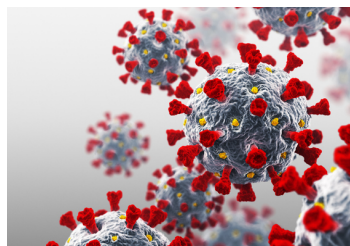


Covid-19 “Vital Signs”

Issue # 297

March 8, 2021



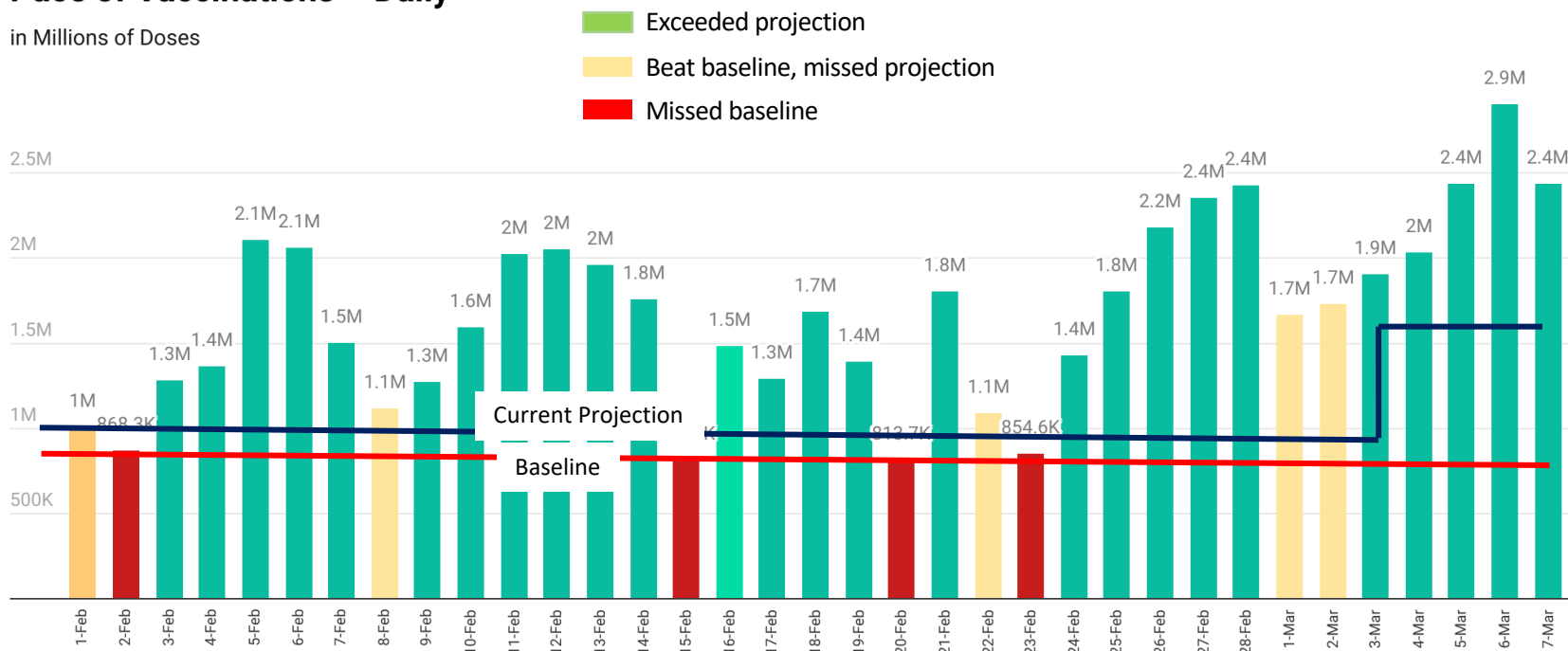
Covid-19 "Vital Signs"

Pace of Vaccinations

An average of 2.6 million people were vaccinated each of the past three days, as mass vaccinations centers sprung up across the country and supplies became more plentiful.

Pace of Vaccinations - Daily

in Millions of Doses



Baseline: 100 Million Doses in 100 Days Current Projection: Ramped-Up Vaccinations; Additional 100M Pfizer and Moderna doses; and JNJ vaccine available on 3/1

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

“Current projection” is from Health Industry Advisor’s vaccination model, reflecting recent developments: increase pace of vaccinations; increase in Pfizer and Moderna doses to 300 million each; and anticipated availability of JNJ vaccine

Covid-19 "Vital Signs"

Vaccine Tracking

To date, the US has administered 90.3 million doses, with 30.2 million people jabbed twice. These figures increased 50% in just two weeks. As of yesterday, 23.6% of U.S. adults have received at least one dose; 11.8% have received two.

Vaccination Progress

Most Recent Two Weeks

First Doses Second Doses

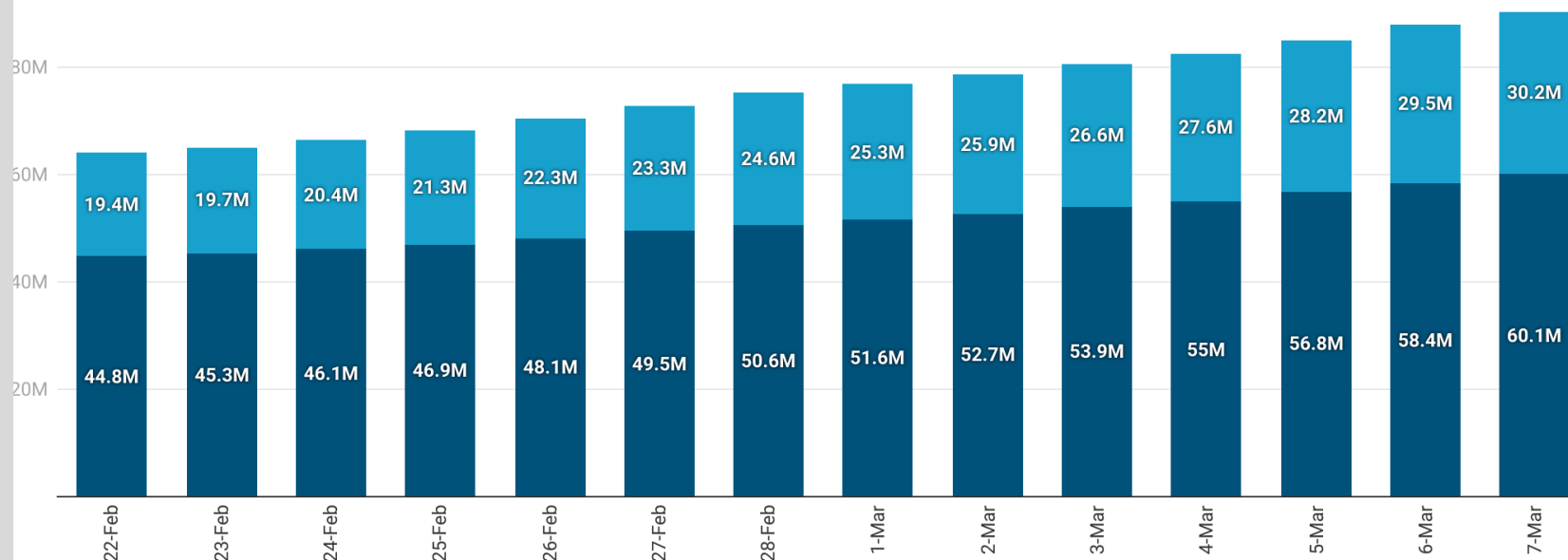


Chart: Health Industry Advisor LLC • Source: CDC, Bloomberg • Created with Datawrapper

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

Covid-19 "Vital Signs"

Vaccine Tracking - % of Adult Population Vaccinated

Alaska, New Mexico, and South Dakota are setting the pace for vaccinations in the U.S., with more than 30% of residents receiving at least one dose. Alabama and Georgia are the only states not to have reached at least 20% of residents.

Vaccinations of Adult Population

% receiving 1 or 2 doses, as of March 7

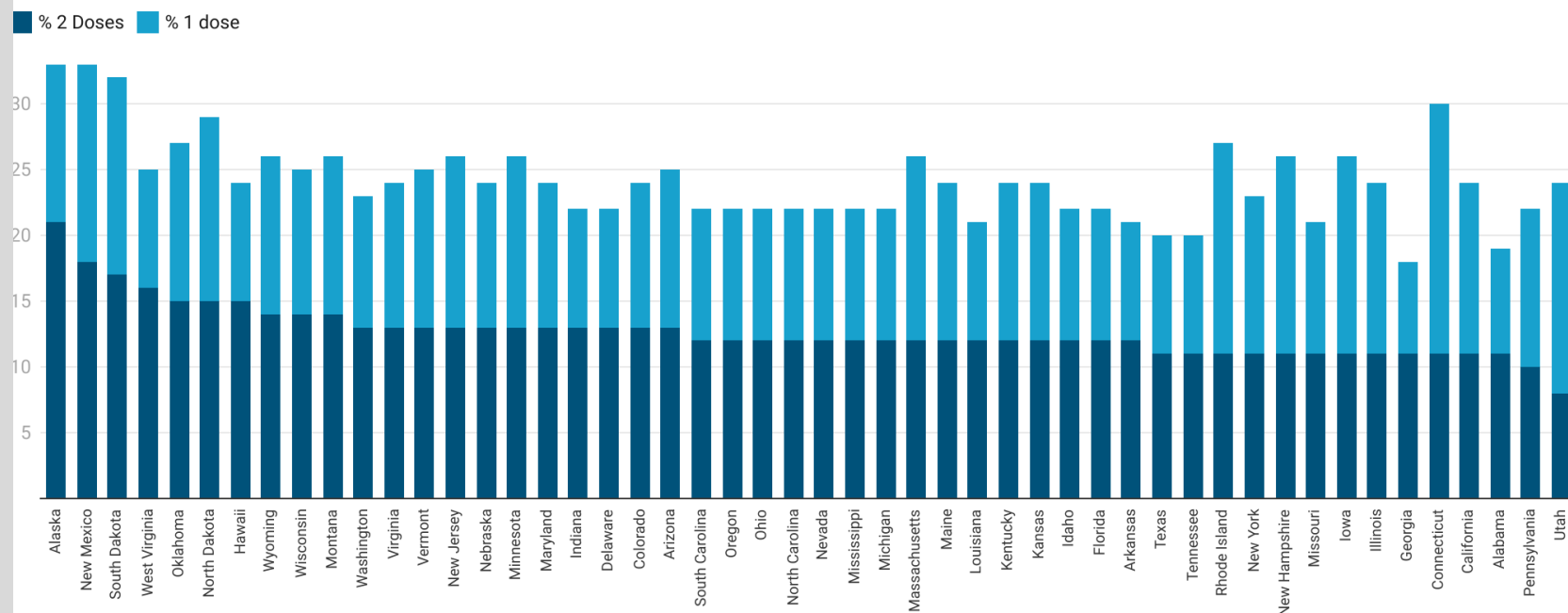


Chart: Health Industry Advisor LLC • Source: CDC, Bloomberg • Created with Datawrapper

Covid-19 "Vital Signs"

Vaccines Distributed v. Unused

More than 116 million doses have been distributed in the United States. As vaccine distribution increases, we have established a pipeline of unused doses for administration in the next several days. Too many appointments were cancelled when supplies ran tight in mid-February.

% of Doses Distributed & % Unused - Cumulative

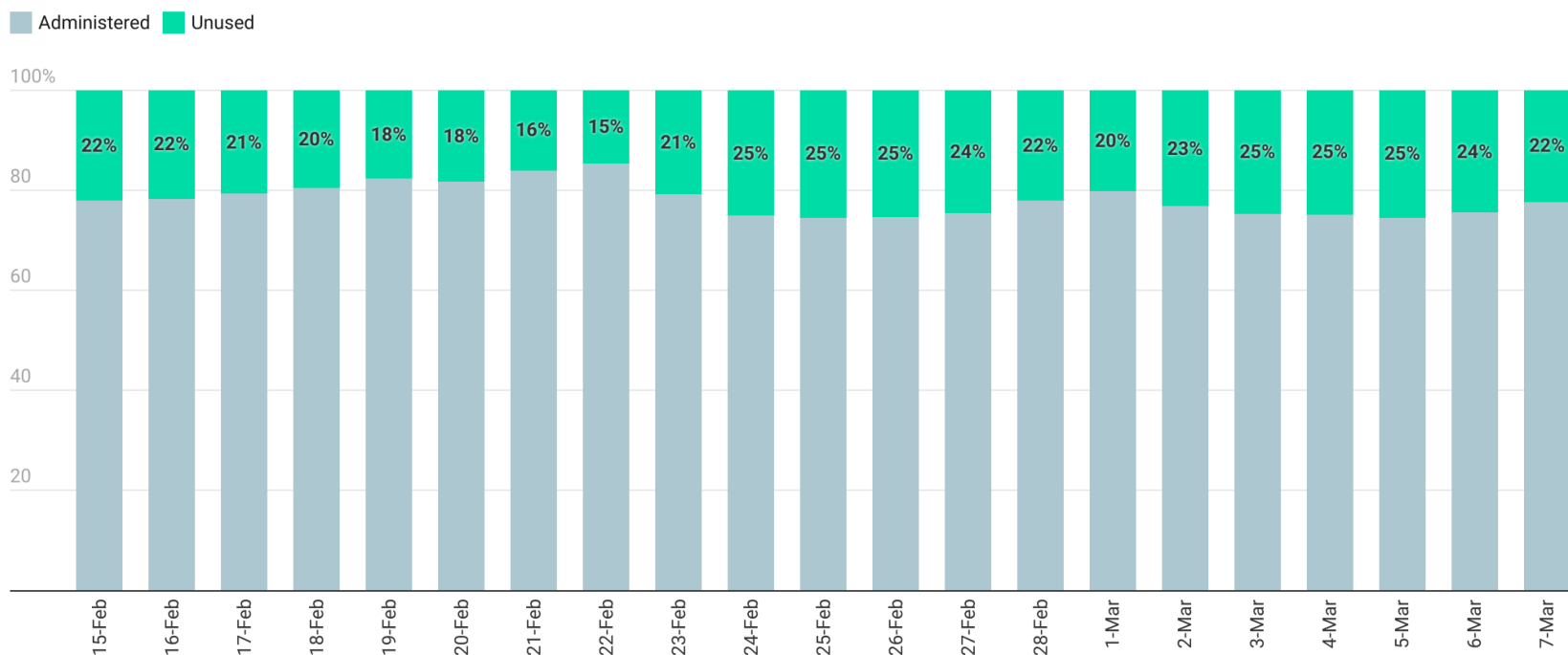


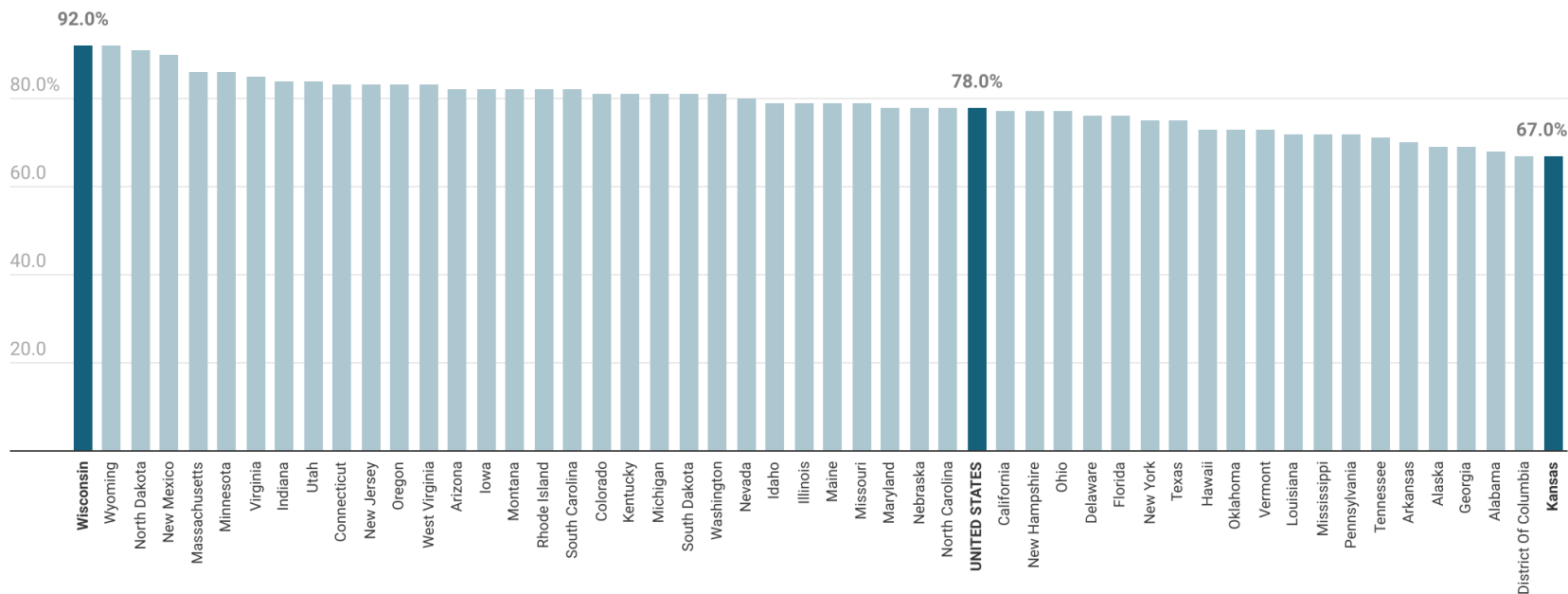
Chart: Health Industry Advisor LLC • Source: Bloomberg • Created with Datawrapper

Vaccines Distributed v. Administered

The US administered nearly eight-in-ten of all doses distributed. Rates vary by state from 67% to 92%.

% of Allocated Supply Used

As of March 7



Doses include both first and second doses; Second doses represent about 12% of all doses nationally

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

Covid-19 “Vital Signs”

Immunity: Projected v. Estimated

Estimated immunity is 36% to 42%. With better-than-anticipated vaccine rates, estimated immunity levels are outpacing our “Current Projection” model. We added an “Accelerated” Projection to address this, as well as recent announcements of faster vaccination rollout.

Estimated Immunity

Current Estimates v. HIA Projection

Estimated -Gu HIA Projection Model Estimated - Yale HIA Accelerated Projection

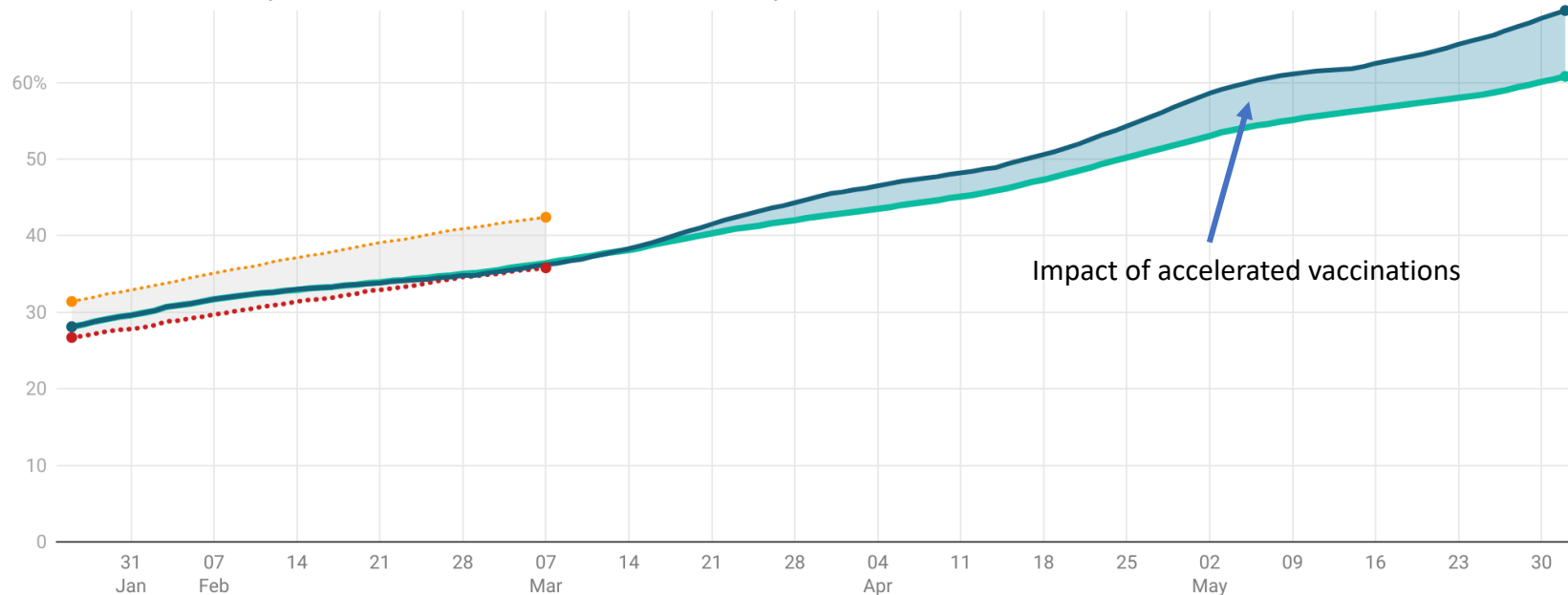


Chart: Health Industry Advisor LLC • Created with Datawrapper

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 77% in less than two months. This rate, however, is nearly 40% higher than its late-August bottom.

Newly-Detected Cases / Million - US

7-Day Moving Average

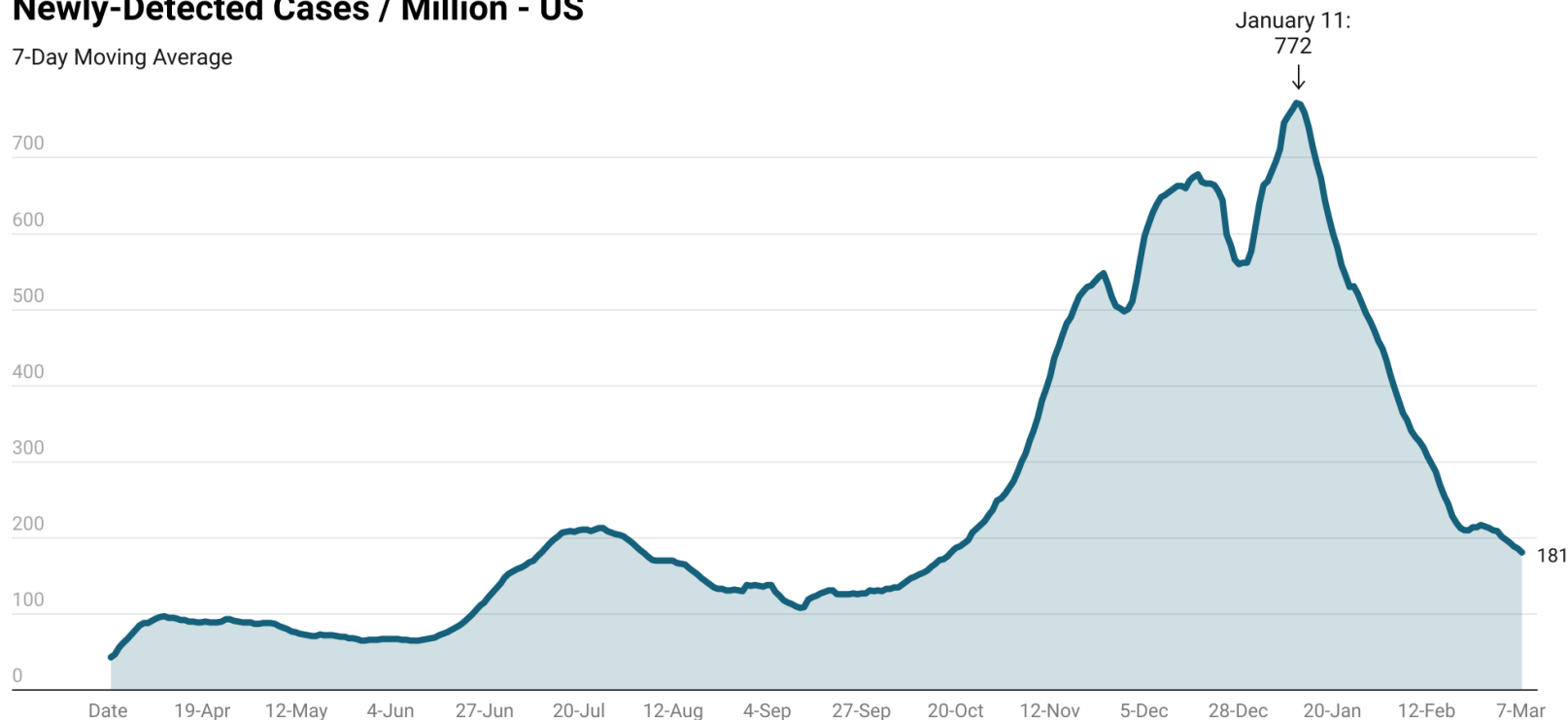


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

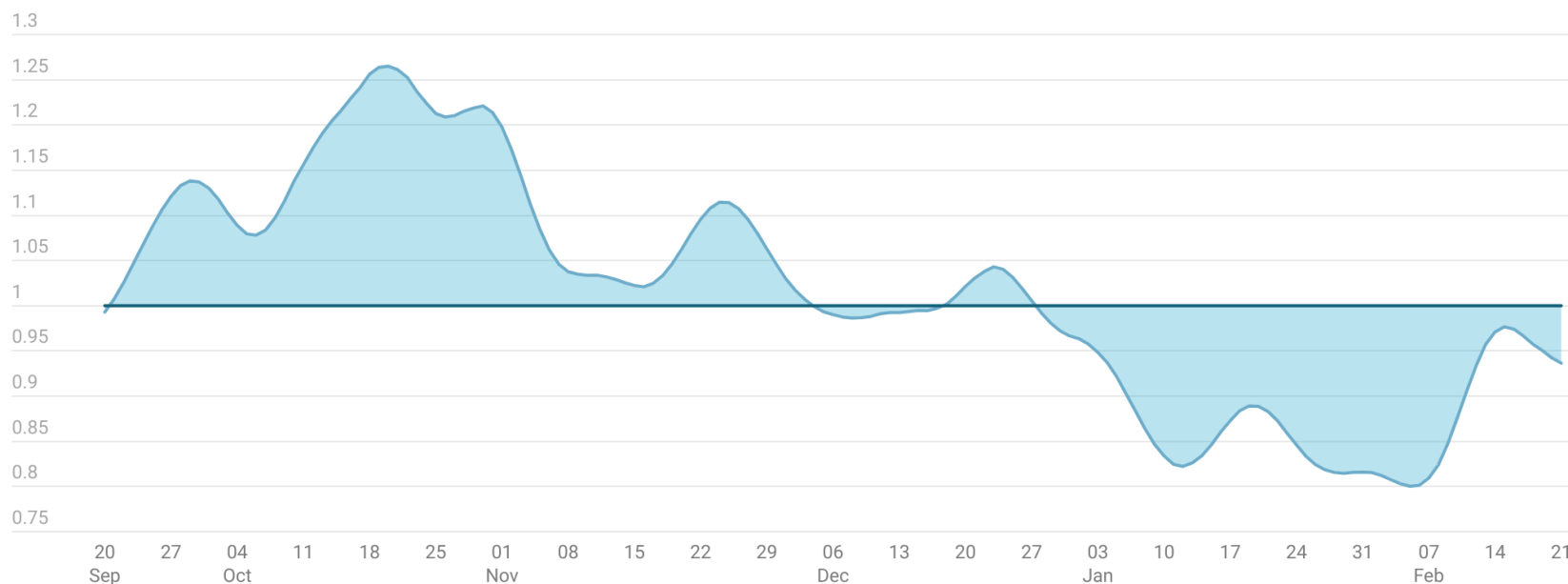
Reproduction Rate (R_t) – Gu* Model

Gu's R_t latest estimate shows R_t below 1.0 and falling. This rate has been less than 1.0 since December 27.

Reproduction Rate (R_t) - US

*Youyang Gu: Covid-19projections.com

Youyang Gu Estimate, September 20, 2020 - February 21, 2021



R_t is an estimate of how many additional people a single person will infect

Chart: Health Industry Advisor LLC • Source: Youyang Gu • 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 and Gu models suggests that infections have plummeted 70% to 77% since the beginning of the year. The 7-day new case rate fell for the tenth straight day, and fifty-first time in the last fifty-five days.

Estimated Daily Infections v. Detected Cases

Gu & Yale/Harvard Schools of Public Health Models

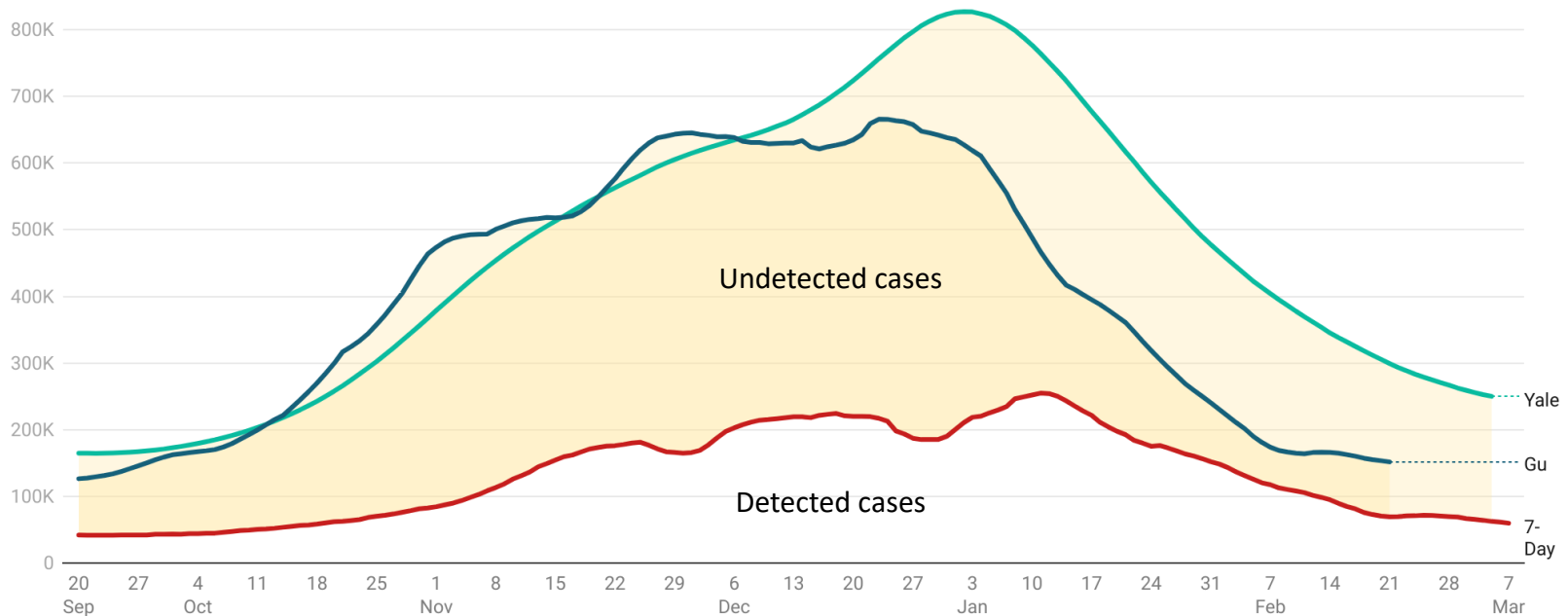


Chart: Health Industry Advisor LLC • Source: Youyang Gu, Yale School of Public Health • Created with Datawrapper

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 14% week-over-week and 37% in the last three weeks.

Newly Detected Cases

As of March 7

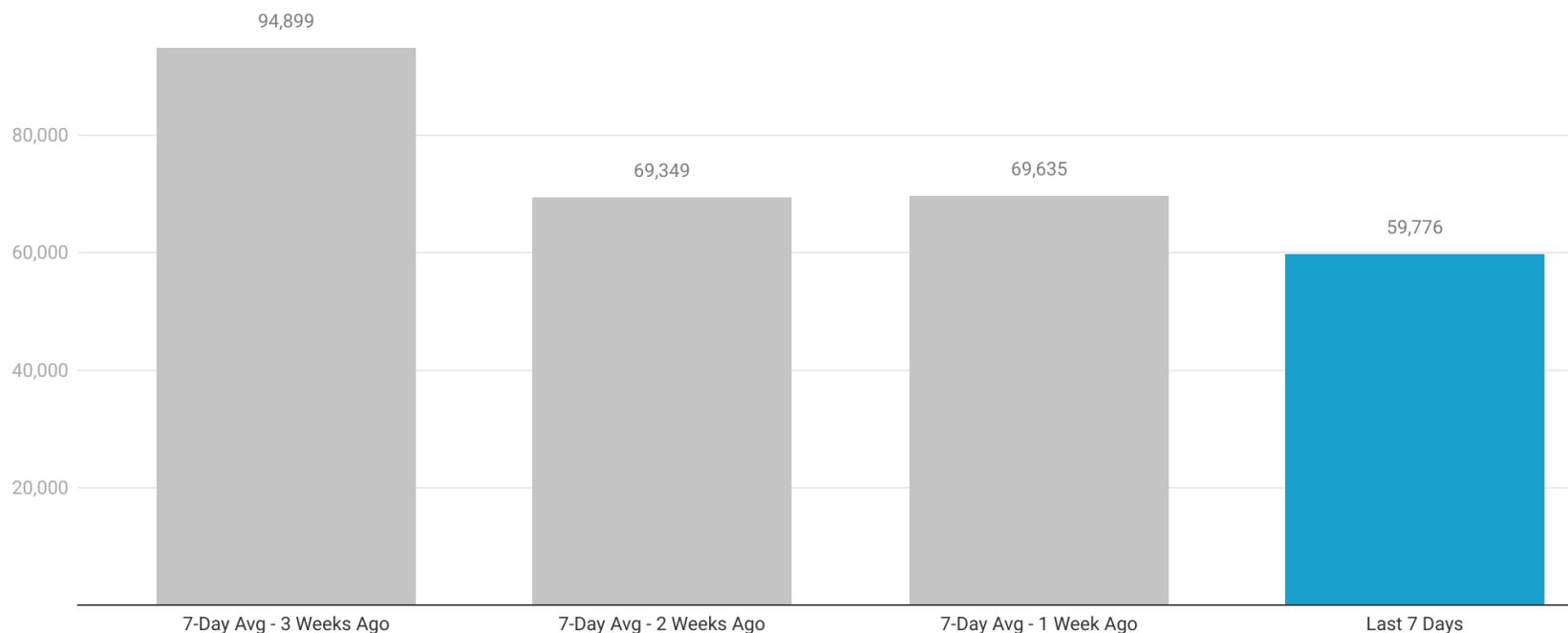


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

Covid-19 “Vital Signs”

Covid-19 Inpatient Census

There were 92,000 fewer hospitalized Covid-19 patients yesterday than two months ago – a 70% decline. This census needs to drop another 25% to match its late-September bottom.

Covid-19 Inpatient Census

Through March 7

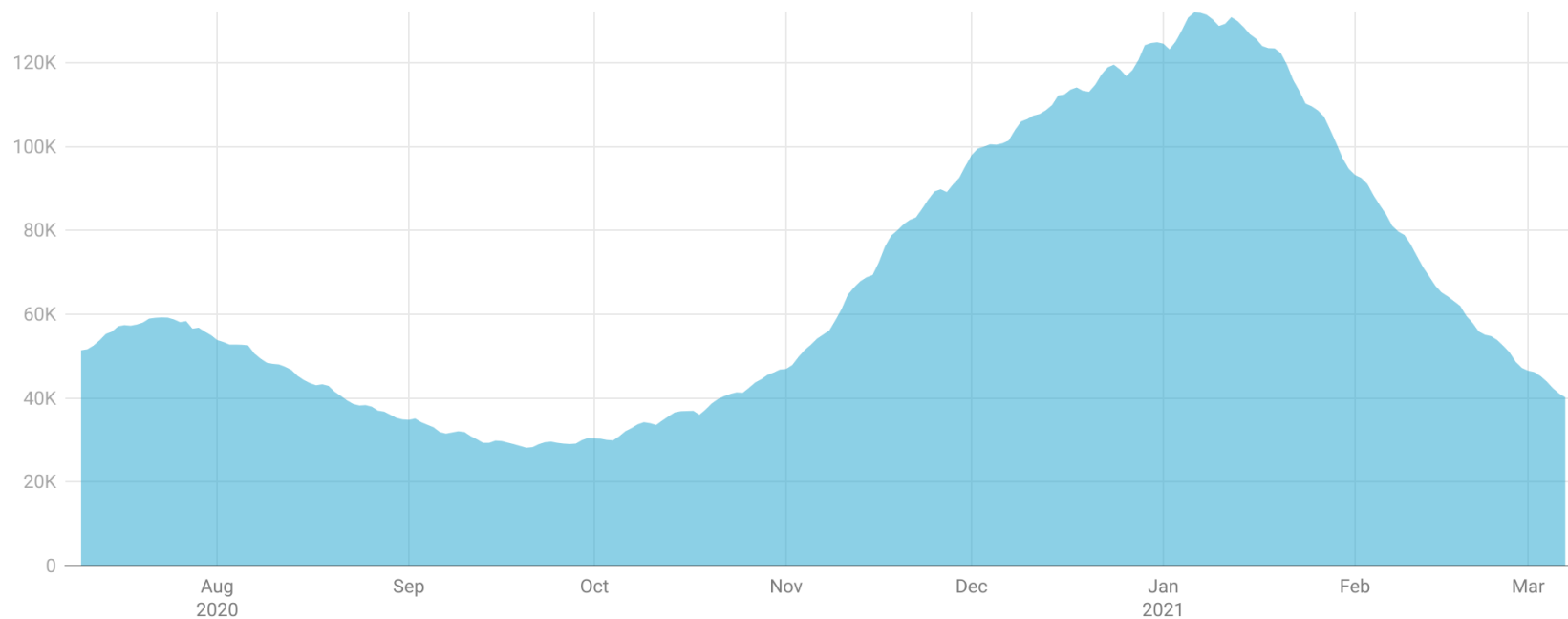


Chart: Health Industry advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

Deaths Reported With Coronavirus

The 7-day average death rate fell 12.5% from last week and 33% in three weeks. This latest rate as low as it has been since December 1.

Daily Deaths Reported With Coronavirus

As of March 7

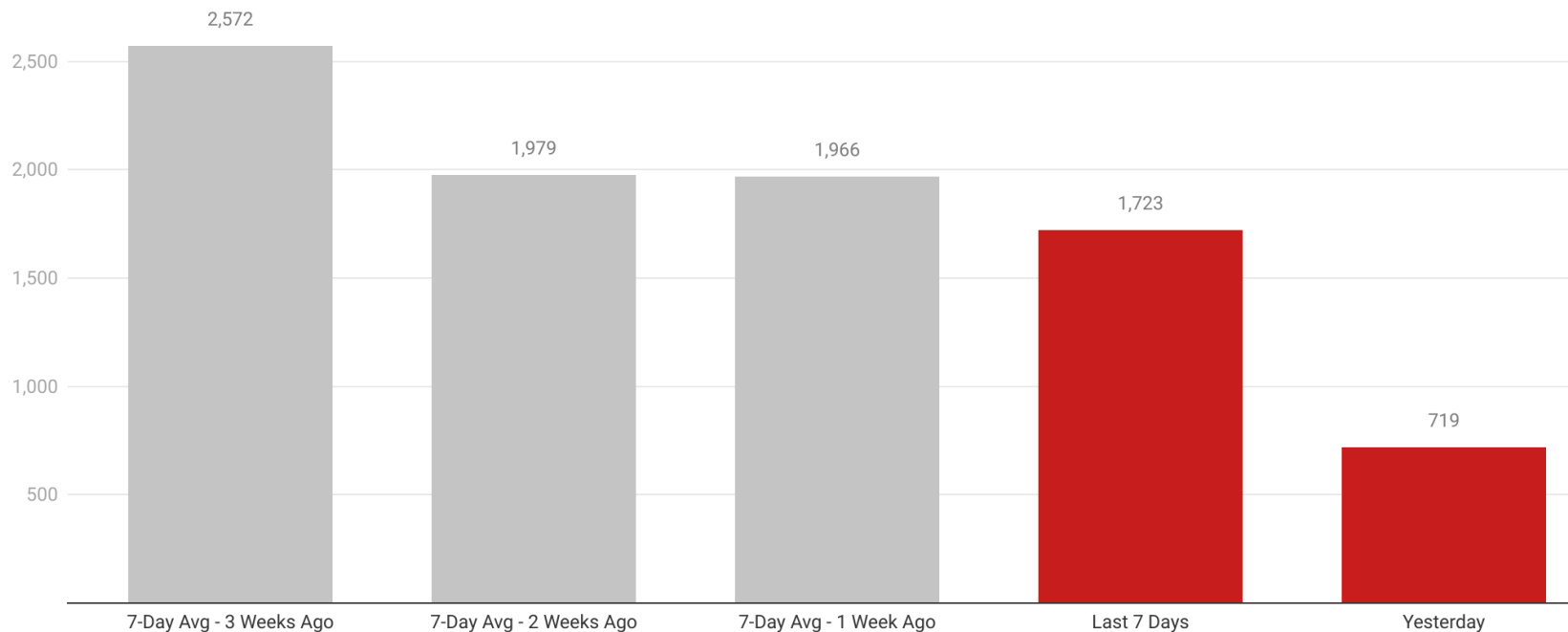


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

Sources

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

- The Atlantic’s Covid Tracking Project: <https://covidtracking.com>
- 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>
- Oliver Wyman Pandemic Navigator, <https://pandemicnavigator.oliverwyman.com/forecast?mode=country®ion=United%20States&panel=mortality>
- [Rt.live](https://rt.live)
- 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=Z0b6TmHW>