

COVID-19 Modeling

February 15, 2022

Presentation available at:
dfr.vermont.gov

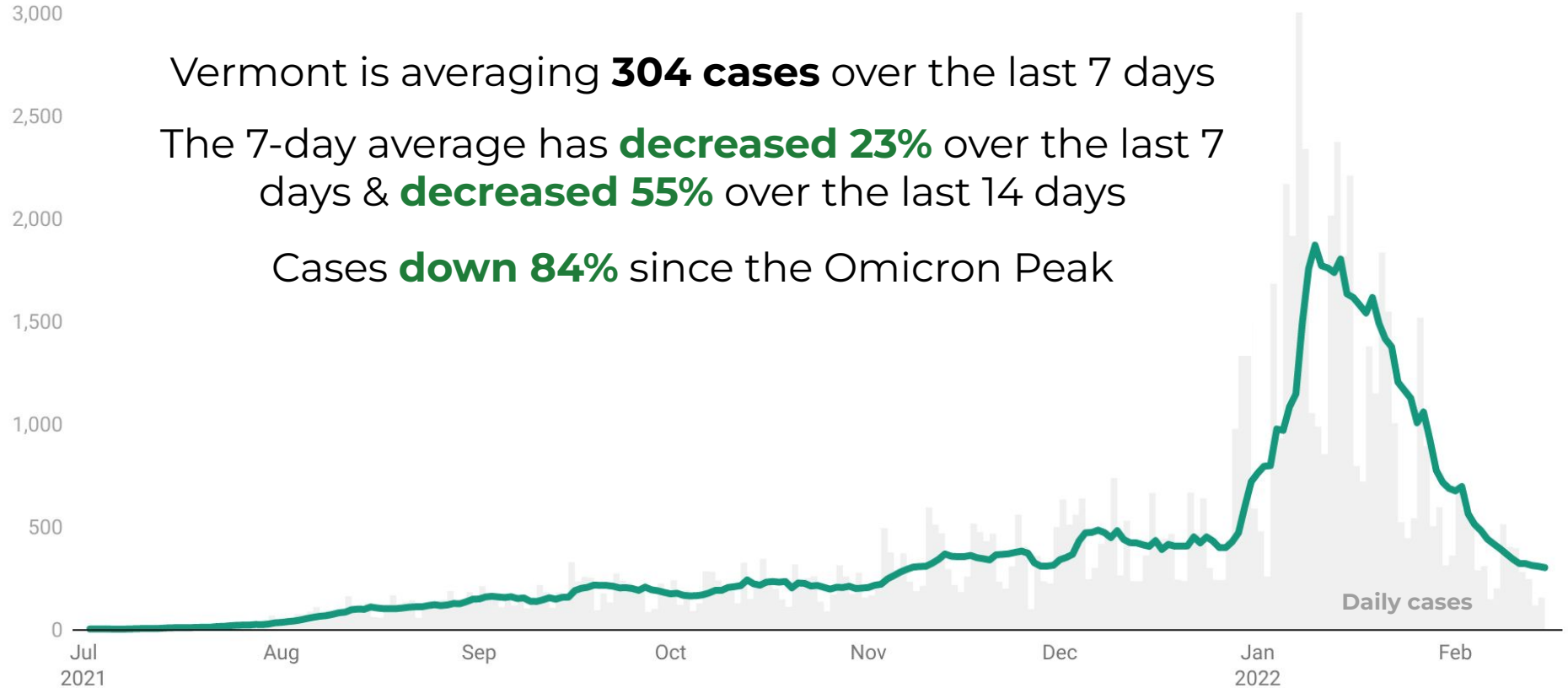
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Vermont Case Data

Vermont New COVID-19 Cases

— 7-Day Average



Vermont New Weekly COVID-19

14,000

12,000

10,000

8,000

6,000

4,000

2,000

Vermont reported 2,171 new COVID-19 cases this week,
762 fewer cases compared to last week

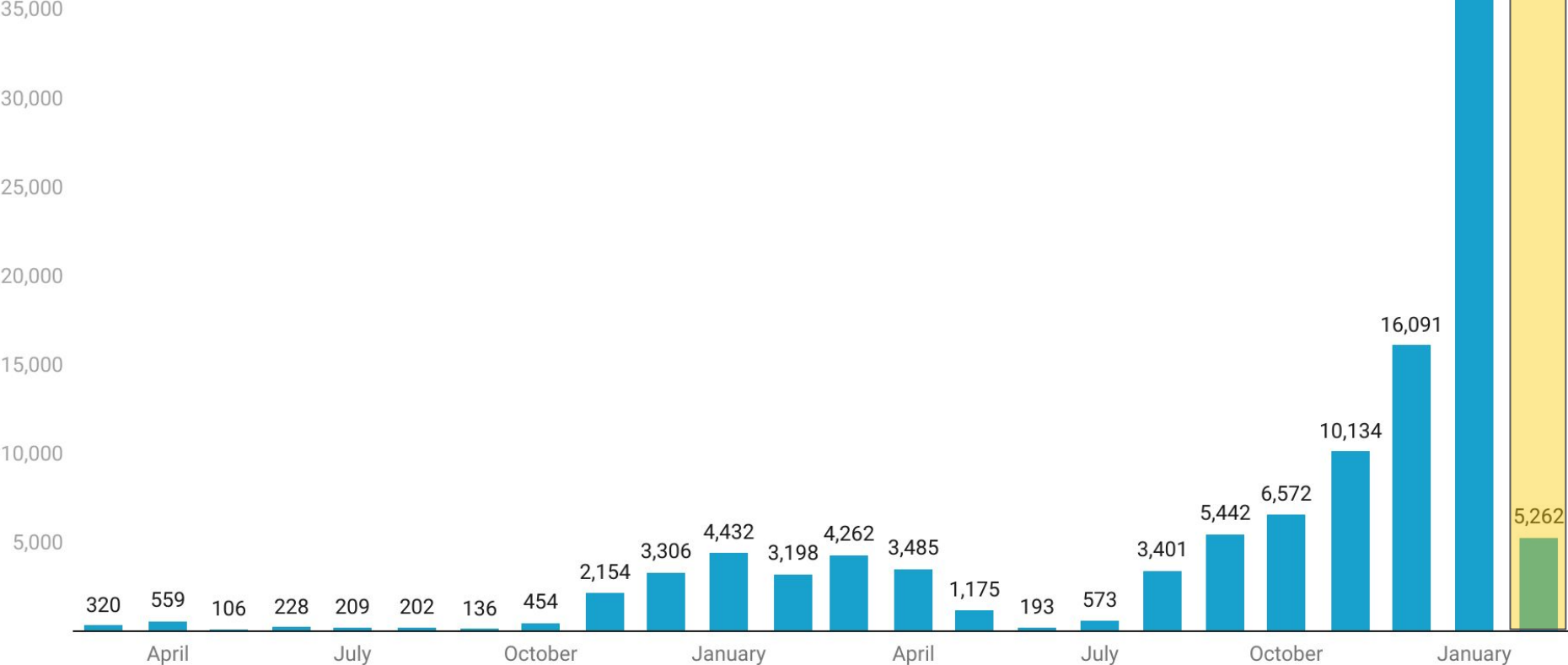
Fewest weekly case since November 1, 2021



Source: VDH—February 15, 2022; created with Datawrapper

Vermont COVID-19 Cases By Month

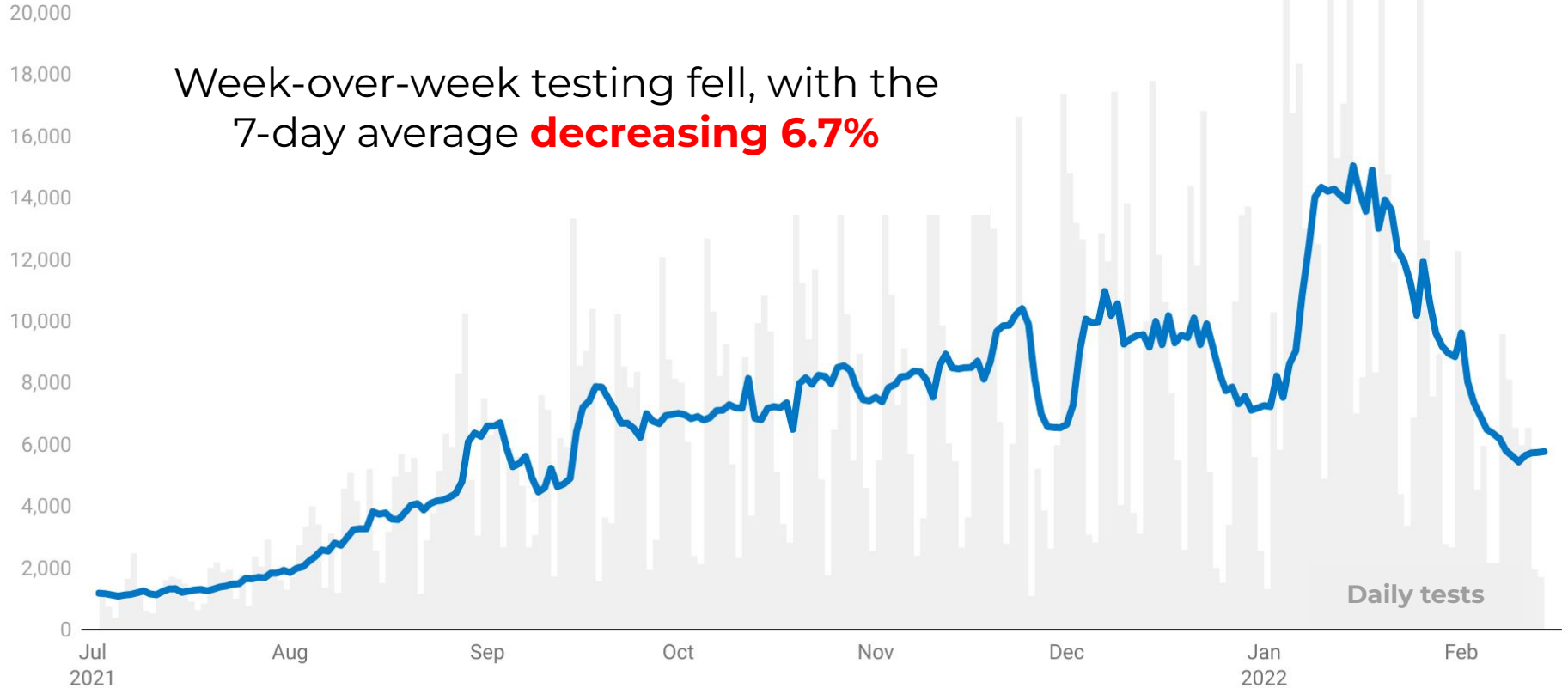
Incomplete Month



Source: VDH—February 15, 2022; created with Datawrapper

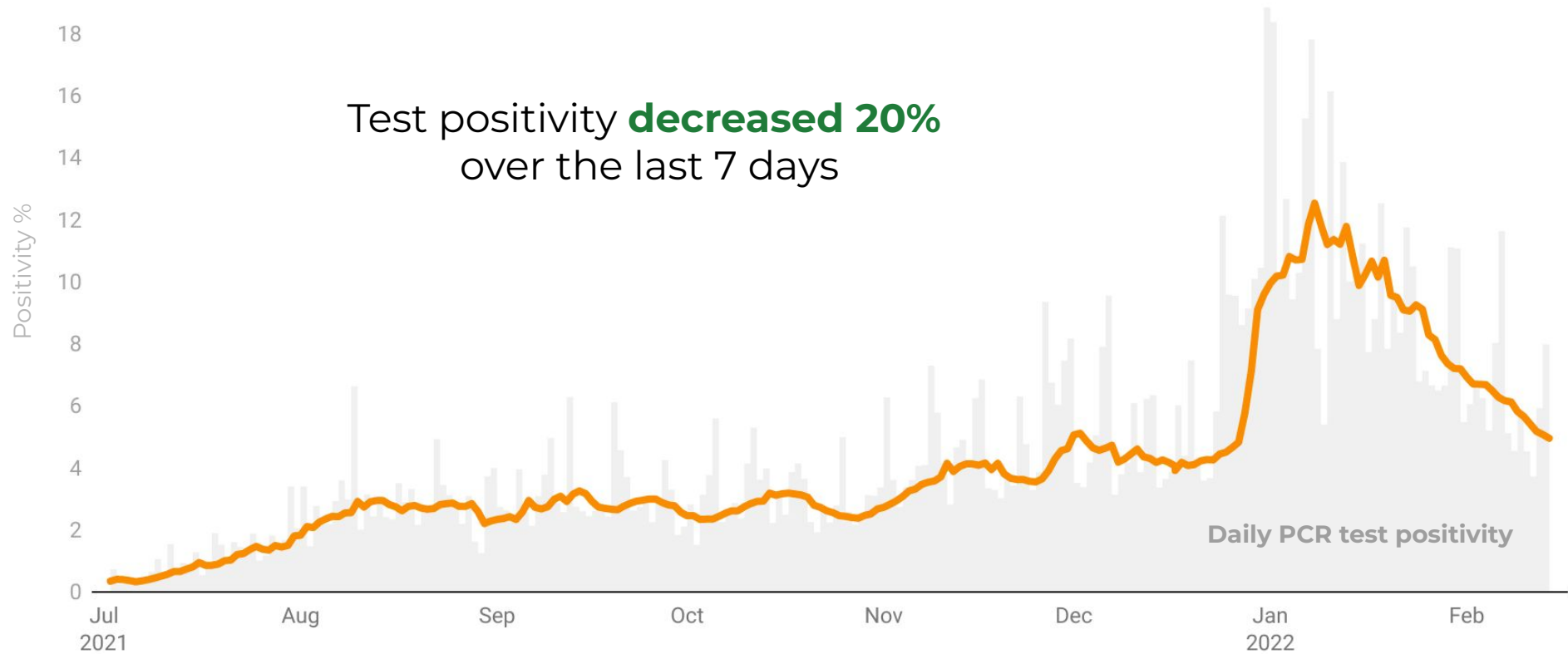
Vermont COVID-19 PCR Testing

7-Day Average



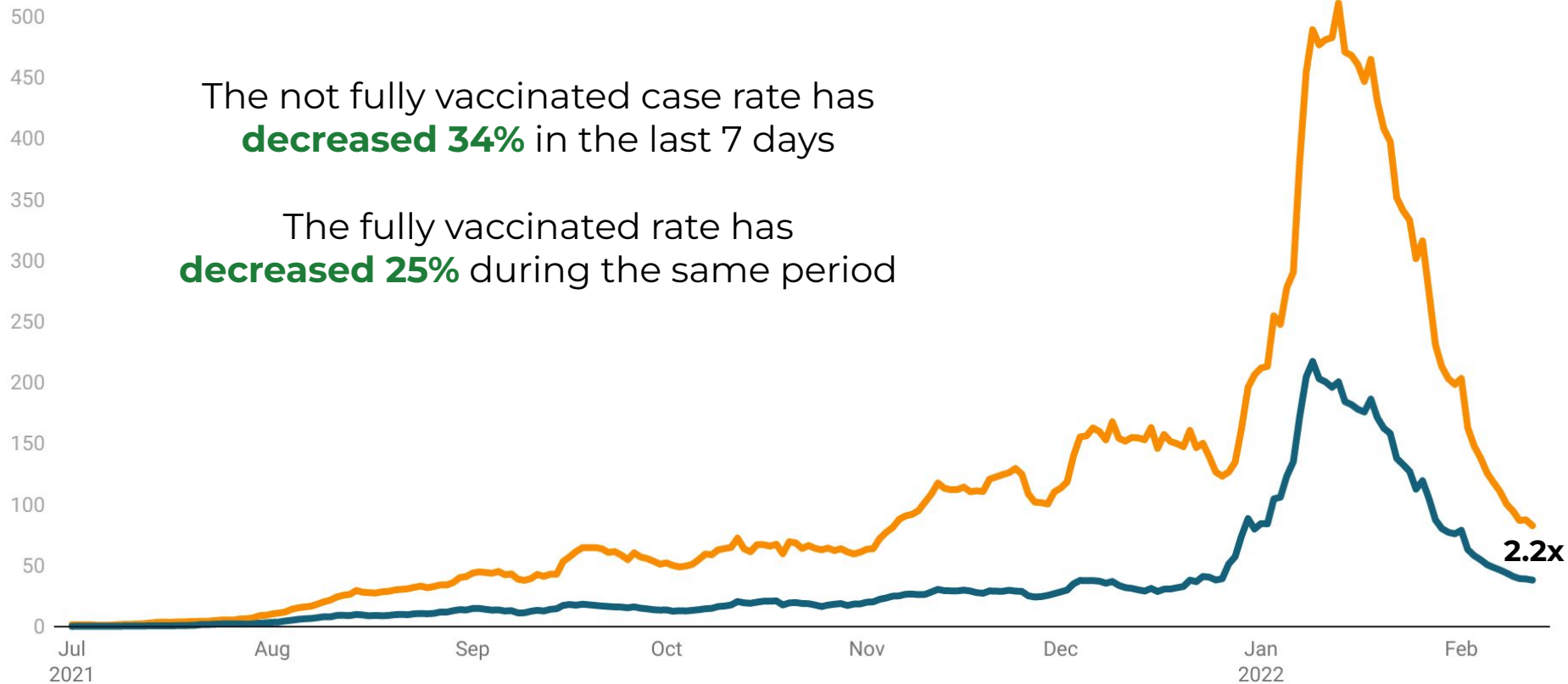
Vermont PCR Test Positivity

7-Day Positivity Rate



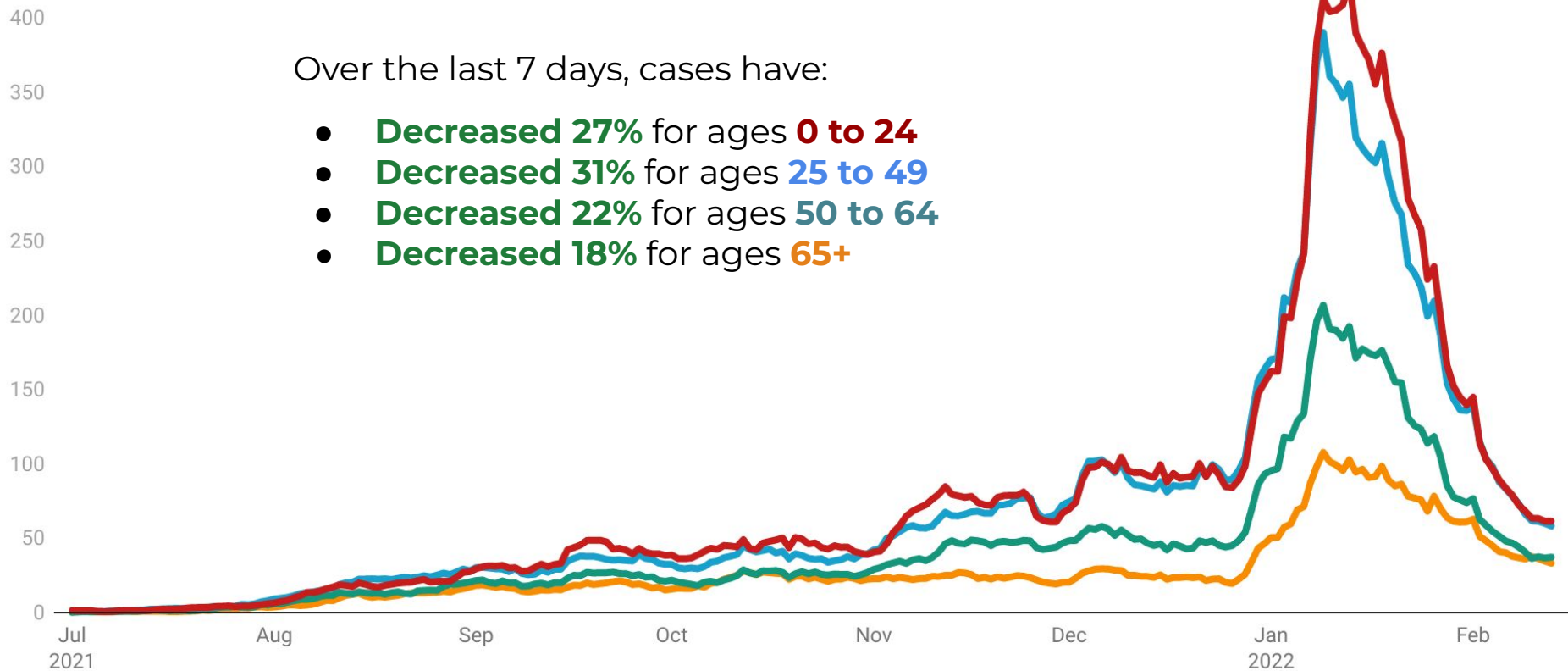
Vermont COVID-19 New Case Rates Per 100K (7-Day Average)

Not Fully Vaccinated Case Rate Fully Vaccinated Case Rate

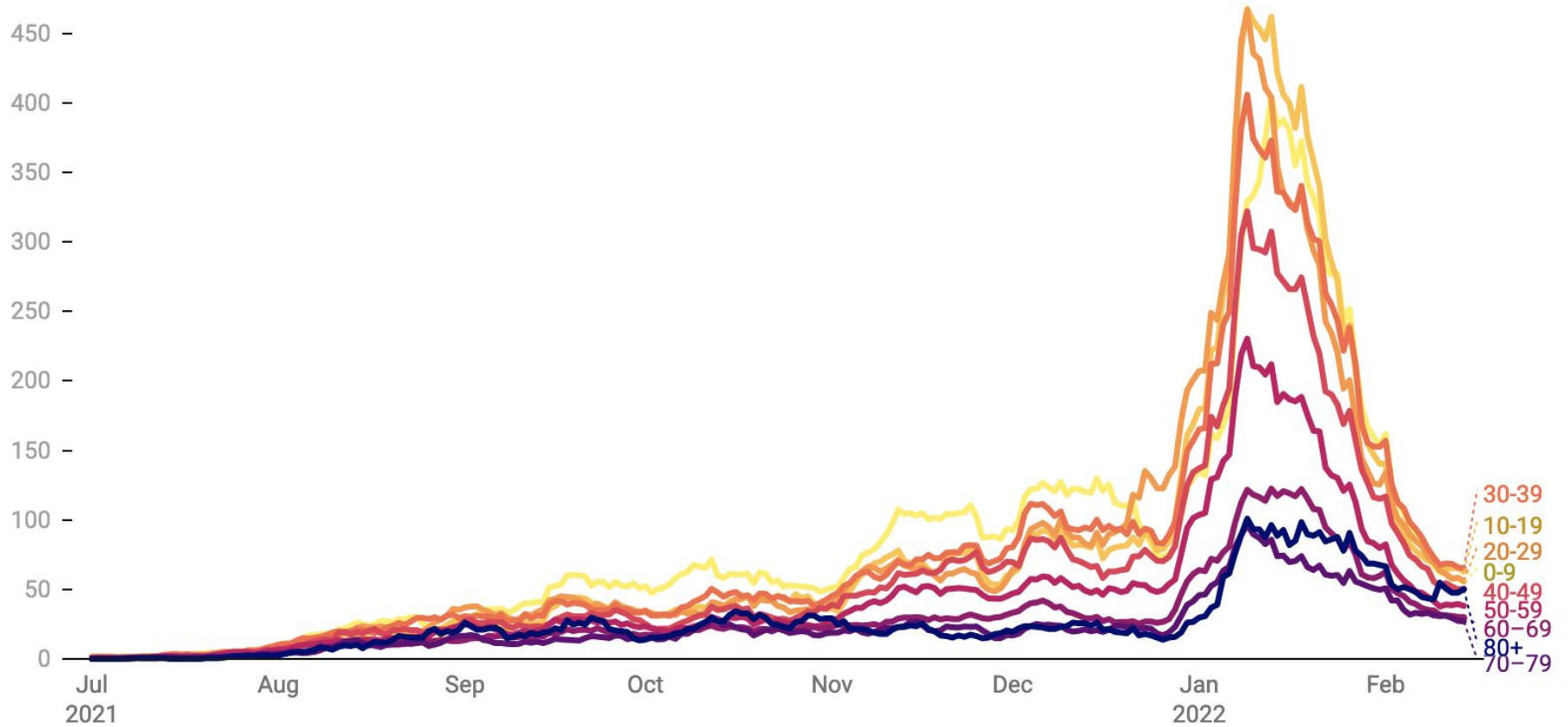


Vermont Case Rates Per 100K By Age (7-Day Average)

0 to 24 24 to 49 50 to 64 65+

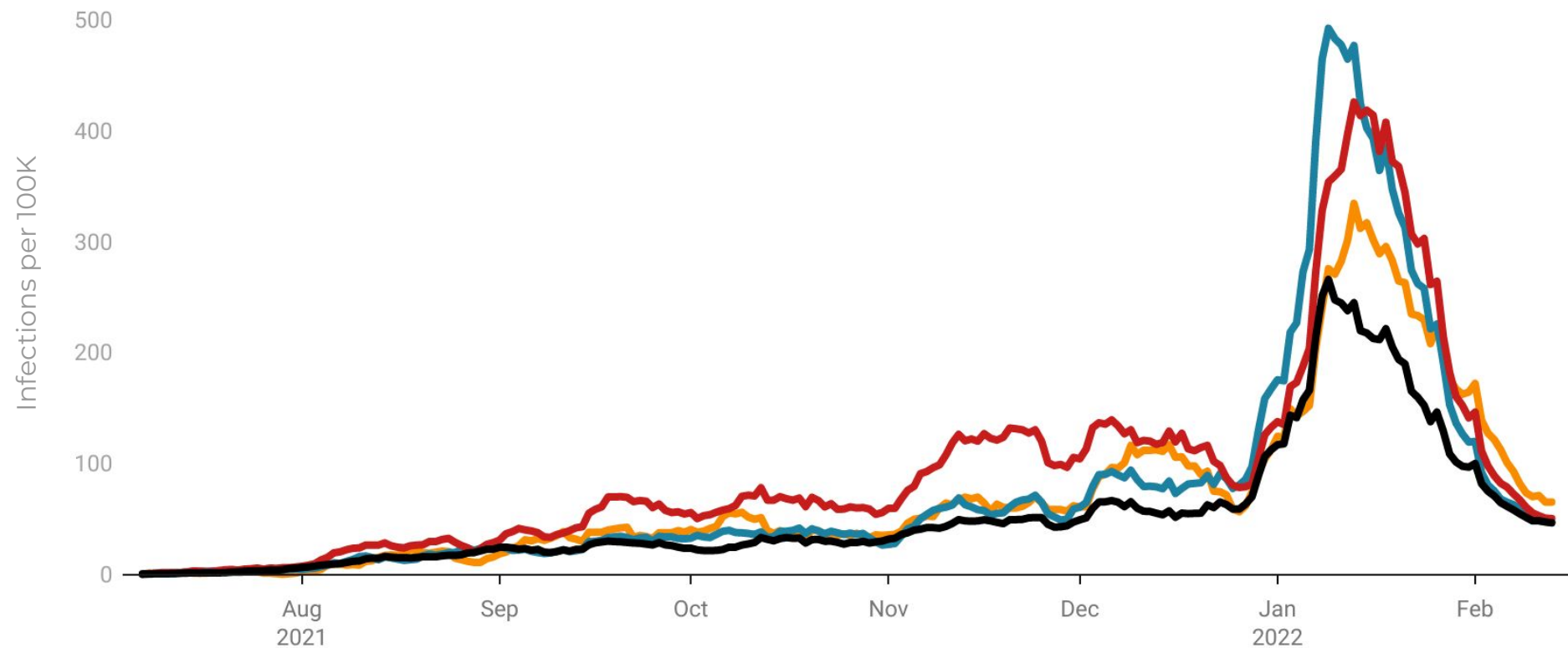


VT COVID-19 Infections per 100K by Age Group



Vermont Covid-19 Case Rates by Age (7-Day Average)

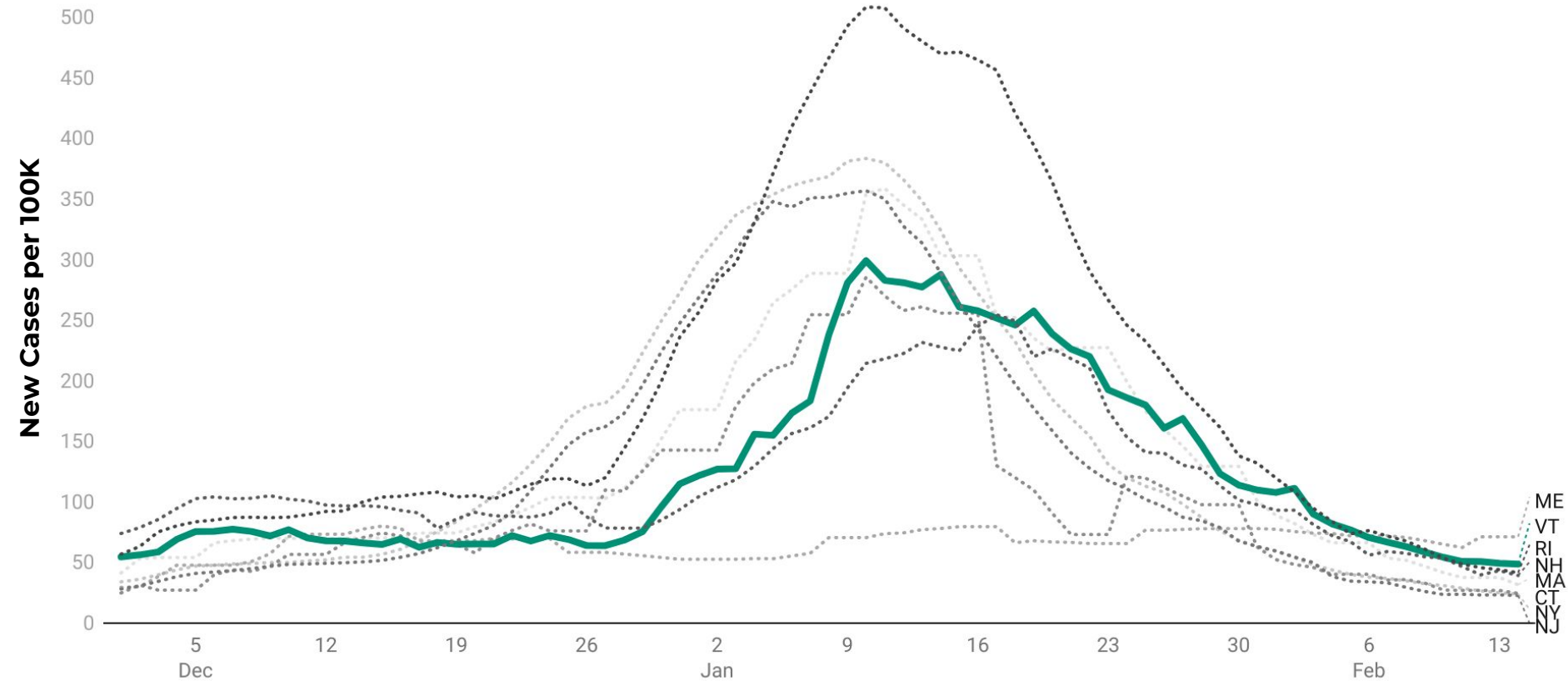
0-4 5-11 12-18 19+



Source: VDH—February 14, 2022; created with Datawrapper

Vermont COVID-19 Cases Compared to Northeast

Cases per 100K on 7-day averages

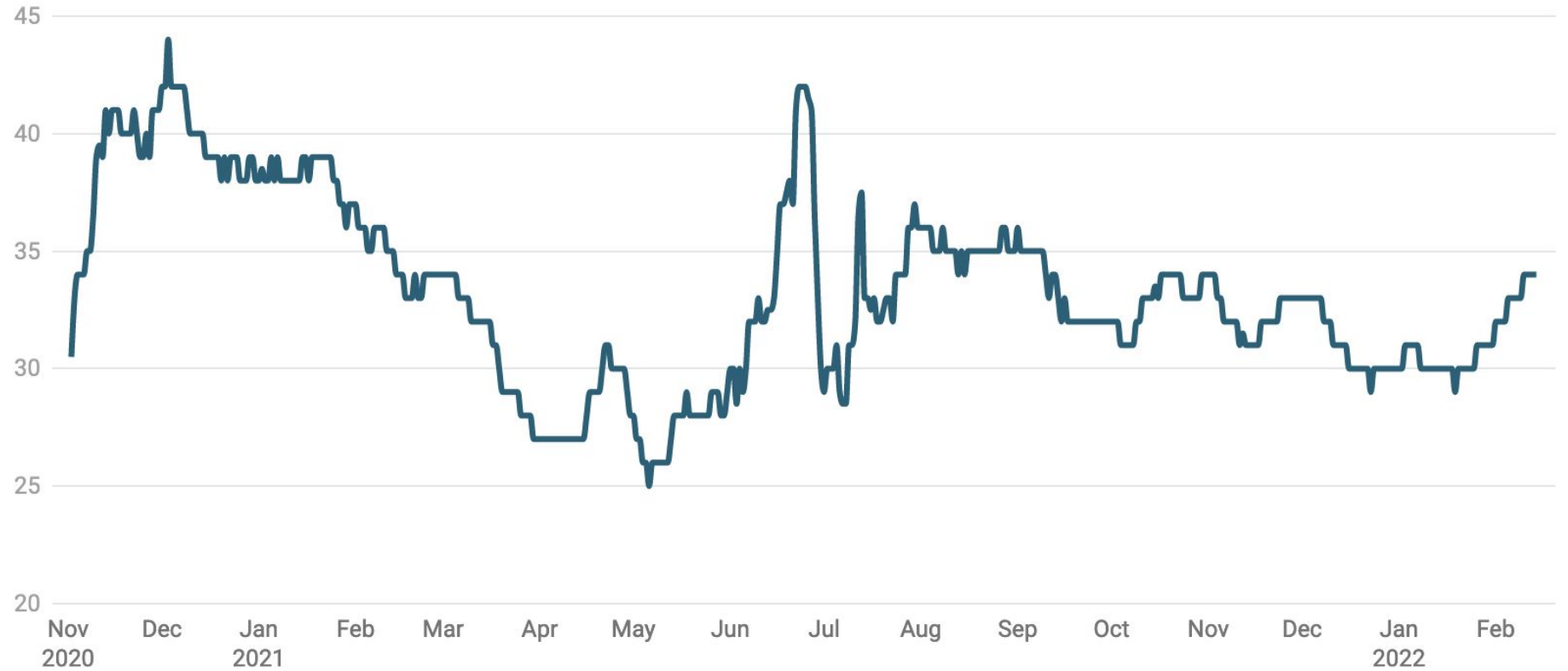


ME
VT
RI
NH
MA
CT
NY
NJ

Sources: State Health Depts.—February 14, 2022

Age of Infected Vermonters

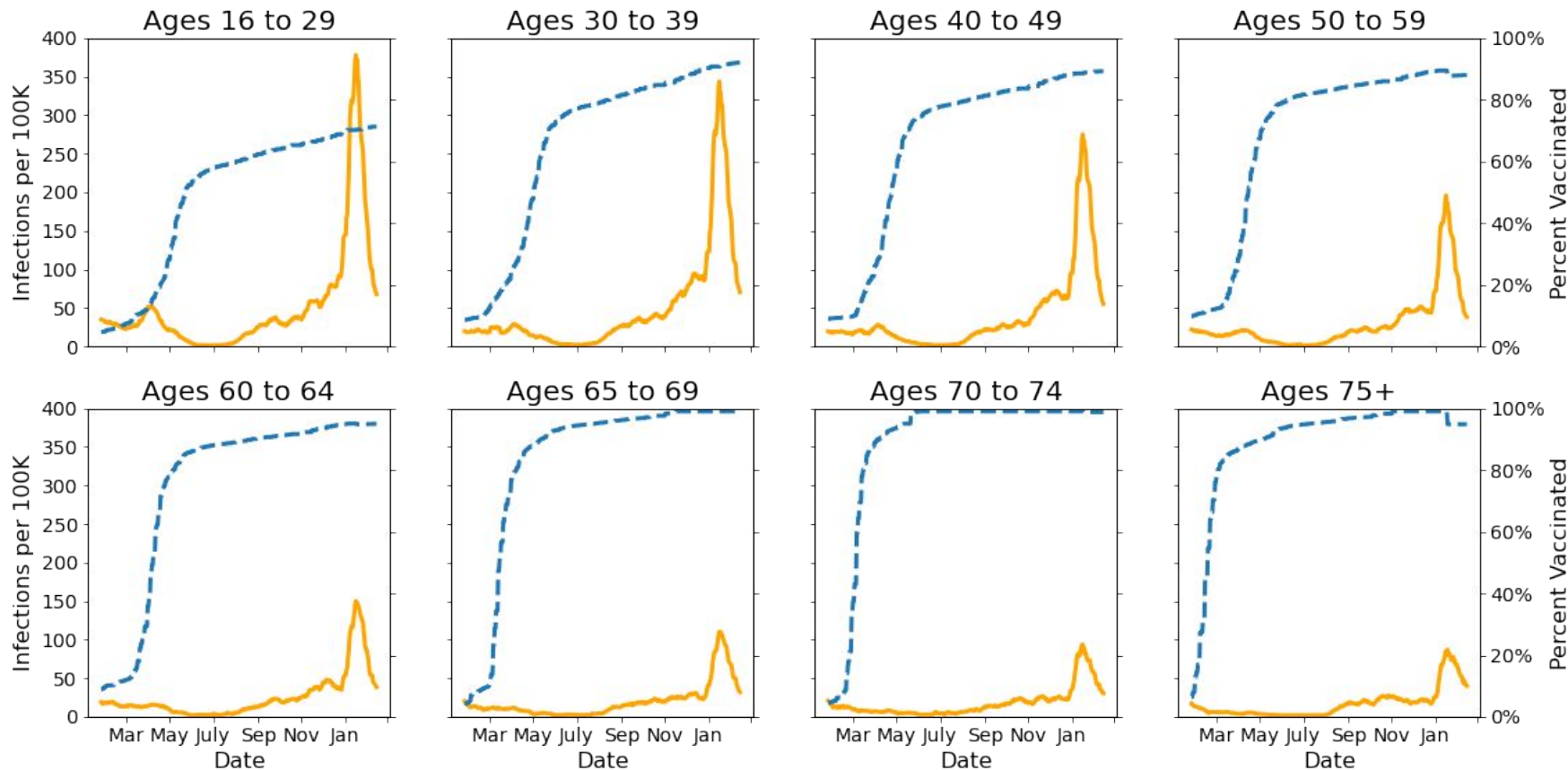
Median age of COVID positive individuals in VT over the last 14 days.



Vermont Case Rate & Vaccination by Age Band

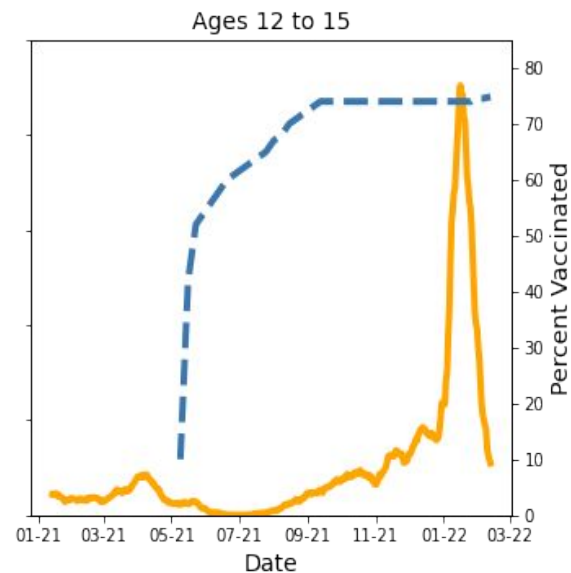
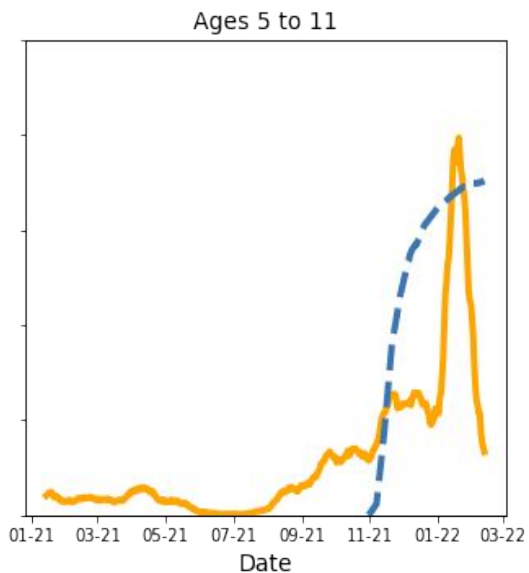
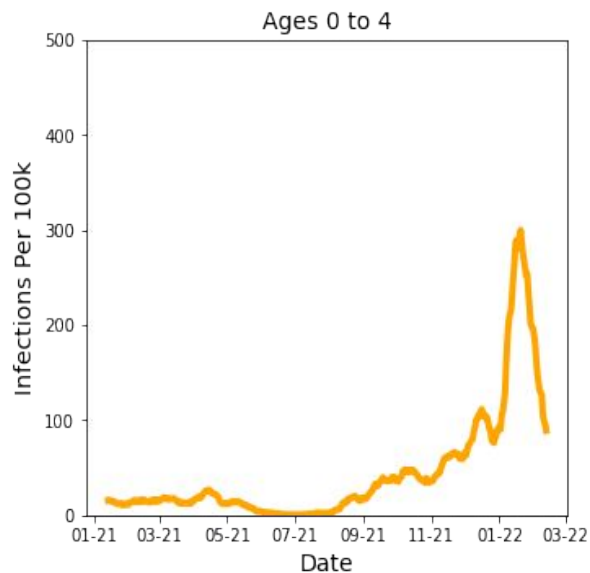
— New Infections per 100K (14-Day Average)

— Percent Received First Vaccine Dose

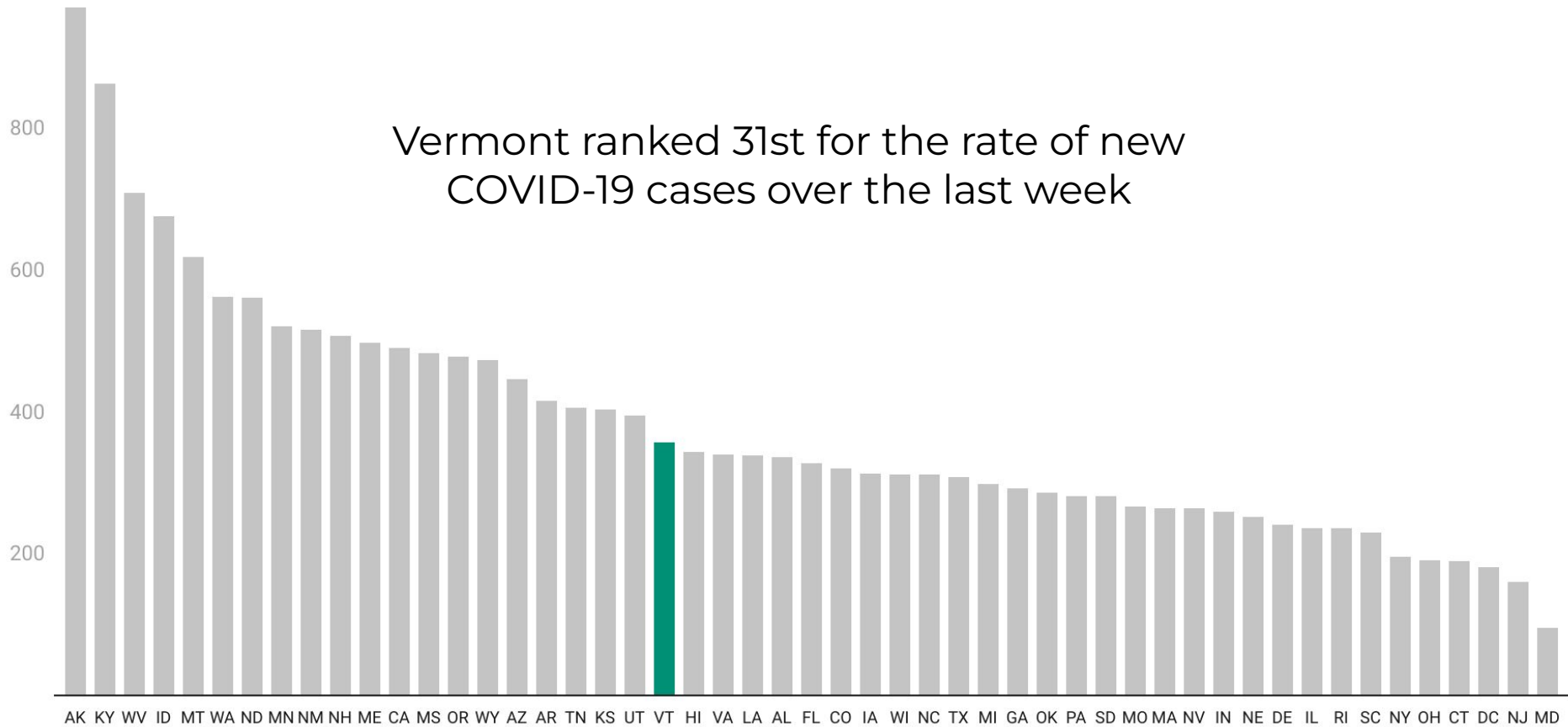


Vermont Case Rate & Vaccination by Age Band

- New Infections per 100K (14-Day Average)
- - - Percent Received First Vaccine Dose

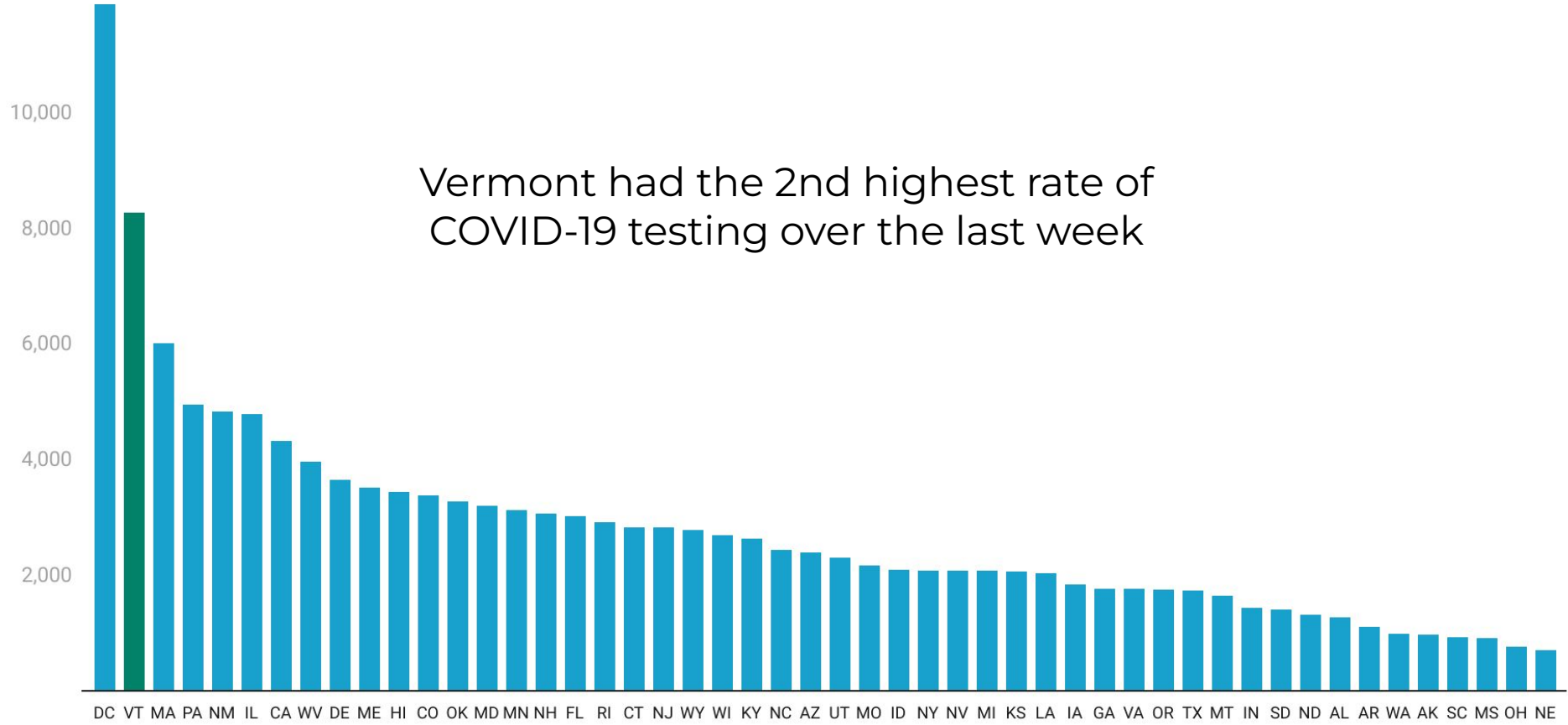


National COVID-19 Case Rates Per 100K Last 7 Days



Source: VDH—February 14, 2022; Created with Datawrapper

COVID-19 Testing Per 100K Last 7 Days



Source: VDH—February 14, 2022; Created with Datawrapper (Note: California and New Mexico did not report testing data)

VT COVID-19 Infection Confidence Intervals

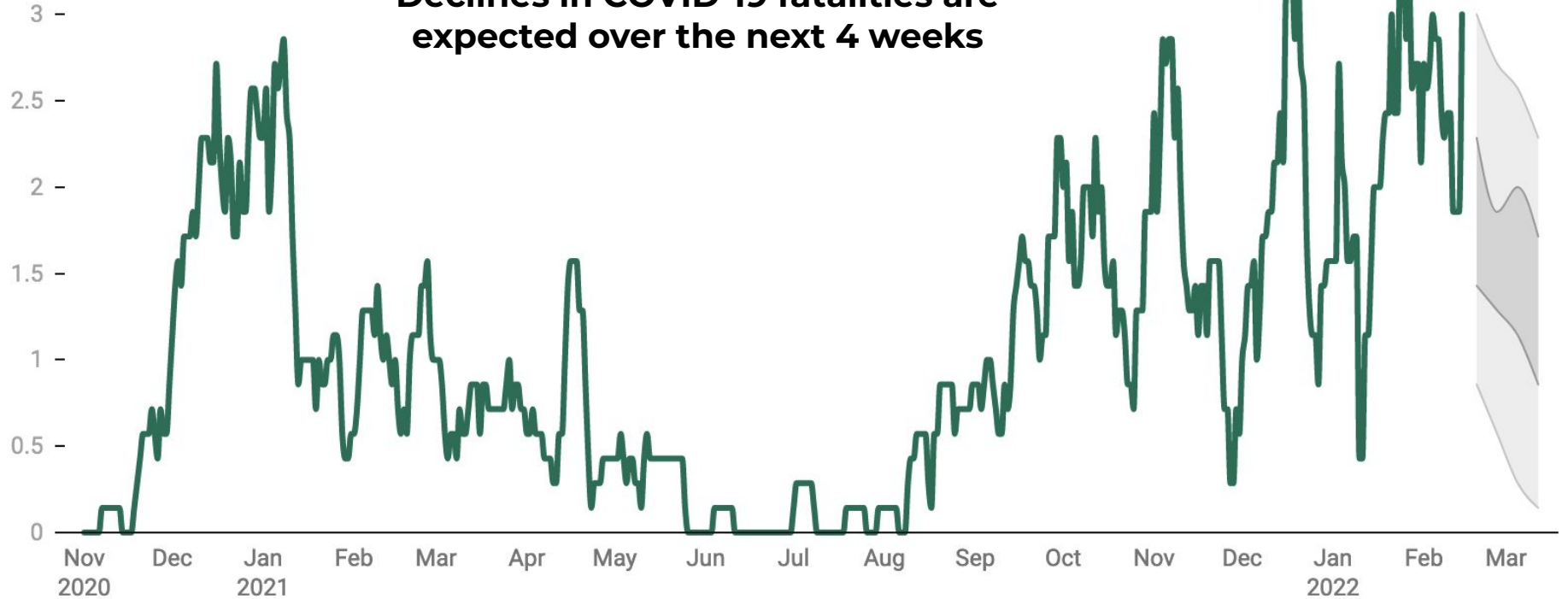
Calculated as a 7-day mean. Inner and outer bands represent 50% and 95% confidence intervals, respectively.



VT COVID-19 Death Confidence Intervals

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

Declines in COVID-19 fatalities are expected over the next 4 weeks



Active Outbreaks in Long Term Care Facilities

Facility Name	Total COVID-19 Cases
Woodridge Rehabilitation and Nursing	56
Crescent Manor Nursing and Rehabilitation Center	56
Our Lady of the Meadows	51
Vermont Veterans Home	48
Barre Gardens	23
St. Albans Healthcare & Rehab	19
Berlin Health & Rehab	19
Sterling House at Rockingham	18
Green Mountain Nursing and Rehab	14
Kirby House Inc	13
Franklin County Rehabilitation Center	11
LTCF A	11
Equinox Terrace	6
Greensboro Nursing home	Not Shown
Thompson House	Not Shown
Union House Nursing Home	Not Shown
Total (shown)	345

Source: Vermont Department of Health—February 14, 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

Spring 2022 Higher Education

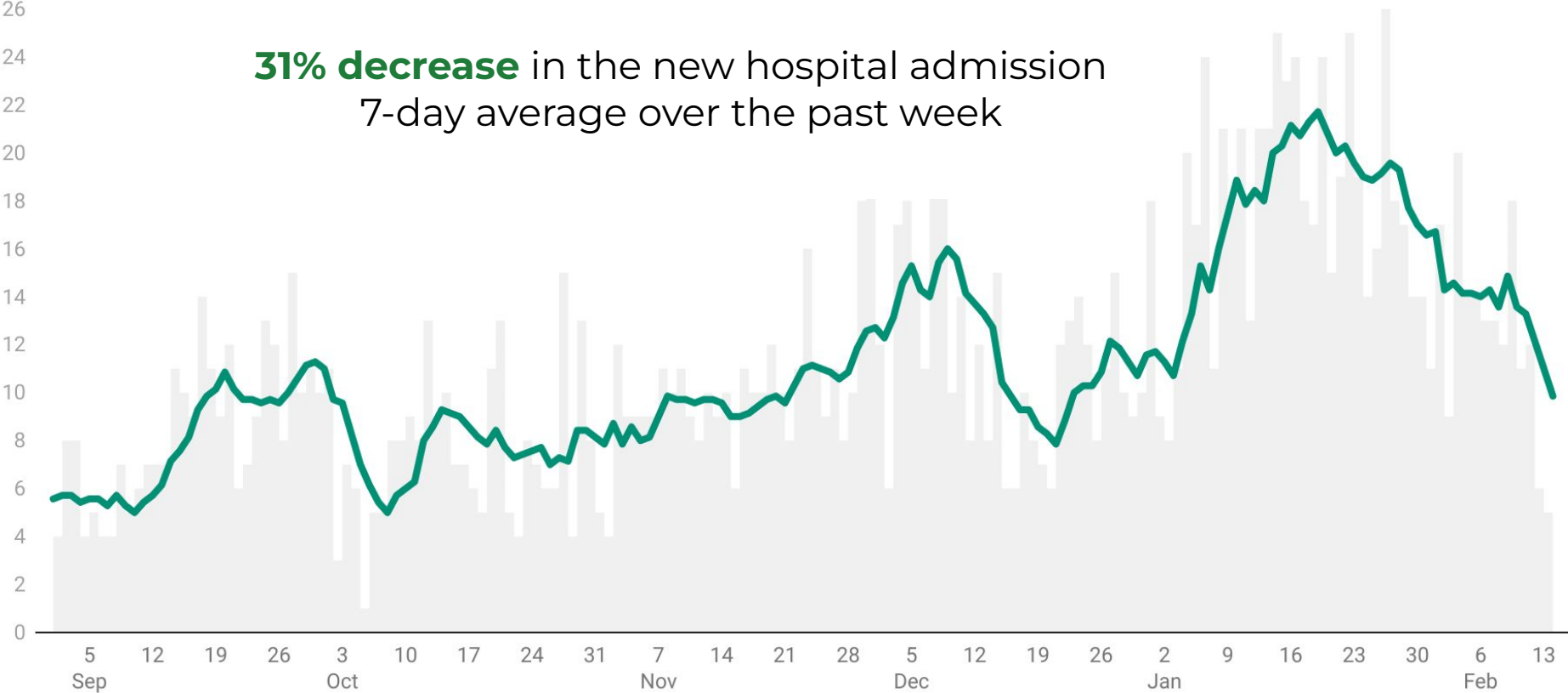
Metric	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<i>Tests</i>	4,953	10,612	13,043	13,547	4,676	3,849
<i>COVID-19 Positives</i>	313	382	303	282	125	148
<i>Percent Positive</i>	6.3%	3.6%	2.3%	2.1%	2.7%	3.9%

Source: Vermont Higher Education Institutions—February 14, 2021

Vermont Hospitalization Data

Vermont New COVID-19 Hospital Admissions

7-Day Average

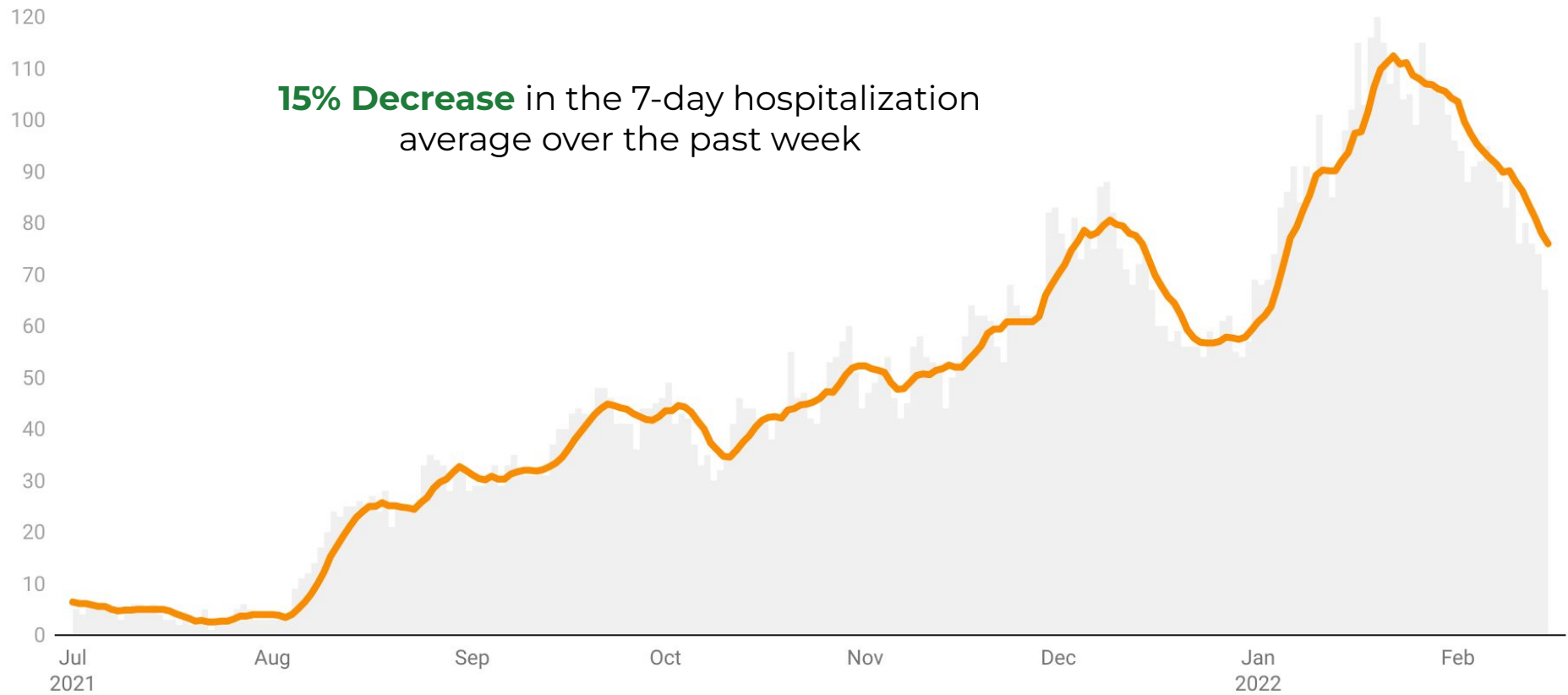


31% decrease in the new hospital admission 7-day average over the past week

Source: HHS—February 14, 2022; Created with Datawrapper

Vermont COVID-19 Patients Currently Hospitalized

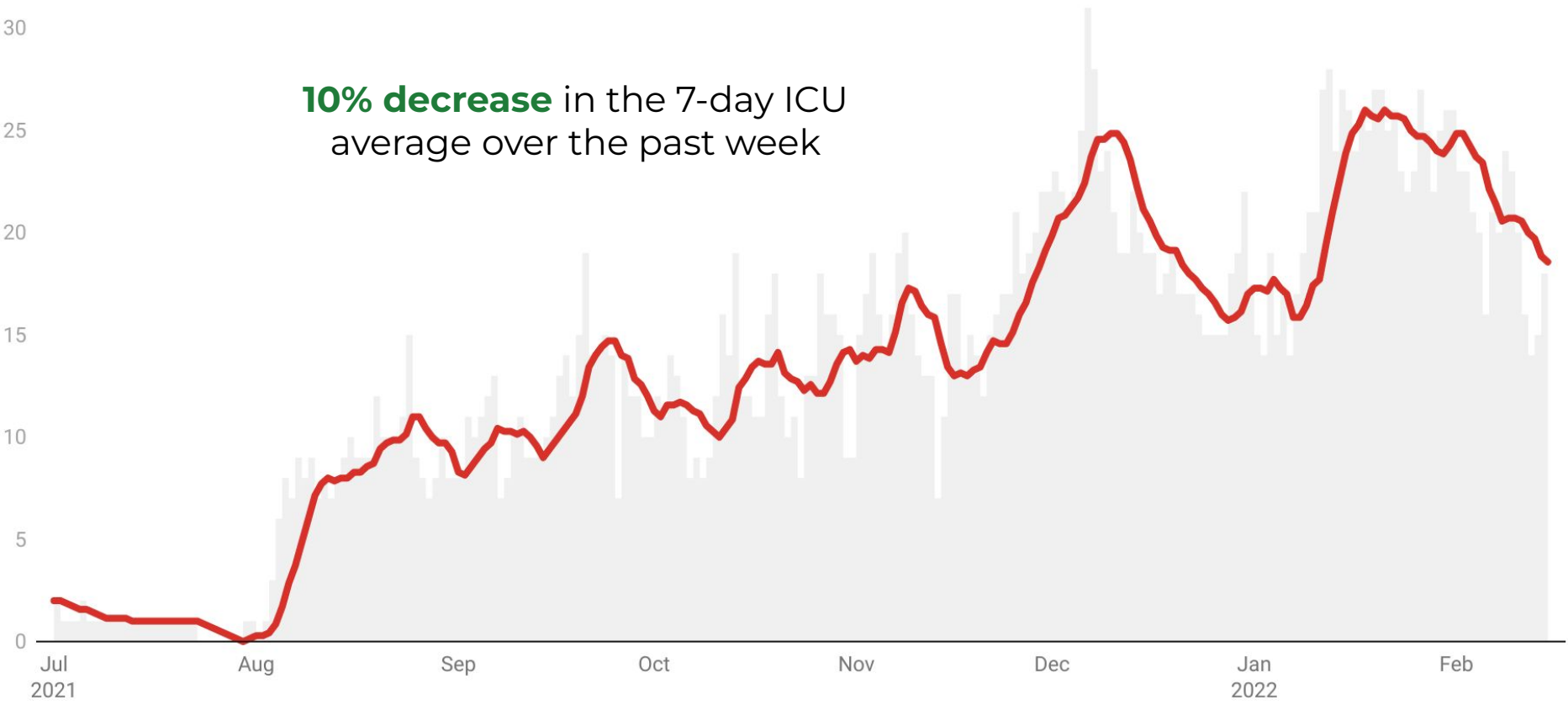
7 Day Average



15% Decrease in the 7-day hospitalization average over the past week

Vermont COVID-19 Patients Currently in the ICU

7-Day Average



10% decrease in the 7-day ICU average over the past week

Source: VDH—February 15, 2022

Vermonters Hospitalized for Influenza

7-Day Hospitalized for Influenza

6

Reported influenza hospitalizations in Vermont remain low

4

2

0

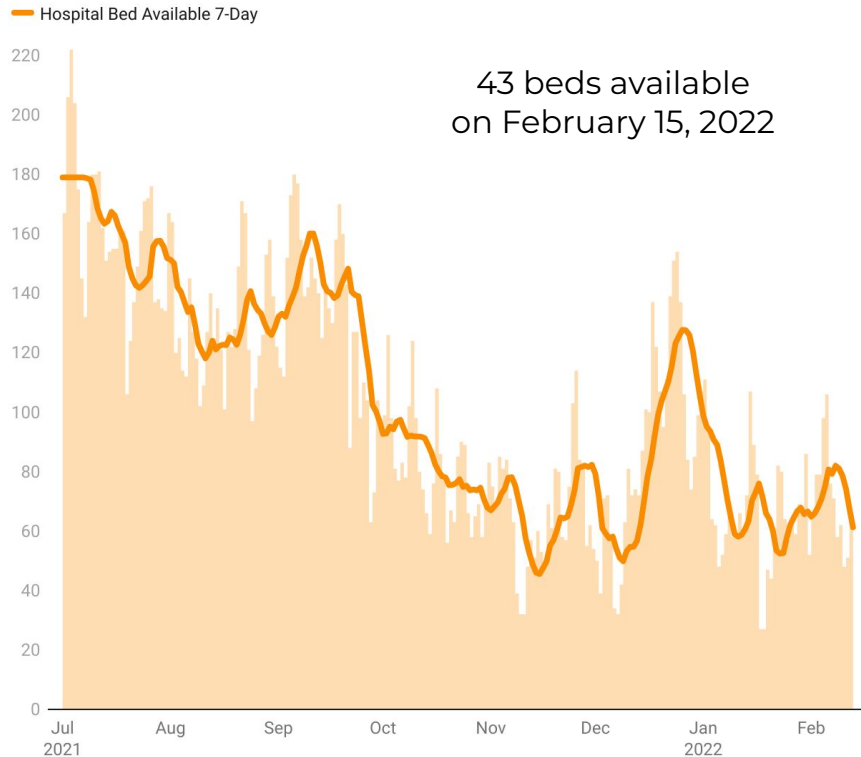


Source: HHS—February 14, 2022; Created with Datawrapper

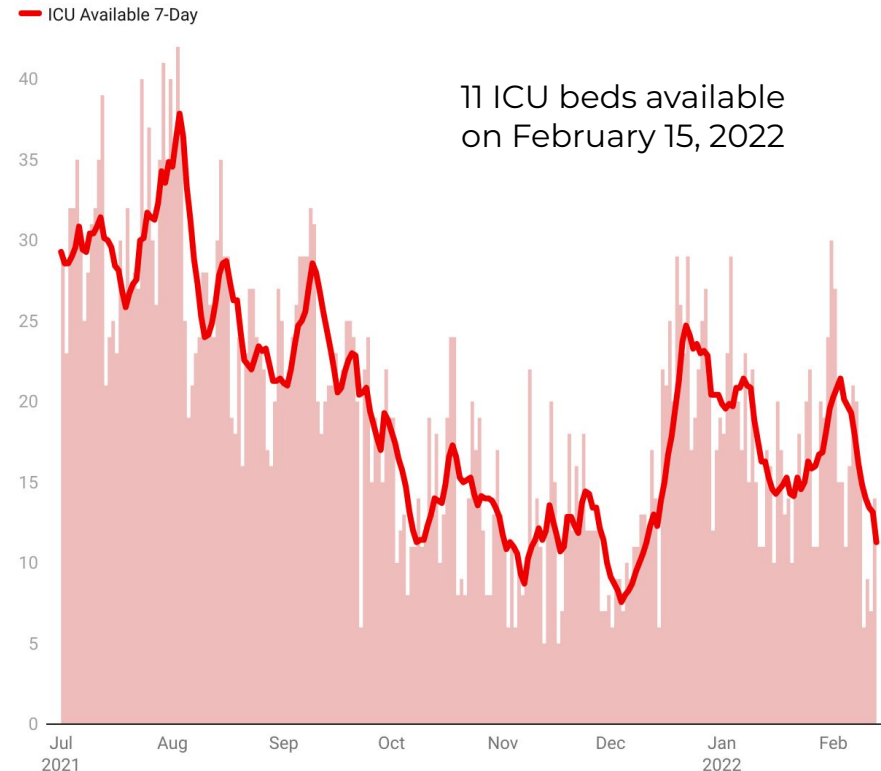
Vermont Hospital Metrics

(7-Day Averages)

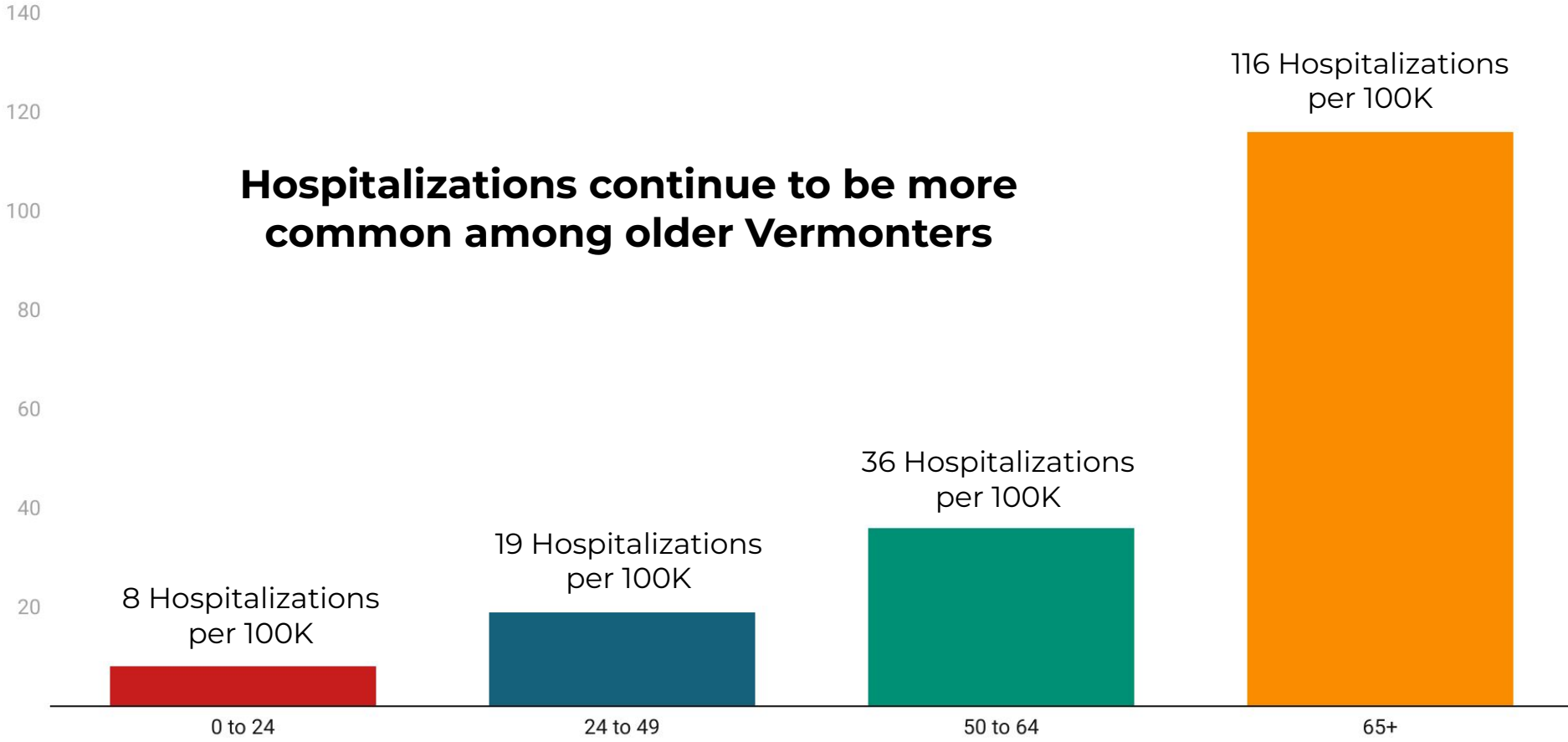
Vermont Hospital Beds Available Since July 1, 2021



Vermont ICU Beds Available Since July 1, 2021



COVID-19 Hospitalization Rate Per 100K By Age Over The Last 6 Weeks



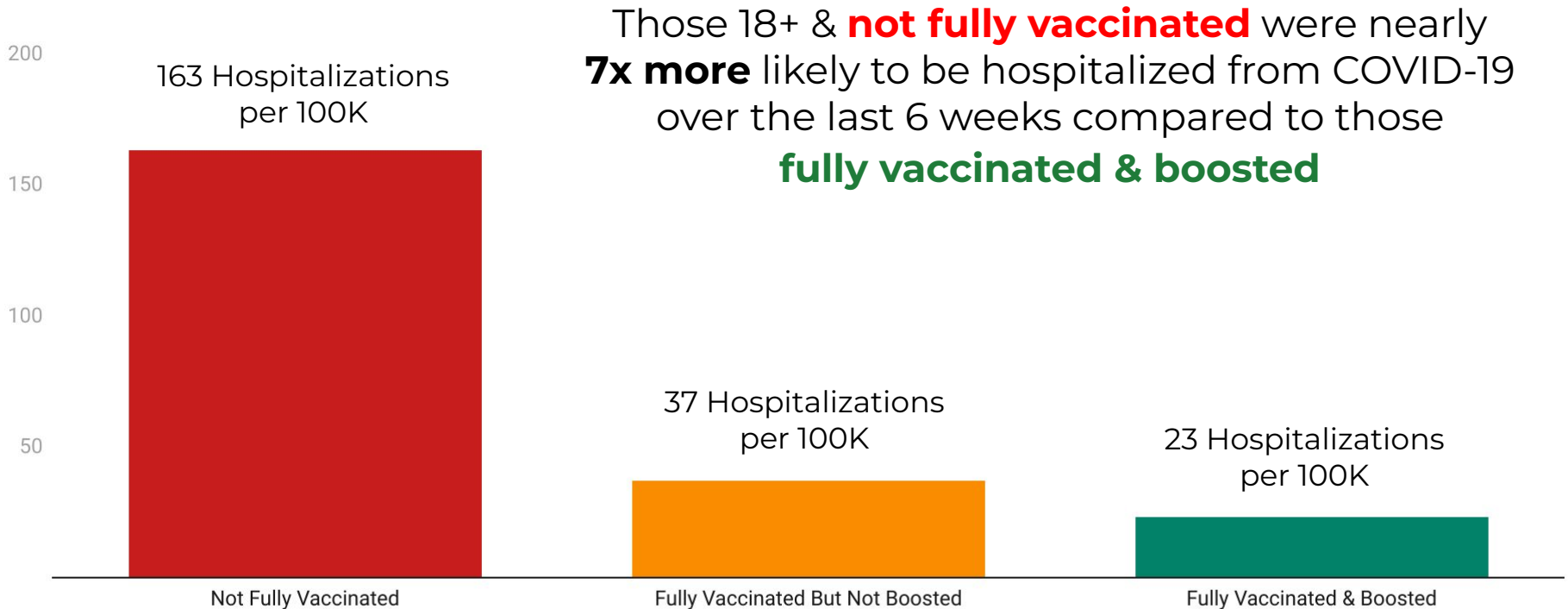
Hospitalizations continue to be more common among older Vermonters

Source: VDH—February 12, 2022; created with Datawrapper

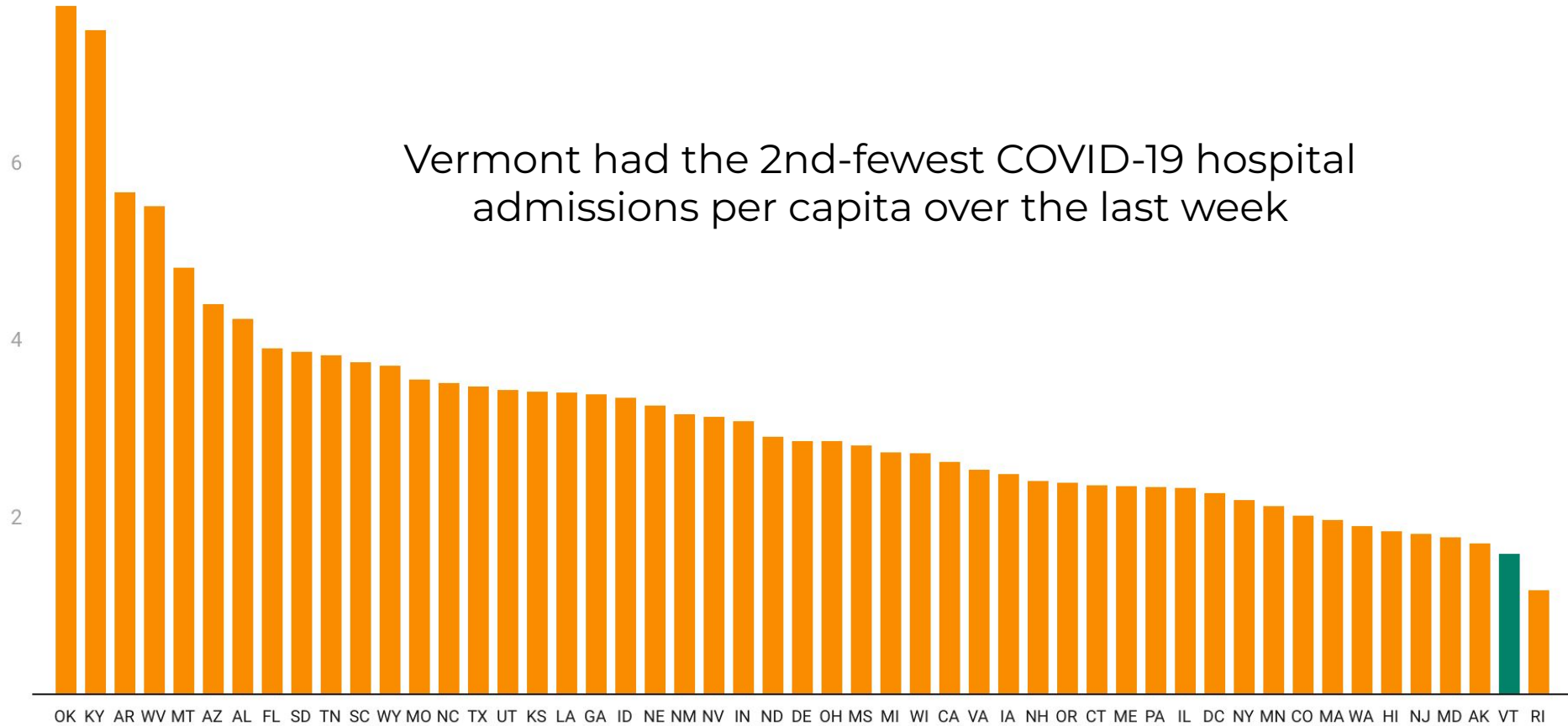
COVID-19 Hospitalizations By Vaccination Status Per 100K

Measured Among Vermont's 18 & Over Population Over the Last 6 Weeks

250



COVID-19 Hospital Admissions Last 7 Days Per 100K

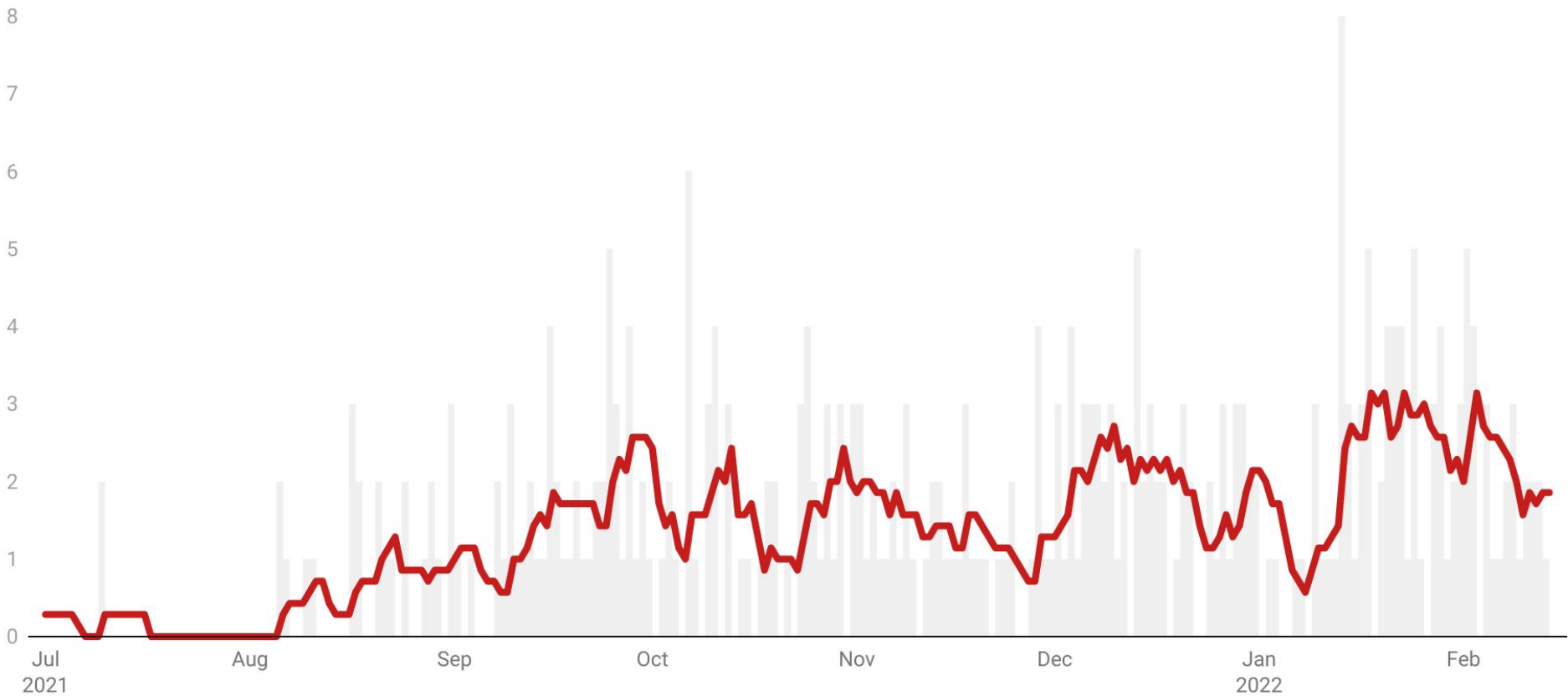


Source: HHS—February 14, 2022; Created with Datawrapper

Vermont Fatality Data

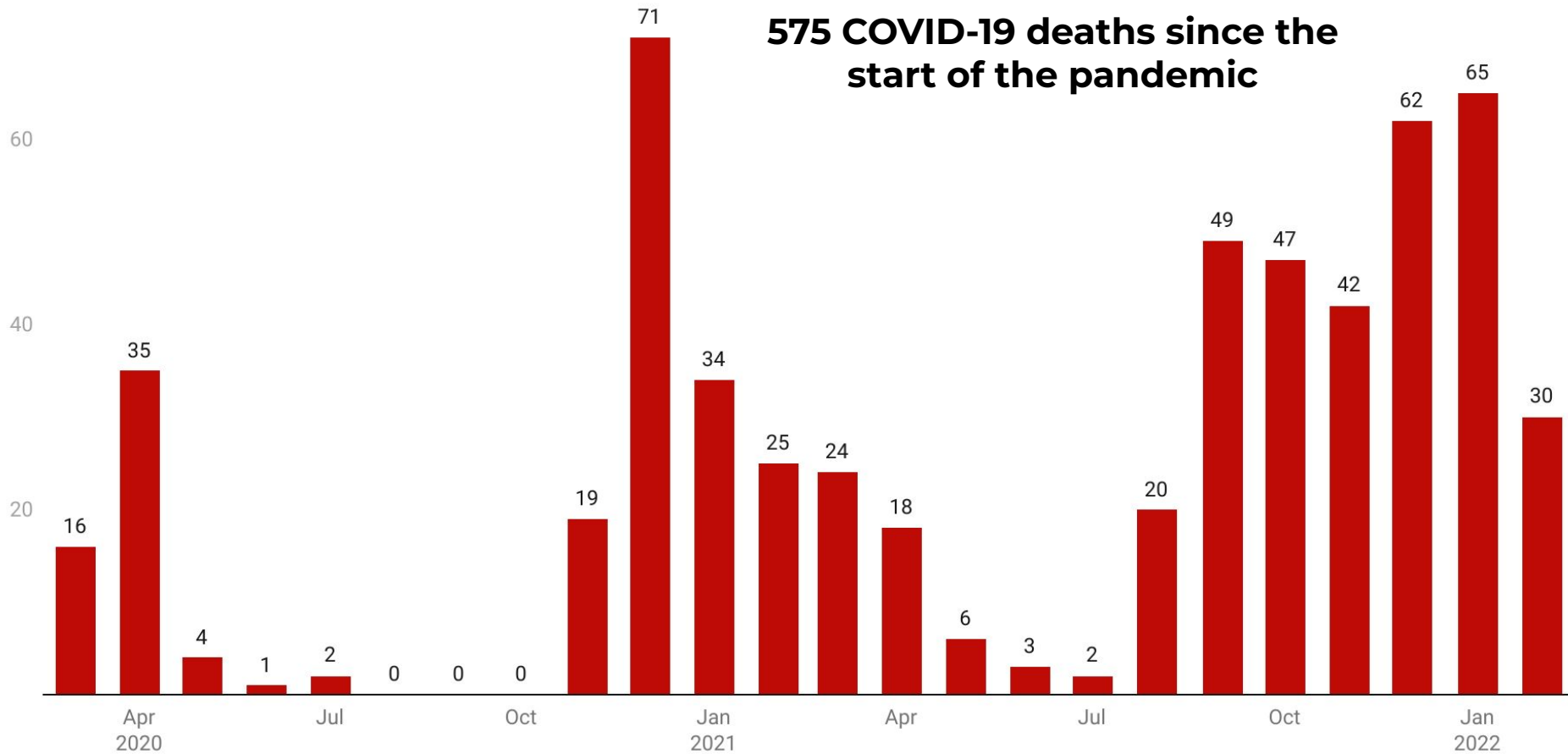
Vermont COVID-19 Fatalities

7-Day Average



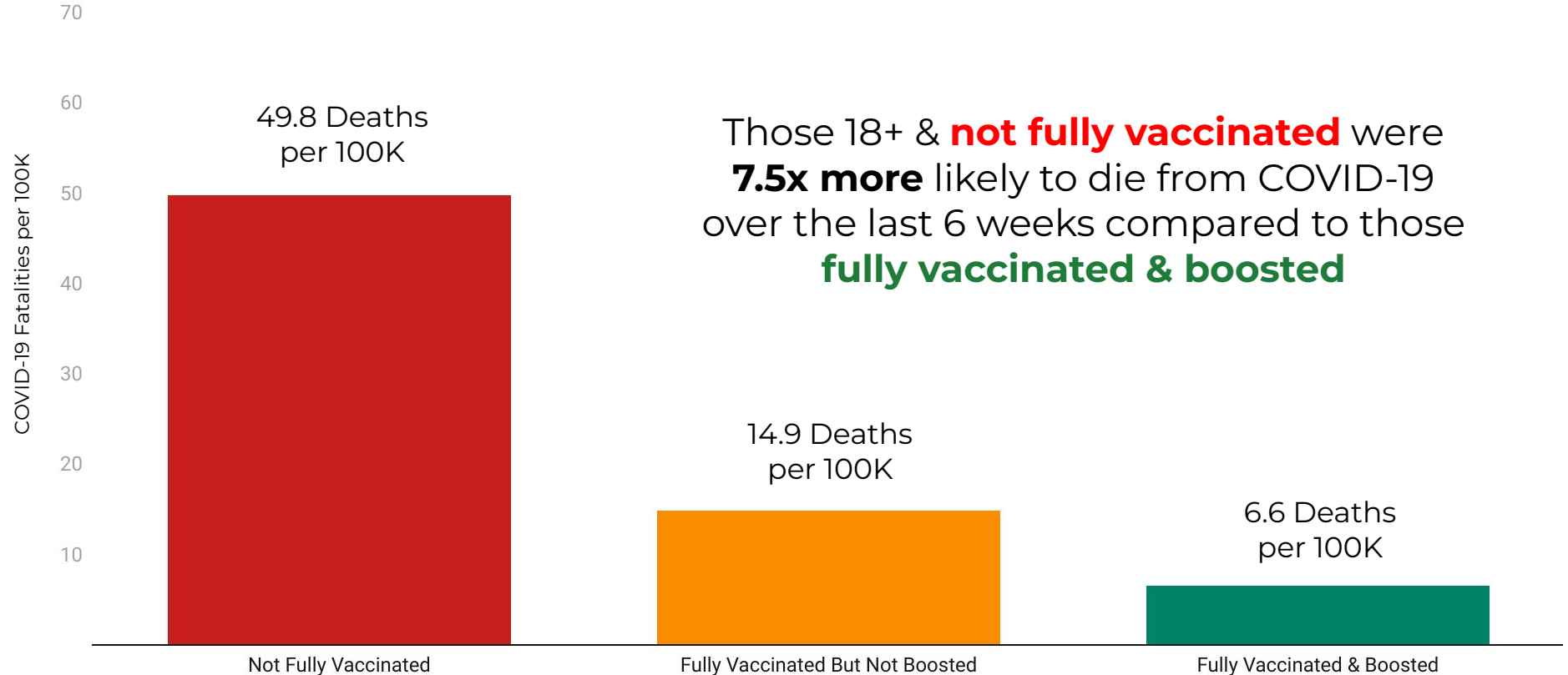
Source: VDH—February 15, 2022; created with Datawrapper

Monthly Covid-19 Deaths In Vermont

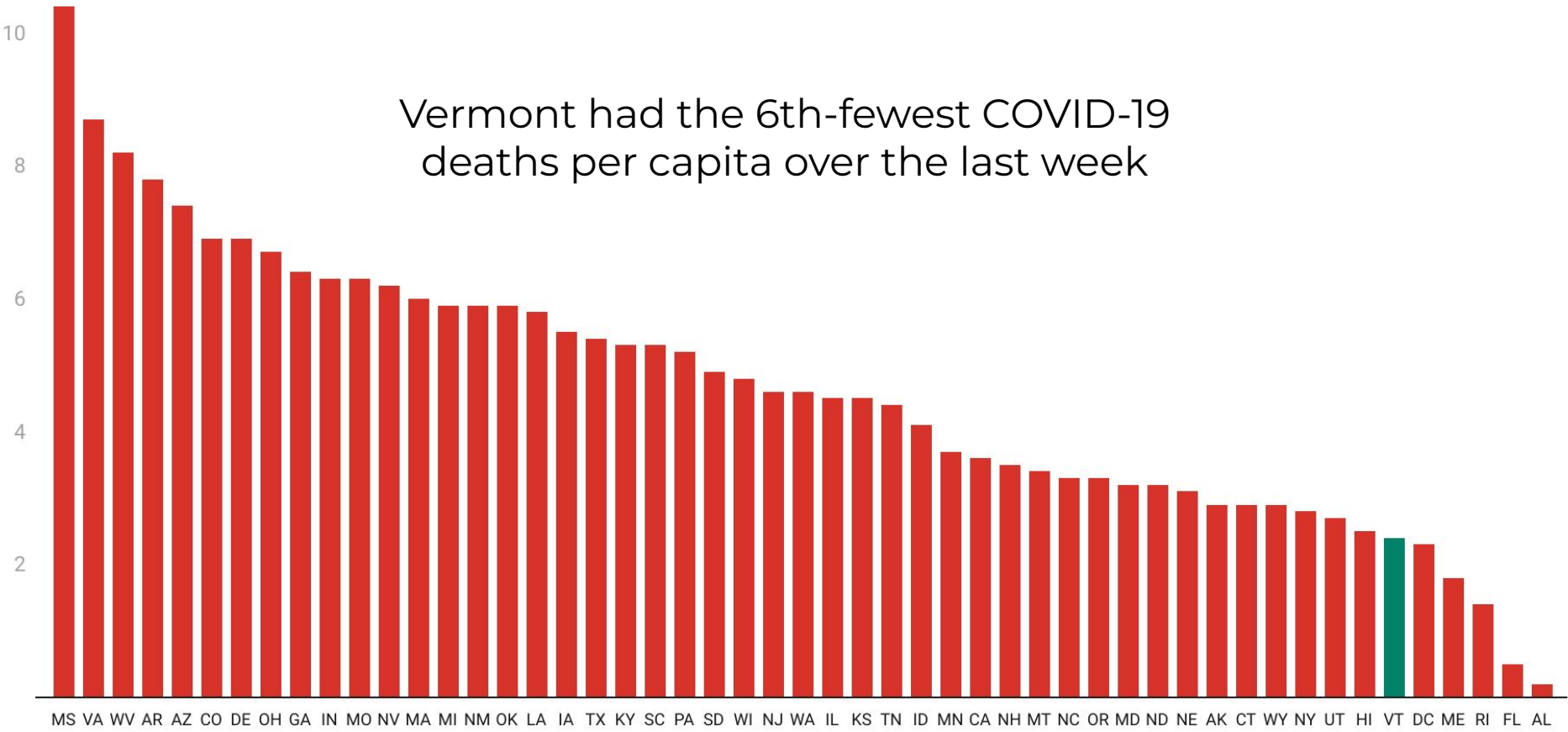


COVID-19 Deaths By Vaccination Status Per 100K

Measured Among Vermont's 18 & Over Population Over the Last 6 Weeks



COVID-19 Deaths Per 100K Last 7 Days



Source: CDC—February 14, 2022; Created with Datawrapper

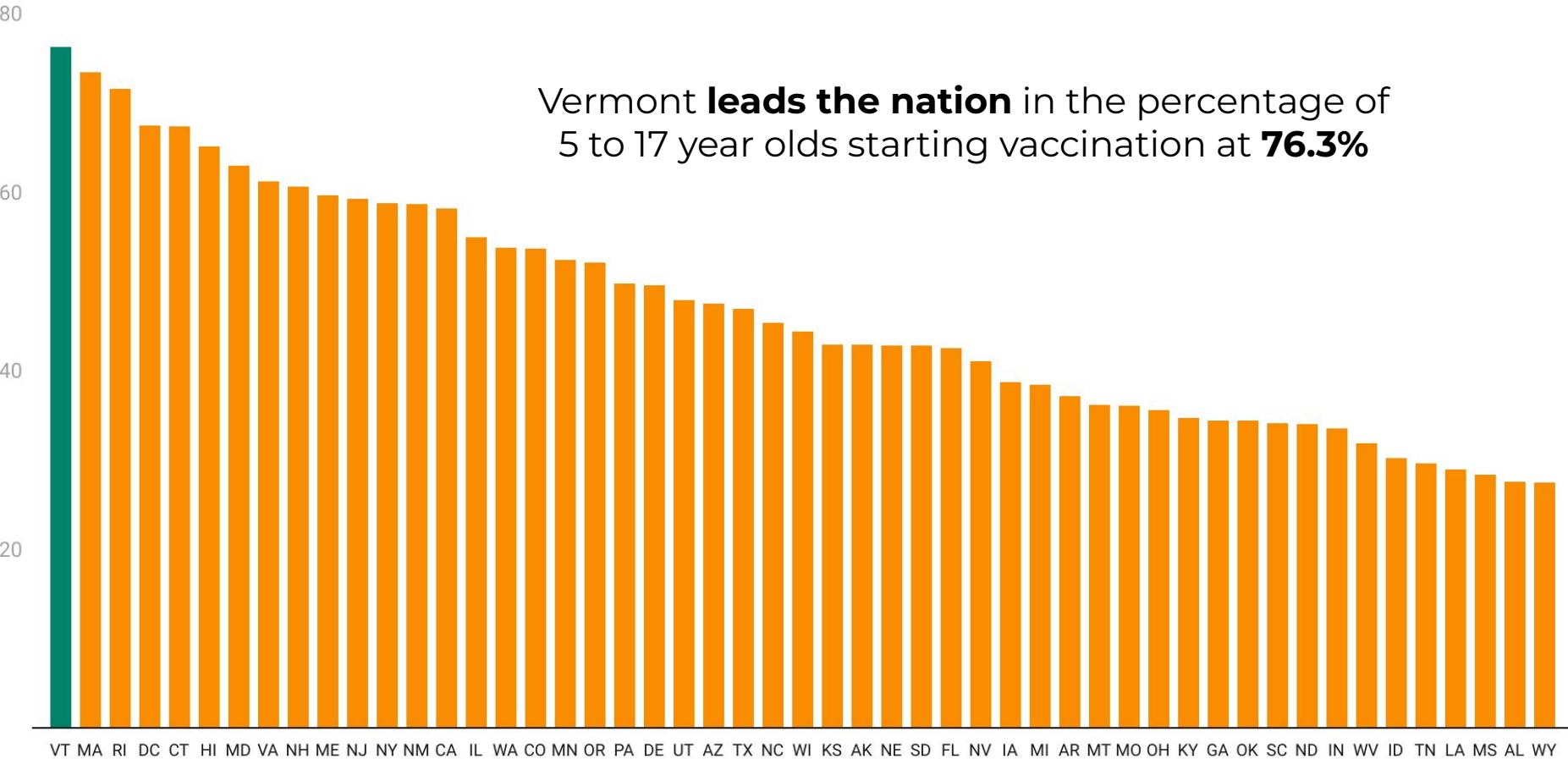
Vermont Vaccination Data

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)	1 (tied)
% Fully Vaccinated (Full Population)	3
% 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

Percent of 5 to 17 Population Starting Vaccination



Source: CDC—February 14, 2022; Created with Datawrapper

Percent of 5 to 17 Population Who are Fully Vaccinated

80

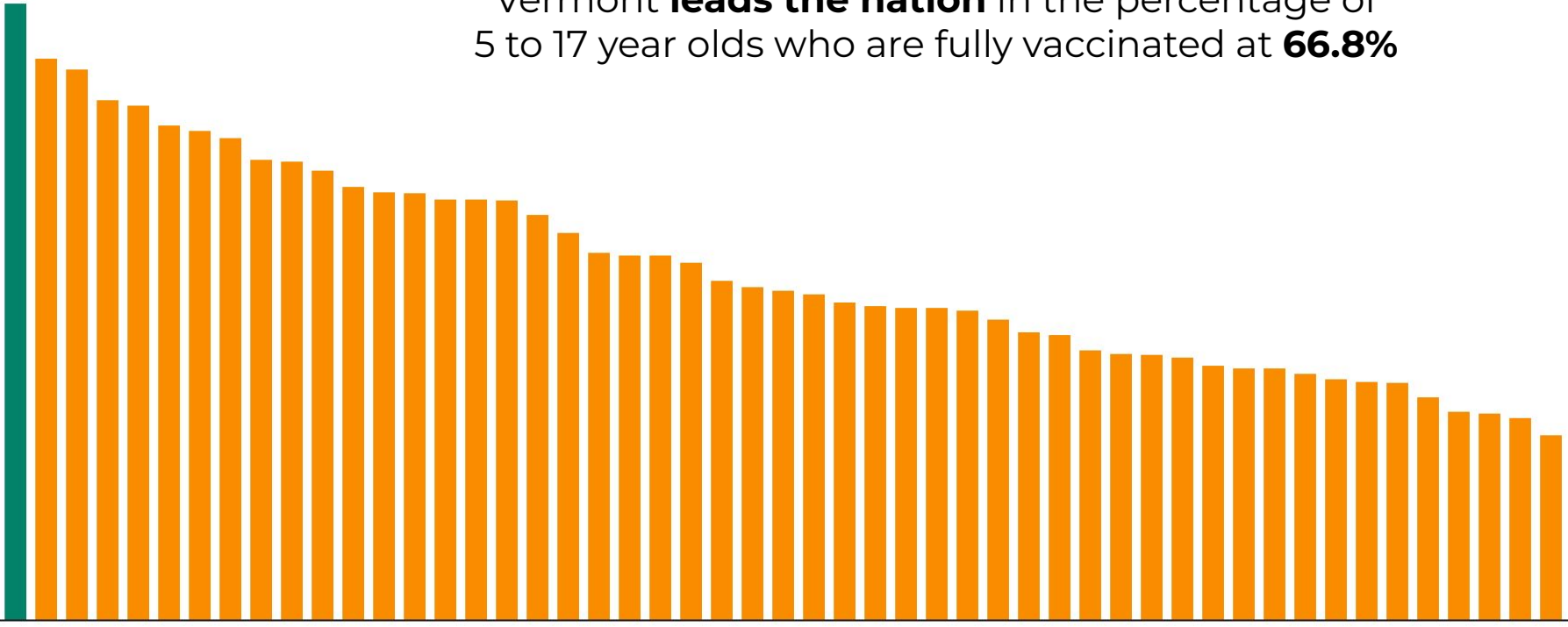
Vermont **leads the nation** in the percentage of 5 to 17 year olds who are fully vaccinated at **66.8%**

60

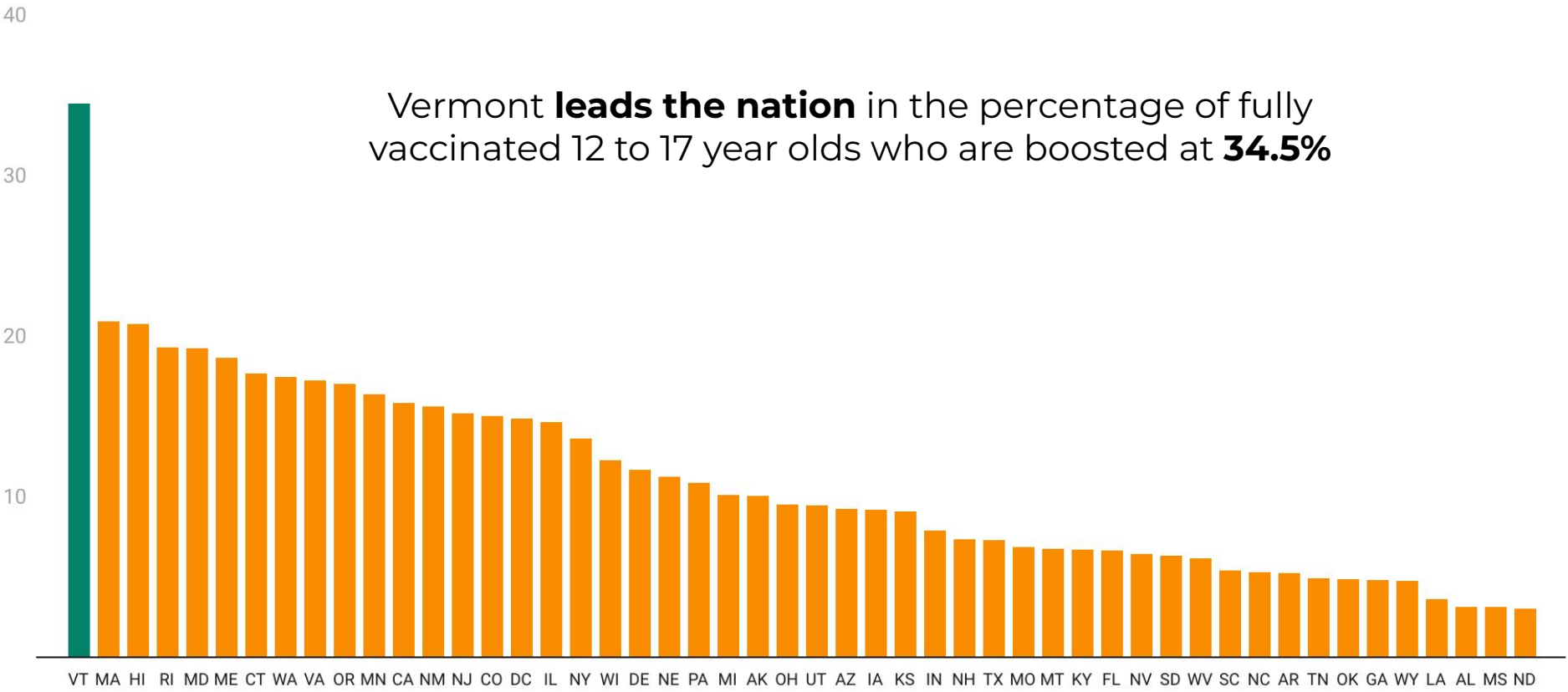
40

20

VT RI MA HI CT MD ME VA NY NJ CA IL MN WA CO NM DC OR NH PA DE UT WI NE AK TX AZ KS FL NC IA MI SD OH NV MT MO KY AR ND SC OK WV IN GA ID TN WY MS LA AL

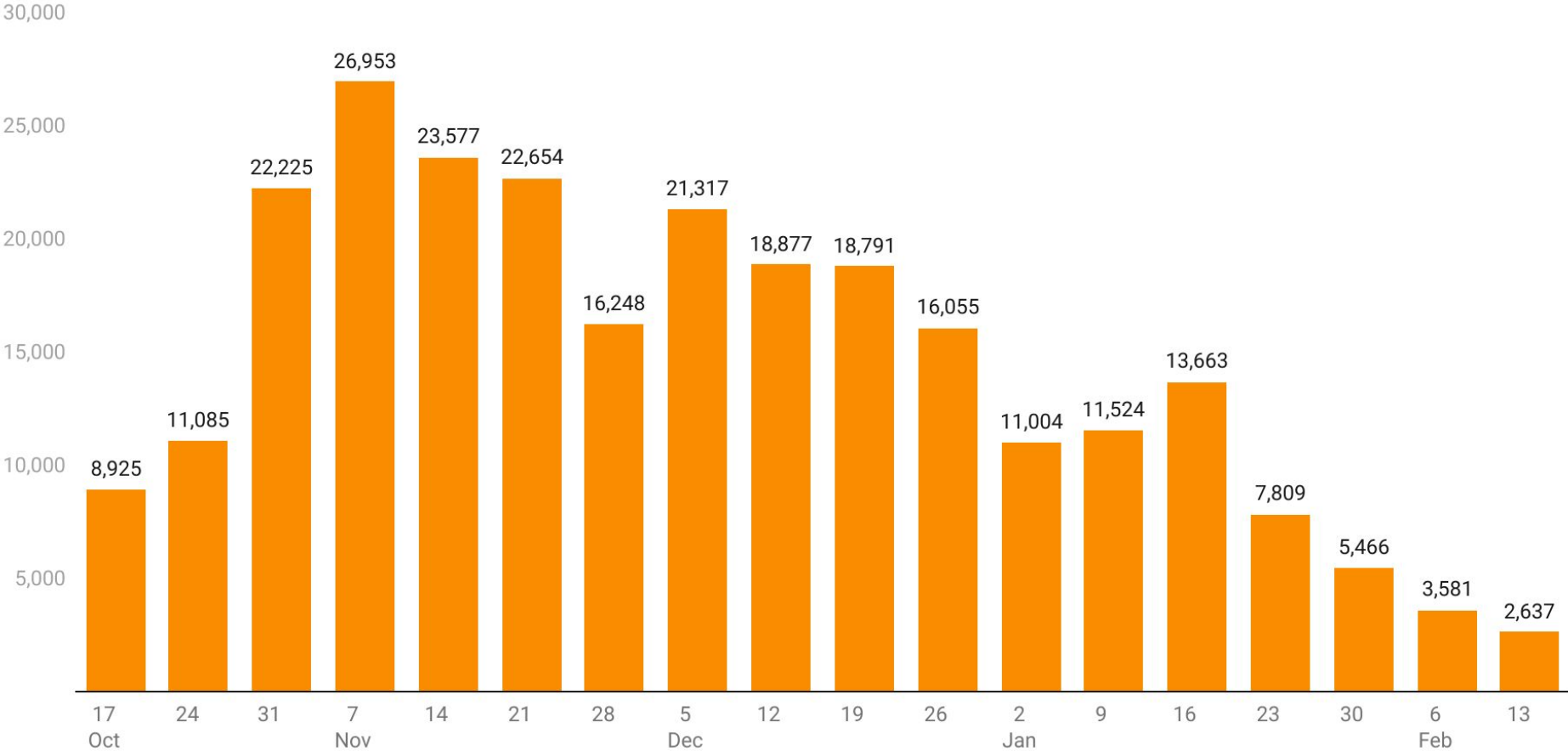


Percent of 12 to 17 Population With Booster Dose



Source: CDC—February 14, 2022; Created with Datawrapper

Vermont: Booster Shots Administered By Week

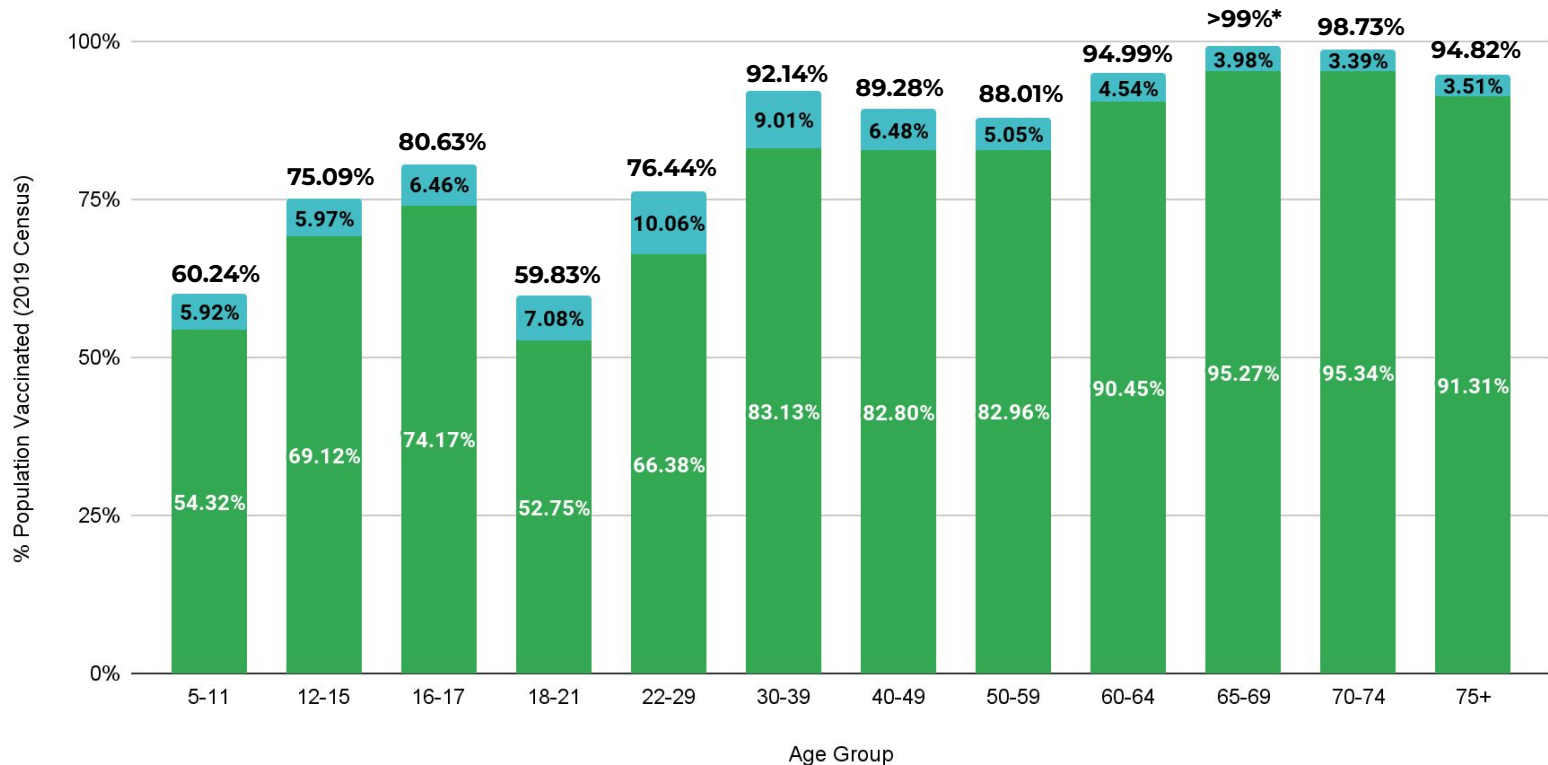


Source: CDC—February 14, 2022; created with Datawrapper

Vermont Vaccination Progress

By Age Band

Partially Vaccinated Fully Vaccinated

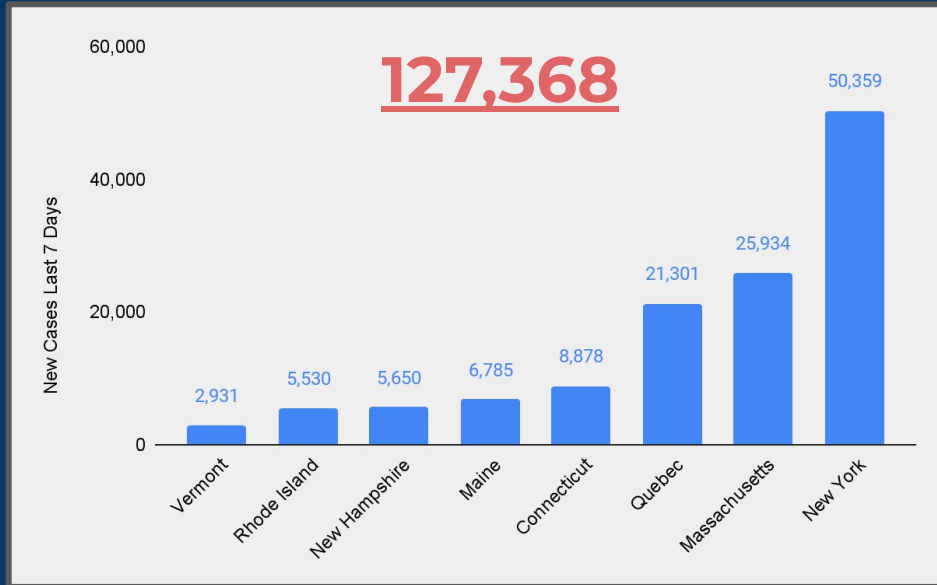


Regional Data

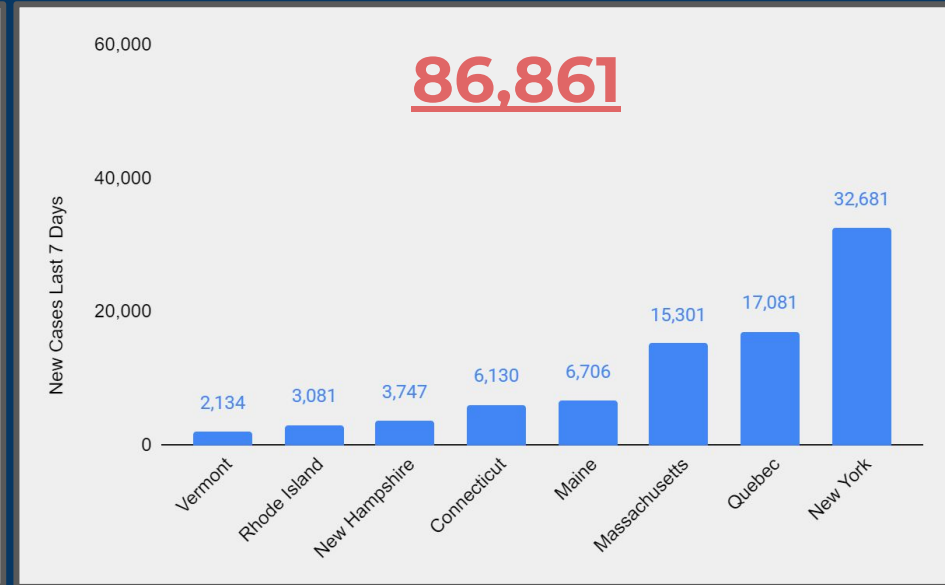
Northeast Regional Cases

32% Decrease in New Cases

New Cases February 1st to February 7th



New Cases February 8th to February 14th



Weekly Northeast Regional Cases

1000000

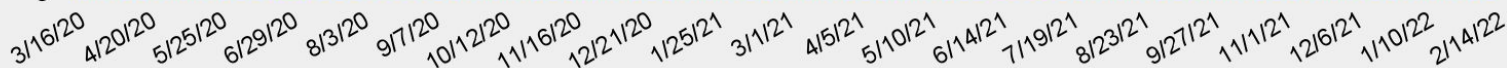
750000

500000

250000

0

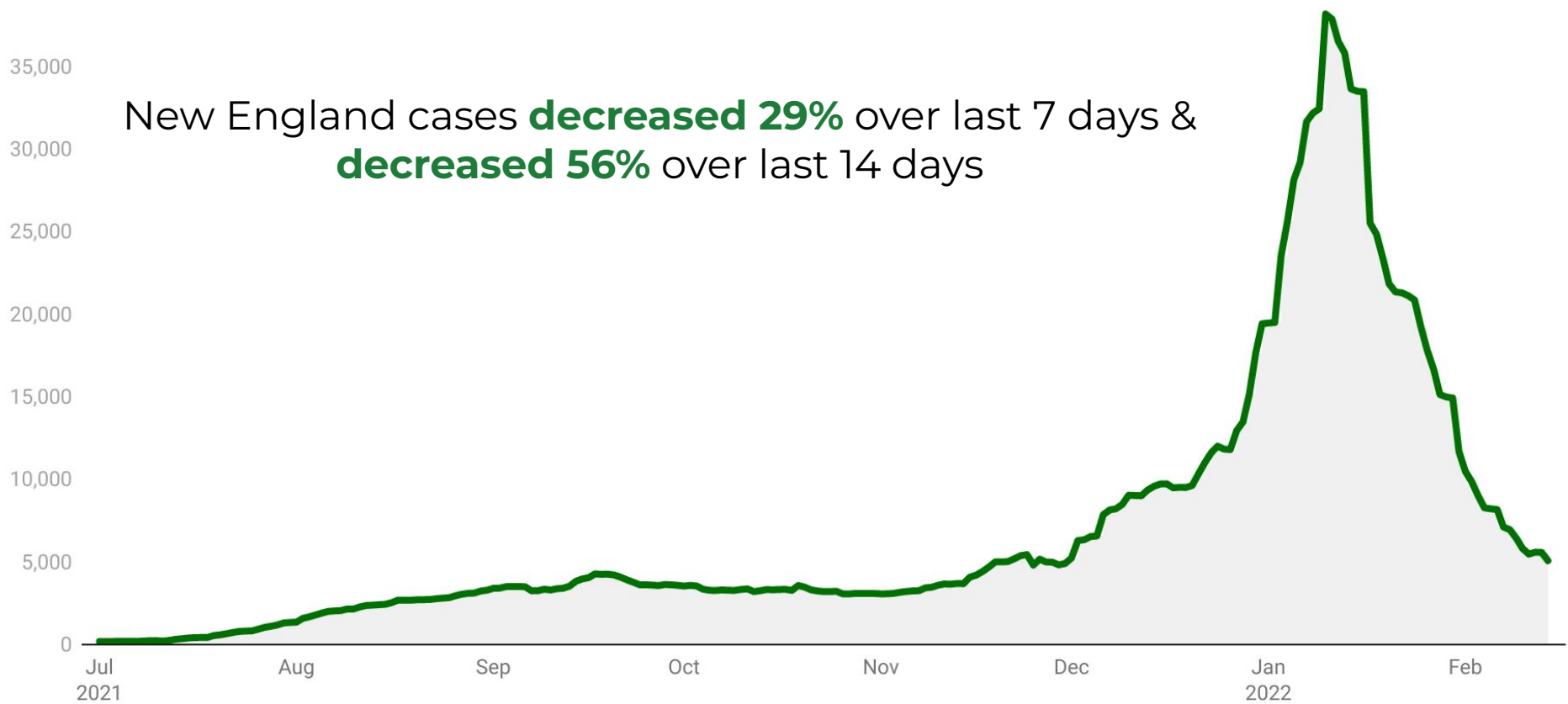
40,507 fewer cases this week compared to last



Sources: State Health Depts.—February 14, 2022 (includes: CT, ME, MA, NH, NY, QC, RI & VT)

New England COVID-19 Cases

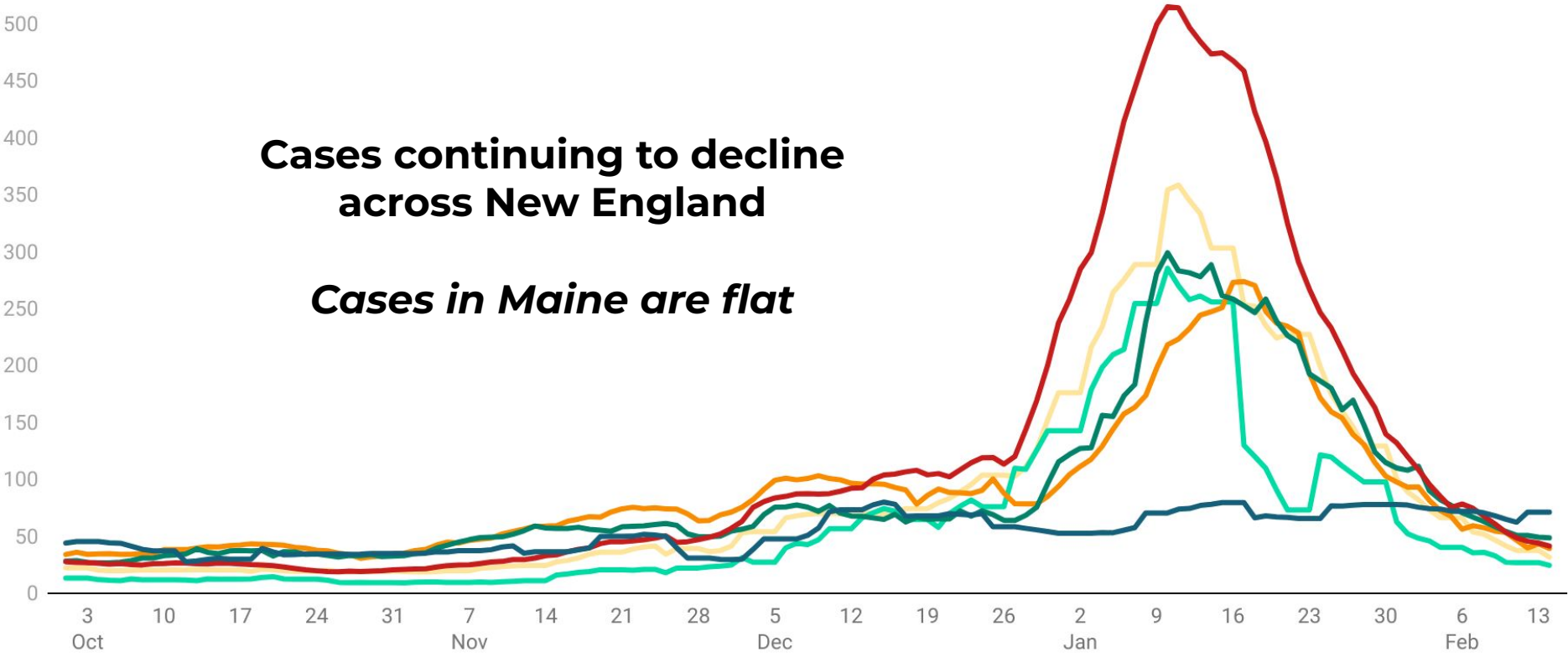
— New England 7-Day Case Average



New England COVID-19 Case Trends

7-Day Average Cases Per 100K

Massachusetts Connecticut Rhode Island Maine New Hampshire Vermont



**Cases continuing to decline
across New England**

Cases in Maine are flat

Sources: State Health Depts.—February 14, 2022 (includes: CT, ME, MA, NH, RI & VT)

New England COVID-19 Hospitalizations

7-Day Average



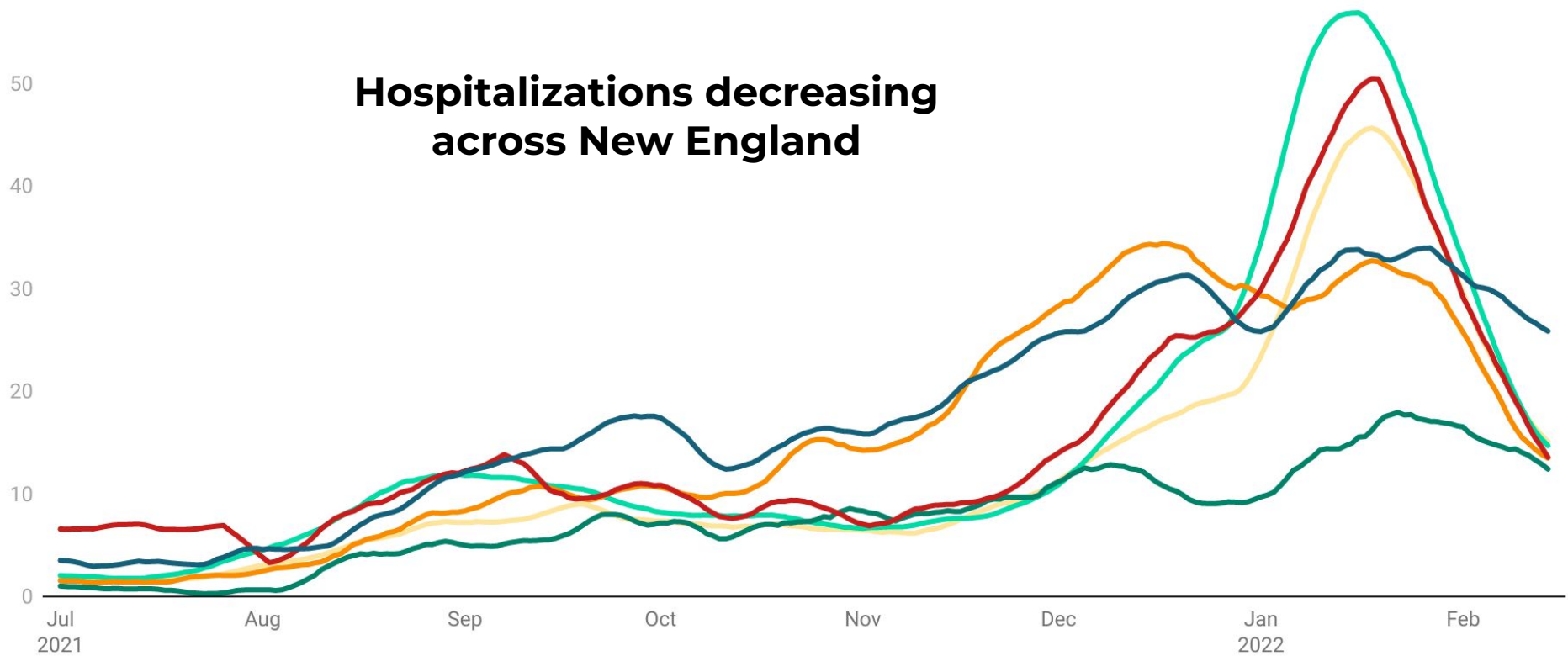
New England hospitalizations **decreased 29%** over last 7 days & **decreased 50%** over last 14 days

Sources: HHS—February 14, 2022 (includes: CT, ME, MA, NH, RI & VT)

New England COVID-19 Hospitalizations Trends

7-Day Average Hospitalizations Per 100K

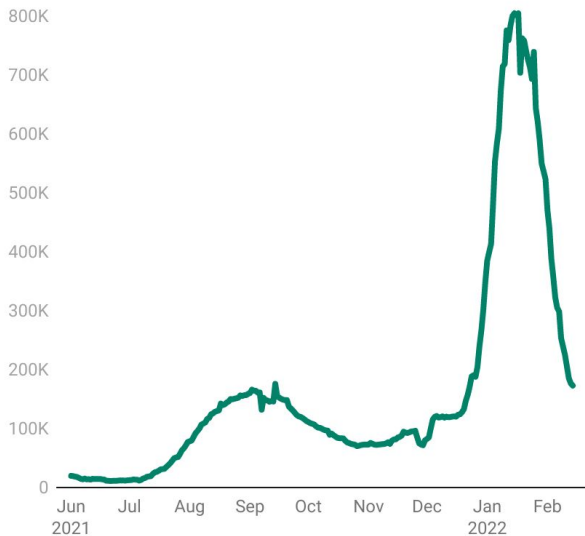
Massachusetts Connecticut Rhode Island Maine New Hampshire Vermont



National Data

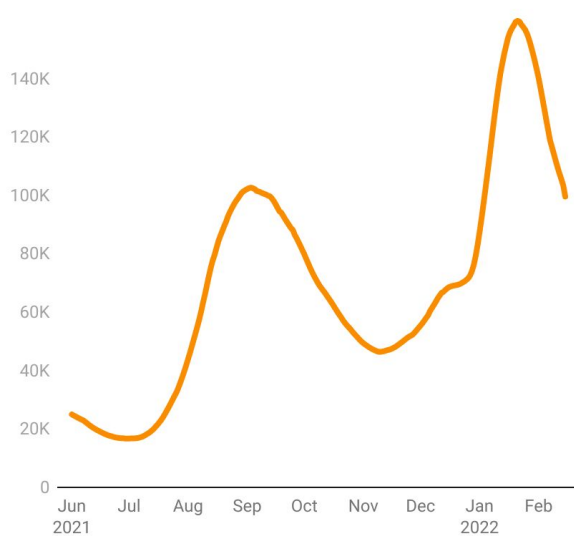
U.S. Infections, Hospitalizations, & Deaths

40% Decrease
Over last 7 days



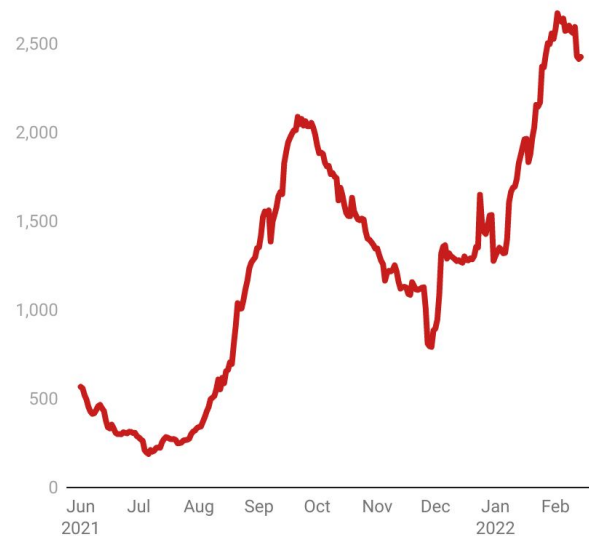
Infections
(7-Day Average)

15% Decrease
Over last 7 days



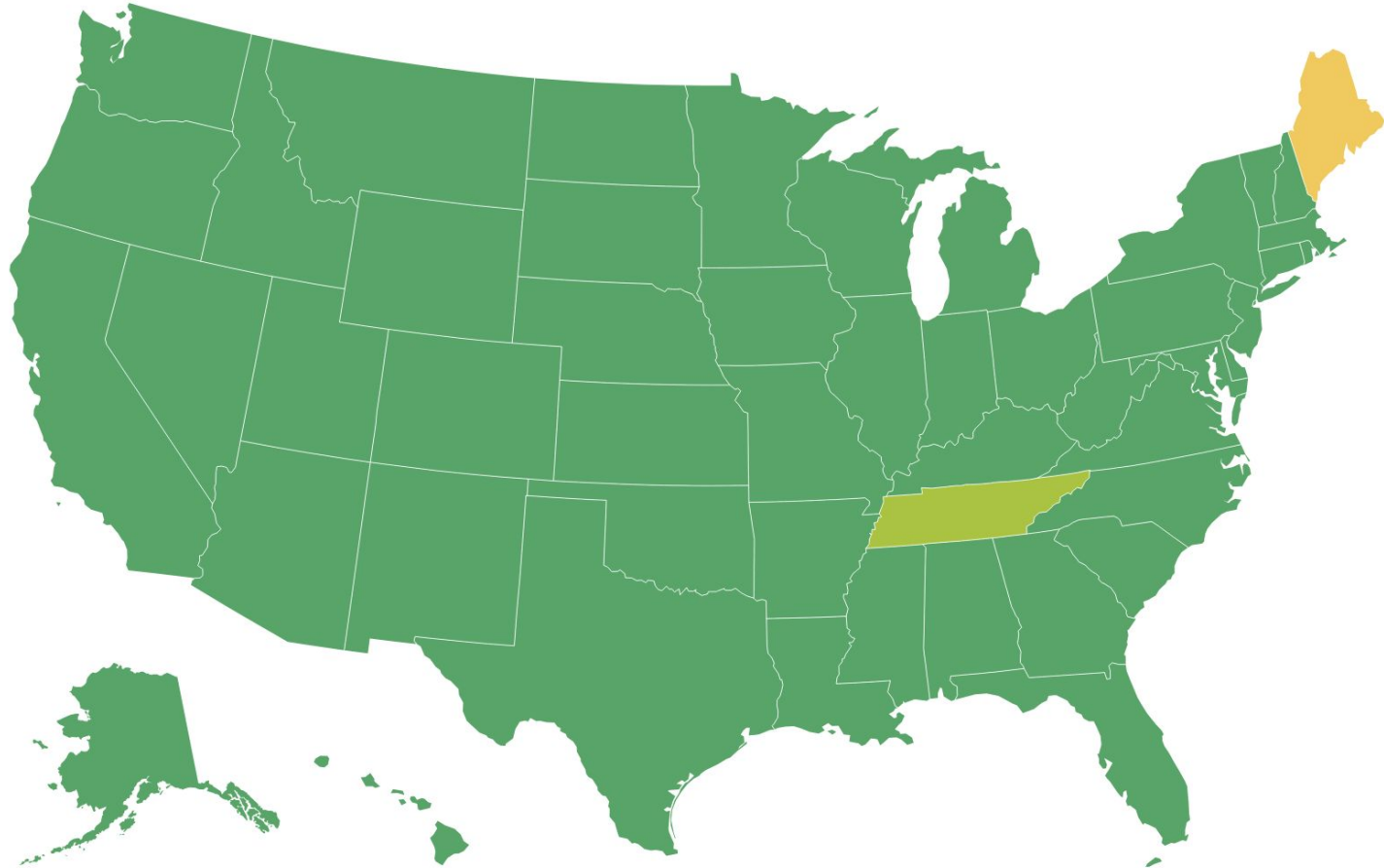
Hospitalizations
(7-Day Average)

7.6% Decrease
Over last 7 days



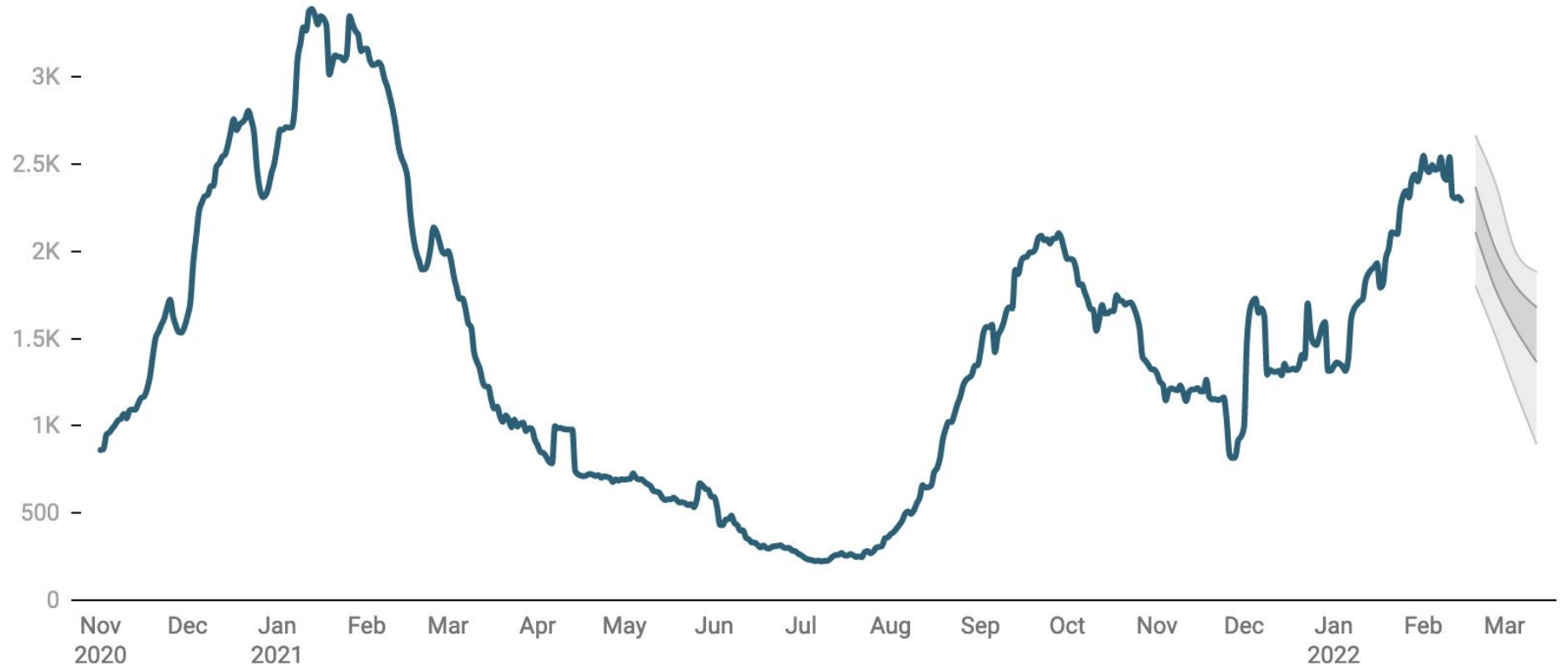
Deaths
(7-Day Average)

Week Over Week Percent Change in COVID-19 Infections



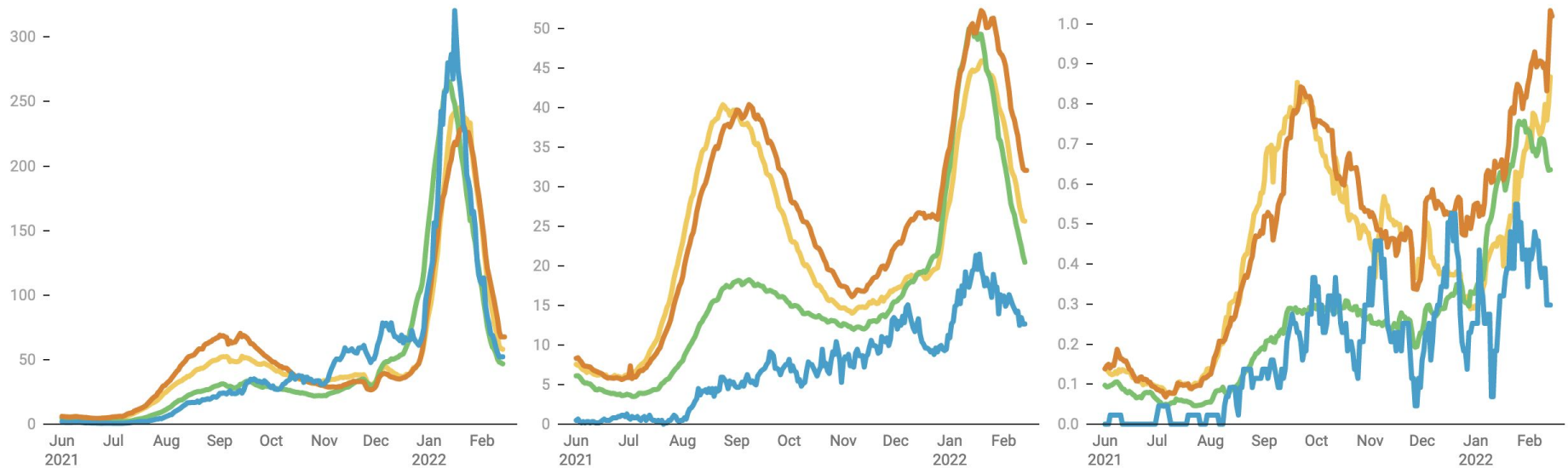
US COVID-19 Death Confidence Intervals

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



Infections, Hospitalizations, & Deaths by Percentage of State Population Vaccinated

■ Bottom Third Vaccinated States
 ■ Middle Third Vaccinated States
 ■ Top Third Vaccinated States
 ■ Vermont



Infections per 100K

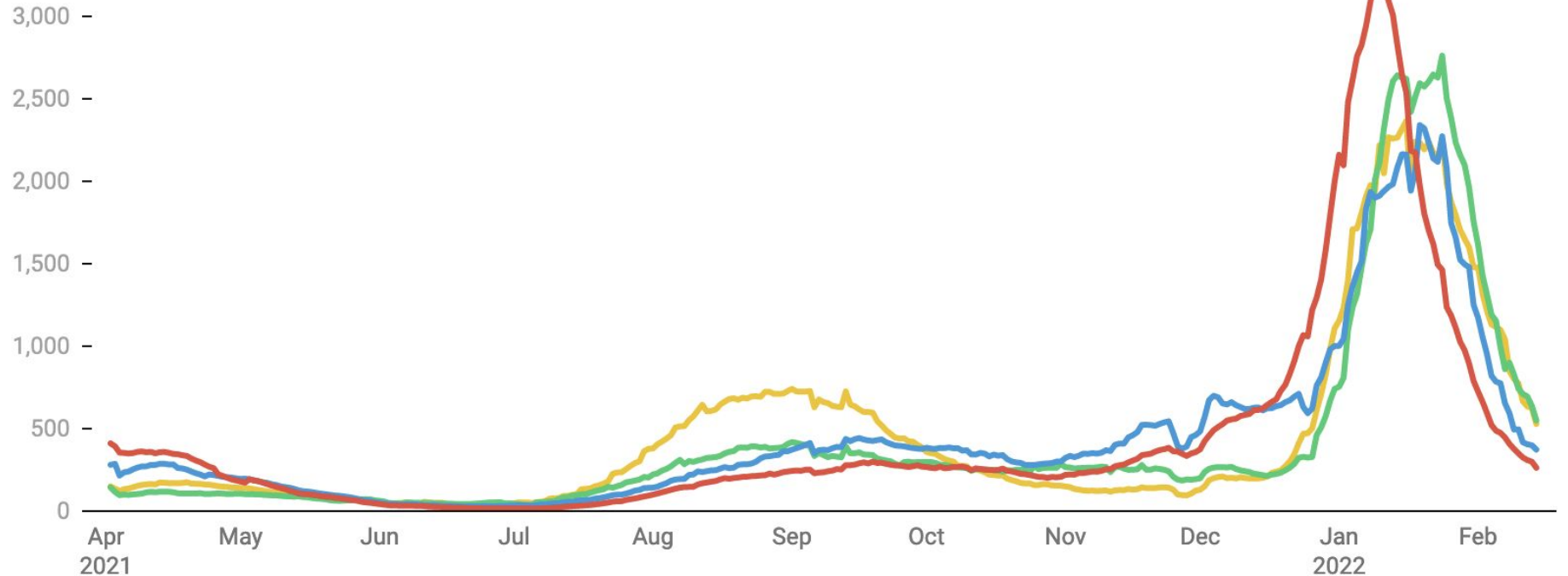
Hospitalizations per 100K
(Current)

Deaths per 100K

Daily COVID-19 Cases per Million in US Regions

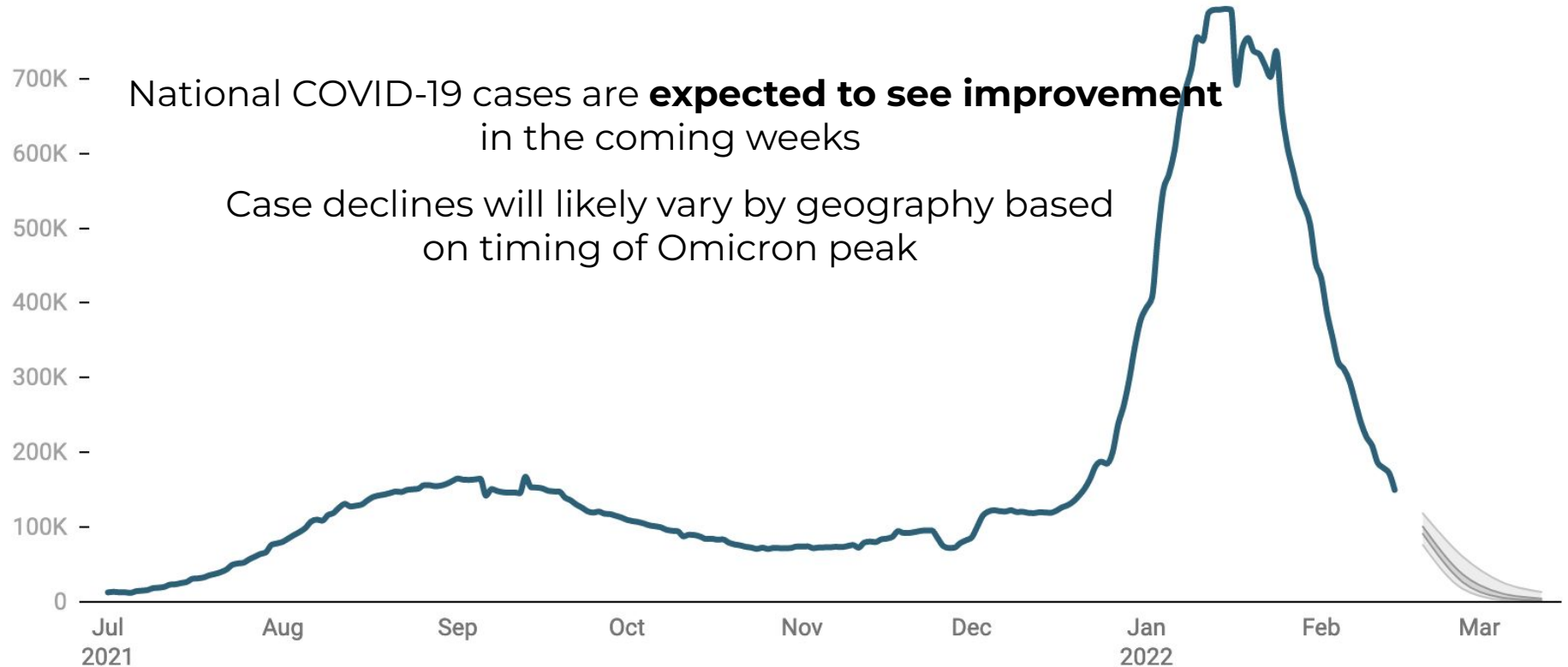
Calculated as a 7-day moving average. Definitions of North, Midwest, South, and West taken from the U.S. Census bureau.

— Northeast — Midwest — South — West



US COVID-19 Infection Confidence Intervals

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

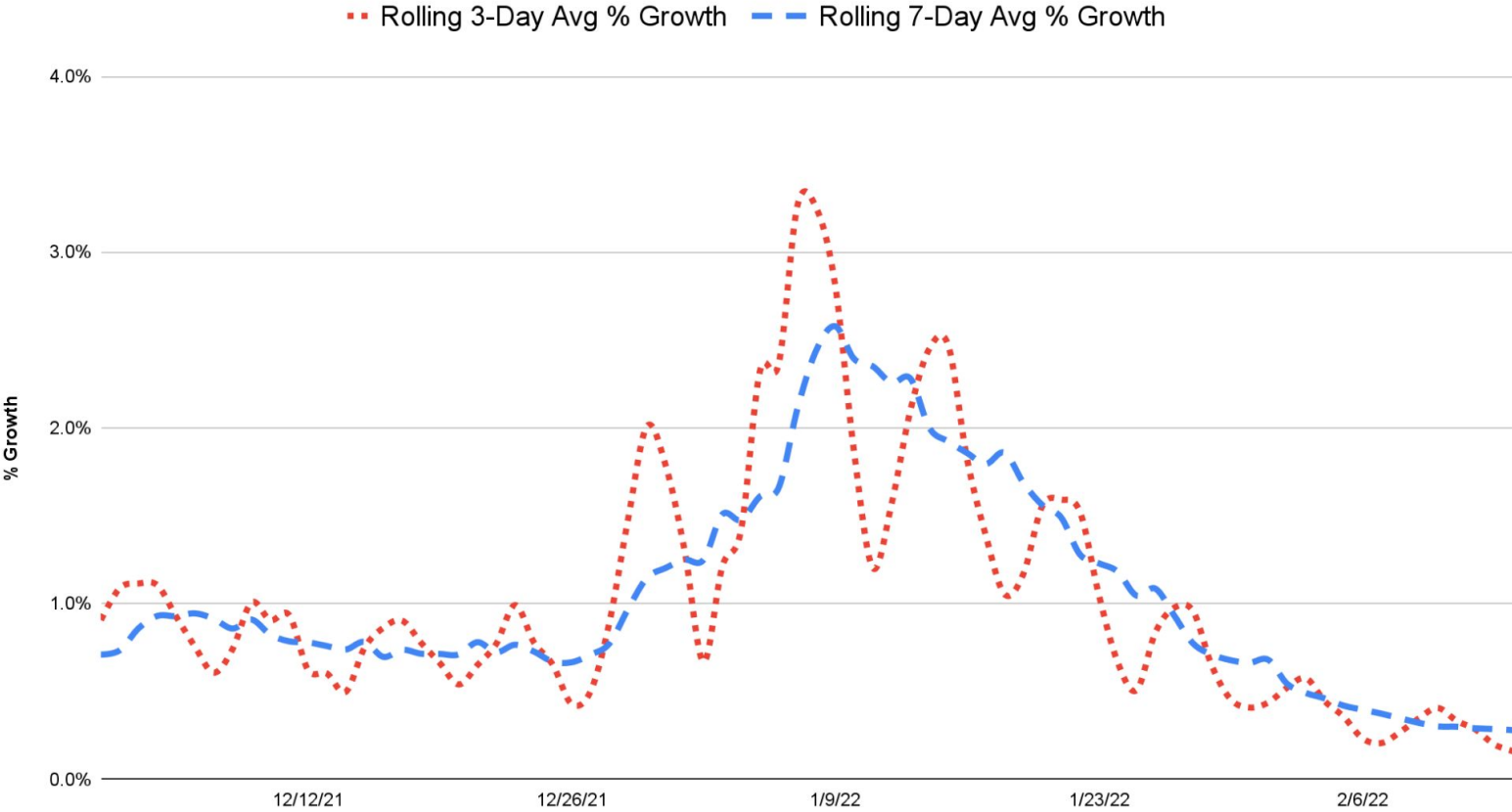


RESTART VERMONT

Reopening Metrics

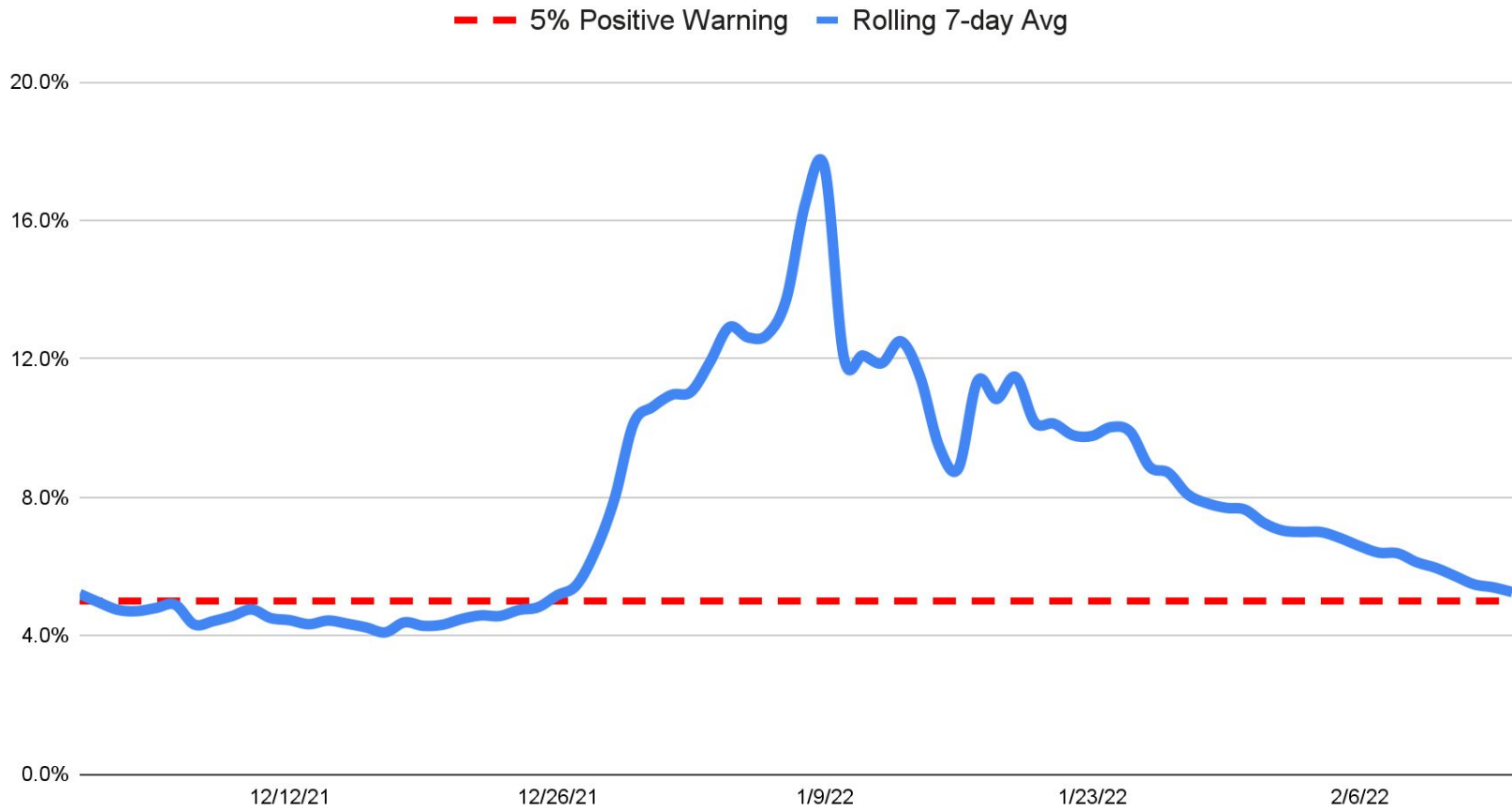
1. Syndromic Surveillance (*retired*)
2. Viral Growth & Reproductive Rates
3. Percentage of New Positive Tests
4. Hospital & Critical Care Bed Capacity
5. Testing Volume

Viral Growth & Reproductive Rates



Source: Vermont Department of Health

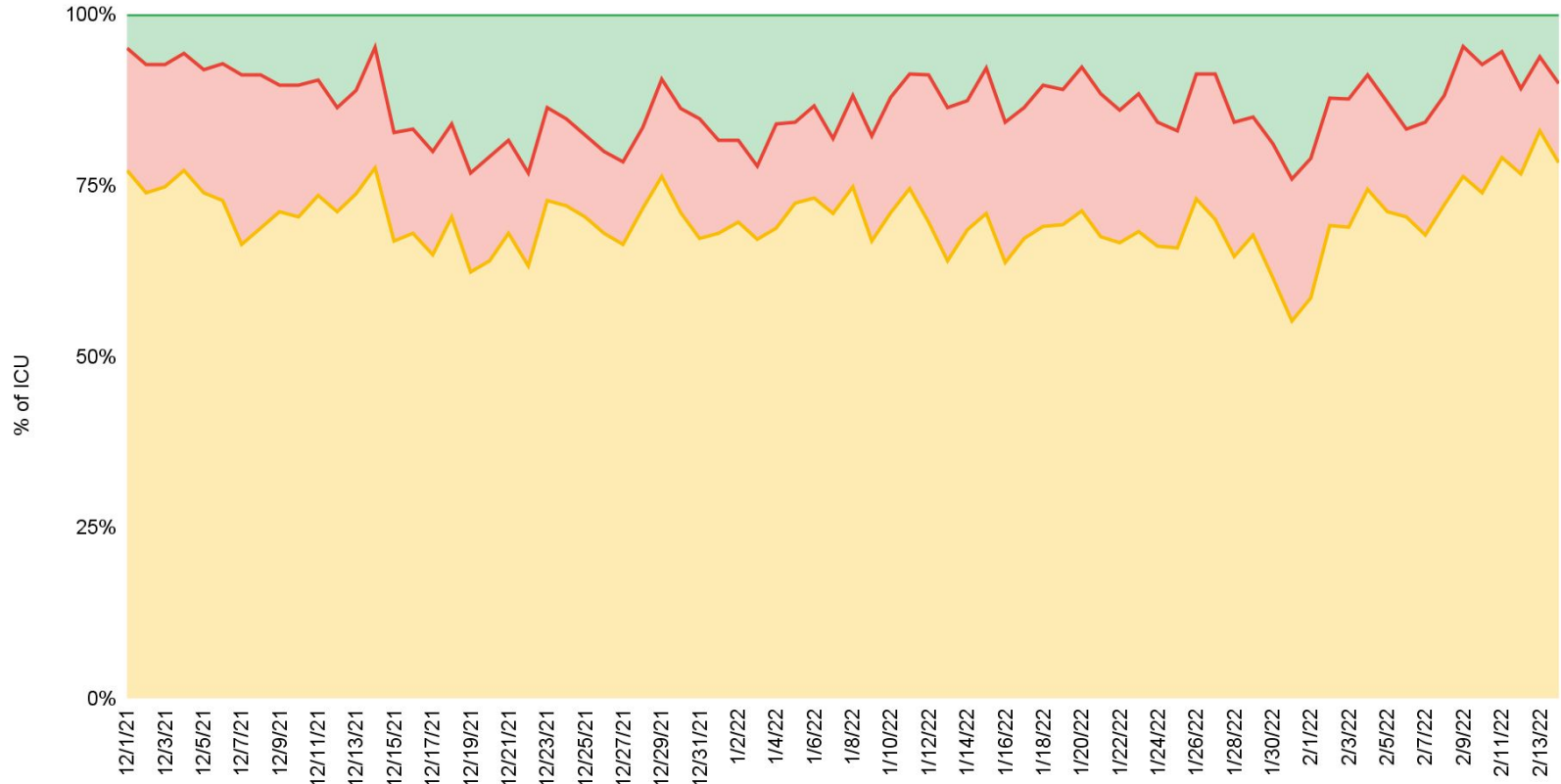
Test Positivity



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

Critical Care Beds

Open ICU COVID ICU non-COVID ICU



Vermont Testing

