

Covid-19 "Vital Signs"

Issue # 302

March 17, 2021

Covid-19 "Vital Signs"

Ensemble Forecasts

Last week's new cases and deaths were lower than the most recent forecast but, in line with the March 2 ensemble forecast.

New Daily Infections

Viz Hub Forecasts and Actual Infections for Week of March 13

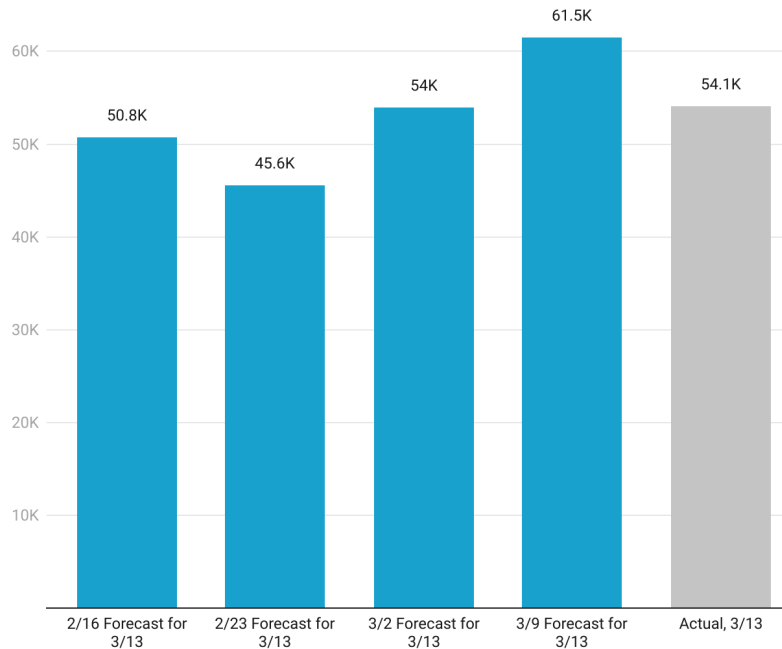


Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

Daily Deaths

Viz Hub Forecasts and Actual Deaths for Week of March 13

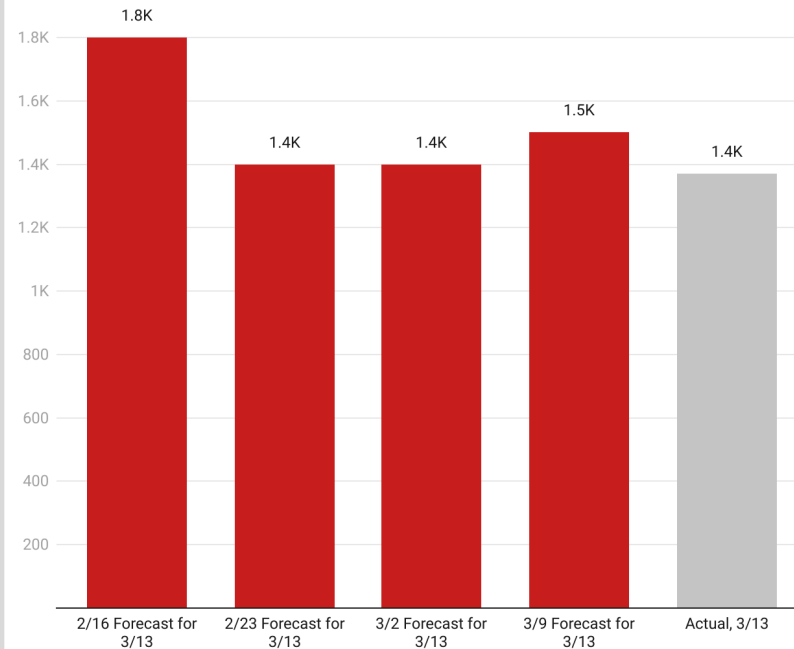


Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

<https://viz.covid19forecasthub.org>

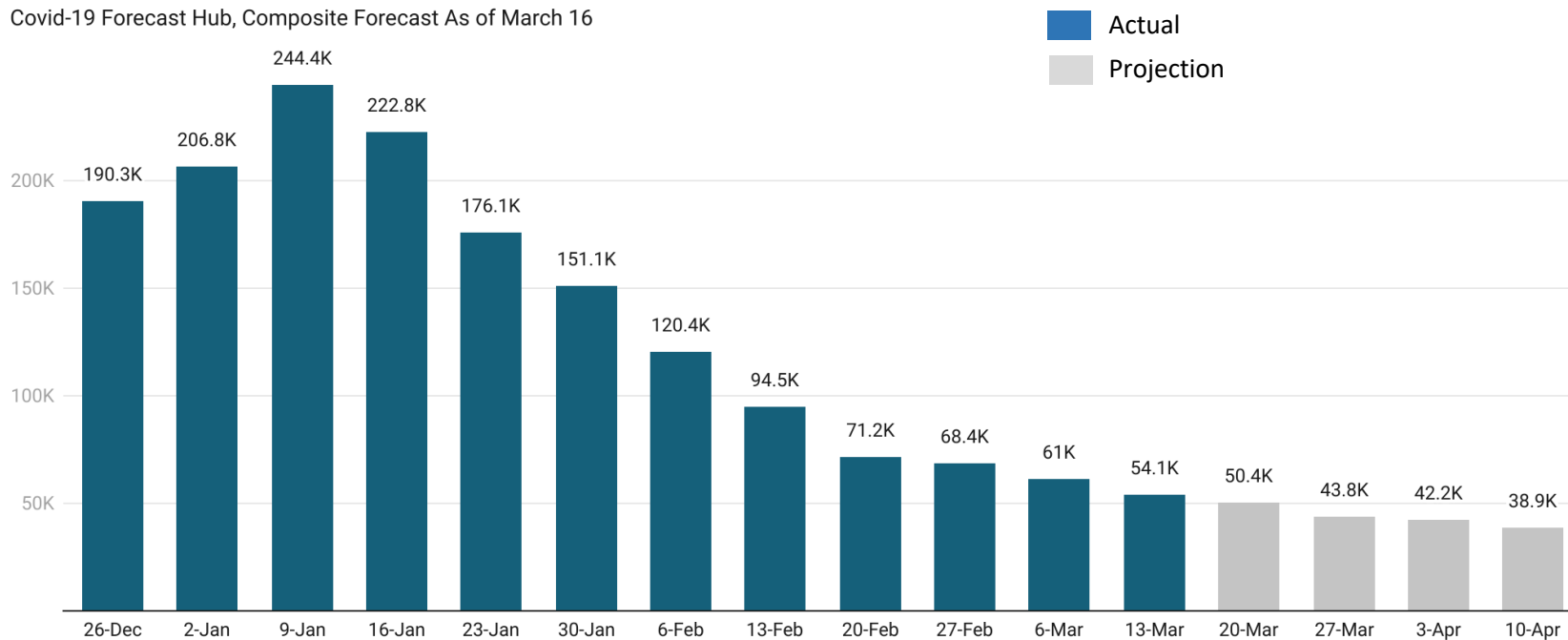
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Covid-19 Cases: Ensemble Forecast

The most recent ensemble forecast projects that new daily cases will decline an average of 8% per week for this and the next three weeks. By April 10th, projected new daily cases reach a twenty-nine-week low.

Newly-Detected Cases Per Day

Covid-19 Forecast Hub, Composite Forecast As of March 16



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>

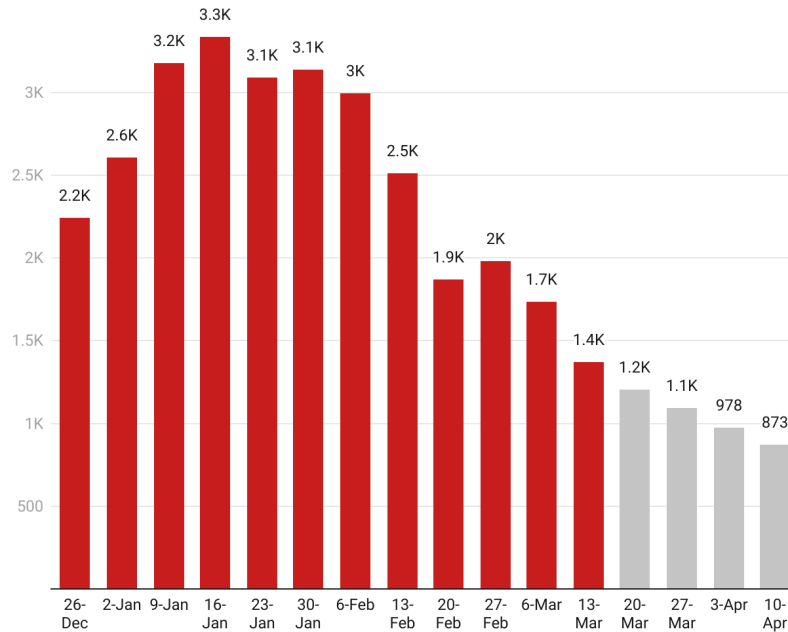
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Death Projections – Ensemble Forecast

The most recent ensemble forecast projects that new daily cases will drop by an average of nearly 11% per week this and the next three weeks. By April 10th, projected daily deaths reach a twenty-two-week low.

Newly-Reported Deaths Per Day

Covid-19 Forecast Hub, Composite Forecast As of March 16

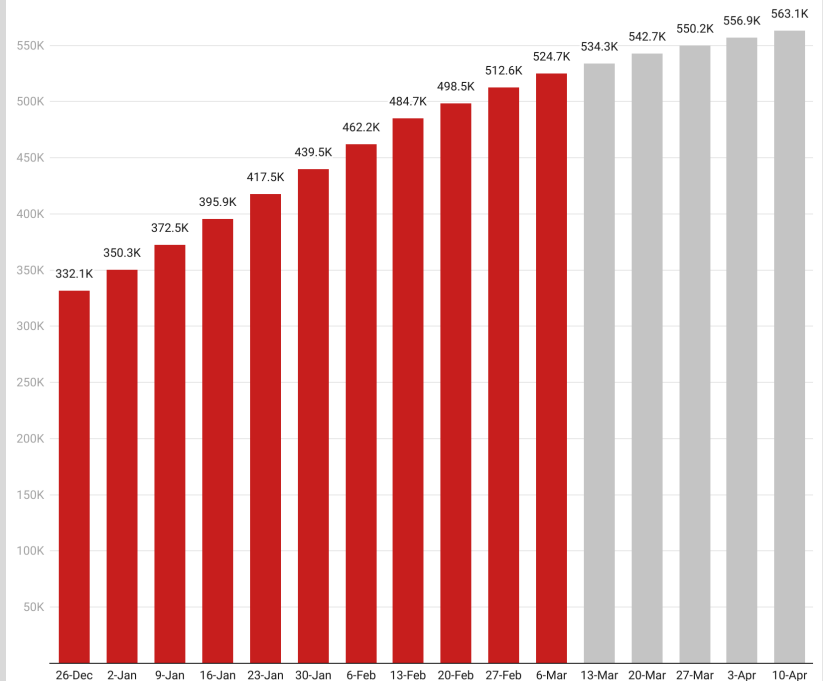


For the week ending on the date shown

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

Cumulative Deaths

Covid-19 Forecast Hub, Composite Forecast As of March 16



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 estimates for November to January are higher than in the previous forecast. Projected new daily infections begin falling again this week, at a 2.6% clip daily through May 1. By mid-April, estimated daily infections will be lower than at any time since early March 2020.

Estimated Infections

Institute for Health Metrics and Evaluation (IHME) Model, as of March 11

2/4 Forecast 2/12 Forecast 2/20 Forecast 2/25 Forecast 3/6 Forecast 3/11 Forecast

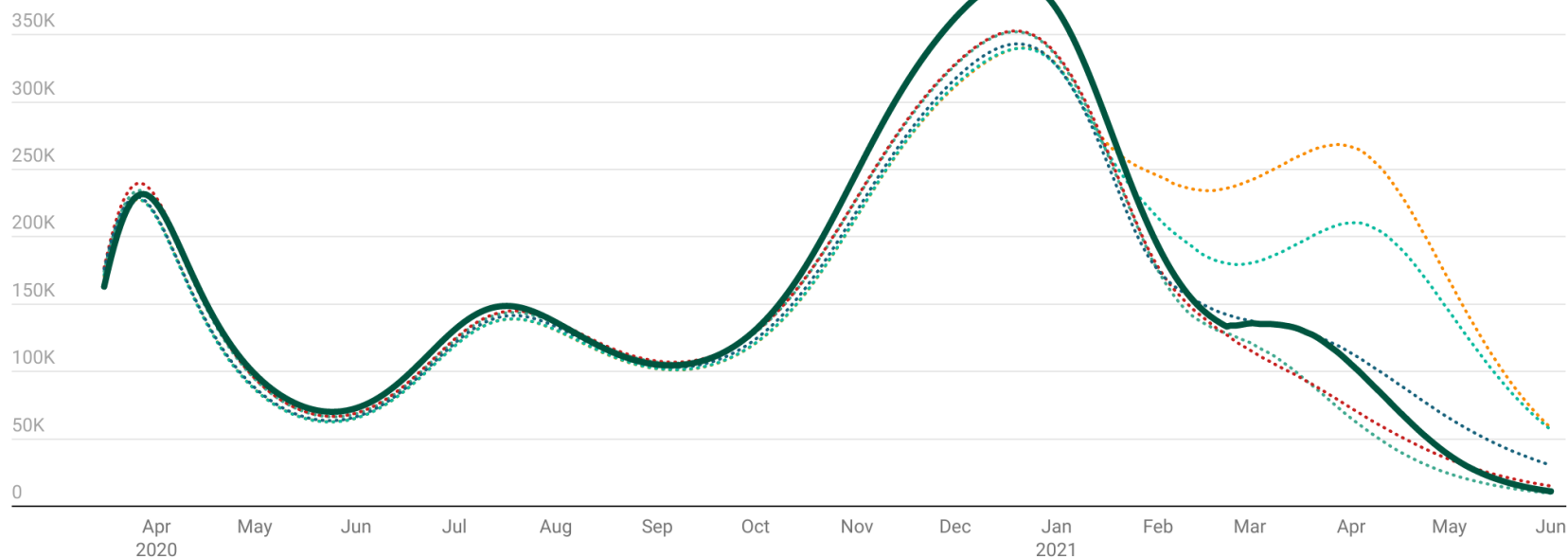


Chart: Health Industry Advisor LLC • Source: IHME • Created with Datawrapper

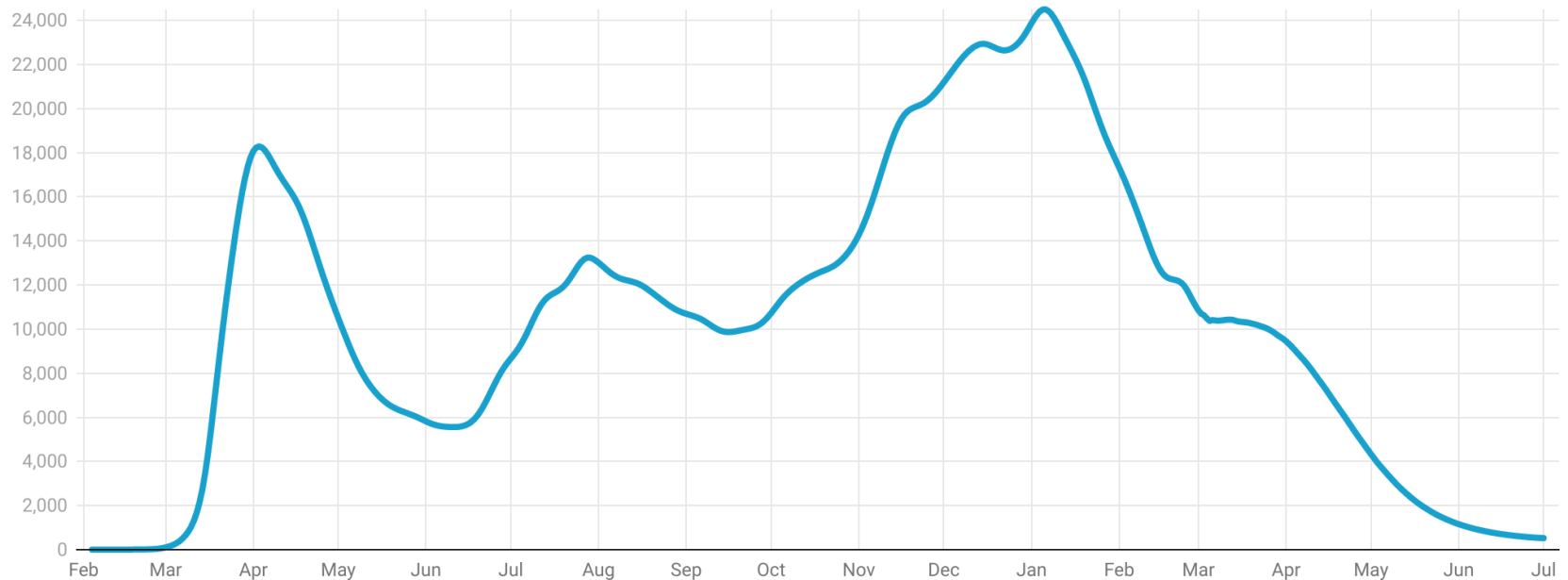
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Covid-19 Hospital Admissions – IHME Projections

IMHE estimates Covid-19 hospital admissions will drop an average of 2.5% per day between today and May 18. By April 25th, projected admissions will be lower than at any time since mid-March 2020.

Covid-19 Hospital Admissions

Institute for Health Metrics and Evaluation



March 11, 2021 Forecast

Chart: Health Industry Advisor LLC • Created with Datawrapper

Covid-19 "Vital Signs"

Covid-19 Inpatients – IHME Projections

IMHE estimates Covid-19 days will drop slightly through the end of March before declining an average of 2.9% daily through the end of May. By April 29, estimated inpatient census will be lower than at any time since March 23, 2020..

Covid-19 Inpatient Beds

Institute for Health Metrics and Evaluation (IHME) Model, as of March 11

2/4 Estimate 2/12 Estimate 2/20 Estimate 2/25 Estimate 3/6 Estimate 3/11 Estimate

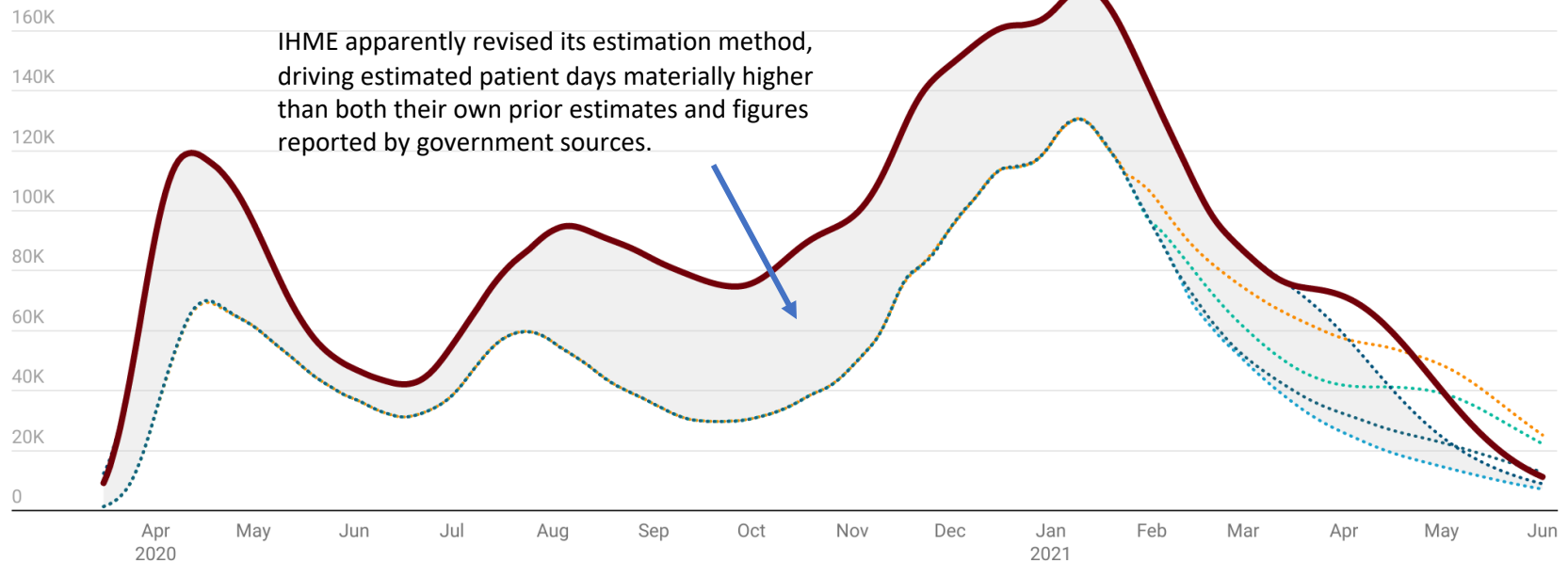


Chart: Health Industry Advisor LLC • Source: IHME • Created with Datawrapper

Covid-19 "Vital Signs"

Deaths With Covid-19: IHME Projection

Daily deaths with Covid-19 are projected to drop by an average of 2.1% per day between today and June 1. By May 10th, projected daily deaths will be lower than at any time since the end of March 2020.

Covid-19 Deaths

Institute for Health Metrics and Evaluation, As of March 11

..... 2/4 Forecast 2/12 Forecast 2/20 Forecast 2/25 Forecast - - - 3/6 Forecast — 3/11 Forecast

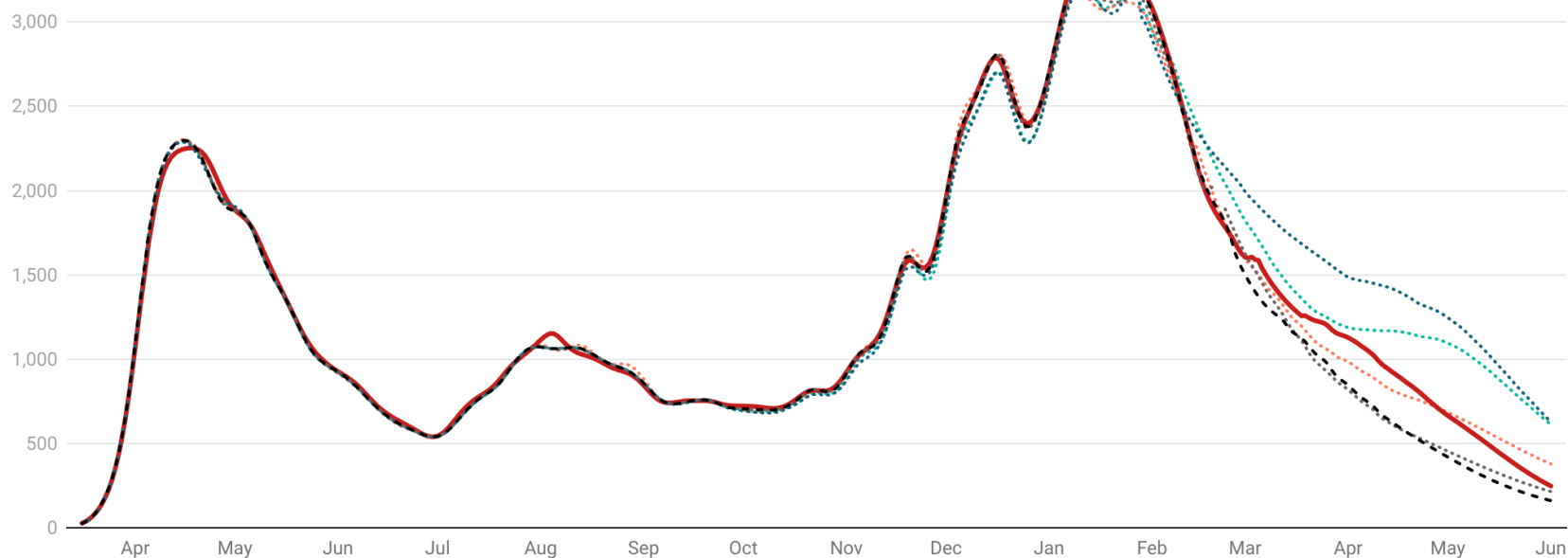
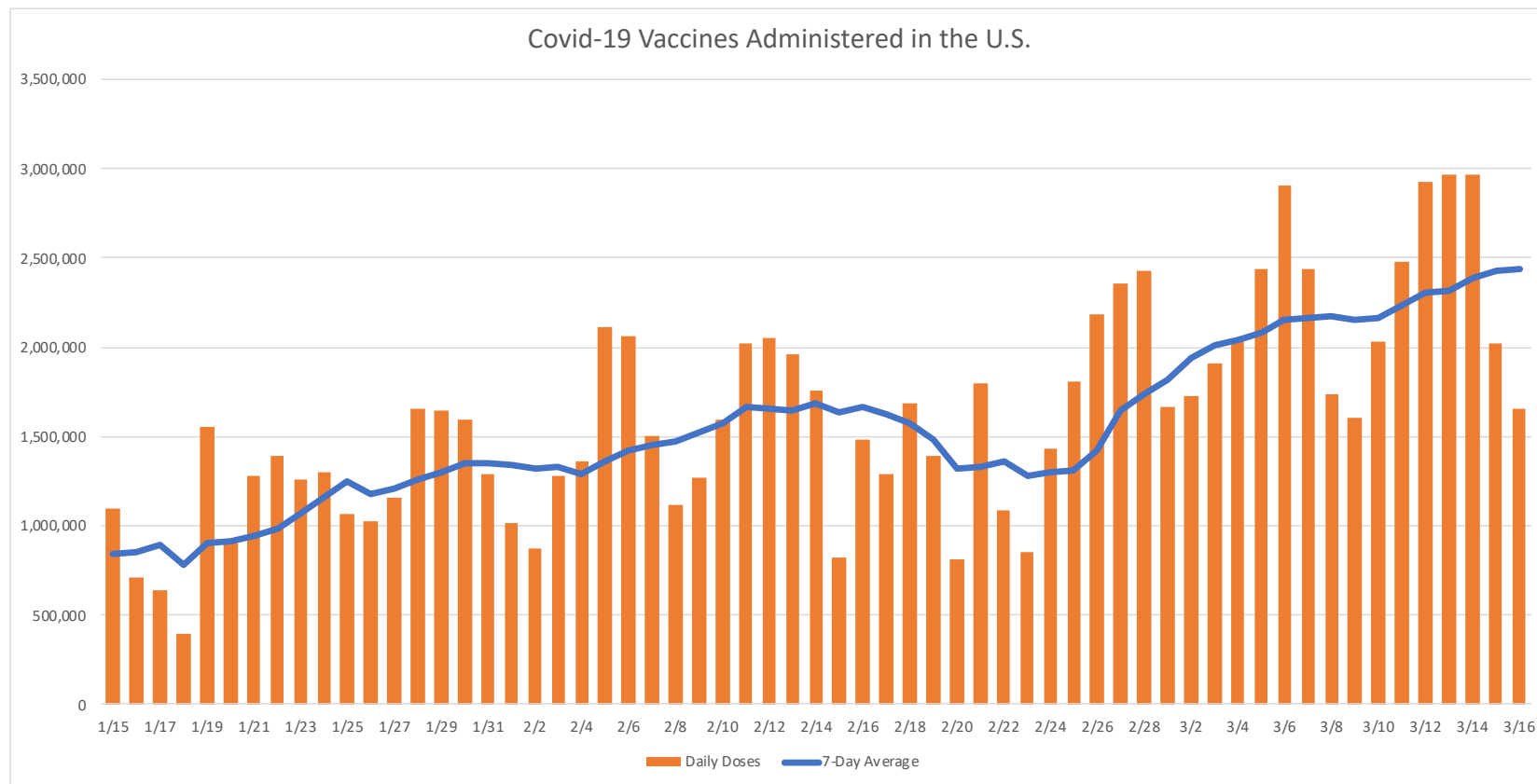


Chart: Health Industry Advisor LLC • Source: IHME • Created with Datawrapper

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Pace of Vaccinations

An average of 2.44 million people were vaccinated over the past week, an increase of more than 13% from one week earlier and 25% from two weeks earlier.



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Vaccine Tracking

To date, the US has administered 110.7 million doses, with 38.7 million people jabbed twice. As of yesterday, 28.2% of U.S. adults have received at least one dose; 15.2% have received two.

Vaccination Progress

Most Recent Two Weeks

First Doses Second Doses

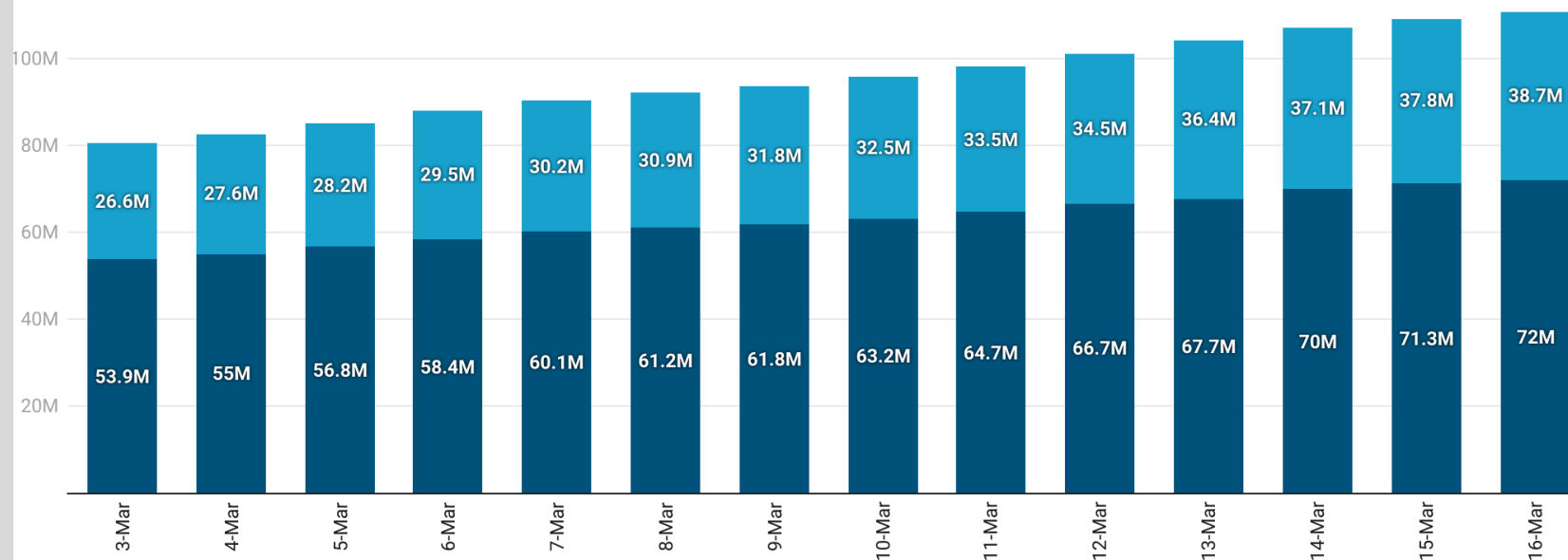


Chart: Health Industry Advisor LLC • Source: CDC, Bloomberg • Created with Datawrapper

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

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Immunity: Projected v. Estimated

Estimated immunity is 39% to 45%, 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

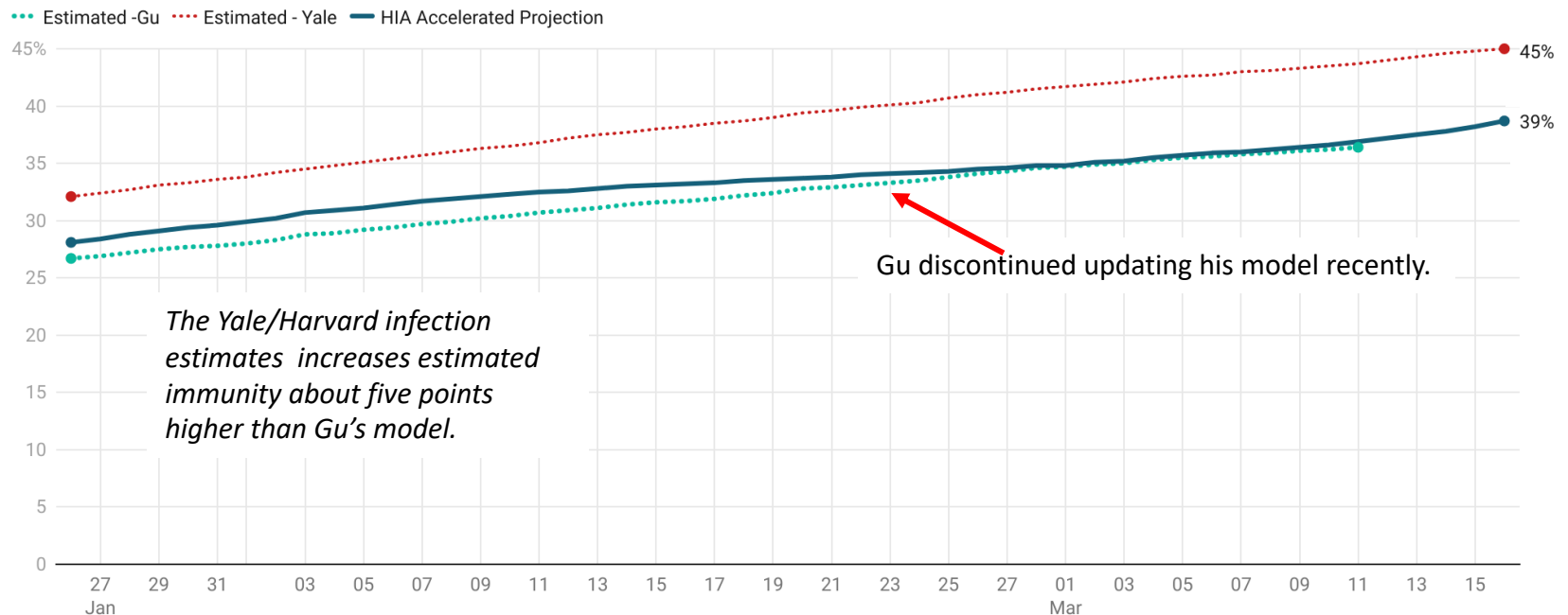


Chart: Health Industry Advisor LLC • Created with Datawrapper

Test-Positivity Rate

The 7-day test-positivity rate reached its lowest point since the pandemic began.

Test-Positivity Rate

7-Day Average, Through March 16

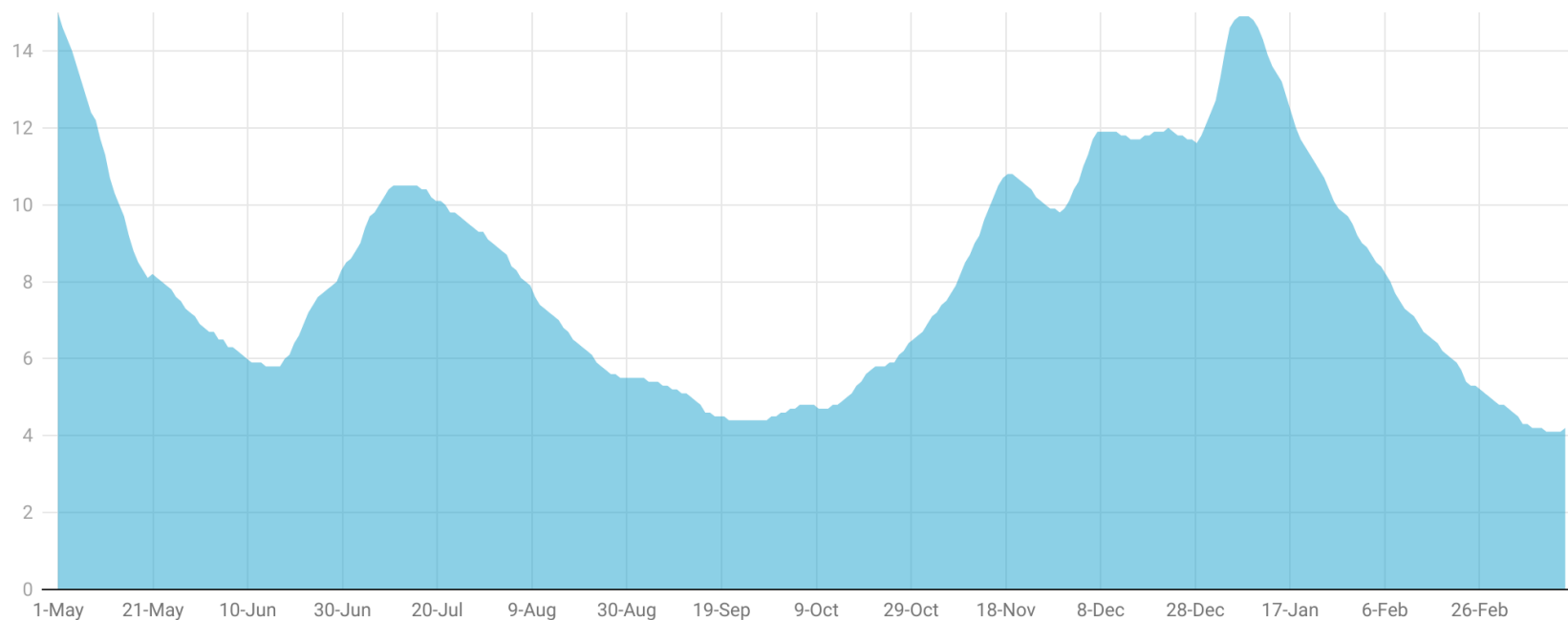


Chart: Health Industry advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

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Test-Positivity Rate

The test-positivity rate has dropped by more than 20% in the past three weeks. Yesterday's rate was the lowest it has been on any single day during the pandemic.

Test-Positivity Rate

As of March 16

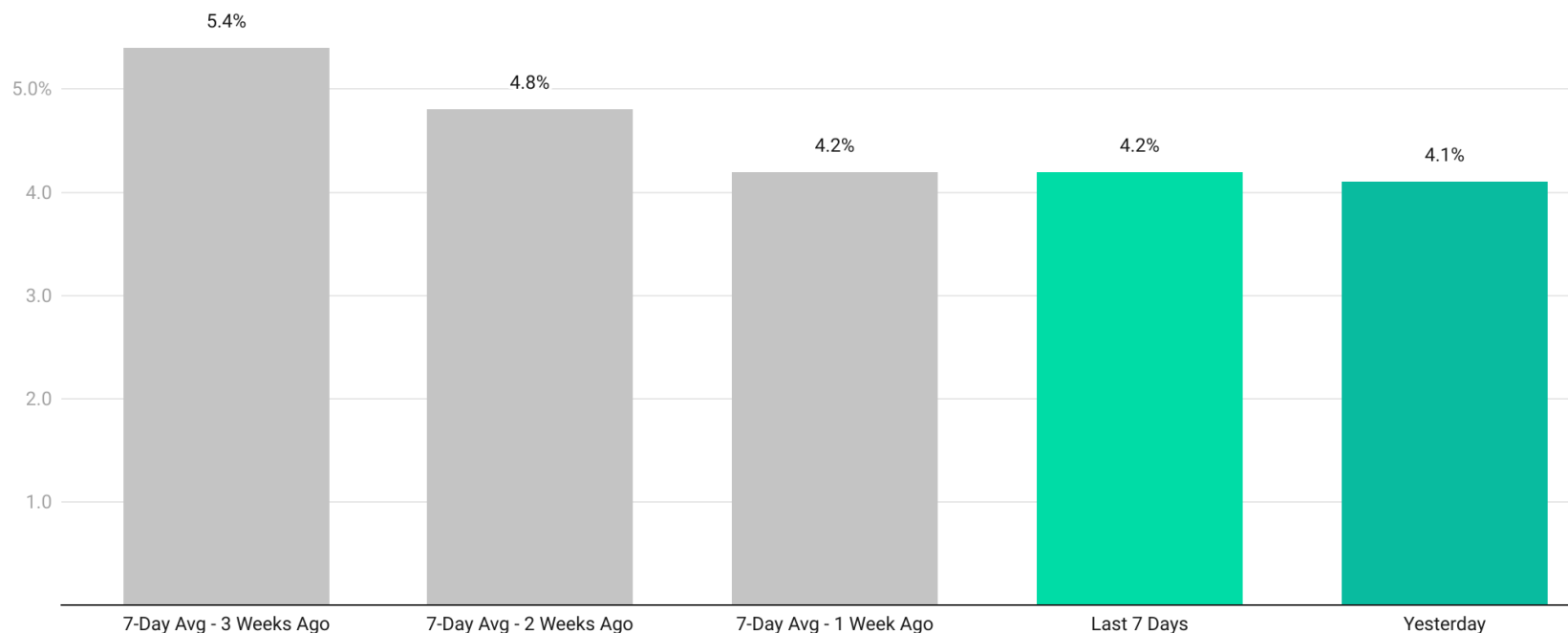


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

Covid-19 "Vital Signs"

Newly Detected Cases / Million - US

Newly detected cases (7-day average) continue dropping from a January 11th peak, plunging nearly 80% during this time. Yesterday's rate set a five-month low.

Newly-Detected Cases / Million

7-Day Average

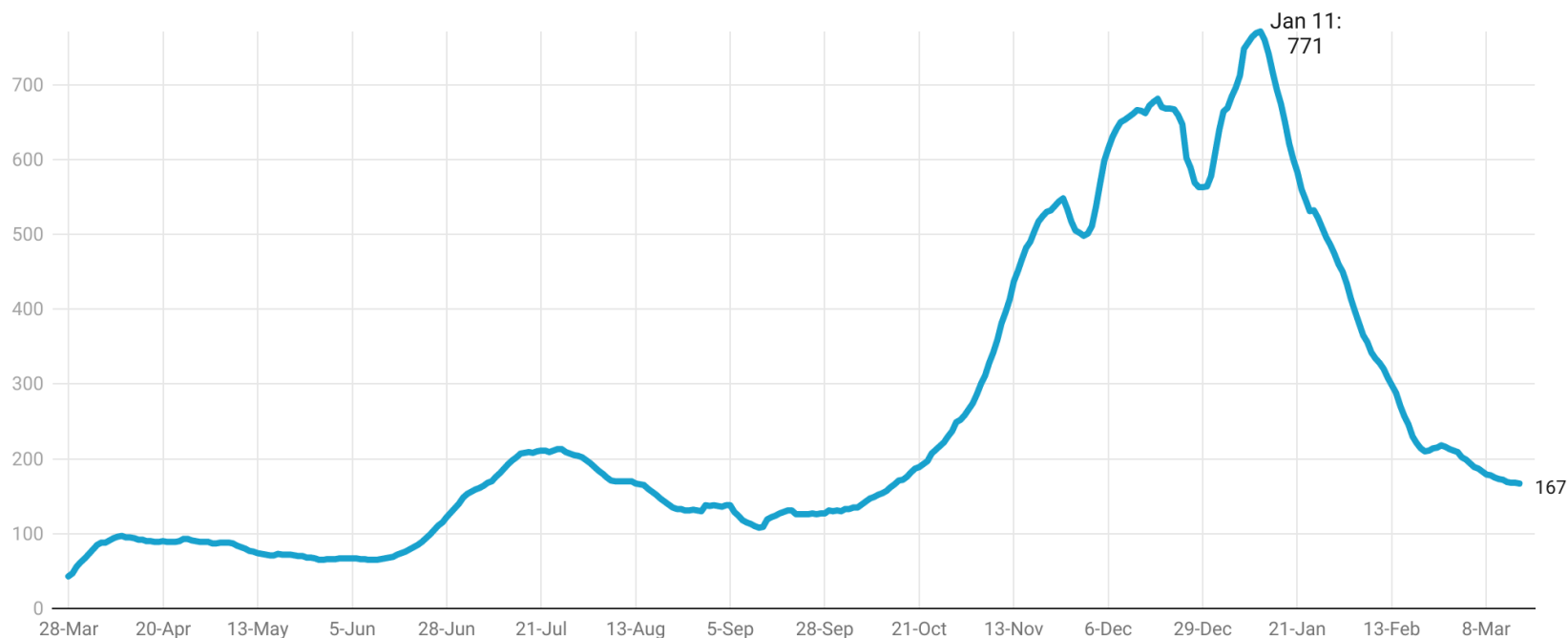


Chart: Health Industry Advisor LLC • Created with Datawrapper

Estimated Daily Infections & New Case Rates

Covid-19 “Vital Signs”

Estimated new infections and reported cases continue falling in the US. The Yale/Harvard model suggests that infections have plummeted 80% since the beginning of the year..

Estimated Daily Infections v. Detected Cases

Yale/Harvard Schools of Public Health Model

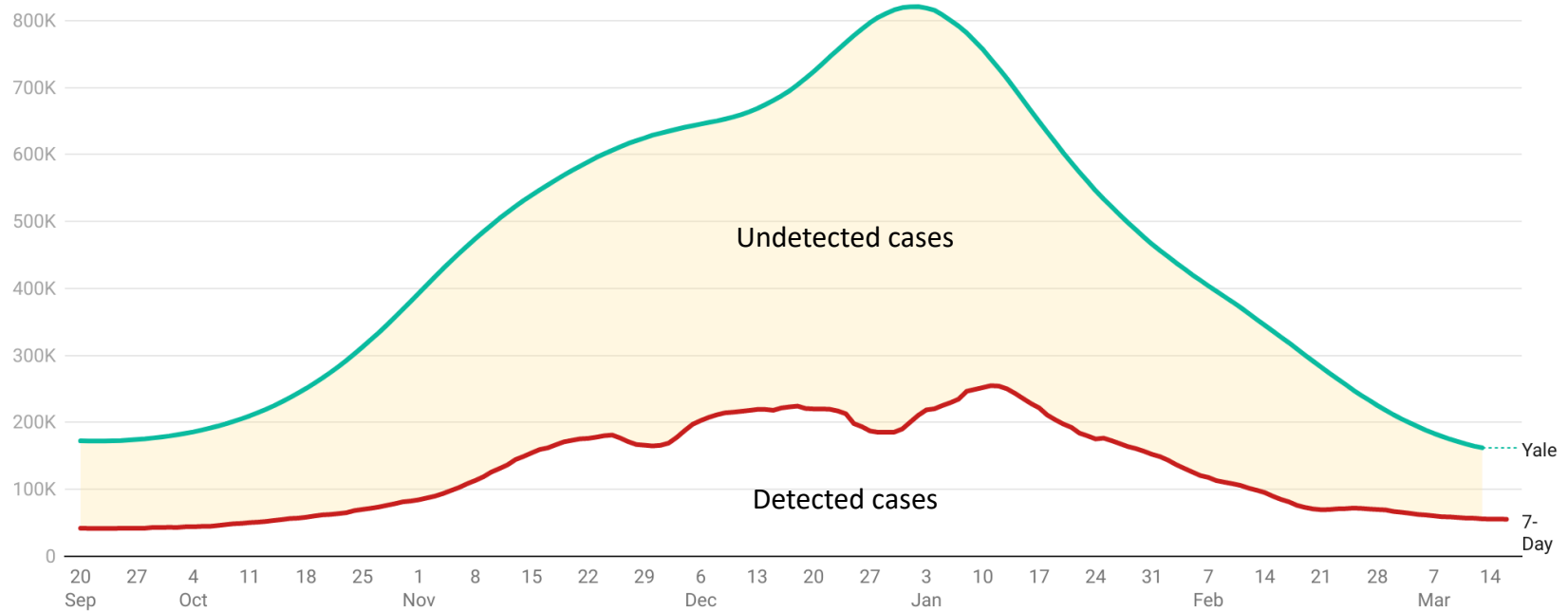


Chart: Health Industry Advisor LLC • Source: Youyang Gu, Yale School of Public Health • Created with Datawrapper

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Newly Detected Cases Per Day

In the US, 7-day new case rates dropped 6% week-over-week and 22% in the last two weeks.

Newly Detected Cases

As of March 16

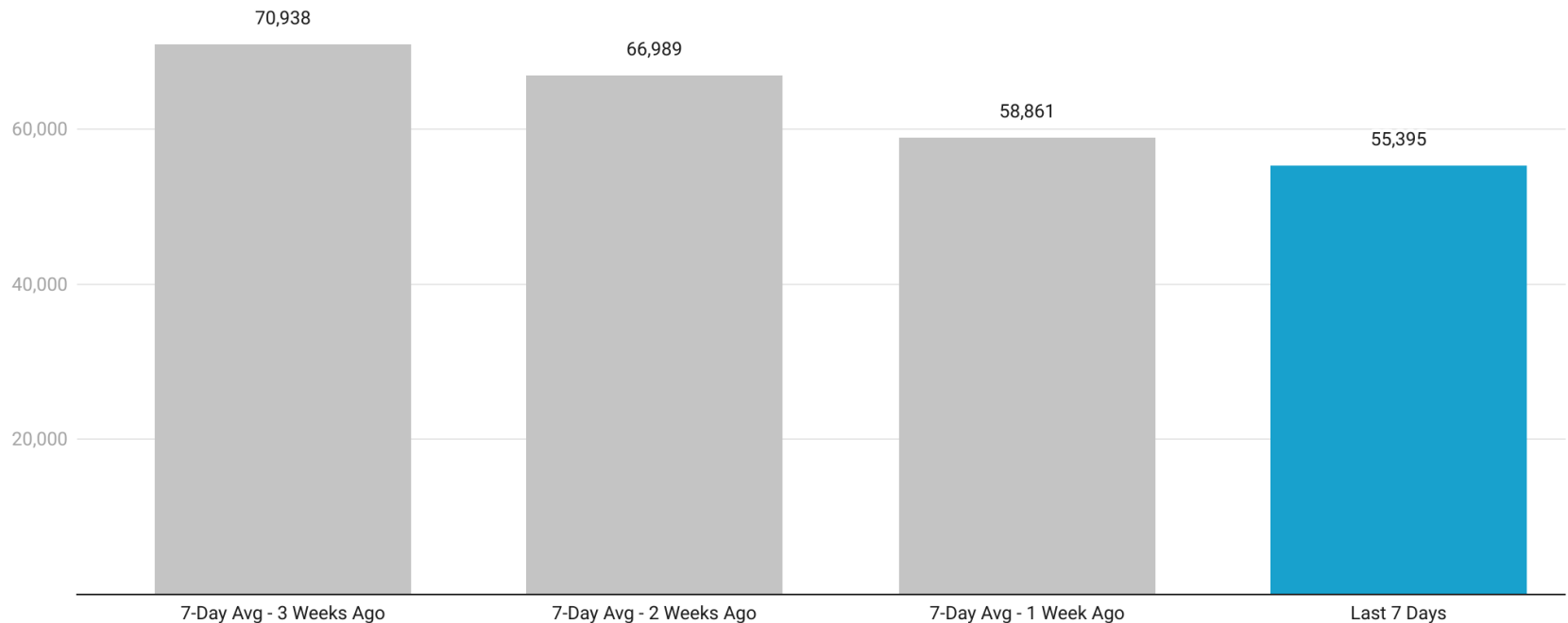


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

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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 58% decline in five weeks).

Covid-19 Inpatient Census

Through March 11

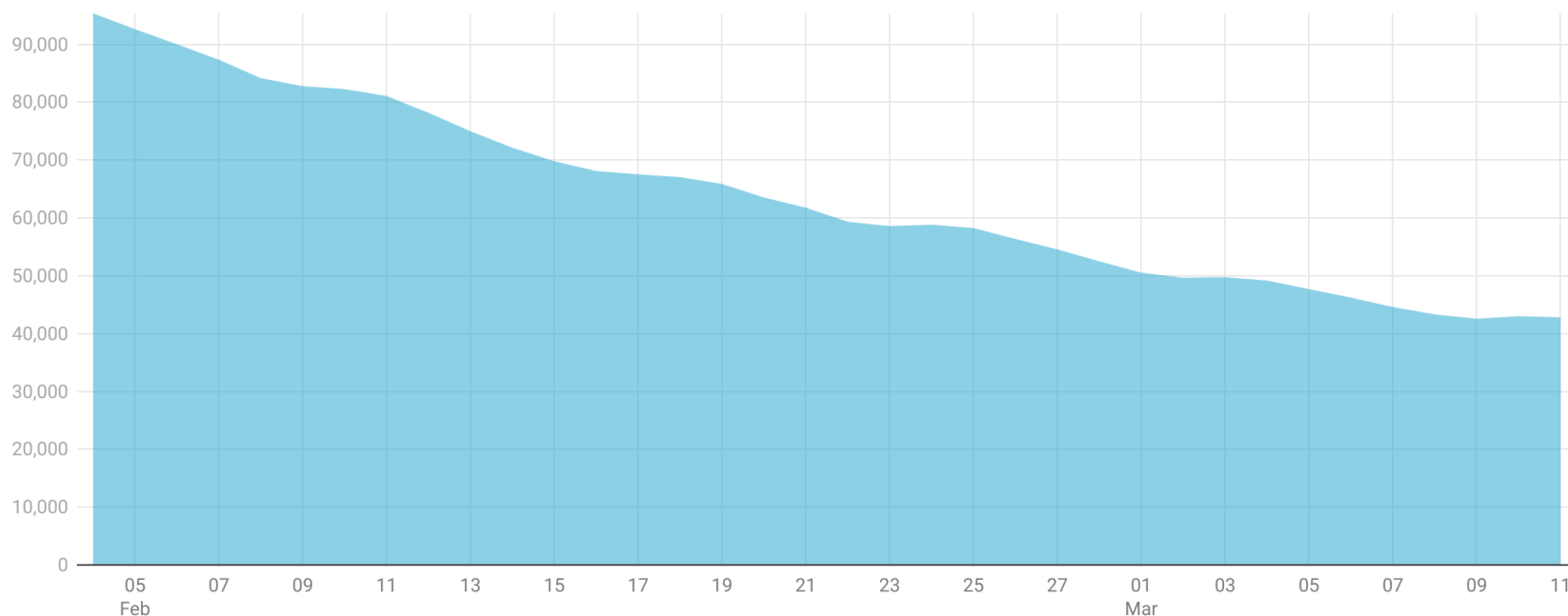


Chart: Health Industry advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper



Covid-19 Inpatient Census

Covid-19 inpatient census fell 7% from last week and more than 40% in the past four weeks.

Hospitalized Covid-19 Patients

Compared to Same Day, Prior Weeks, As of March 16

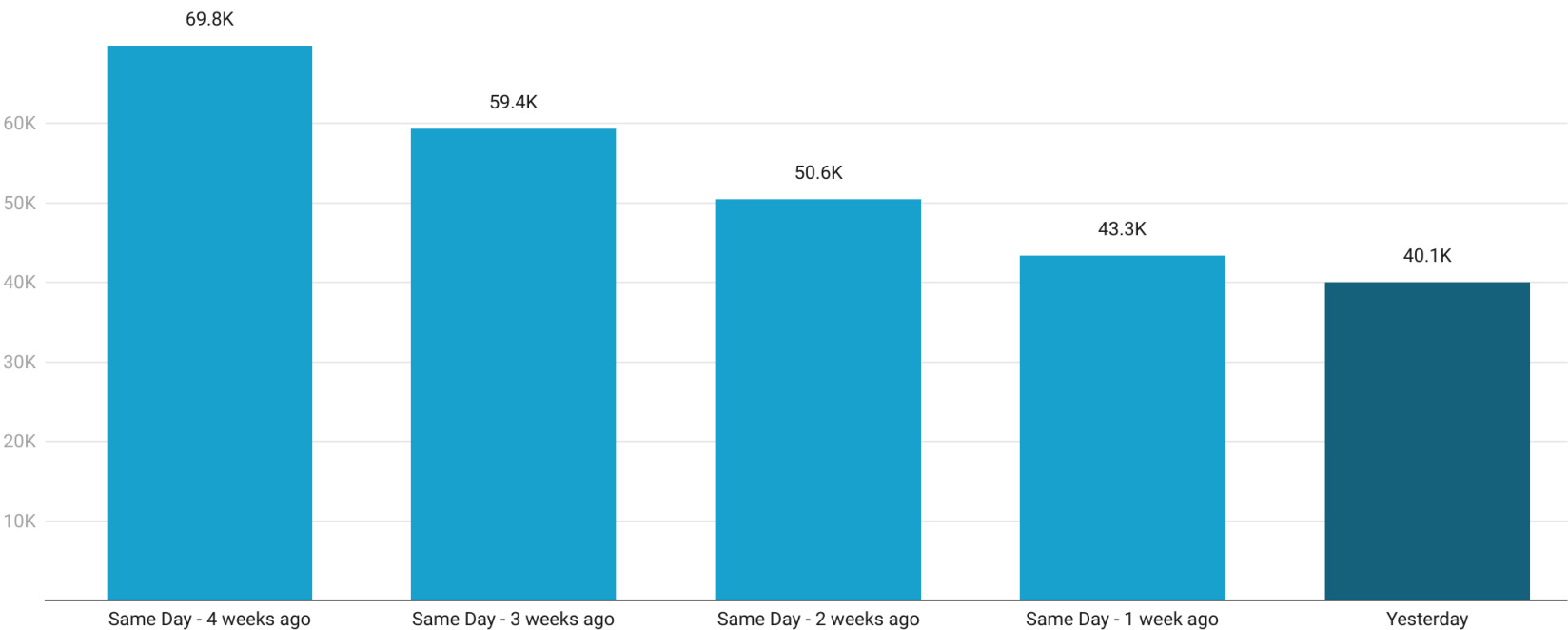


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

Covid-19 “Vital Signs”

Deaths With Coronavirus

Deaths with coronavirus (7-day average) have declined by 63% since a peak in late January. This rate is lower than at any time in the last four months.

Deaths With Coronavirus

7-Day Average, Through March 16



Chart: Health Industry Advisor LLC • Created with Datawrapper



Deaths Reported With Coronavirus

The 7-day average death rate fell 19% from last week and 40% in three weeks.

Daily Deaths Reported With Coronavirus

As of March 16

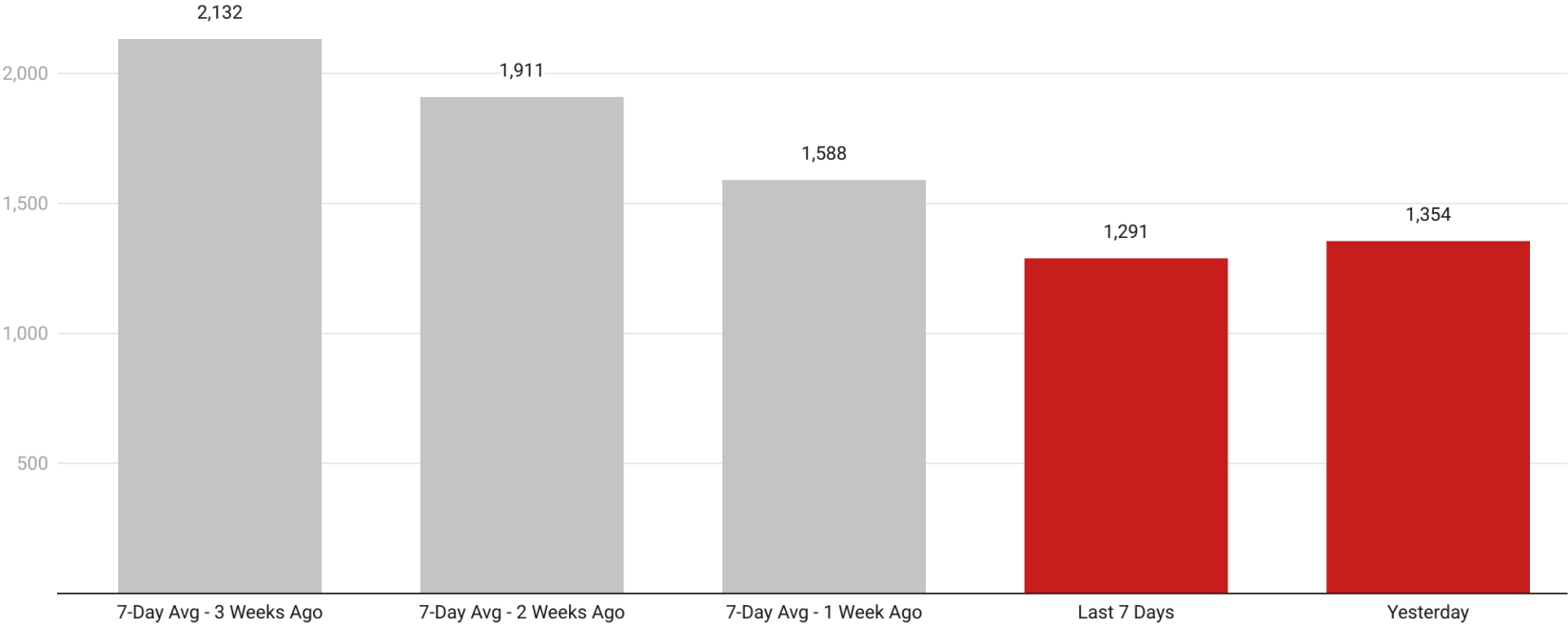


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

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>