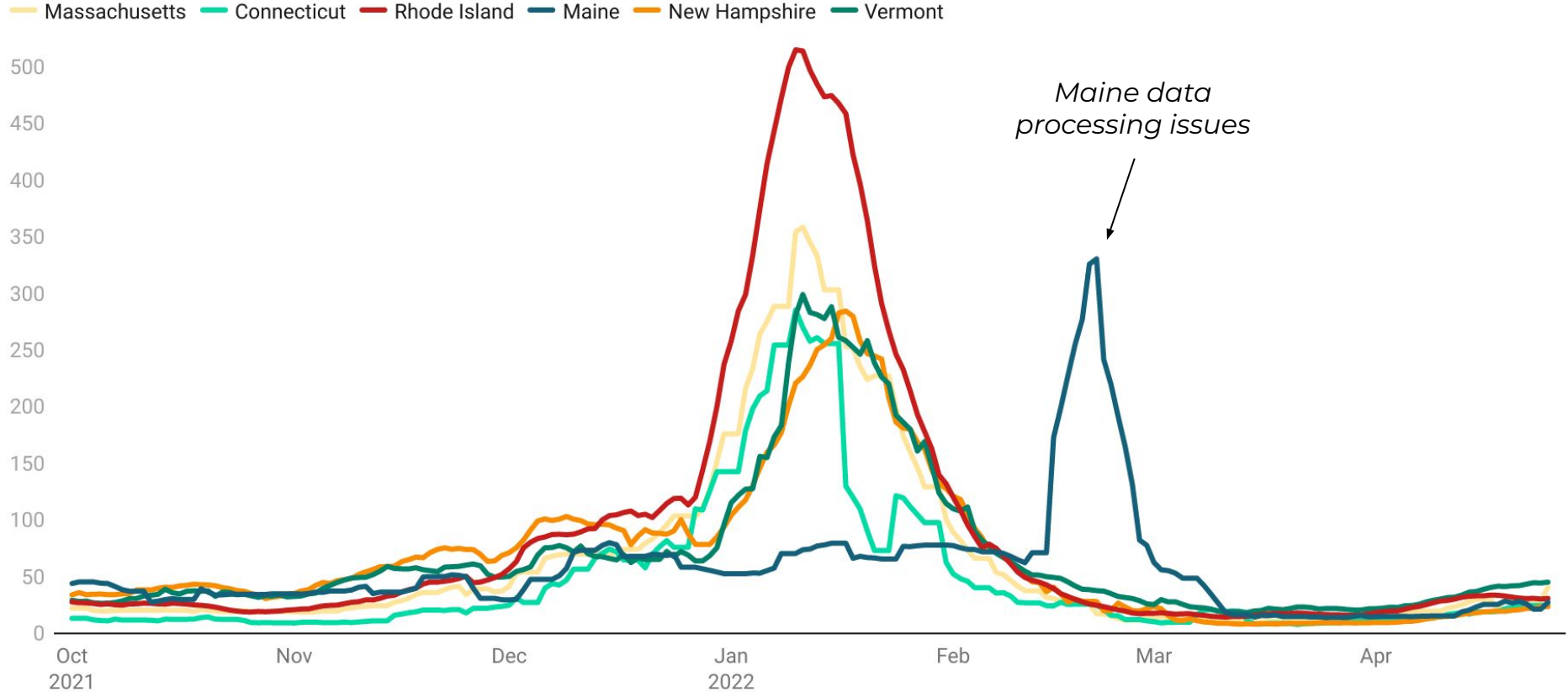Source: CDC—April 25, 2022; created with Datawrapper

Regional Data

New England COVID-19 Cases

━━ New England 7-Day Case Average

New England cases increased from 3,514 to **5,096 cases per day** (+45%) in the last week

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

Maine data processing issues

35,000
30,000
25,000
20,000
15,000
10,000
5,000
0

Jul 2021 | Aug | Sep | Oct | Nov | Dec | Jan 2022 | Feb | Mar | Apr

New England COVID-19 Case Trends

7-Day Average Cases Per 100K

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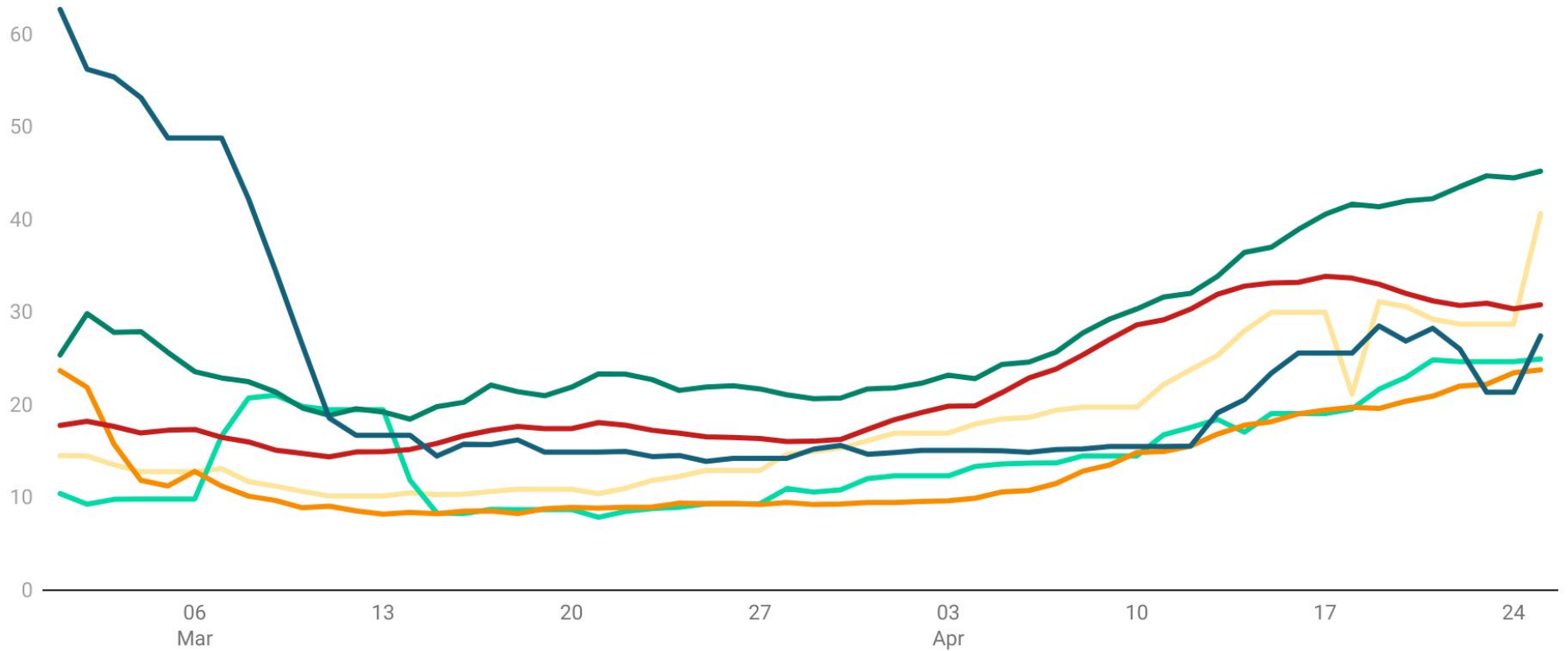

Maine data processing issues

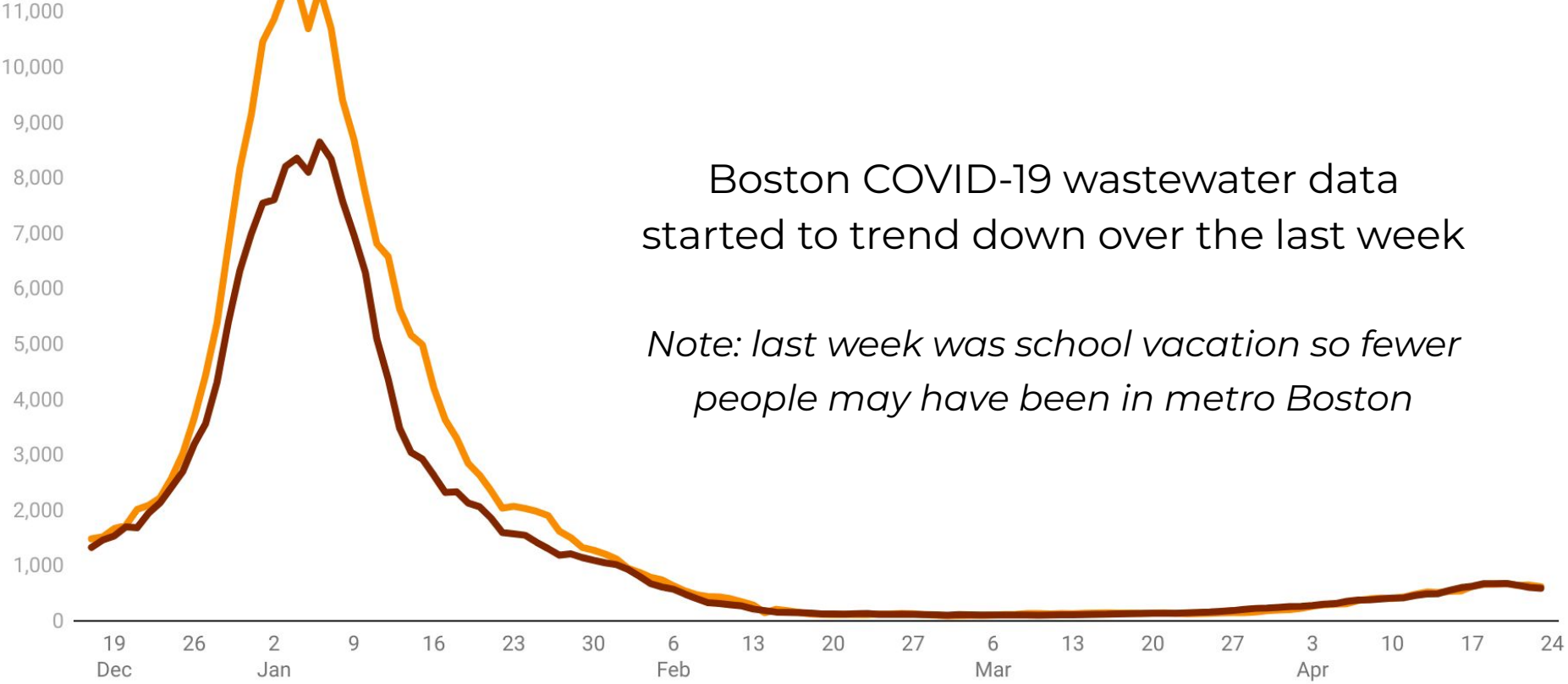# New England COVID-19 Case Trends Since March 1st

7-Day Average Cases Per 100K

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

Boston Wastewater COVID-19 Detection

— Southern Collection Area (7-Day Average) — Northern Collection Area (7-Day Average)

Boston COVID-19 wastewater data
started to trend down over the last week

*Note: last week was school vacation so fewer
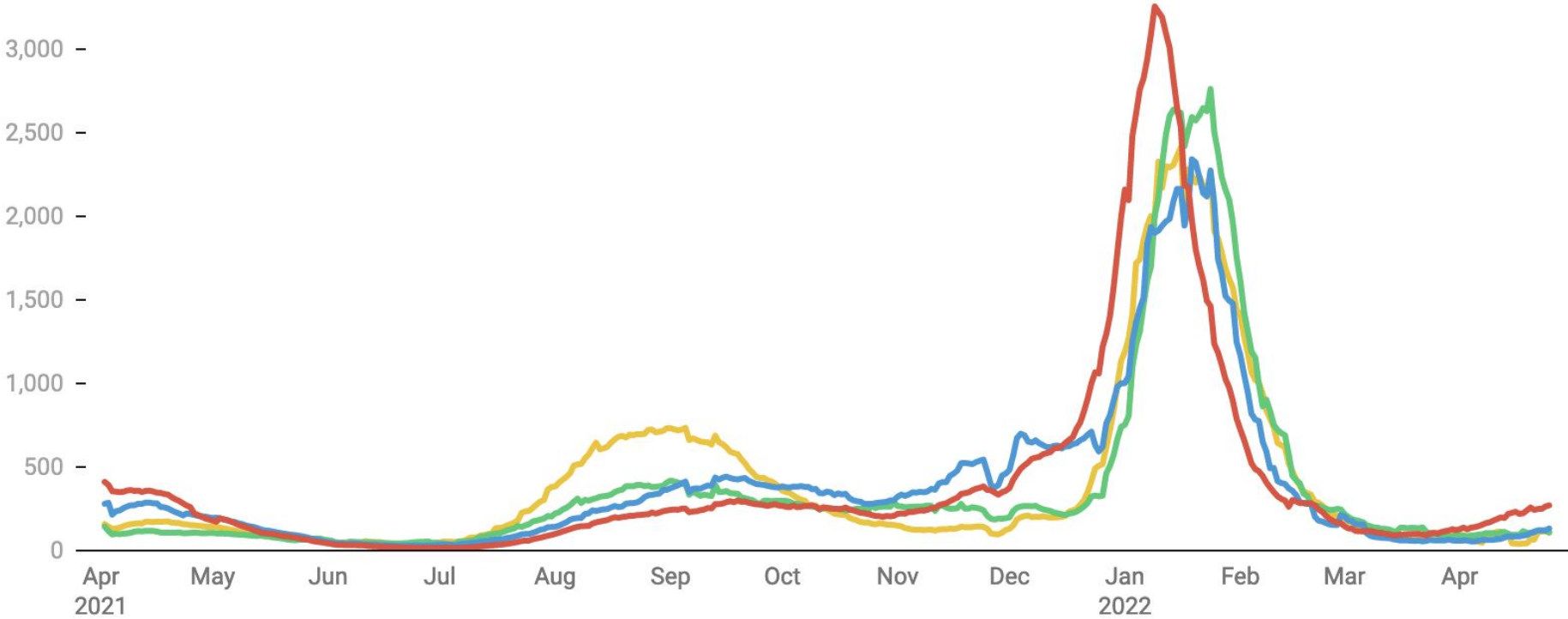people may have been in metro Boston*

National Data

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.

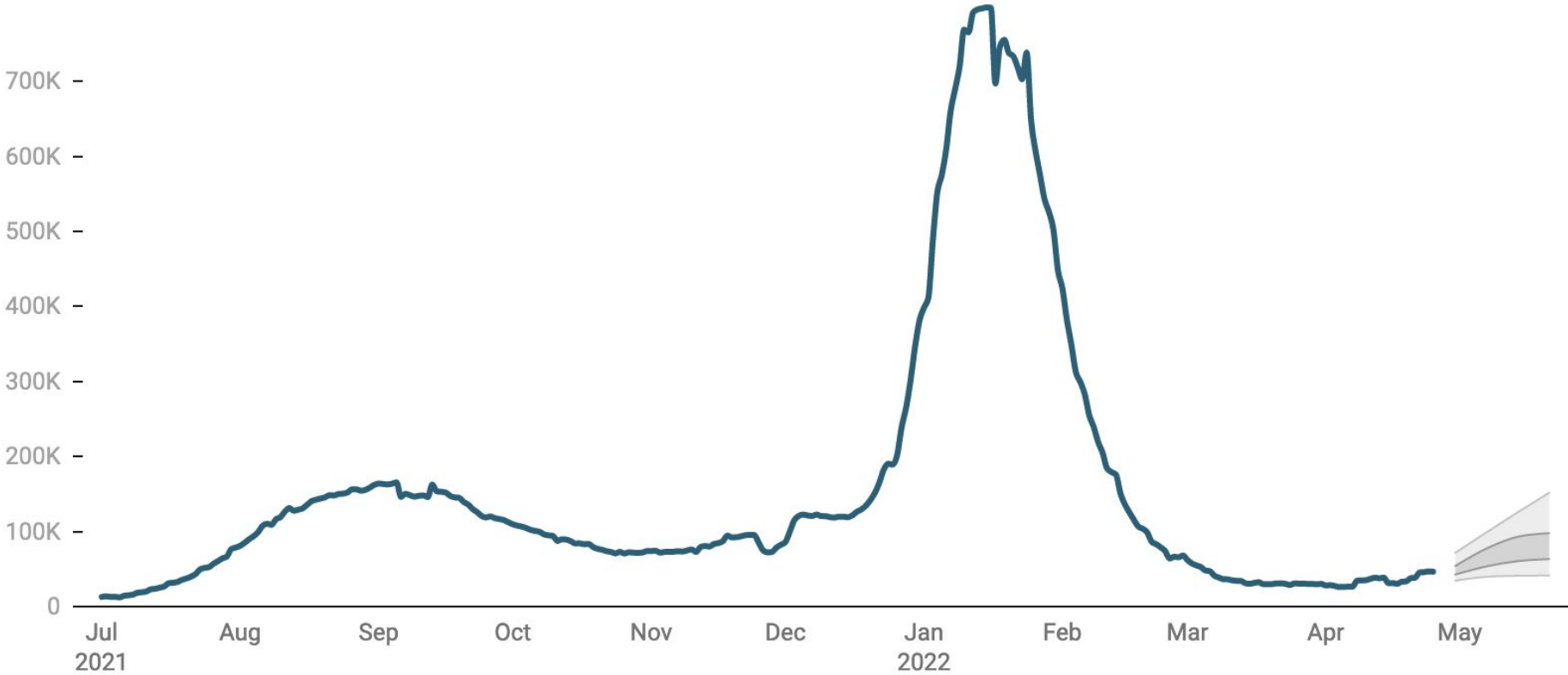— Northeast — Midwest — South — West

Source: JHU—April 25, 2022; 7-day averages; created with Datawrapper
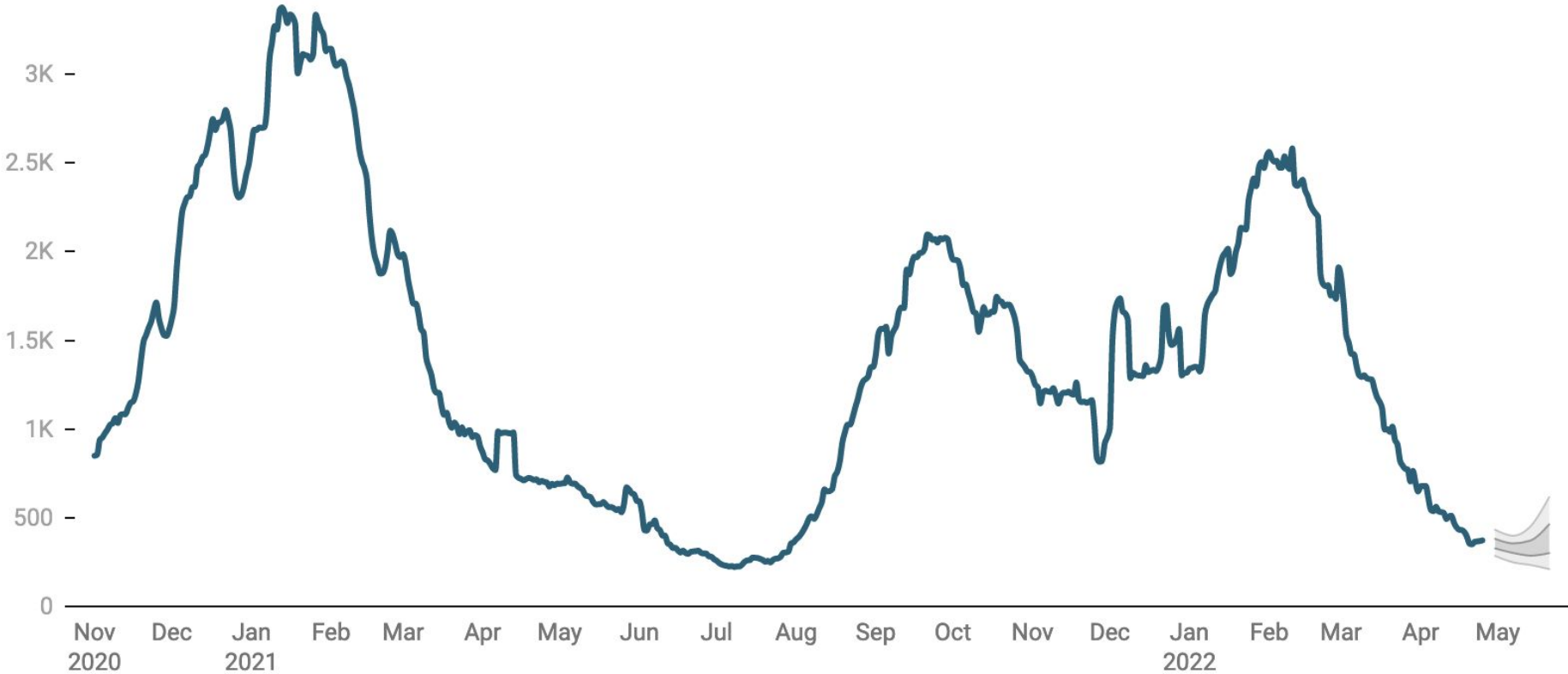
US COVID-19 Infection Confidence Intervals

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

US COVID-19 Death Confidence Intervals

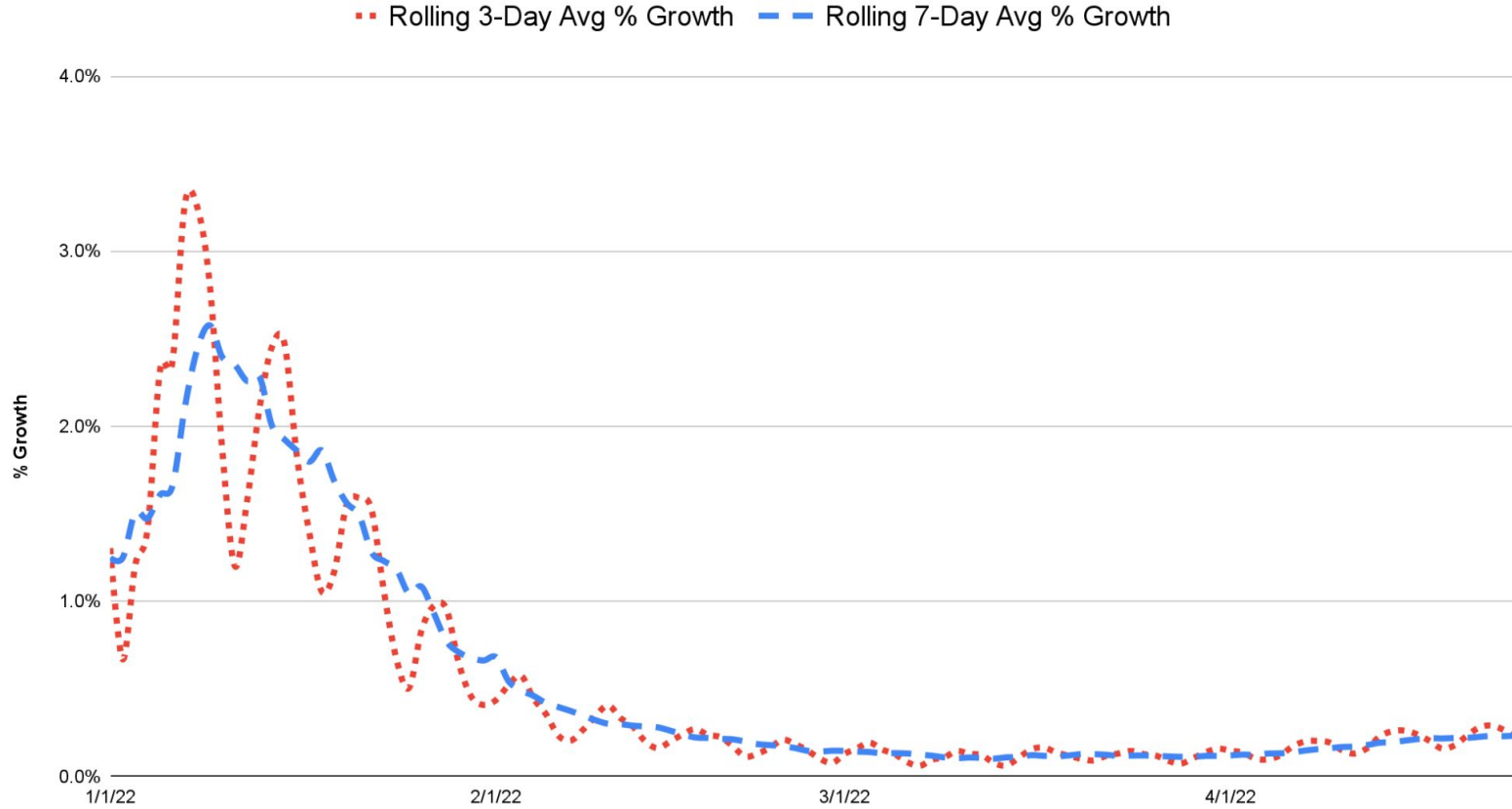Calculated as a 7-day mean. Inner and outer bands represent 50% and 95% confidence intervals, respectively.
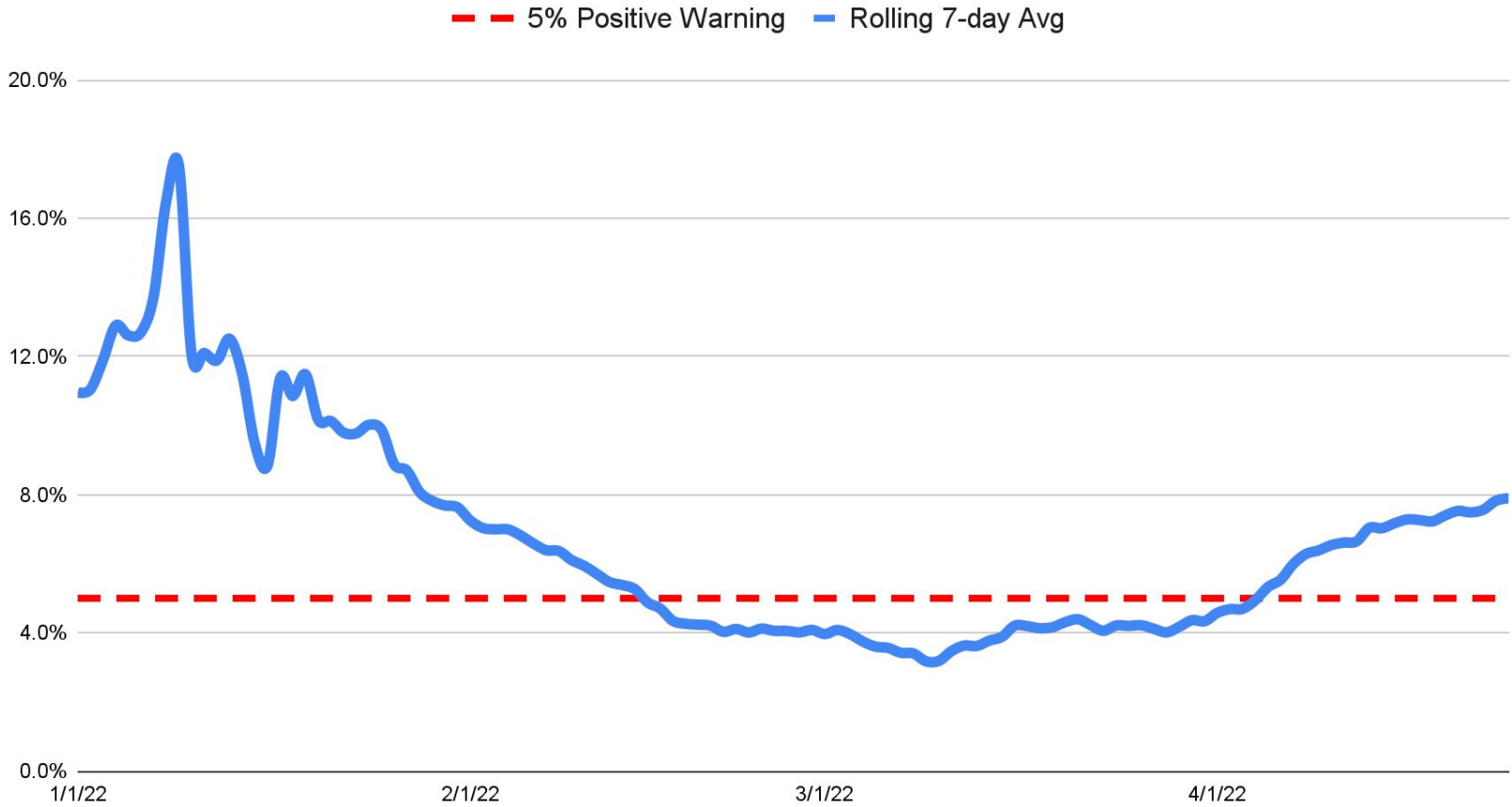
RESTART VERMONT

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

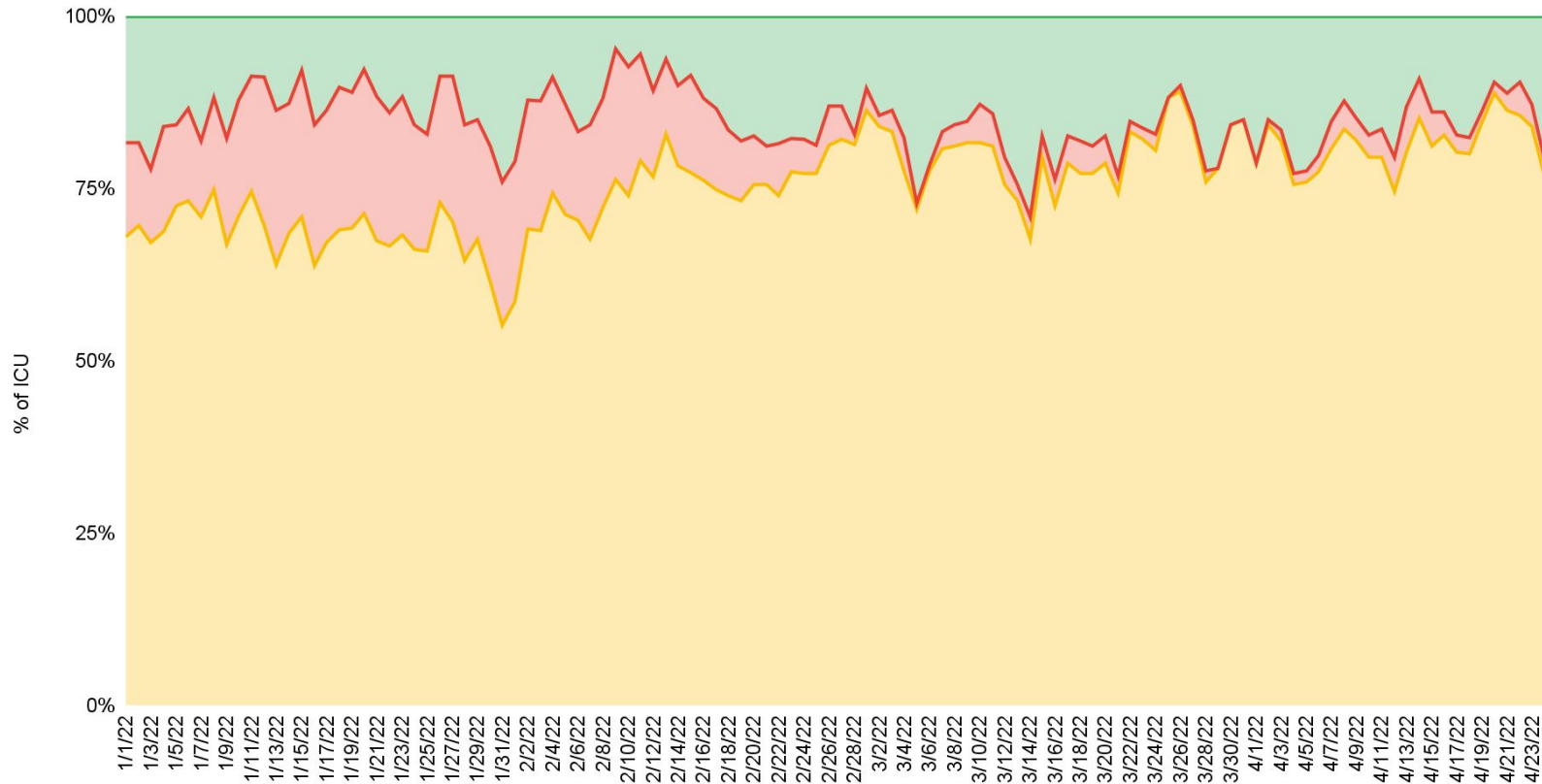# Viral Growth & Reproductive Rates

···· Rolling 3-Day Avg % Growth — — Rolling 7-Day Avg % Growth

Test Positivity

- - - 5% Positive Warning   — Rolling 7-day Avg

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

Critical Care Beds

Legend: ■ Open ICU ■ COVID ICU ■ non-COVID ICU

% of ICU

Source: Vermont Department of Health

Vermont Testing

— 7-Day Rolling Average

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