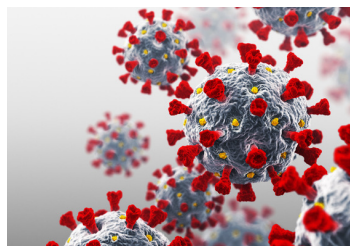


Covid-19 "Vital Signs"

Issue # 337

May 22, 2021



Covid-19 "Vital Signs"

Vaccination Status - US

First dose vaccines increased last week, breaking a six-week string of declining doses. reached an eighteen-week low last week. However, there were fewer second doses (or, sole JNJ doses) than last week. Total doses increased slightly week-over-week.

U.S. Covid-19 Vaccinations - Weekly

7-Day Average, Though the Date Shown

■ 1st of 2 Doses ■ Second Dose (or, Only JNJ Dose)

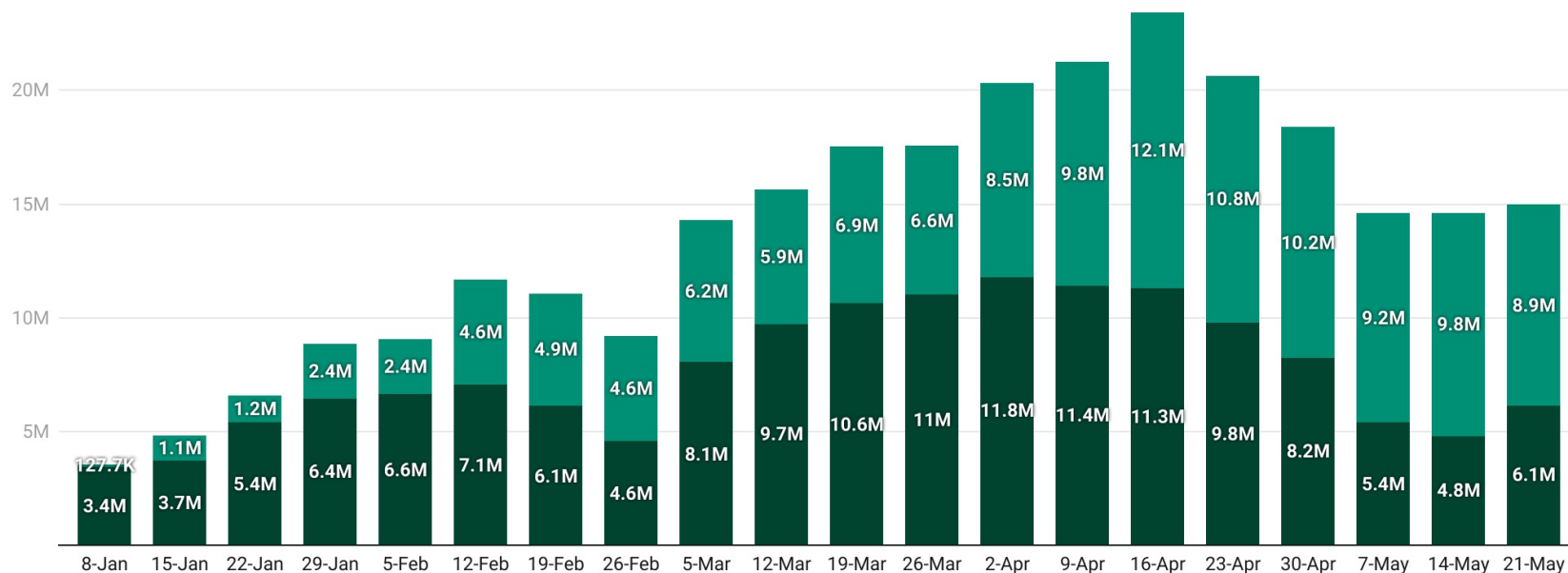


Chart: Health Industry Advisor • Source: Bloomberg • Created with Datawrapper

Covid-19 "Vital Signs"

Vaccination Status - US

Vaccinations reached 282 million to-date. 61% of adults have received at least one dose and 49% are fully vaccinated. Among senior citizens, 85% have received at least one dose and nearly 74% are fully inoculated.

Covid-19 Vaccinations - US

For the week shown

■ 1st of 2 Doses ■ Fully inoculated

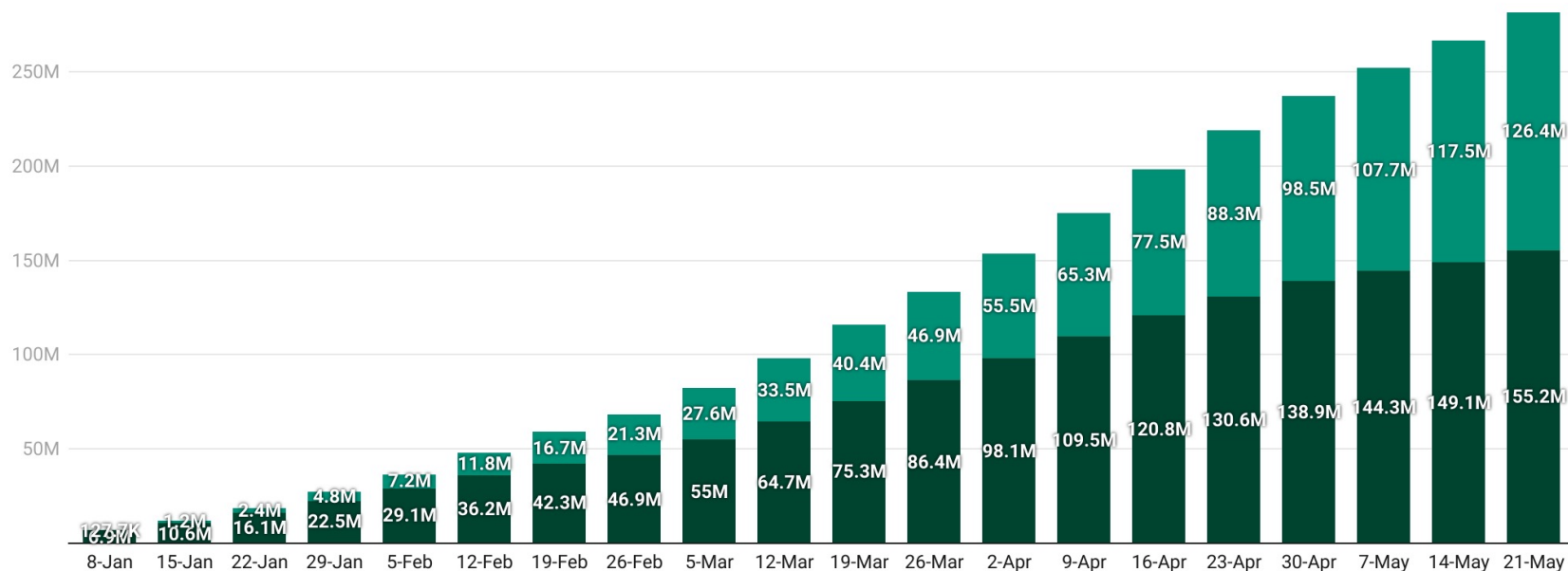


Chart: Health Industry Advisor LLC • Source: Bloomberg • Created with Datawrapper

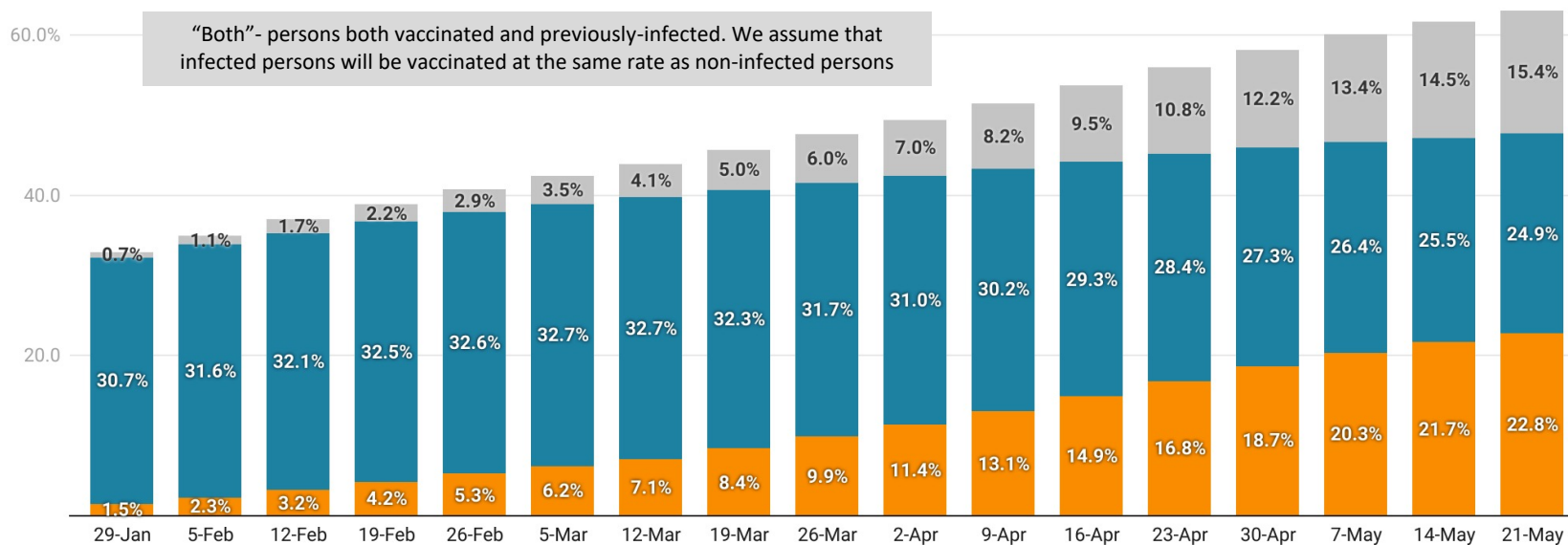
Estimated Immunity Status - US

Estimated immunity reached 63% of the US population. Two-thirds is attributed to vaccination, including those immune via both vaccination and a prior infection.

Estimated % Immunity - US

Based on Vaccination Rate and Estimated True Infections (Yale/Harvard Model)

■ Via Vaccination
 ■ Via Infection
 ■ Via Both



<https://covid19-projections.com/>; <https://covidestim.org>

Chart: Health Industry Advisor LLC • Source: Harvard/Yale and Bloomberg • Created with Datawrapper

Covid-19 "Vital Signs"

Estimated Actual Infections – Harvard/Stanford/Yale Model

Estimated infections for the nineteenth straight week. The United States saw fewer estimated new infections last week than at any time since March 6-12, 2020.

Weekly New Estimated Infections - Yale/Harvard Model

For the 7 days ending on date shown

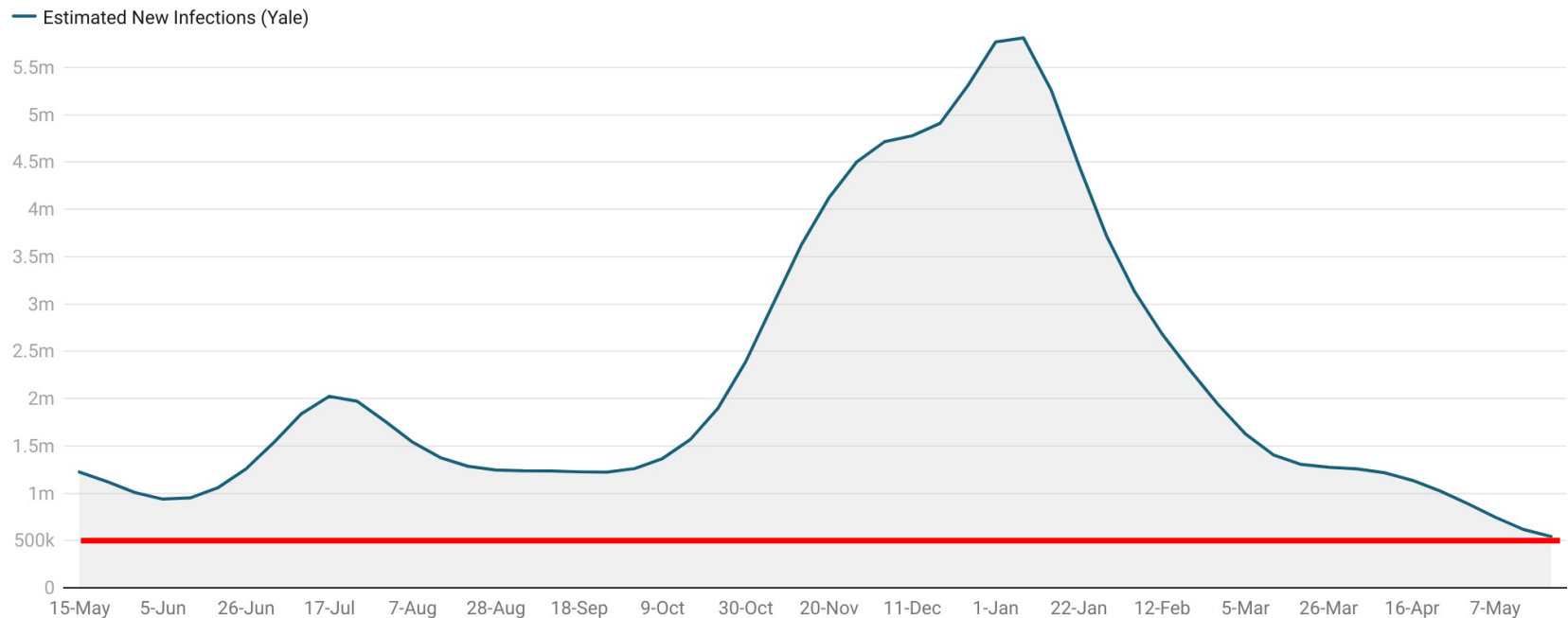


Chart: Health Industry Advisor LLC • Source: Yale and Harvard Schools of Public Health • Created with Datawrapper



Detected Cases By Week

Detected cases fell sharply again this week, reaching its lowest level in forty-eight weeks.

Weekly New Detected Cases - United States

For the 7 days ending on date shown

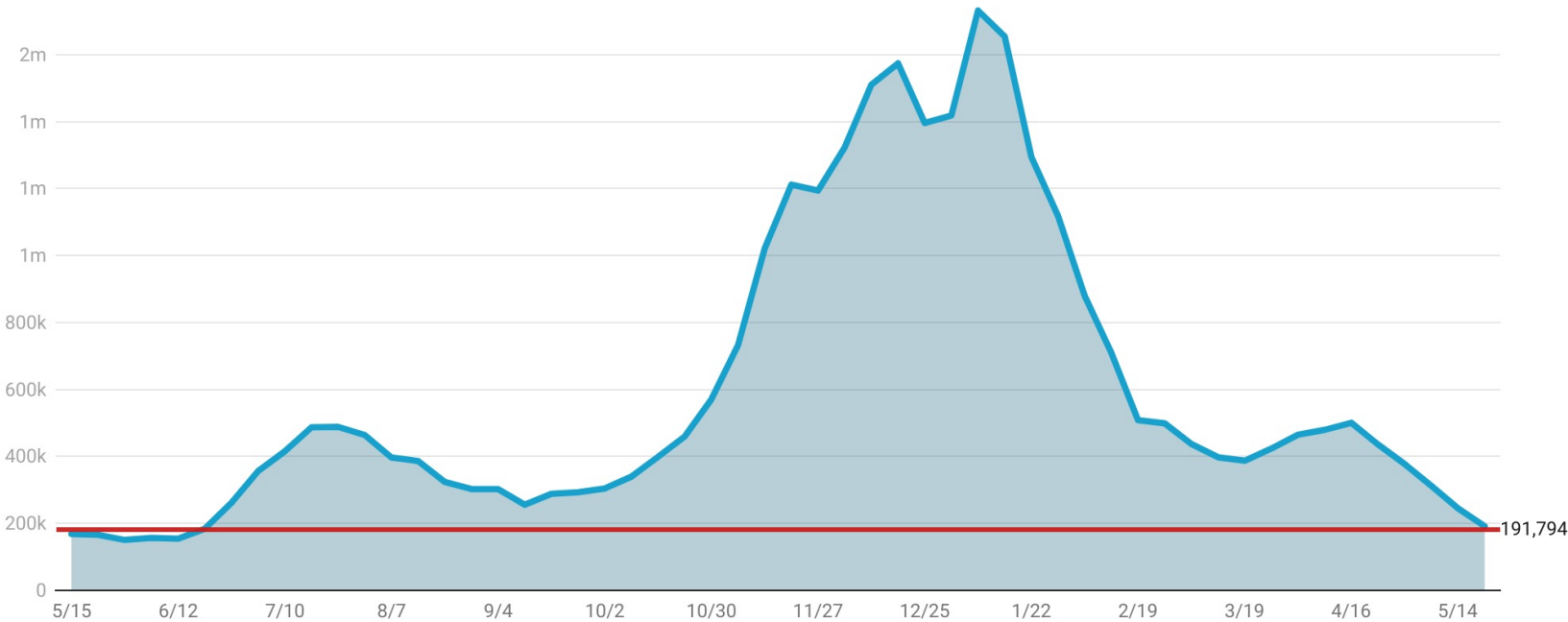


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

Weekly Change in Newly Detected Cases

The number of new cases fell sharply for the fifth straight week. The rate of decline has increased each of these five weeks. New cases declined this week by 22%.

Weekly Change in New Detected Cases - United States

For the 7 days ending on date shown



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

Covid-19 "Vital Signs"

Newly Detected Cases - By State

41% of all new cases in the past week were detected in just seven states: California, Florida, Illinois, Michigan, New York, Pennsylvania, and Texas.

New Weekly Detected Cases - By State

May 15-21

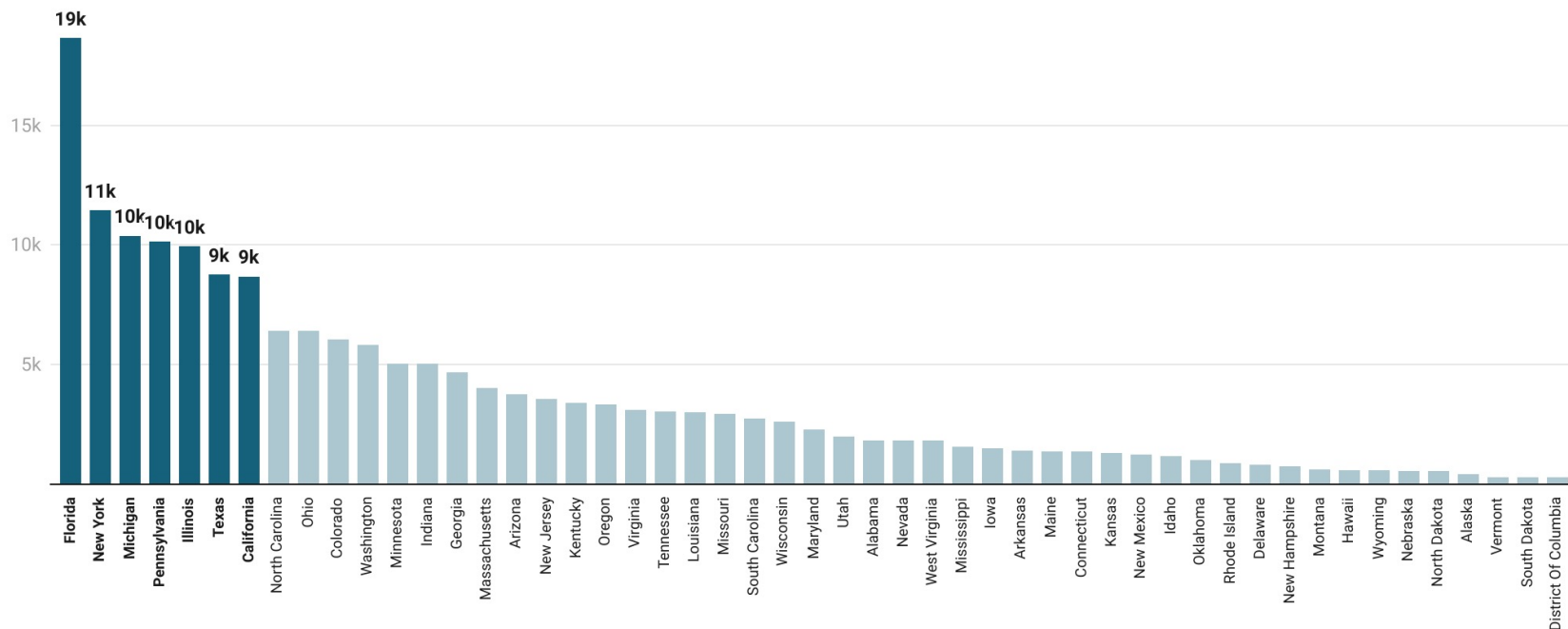


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

Week-Over-Week Change in Newly Detected Cases

New cases dropped week-over-week in most states. Texas saw 1,000 fewer cases per day than one week ago.

Week-Over-Week Change In Newly Detected Cases - By State

May 15-21 v. May 8-14

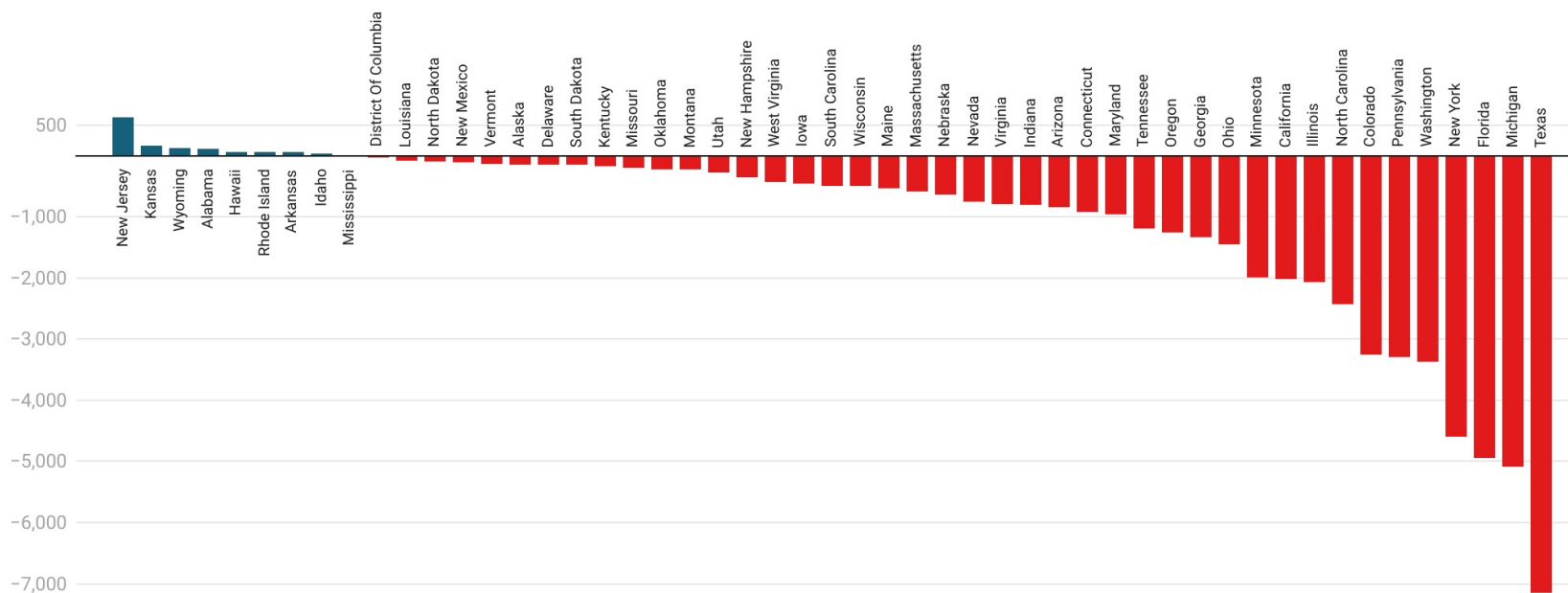


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

Covid-19 Testing

The rate of positive Covid-19 tests declined for the fifth straight week. This week's rate matched a pandemic low.

Weekly Test-Positive% - United States

For the 7 days ending on date shown

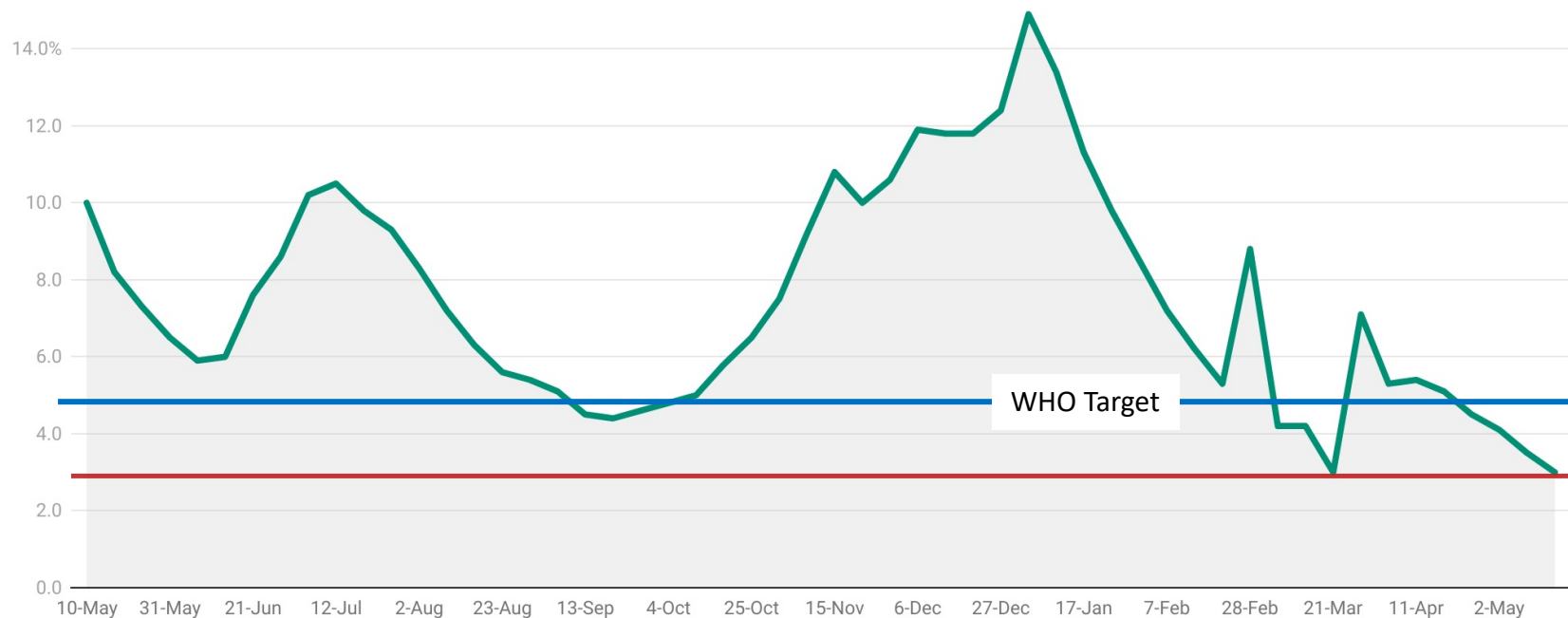


Chart: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Test Efficiency: Tests Per Case Detected

Test efficiency soared last week, establishing a pandemic high.

Weekly Tests / Newly Detected Case - United States

For the 7 days ending on date shown

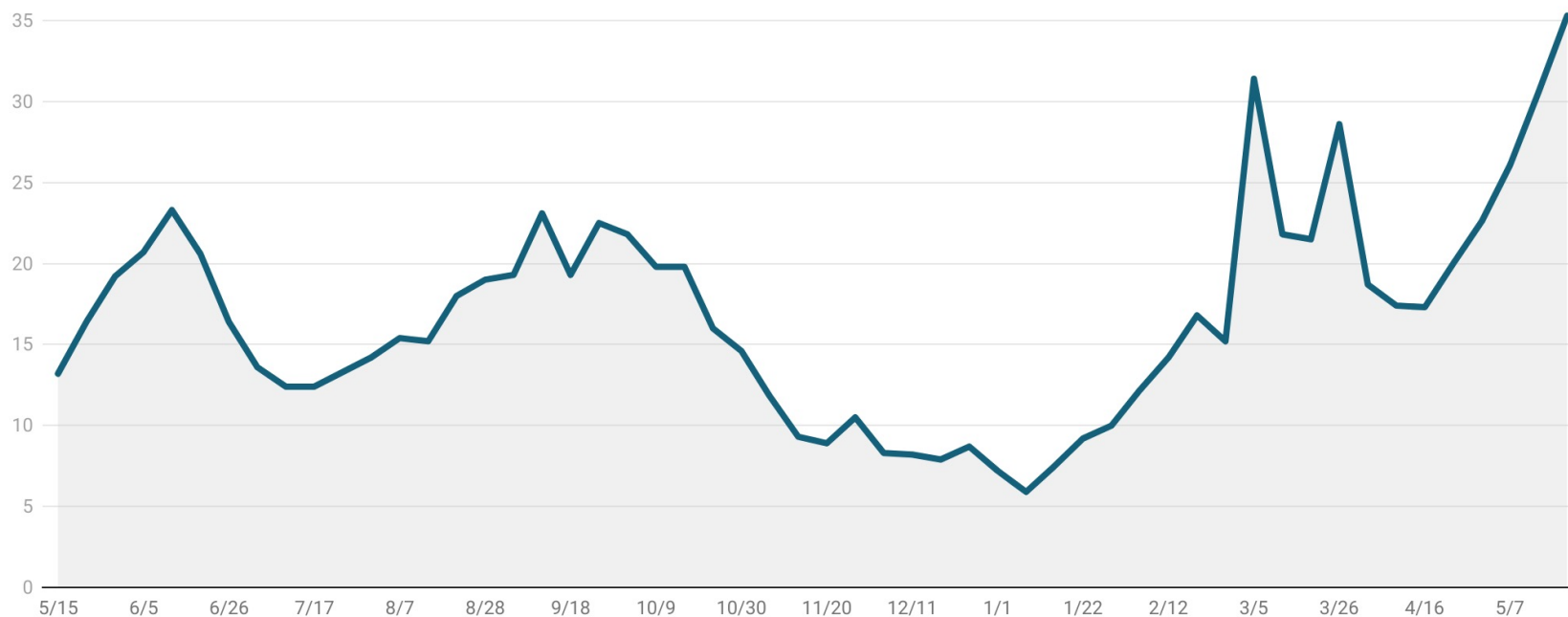


Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project & worldometers.info • Created with Datawrapper



Active Cases

The number of Active Cases declined to the lowest point in twenty-four weeks.

Current Active Cases - United States

For the 7 days ending on date shown

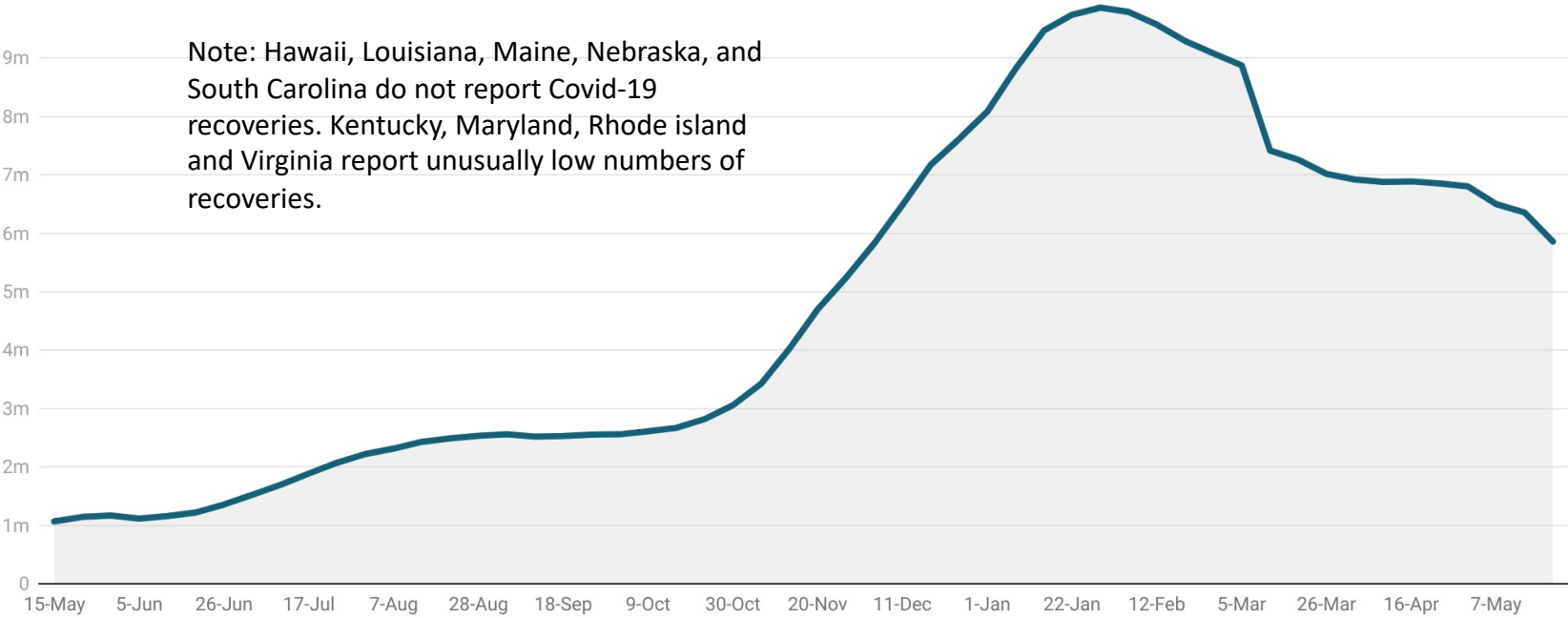


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

Covid-19 Hospital Occupancy

Covid-19 occupancy dropped last week to its lowest point in thirty-two weeks.

Covid-19 Occupancy - % of Inpatient Beds - United States

For the 7 days ending on date shown

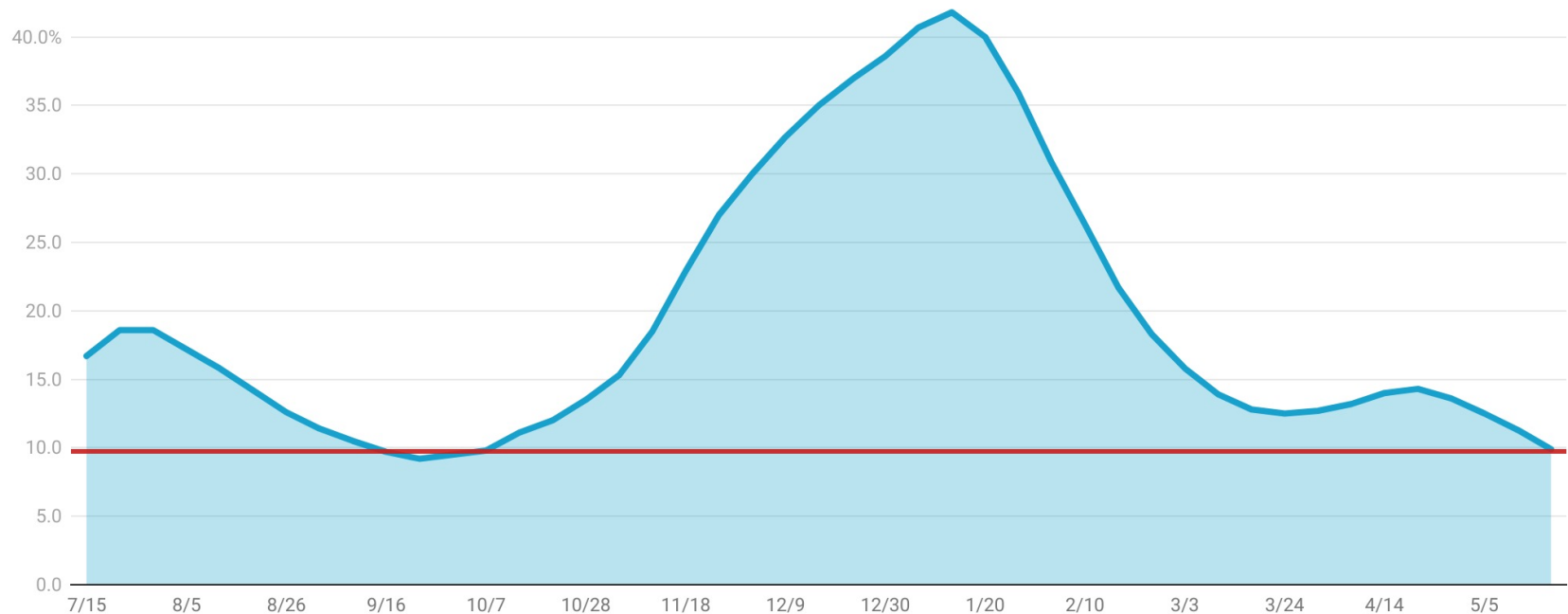


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control & Prevention • Created with Datawrapper

Covid-19 "Vital Signs"

Covid-19 Hospital Occupancy

Maryland is the only state where Covid-19 patients occupy one in every five inpatient beds.

Covid-19 Occupancy: % of Inpatient Beds By State

As of May 21

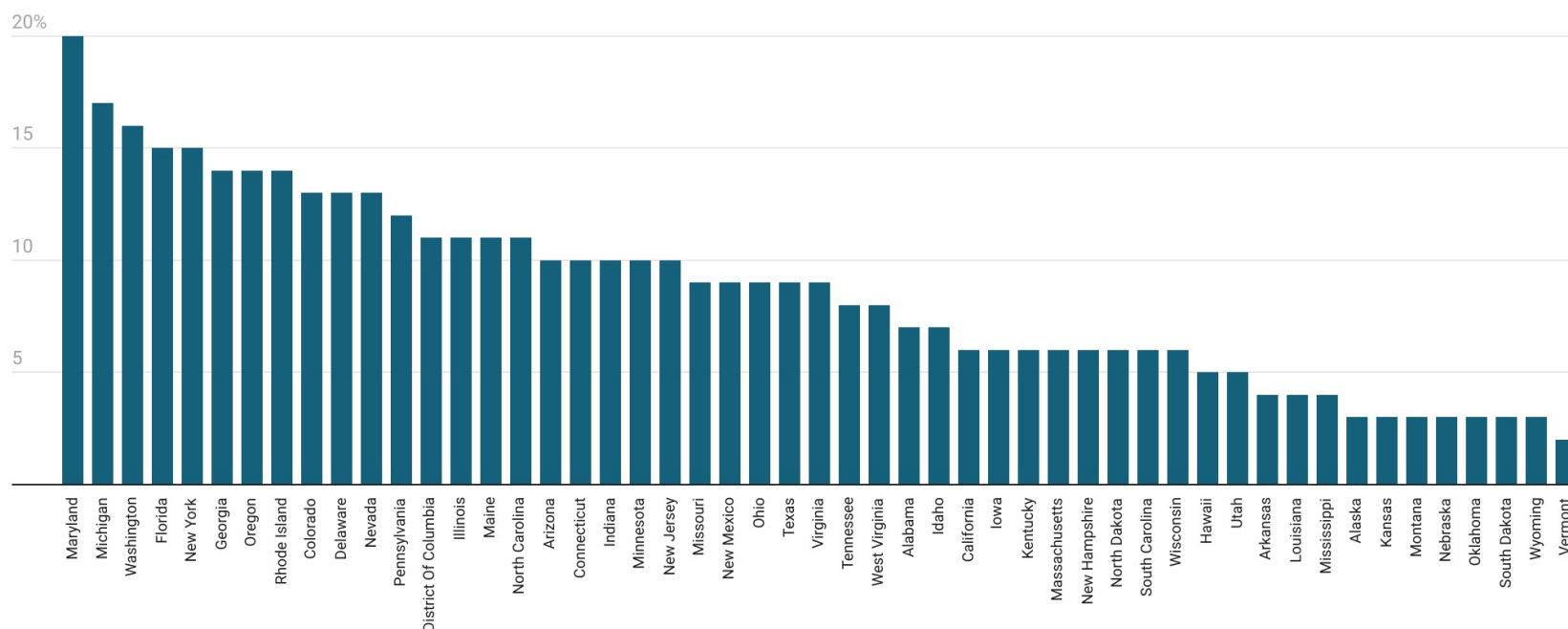


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control & Prevention • Created with Datawrapper



Covid-19 Patient Days / 100 New Cases

Hospitalization rates jumped week-over-week, likely due to patient stays from earlier infections and declining new cases.

Covid-19 Inpatient Days / 100 New Cases

For the 7 days ending on the date shown

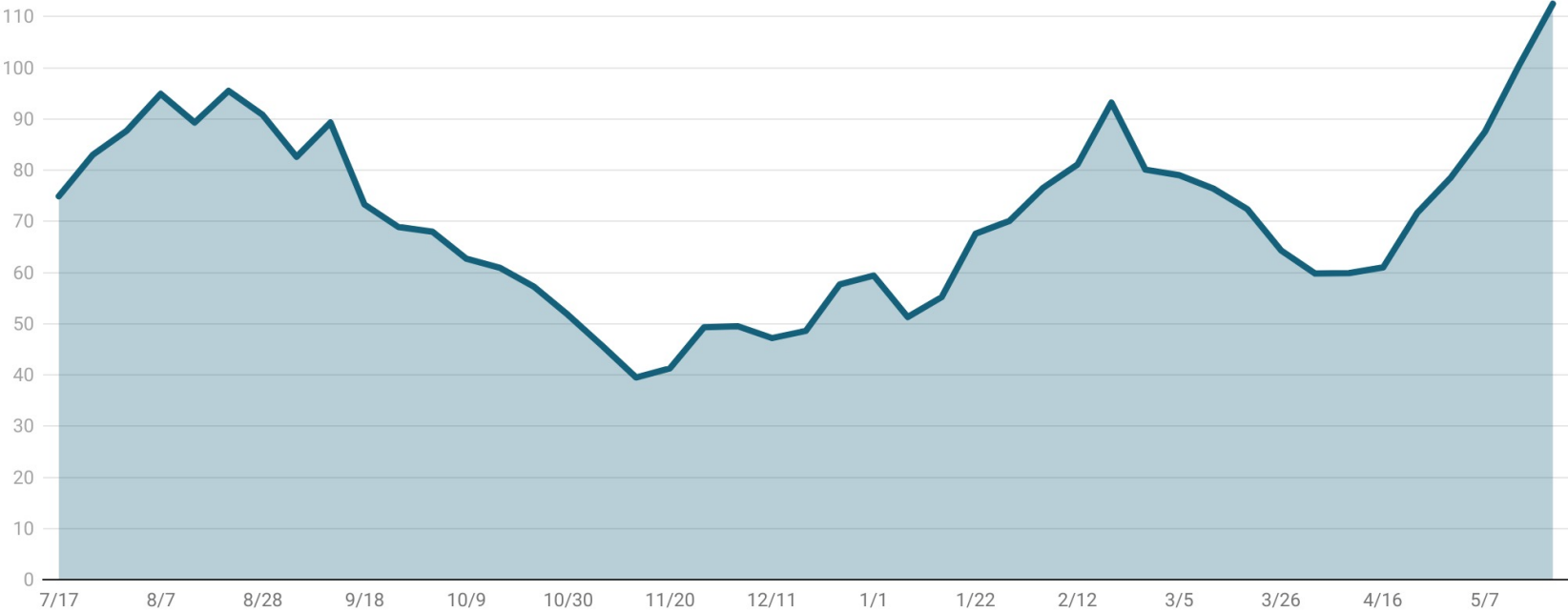


Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project & worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

Covid-19 Hospitalizations By Age

Since the beginning of the year, the mix of Covid-19 patients has shifted younger. A Covid-19 patient is twice as likely now to be 18-to-49 years old; half as likely to be 65 years or older.

COVID-NET

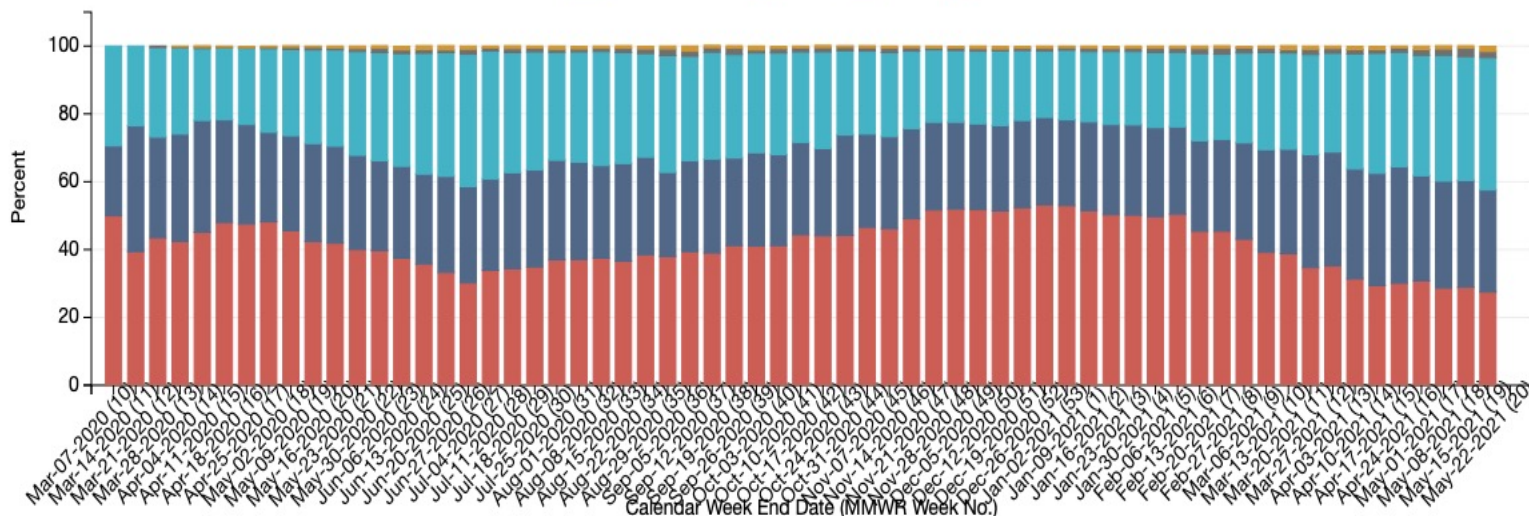
A Weekly Summary of U.S. COVID-19 Hospitalization Data



Laboratory-Confirmed COVID-19-Associated Hospitalizations

Covid-19-associated Hospitalizations By Age

0-4 yr 5-17 yr 18-49 yr 50-64 yr 65+ yr

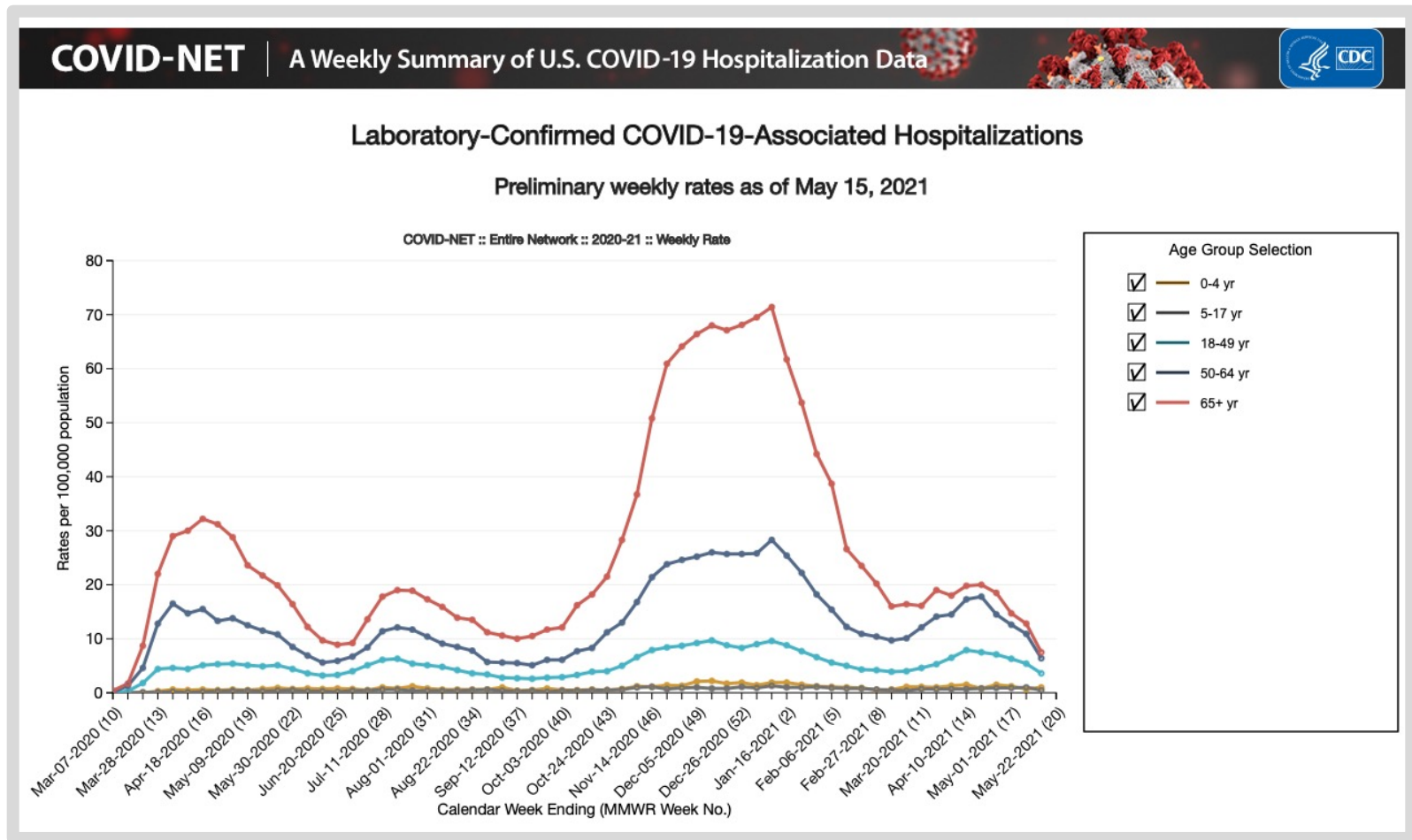


The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. As data are received each week, prior case counts and rates are updated accordingly.

Covid-19 "Vital Signs"

Covid-19 Hospitalizations Per Capita By Age

Covid-19 hospitalizations per capita have fallen across all age groups. The decline has been most pronounced among senior citizens.



Covid-19 "Vital Signs"

Deaths With Coronavirus

The weekly death rate is lower than all except one week (June 27-July 3) in the past year.

Weekly Deaths - United States

For the 7 days ending on date shown

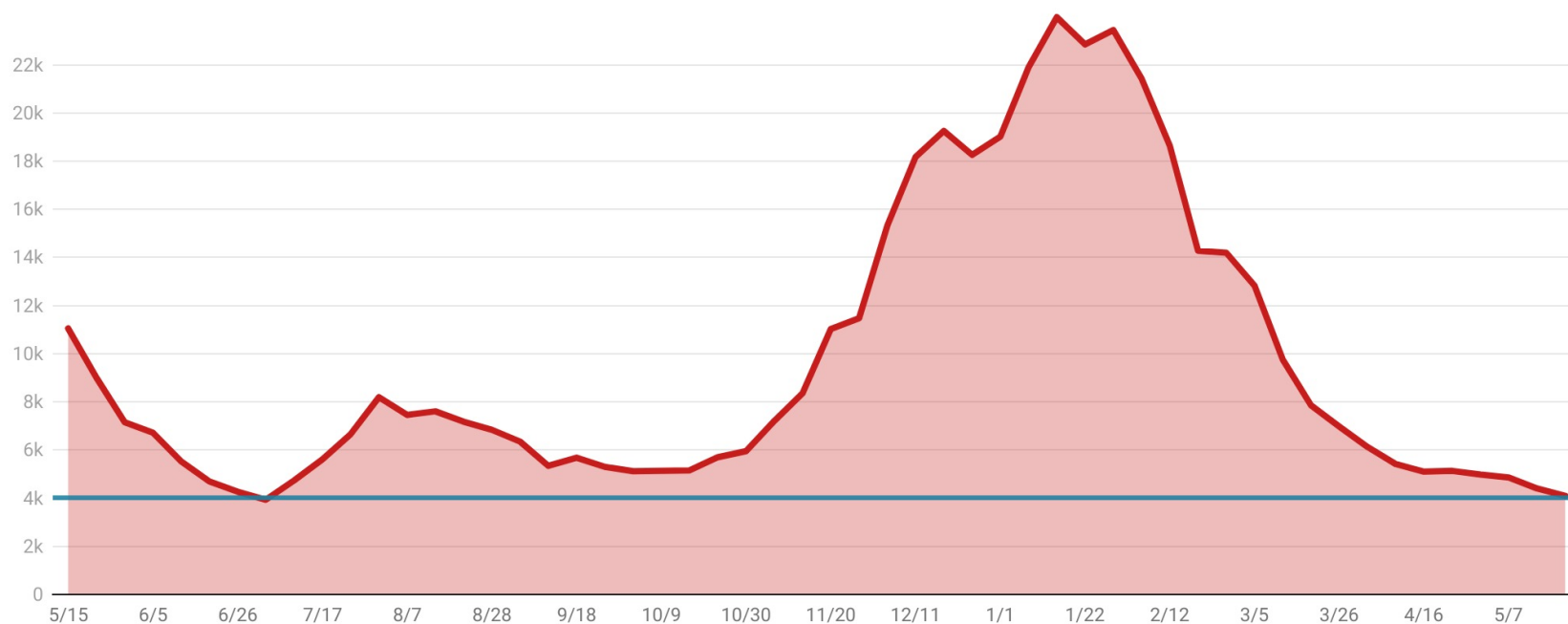


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

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>
- Our World In Data, <https://ourworldindata.org/covid-vaccinations>
- 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>