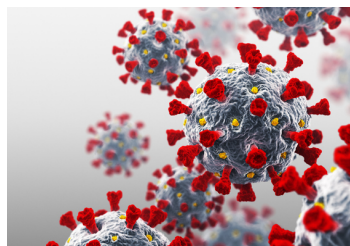


Covid-19 "Vital Signs"

Issue # 298

March 10, 2021



Covid-19 "Vital Signs"

Ensemble Forecasts Were On Target Last Week

Last week's new cases and deaths were consistent with the latest ensemble forecast.

New Daily Infections

Viz Hub Forecasts and Actual Infections for Week of March 6

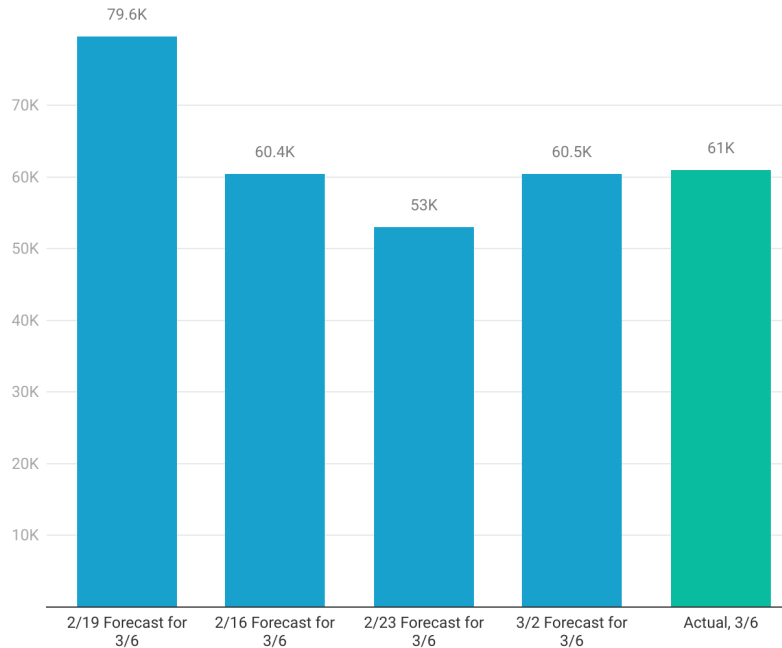


Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

Daily Deaths

Viz Hub Forecasts and Actual Deaths for Week of March 6

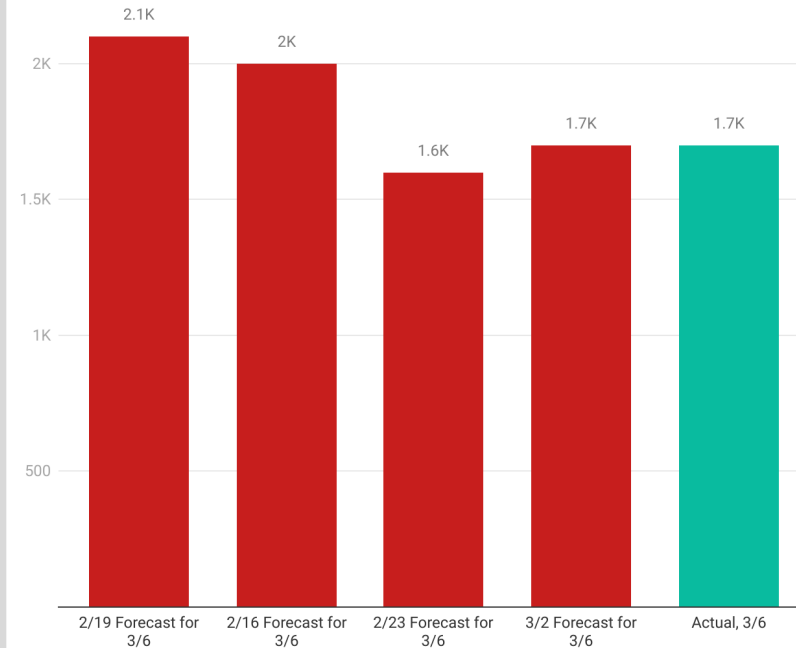


Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

<https://viz.covid19forecasthub.org>

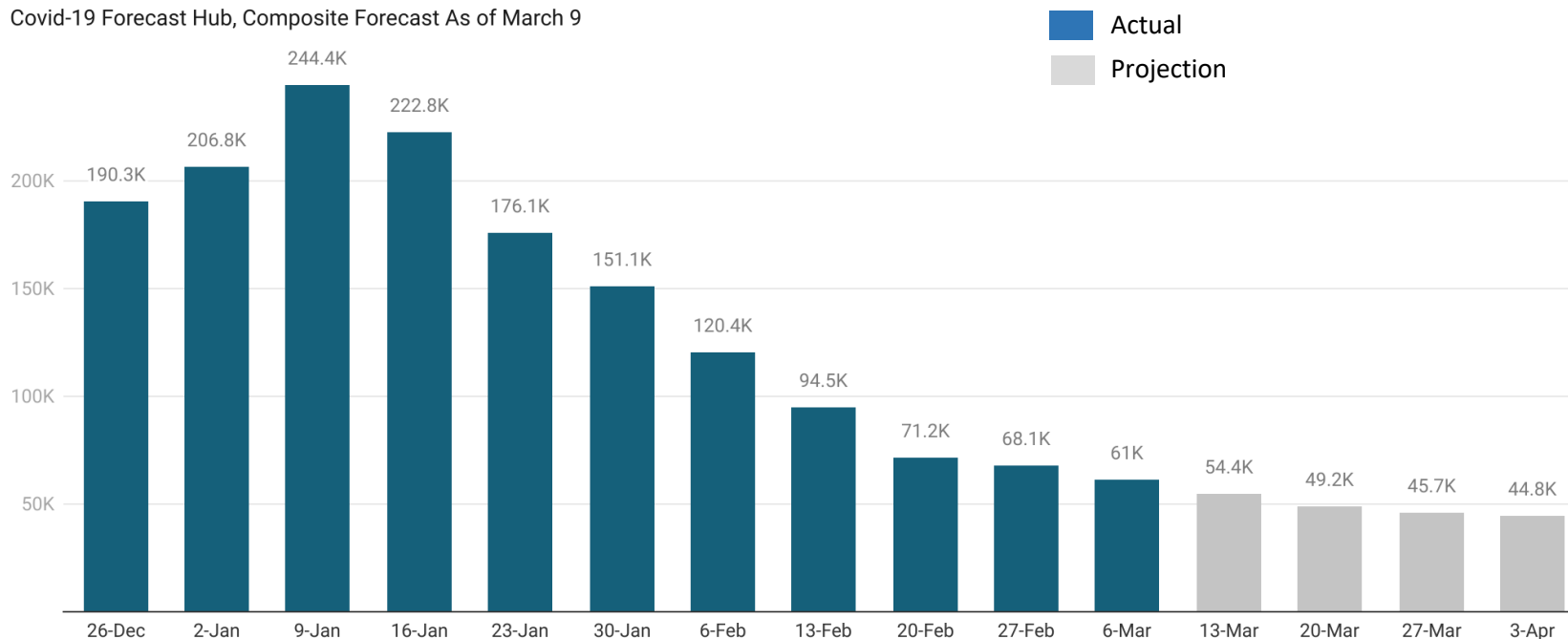
Covid-19 "Vital Signs"

Covid-19 Cases: Ensemble Forecast

The most recent ensemble forecast projects that new daily cases will drop by more than one-fourth in the next four weeks. By that point, new daily cases reach a six month-low.

Newly-Detected Cases Per Day

Covid-19 Forecast Hub, Composite Forecast As of March 9



For the week ending on the date shown

Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

<https://viz.covid19forecasthub.org>

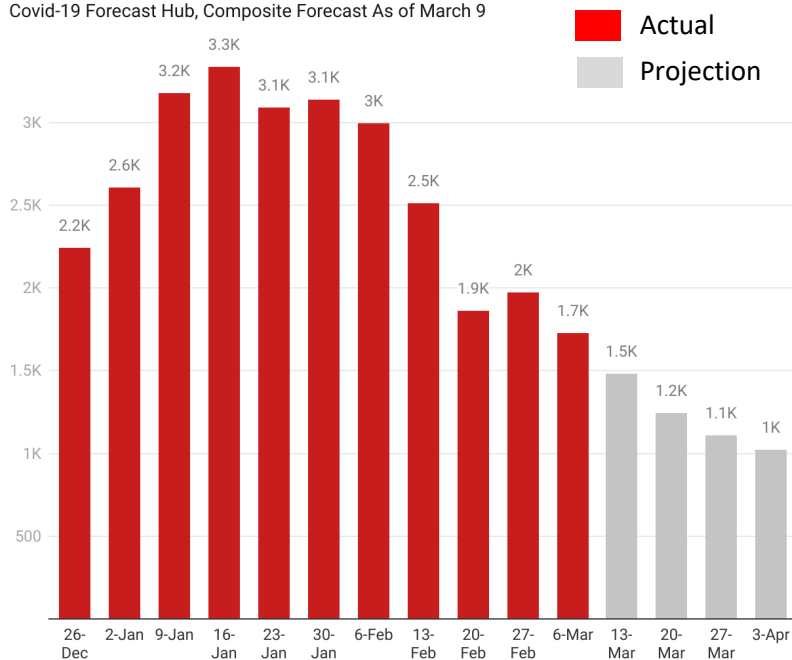
Covid-19 "Vital Signs"

Death Projections – Ensemble Forecast

The most recent ensemble forecast projects that new daily cases will drop by more than 40% in the next four weeks.. By then projected deaths would be at a twenty-two-week low.

Newly-Reported Deaths Per Day

Covid-19 Forecast Hub, Composite Forecast As of March 9

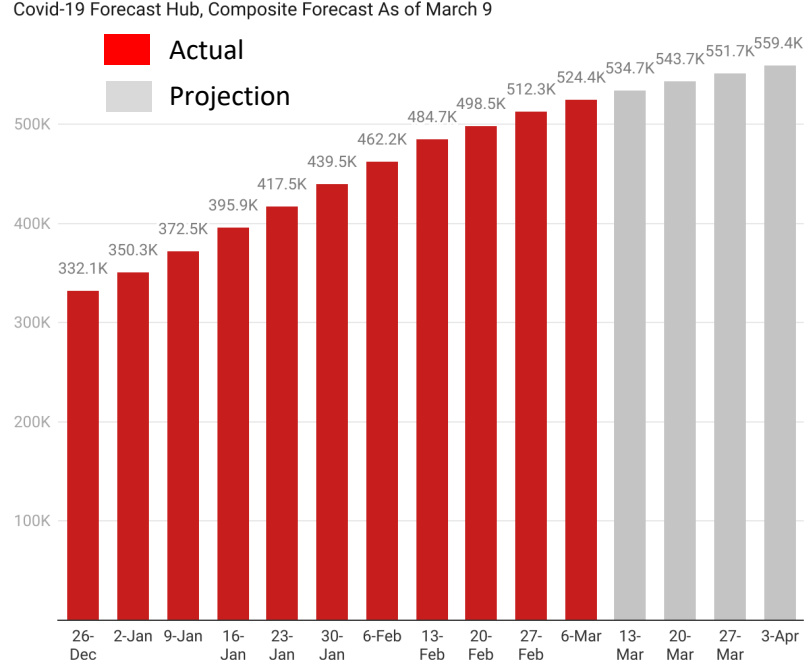


For the week ending on the date shown

Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

Cumulative Deaths

Covid-19 Forecast Hub, Composite Forecast As of March 9



For the week ending on the date shown

Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

<https://viz.covid19forecasthub.org>

Covid-19 "Vital Signs"

Estimated Infections IHME Projection

IHME's latest infection forecast tracks closely with its prior forecast. Projected new daily infections drop by more than one-half in the next four weeks, reaching a pandemic-low by April 2.

Estimated Infections

Institute for Health Metrics and Evaluation (IHME) Model, as of March 6

2/4 Forecast 2/12 Forecast 2/20 Forecast 2/25 Forecast 3/6 Forecast

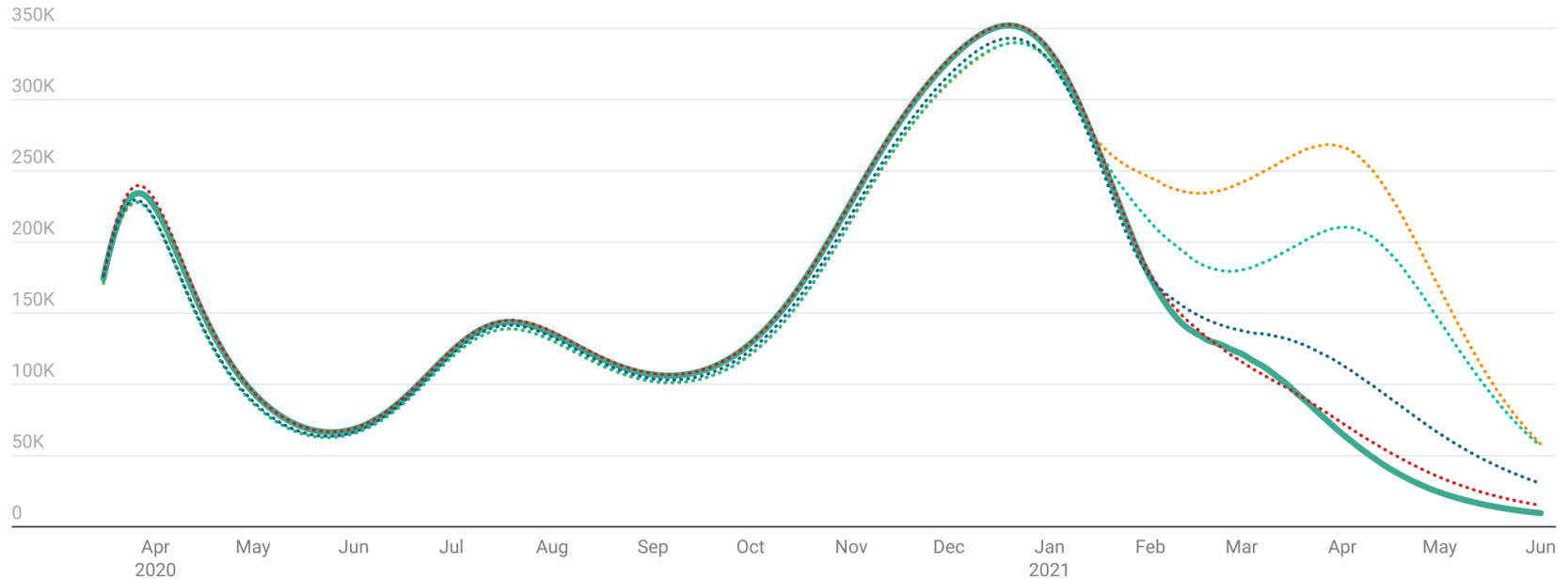


Chart: Health Industry Advisor LLC • Source: IHME • Created with Datawrapper

Covid-19 “Vital Signs”

Covid-19 Inpatients – IHME Projections

IMHE estimates Covid-19 days will drop by one-third in the next four weeks and will reach a 12-month low by April 14.

Covid-19 Inpatient Beds

Institute for Health Metrics and Evaluation (IHME) Model, as of March 6

2/4 Estimate 2/12 Estimate 2/20 Estimate 2/25 Estimate 3/6 Estimate

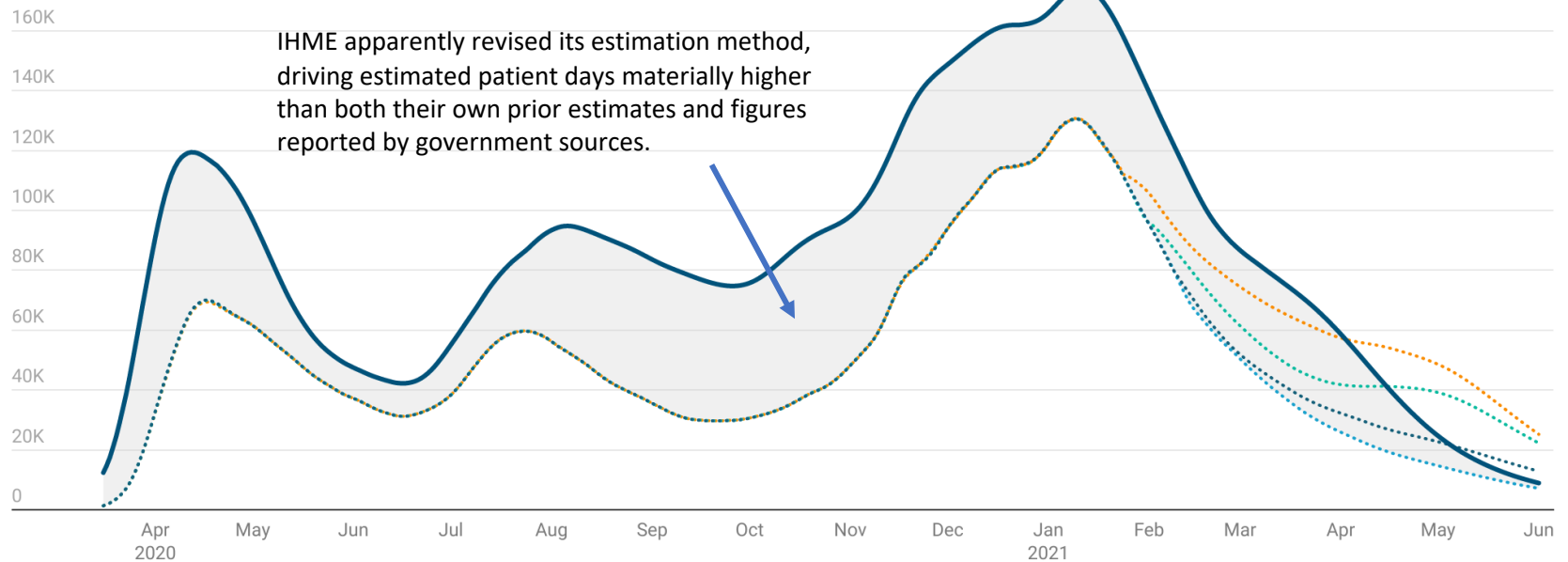


Chart: Health Industry Advisor LLC • Source: IHME • Created with Datawrapper

Covid-19 "Vital Signs"

Deaths With Covid-19: IHME Projection

Daily deaths with Covid-19 are projected to drop by nearly 50% in the next four weeks and reach a twelve-month low by April 21.

Covid-19 Deaths

Institute for Health Metrics and Evaluation, As of March 6

..... 2/4 Forecast 2/12 Forecast 2/20 Forecast 2/25 Forecast — 3/6 Forecast

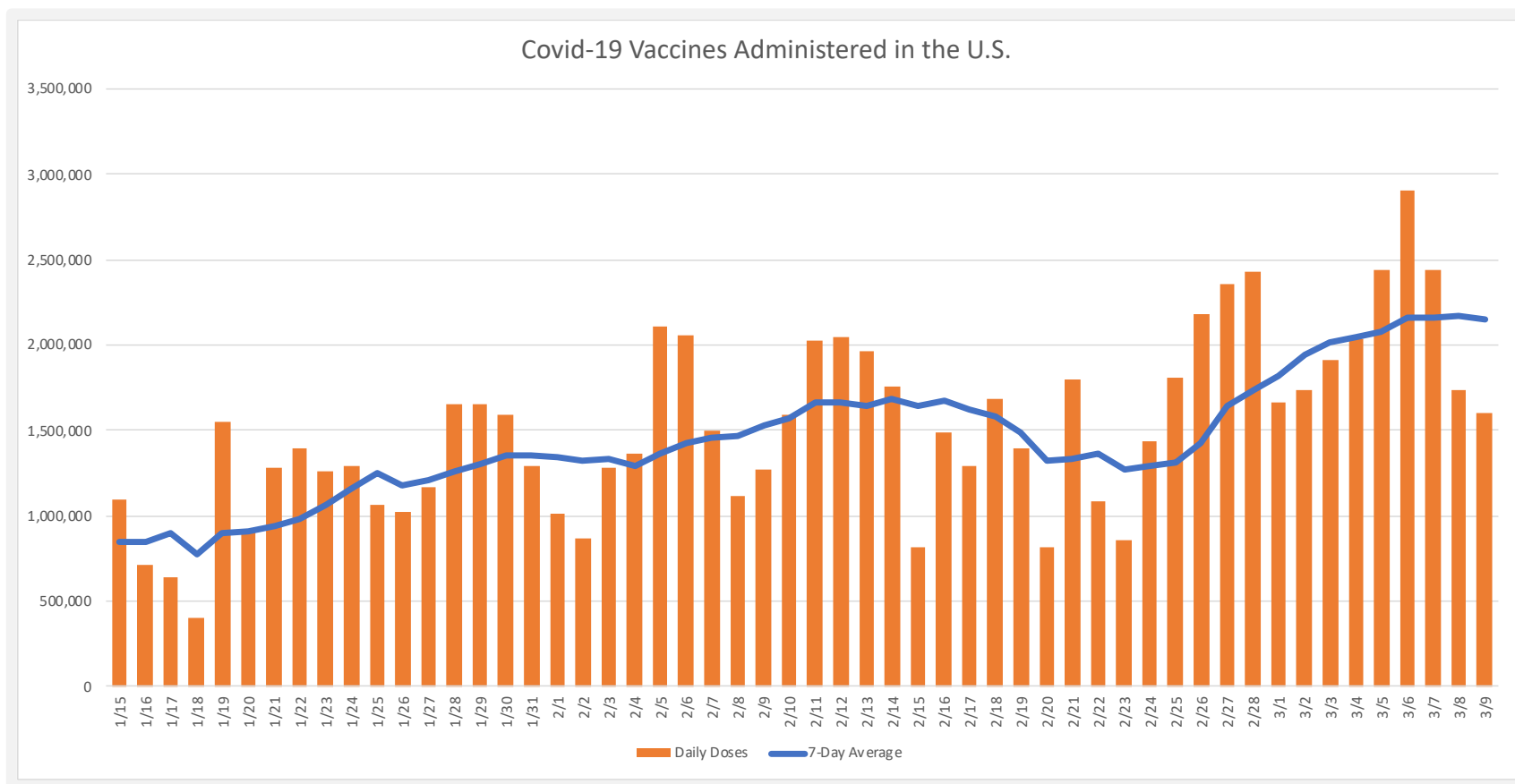


Chart: Health Industry Advisor LLC • Source: IHME • Created with Datawrapper

Covid-19 "Vital Signs"

Pace of Vaccinations

An average of 2.2 million people were vaccinated over the past week, an increase of more than 10% from one week earlier and nearly 70% from two weeks earlier.



Covid-19 "Vital Signs"

Vaccine Tracking

To date, the US has administered 93.6 million doses, with 31.8 million people jabbed twice. These figures increased 50% in just two weeks. As of yesterday, 24.2% of U.S. adults have received at least one dose; 12.5% have received two.

Vaccination Progress

Most Recent Two Weeks

First Doses Second Doses

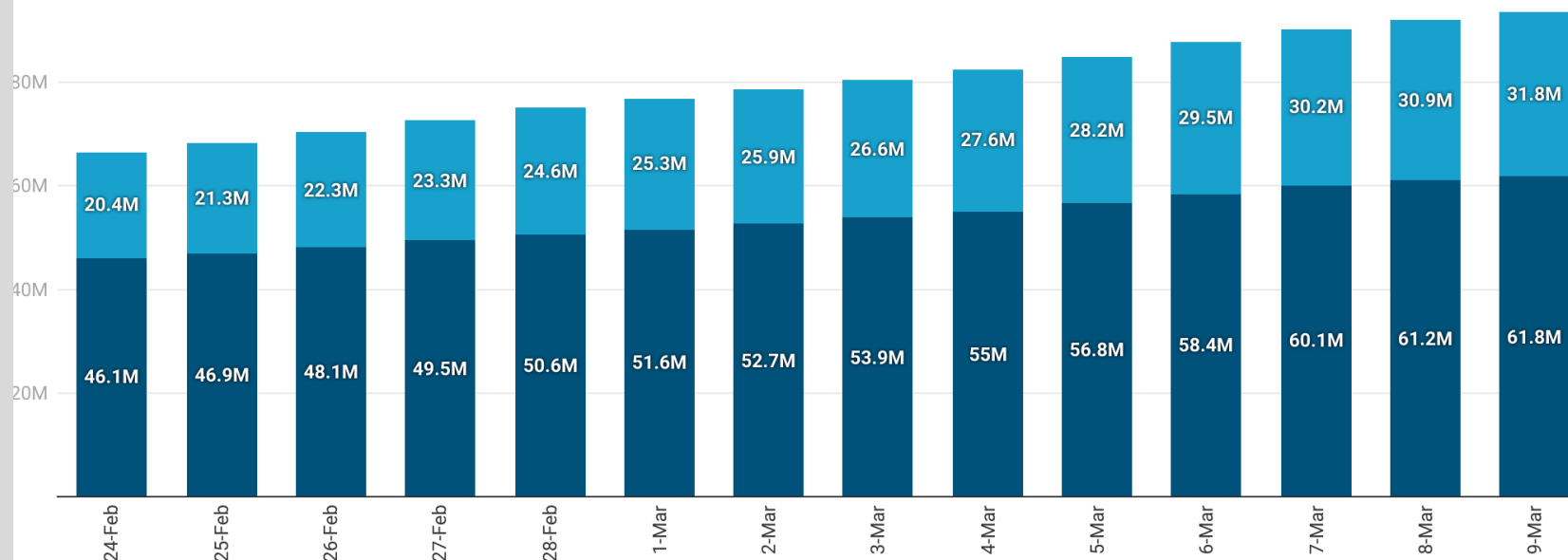


Chart: Health Industry Advisor LLC • Source: CDC, Bloomberg • Created with Datawrapper

Vaccine data from: [Centers for Disease Control and Prevention](#) and [Bloomberg Vaccine Tracker](#)

Covid-19 "Vital Signs"

Vaccine Tracking - % of Adult Population Vaccinated

Alaska has fully inoculated more than 1-in-5 of its residents. Alaska, Connecticut, North Dakota and South Dakota have administered at least one dose to more than 3-in-10 residents.

Vaccinations of Adult Population

% Receiving 1 or 2 doses, as of March 9

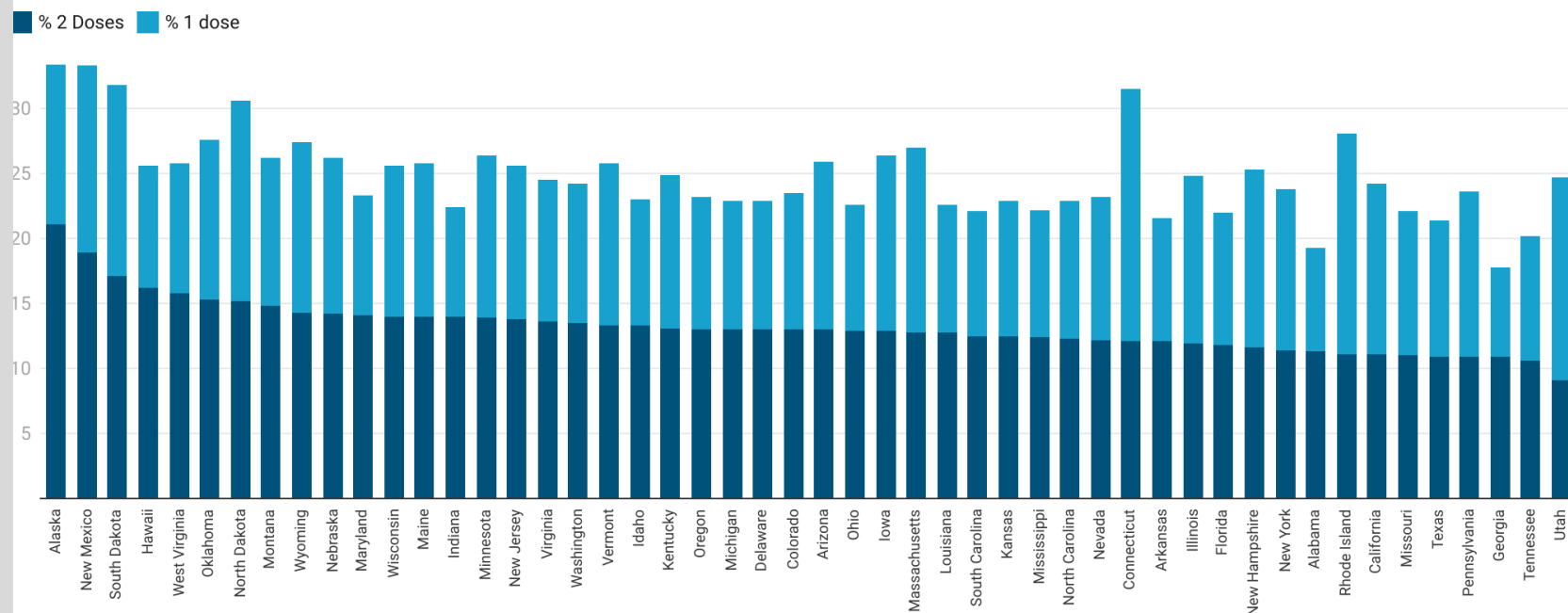


Chart: Health Industry Advisor LLC • Source: CDC, Bloomberg • Created with Datawrapper

Covid-19 "Vital Signs"

Vaccines Distributed v. Unused

More than 123 million doses have been distributed in the United States, an increase of nearly 7 million doses yesterday alone. With an increased inventory, vaccinations should surge in the next day or two.

% of Doses Distributed & % Unused - Cumulative

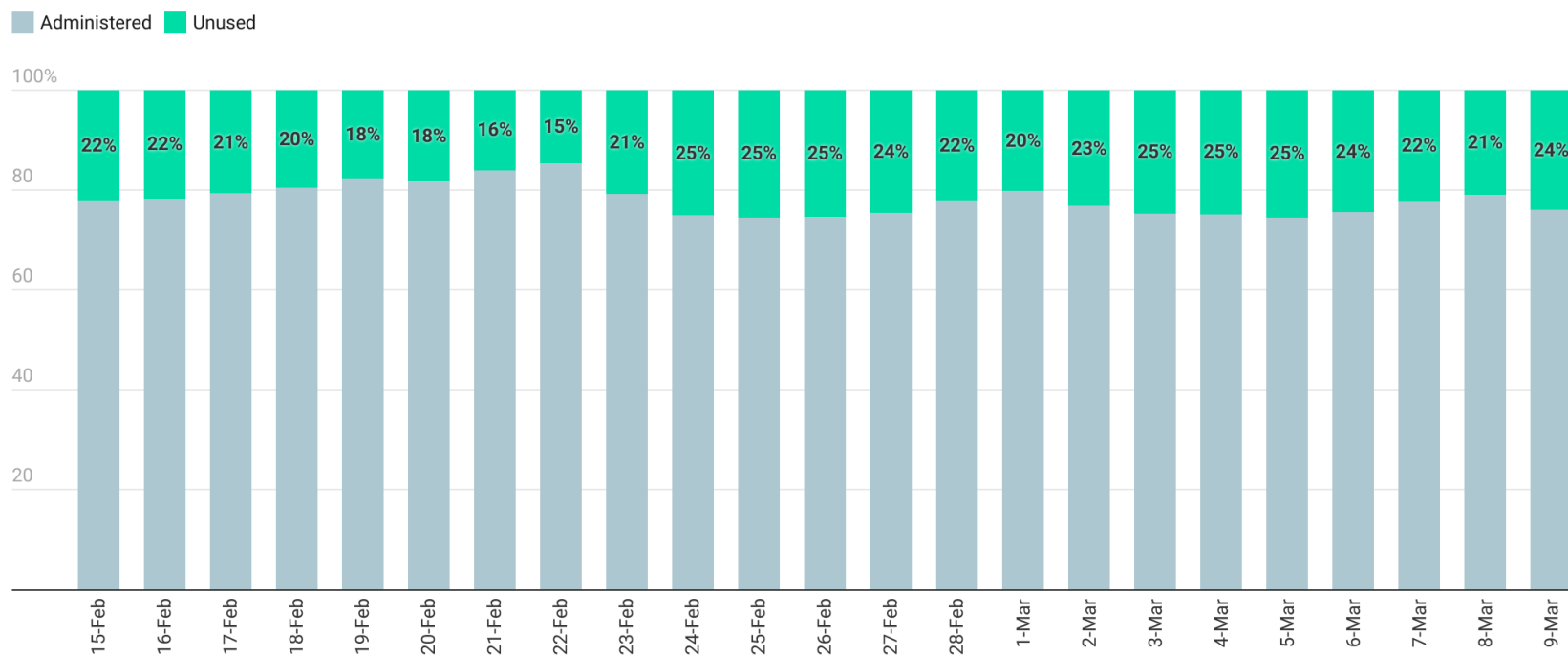


Chart: Health Industry Advisor LLC • Source: Bloomberg • Created with Datawrapper

Covid-19 "Vital Signs"

Immunity: Projected v. Estimated

Estimated immunity is 37% to 43%, based on vaccination and estimated infection rates, vaccine efficacy and a presumed two-week lag from infection or vaccination to immunity.

Estimated Immunity

Current Estimates v. HIA Projection

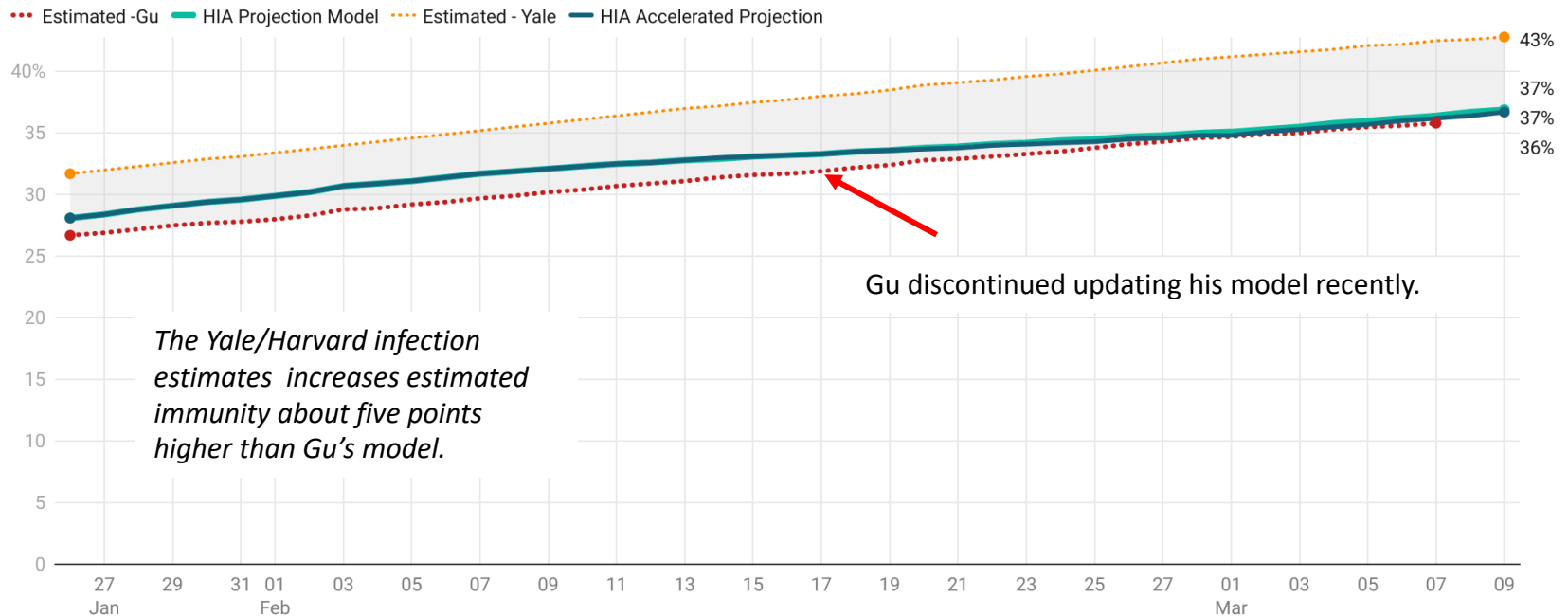


Chart: Health Industry Advisor LLC • Created with Datawrapper

Covid-19 "Vital Signs"

Test-Positivity Rate

The 7-day test-positivity rate reached its lowest point since October 5 and is only slightly higher than its pandemic low (4.8% v. 4.4%). Yesterday's single-day rate was the lowest ever posted during the pandemic.

Test-Positivity Rate

7-Day Average, Through March 9

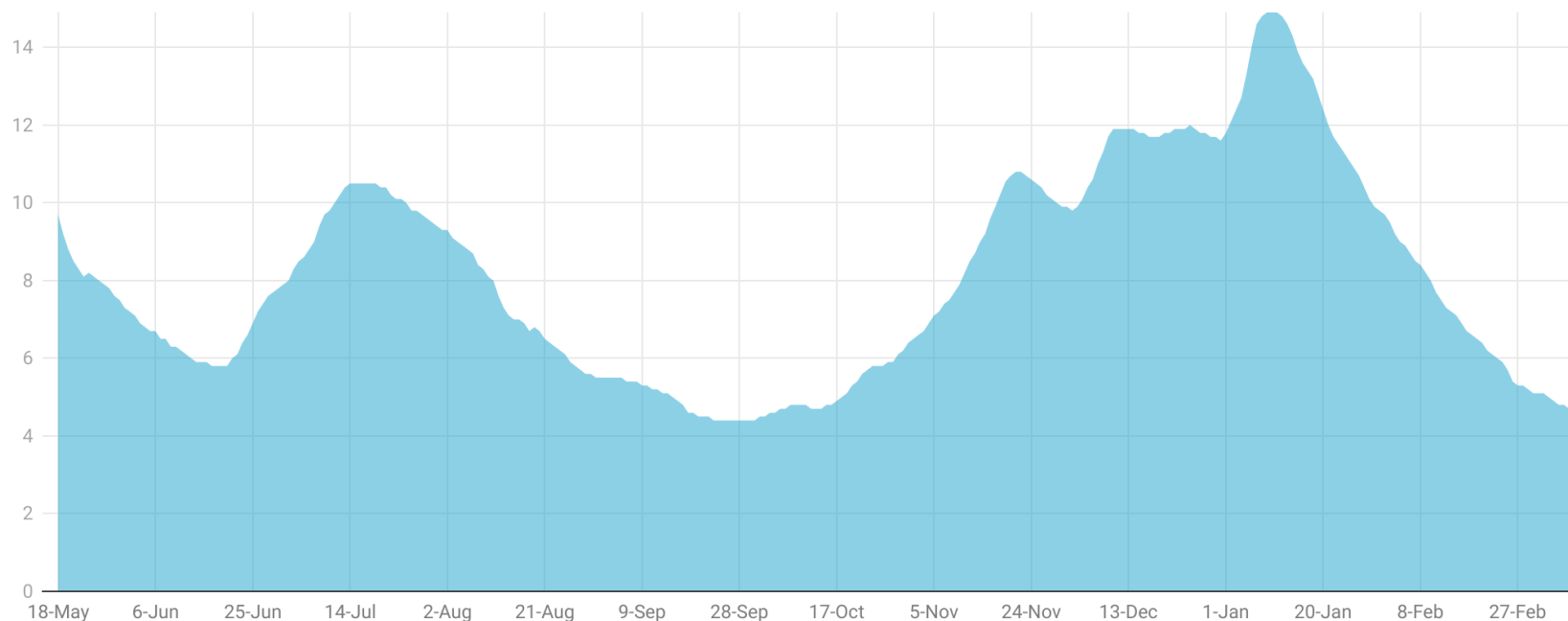


Chart: Health Industry advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Test-Positivity Rate

The test-positivity rate has dropped each of the past three weeks.

Test-Positivity Rate

As of March 9

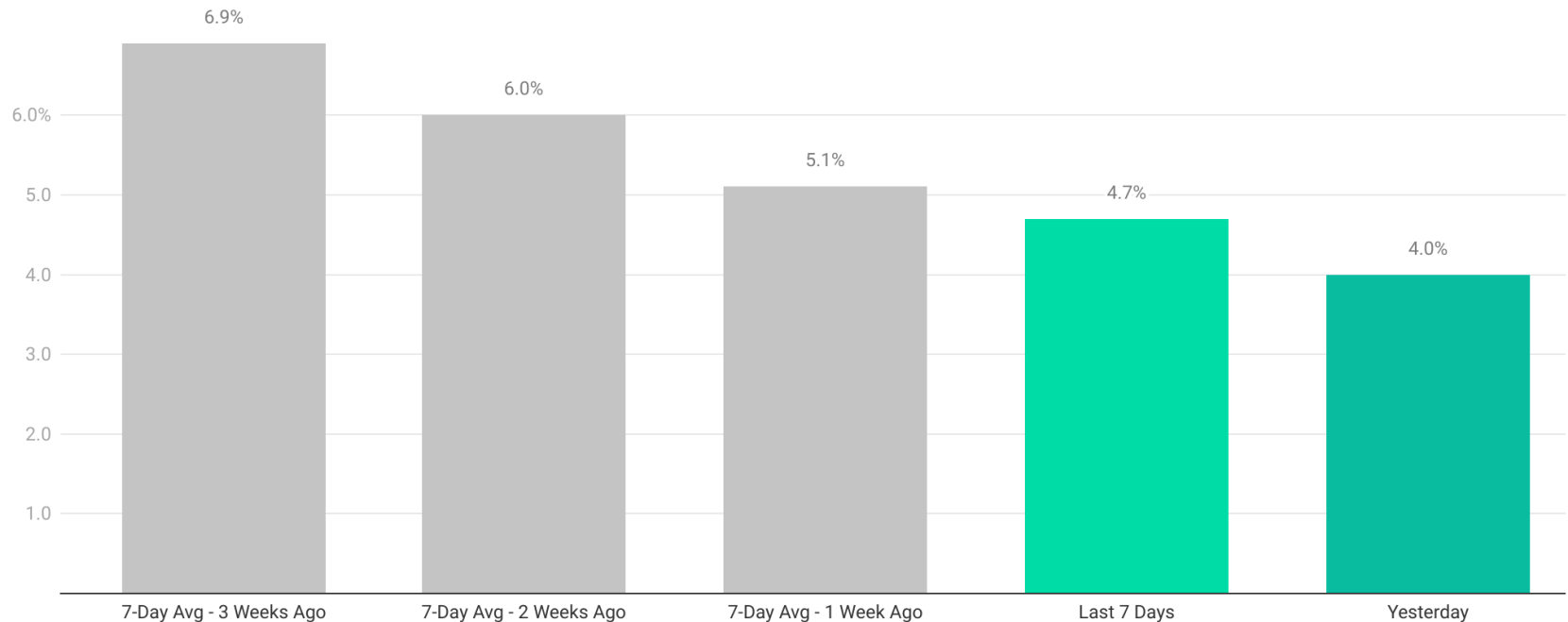


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

Covid-19 "Vital Signs"

Newly Detected Cases / Million - US

Newly detected cases (7-day average) continue dropping from a January 11th peak. Cases plunged an astonishing 78% in less than two months. This rate, however, is two-thirds higher than its early-September low and more than 2.5 times higher than its early-June low.

Newly-Detected Cases / Million

7-Day Average

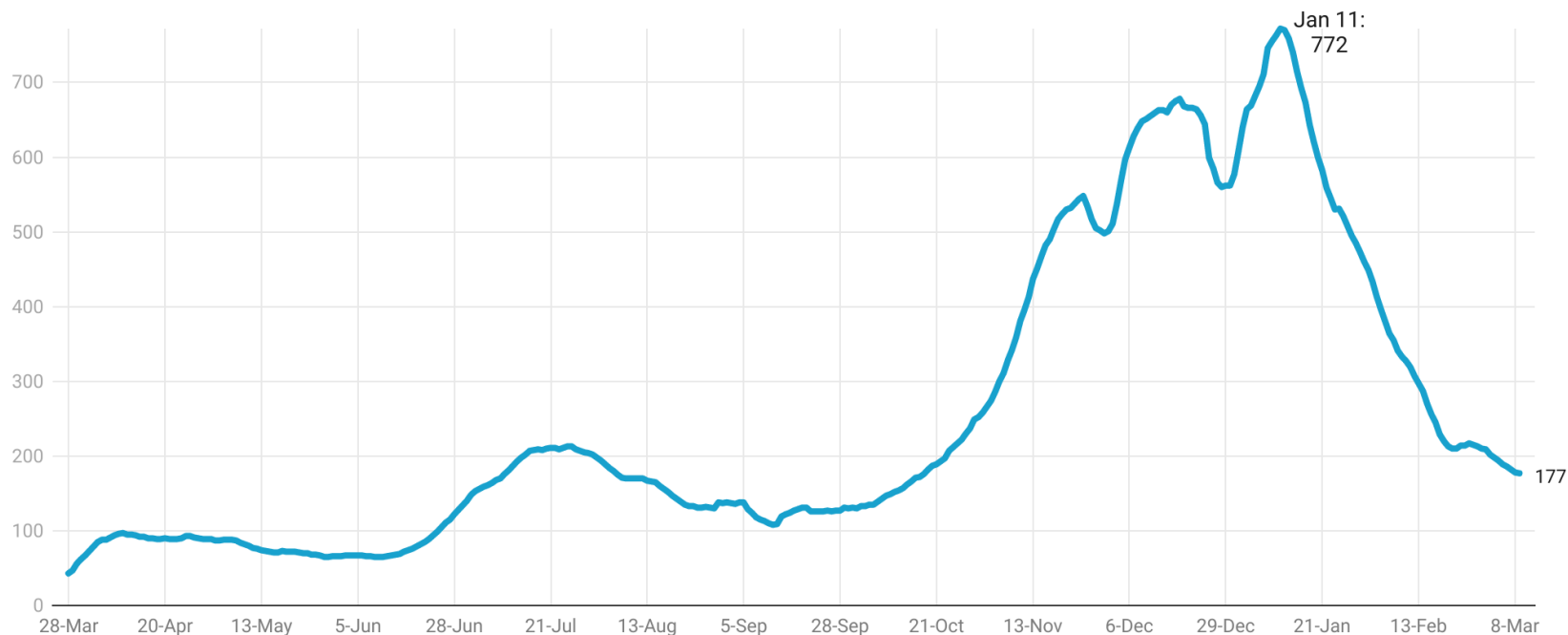


Chart: Health Industry Advisor LLC • Created with Datawrapper

Covid-19 “Vital Signs”

Estimated Daily Infections & New Case Rates

Estimated new infections and reported cases continue falling in the US. The Yale/Harvard model suggests that infections have plummeted 74% since the beginning of the year. The 7-day new case rate fell for the twelfth straight day, and fifty-third time in the last fifty-seven days.

Estimated Daily Infections v. Detected Cases

Gu & Yale/Harvard Schools of Public Health Models

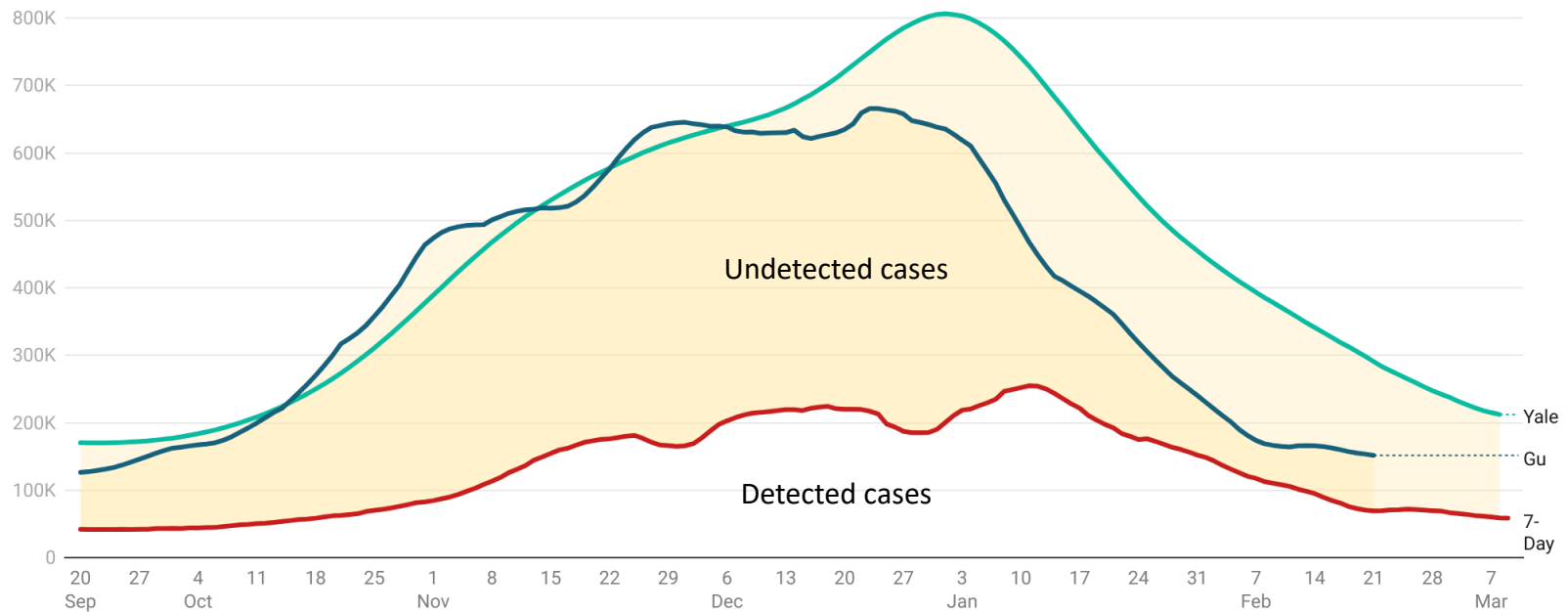


Chart: Health Industry Advisor LLC • Source: Youyang Gu, Yale School of Public Health • Created with Datawrapper

Two models:

- Youyang Gu: <https://covid19-projections.com>, lags by two weeks
- Yale School of Public Health: <https://covidestim.org>

Covid-19 "Vital Signs"

Newly Detected Cases Per Day

In the US, 7-day new case rates dropped 12% week-over-week and 31% in the last three weeks.

Newly Detected Cases

As of March 9

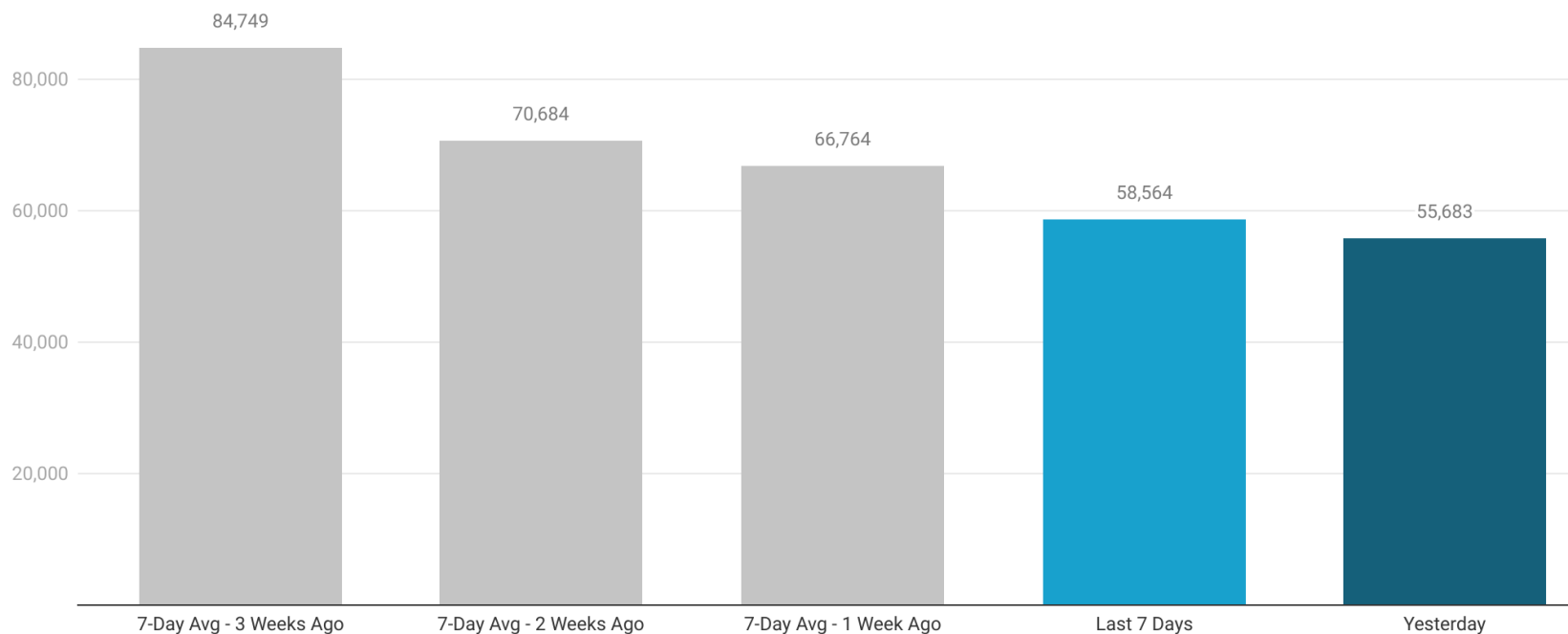


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

Covid-19 “Vital Signs”

Covid-19 Inpatient Census

Covid-19 inpatient census has declined steadily since early February, when the Department of Health & Human Services began tabulating these data (a 55% decline in just more than a month).

Covid-19 Inpatient Census

Through March 9

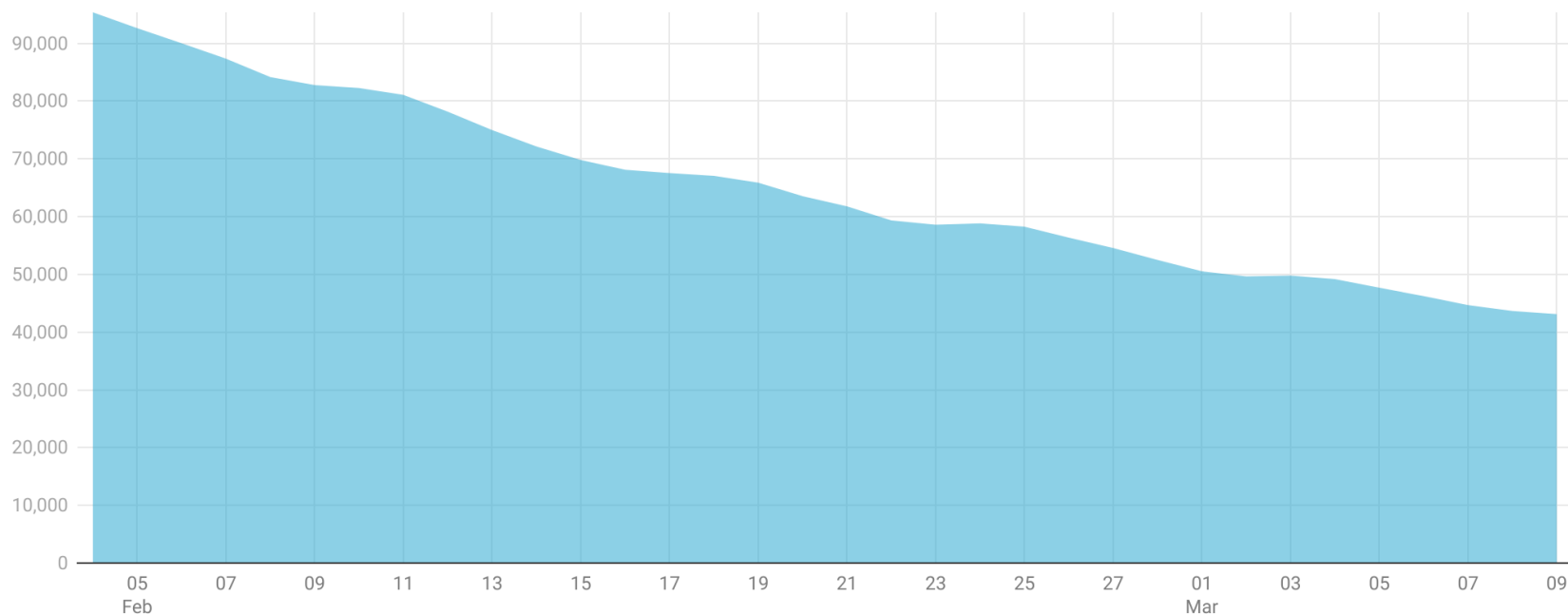


Chart: Health Industry advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper



Covid-19 Inpatient Census

Covid-19 inpatient census fell 13% from last week and 25% in the past two weeks.

Hospitalized Covid-19 Patients

Compared to Same Day, Prior Weeks, As of March 9

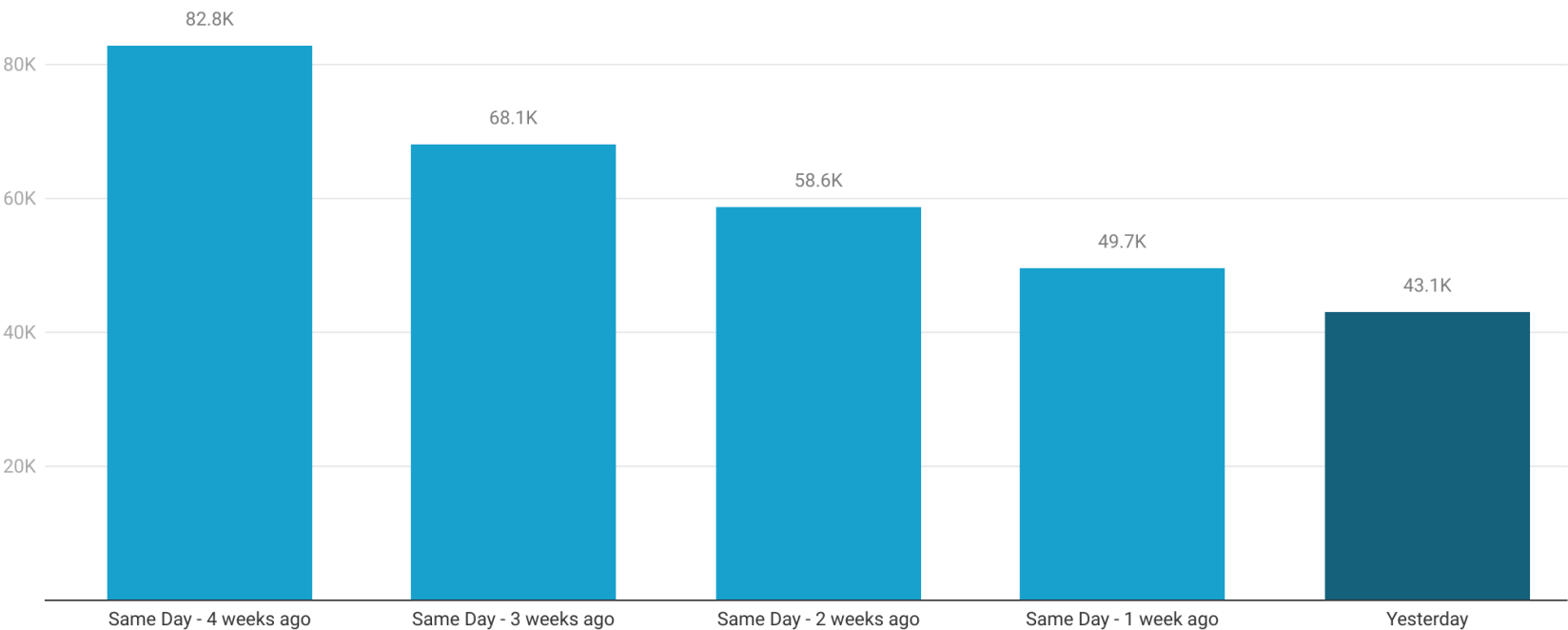


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

Covid-19 "Vital Signs"

Deaths With Coronavirus

Deaths with coronavirus (7-day average) have declined by more than 50% since a peak in late January. However, this rates is 3 times higher than its 12-month low.

Deaths With Coronavirus

7-Day Average, Through March 9



Chart: Health Industry Advisor LLC • Created with Datawrapper



Deaths Reported With Coronavirus

The 7-day average death rate fell 17% from last week and 30% in three weeks.

Daily Deaths Reported With Coronavirus

As of March 9

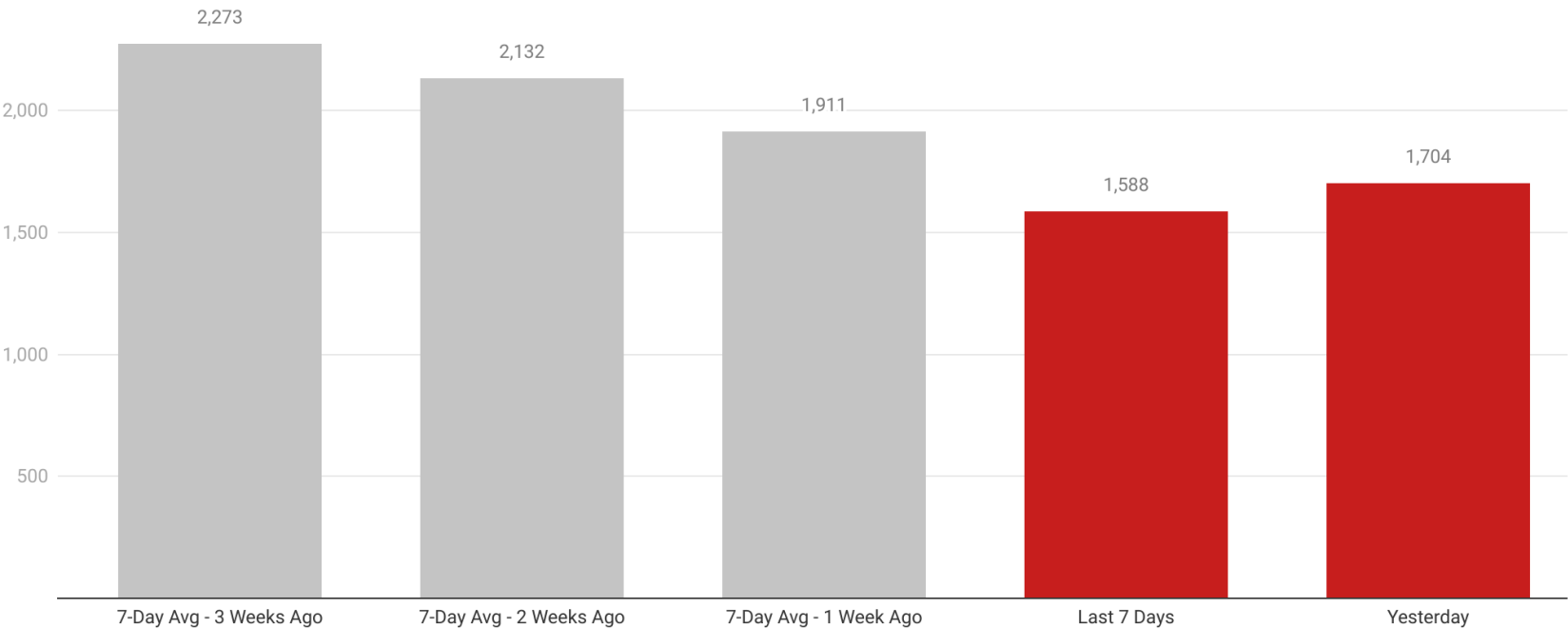


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

Sources

The following data sources are accessed on a daily or weekly basis

- U.S. Department of Health & Human Services: <https://healthdata.gov/dataset/covid-19-estimated-patient-impact-and-hospital-capacity-state>
- U.S. Department of Health & Human Services <https://beta.healthdata.gov/dataset/COVID-19-Diagnostic-Laboratory-Testing-PCR-Testing/j8mb-icvb>
- Worldometers.info: <https://www.worldometers.info/coronavirus/>
- Centers for Disease Control and Prevention, National, Regional, and State Level Outpatient Illness and Viral Surveillance <https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>
- Centers for Disease Control and Prevention, COVID-19 Laboratory-Confirmed Hospitalizations https://gis.cdc.gov/grasp/COVIDNet/COVID19_5.html
- Centers for Disease Control and Prevention, COVID Data Tracker <https://www.cdc.gov/covid-data-tracker/index.html#mobility>
- Centers for Disease Control and Prevention, Vaccines, <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html>
- Institute for Health Metrics and Evaluation, COVID-19 estimate downloads <http://www.healthdata.org/covid/data-downloads>
- New York Times, Covid-19 data <https://github.com/nytimes/covid-19-data>
- COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University <https://github.com/CSSEGISandData/COVID-19>
- COVID-19 Projections Using Machine Learning, <https://covid19-projections.com>
- Covid-19 Forecast Hub, <https://viz.covid19forecasthub.org>
- Yale School of Public Health & Harvard TH Chan School of Public Health, <https://covidestim.org>
- Bloomberg Vaccine Trackers, <https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/?sref=Z0b6TmH>