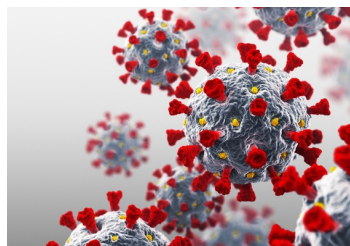


Covid-19 "Vital Signs"

Issue # 327

May 1, 2021



Covid-19 "Vital Signs"

Vaccination Status - US

Fewer Americans sought a first dose vaccine last week than during each of the prior eight weeks. Second doses (or, sole JNJ doses) dropped from last week. Total doses were the lowest in six weeks.

U.S. Covid-19 Vaccinations - Weekly

7-Day Average, Though the Date Shown

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

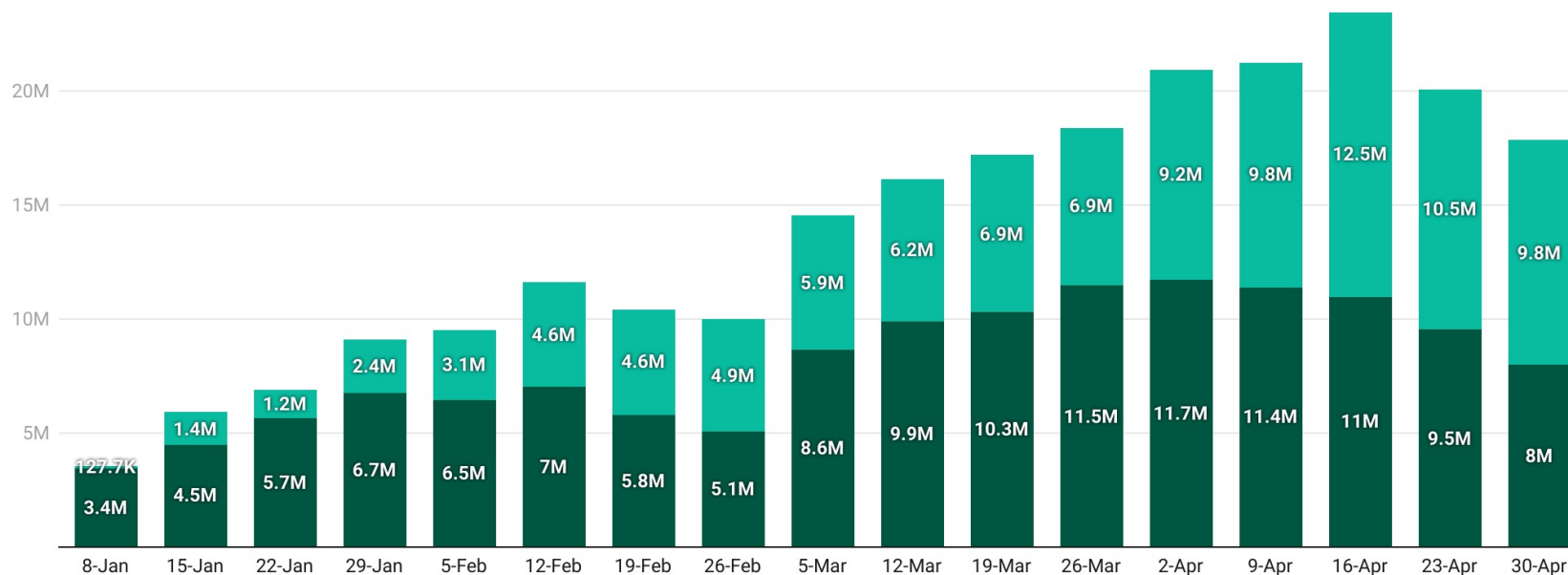


Chart: Health Industry Advisor • Source: Bloomberg • Created with Datawrapper

Covid-19 "Vital Signs"

Vaccination Status - US

Vaccinations exceeded 240 million to-date. 55% of adults have received at least one dose and 39% are fully vaccinated. Among senior citizens, 82% have received at least one dose and nearly 69% are fully inoculated.

Covid-19 Vaccinations - US

For the week shown

■ 1st of 2 Doses ■ Fully inoculated

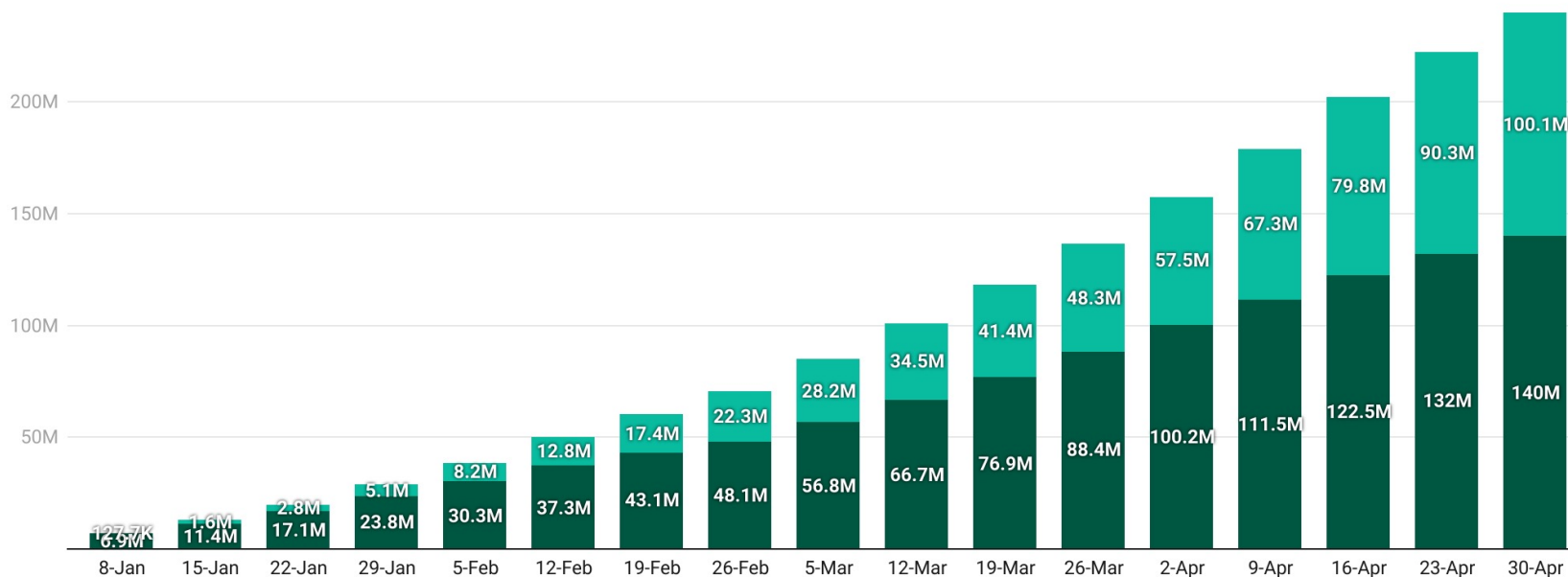


Chart: Health Industry Advisor LLC • Source: Bloomberg • Created with Datawrapper

Covid-19 "Vital Signs"

Estimated Immunity Status - US

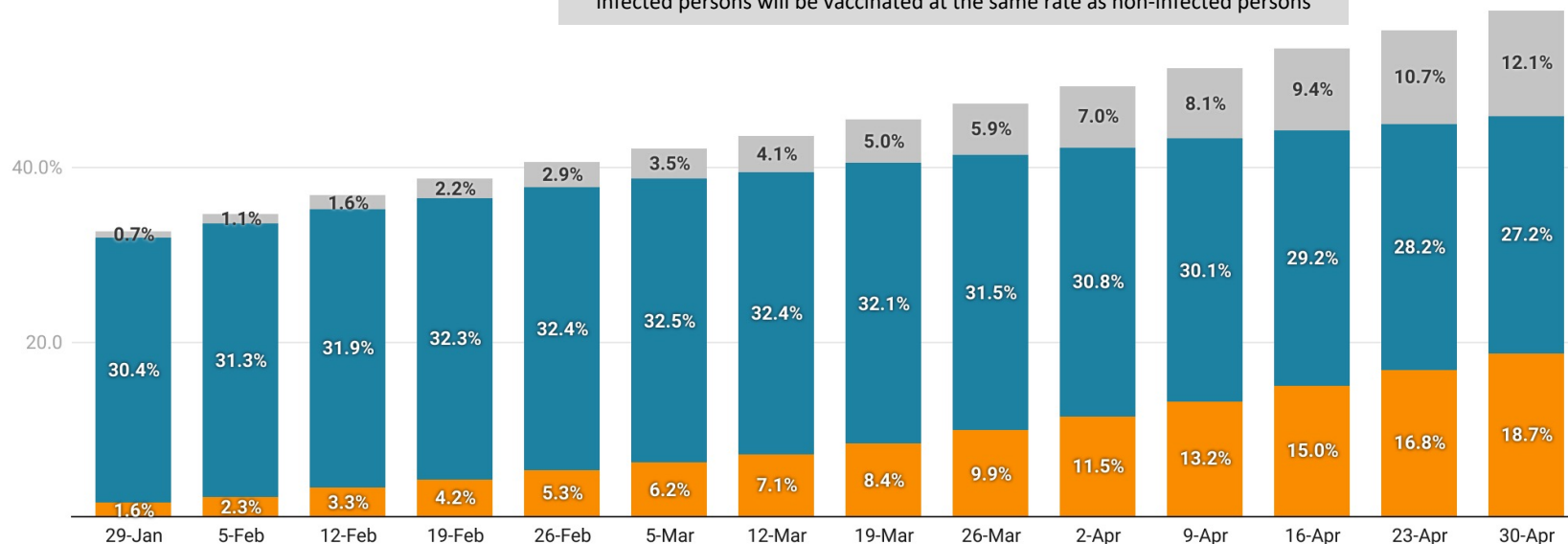
Estimated immunity reached 58% of the US population. More than half is attributed to vaccination, including those immune via both vaccination and a prior infection.

Estimated % Immunity - US

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

■ Via Vaccination
 ■ Via Infection
 ■ Via Both

"Both"- persons both vaccinated and previously-infected. We assume that infected persons will be vaccinated at the same rate as non-infected persons



<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 – Yale/Harvard Model

Estimated infections for the sixteenth straight week, falling below 1 million for the first time since last June. This latest estimate suggests that there may not have been a true fourth infection wave.

Weekly New Estimated Infections - Yale/Harvard Model

For the 7 days ending on date shown

* Source: [Yale School of Public Health/Harvard T.H. Chan School of Public Health](#)

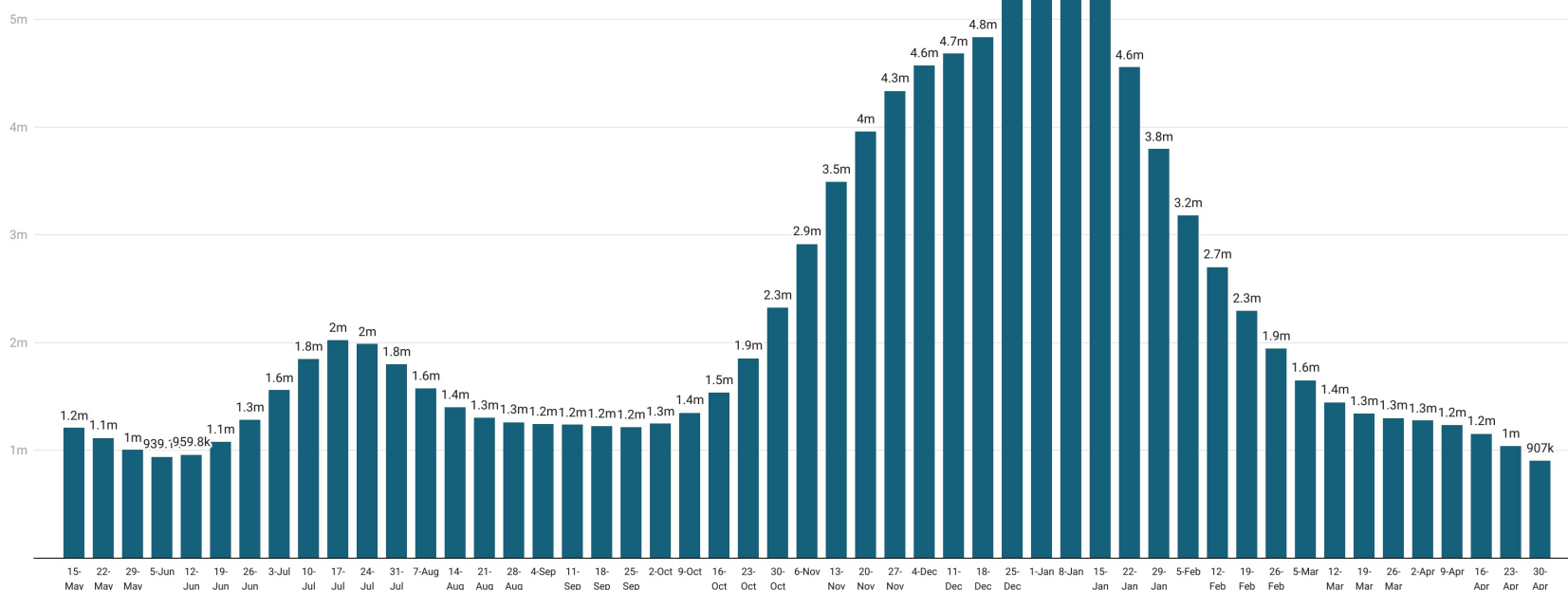


Chart: Health Industry Advisor LLC • Source: Yale and Harvard Schools of Public Health • Created with Datawrapper



Newly Detected Cases

New cases declined last week, falling to the lowest point in six-and-one-half months.

Weekly New Detected Cases - United States

For the 7 days ending on date shown

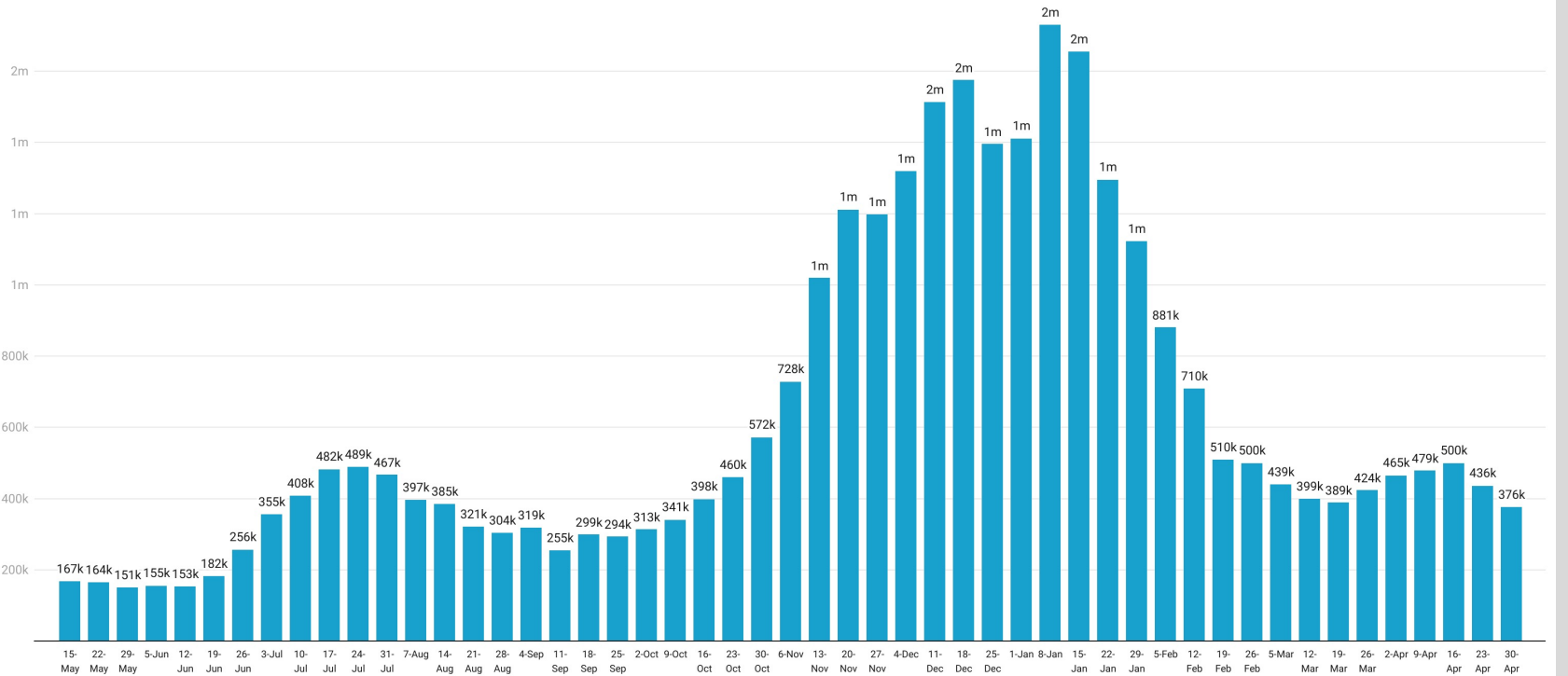


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Weekly Change in Newly Detected Cases

The number of new cases fell sharply from last week.

Weekly Change in New Detected Cases - United States

For the 7 days ending on date shown

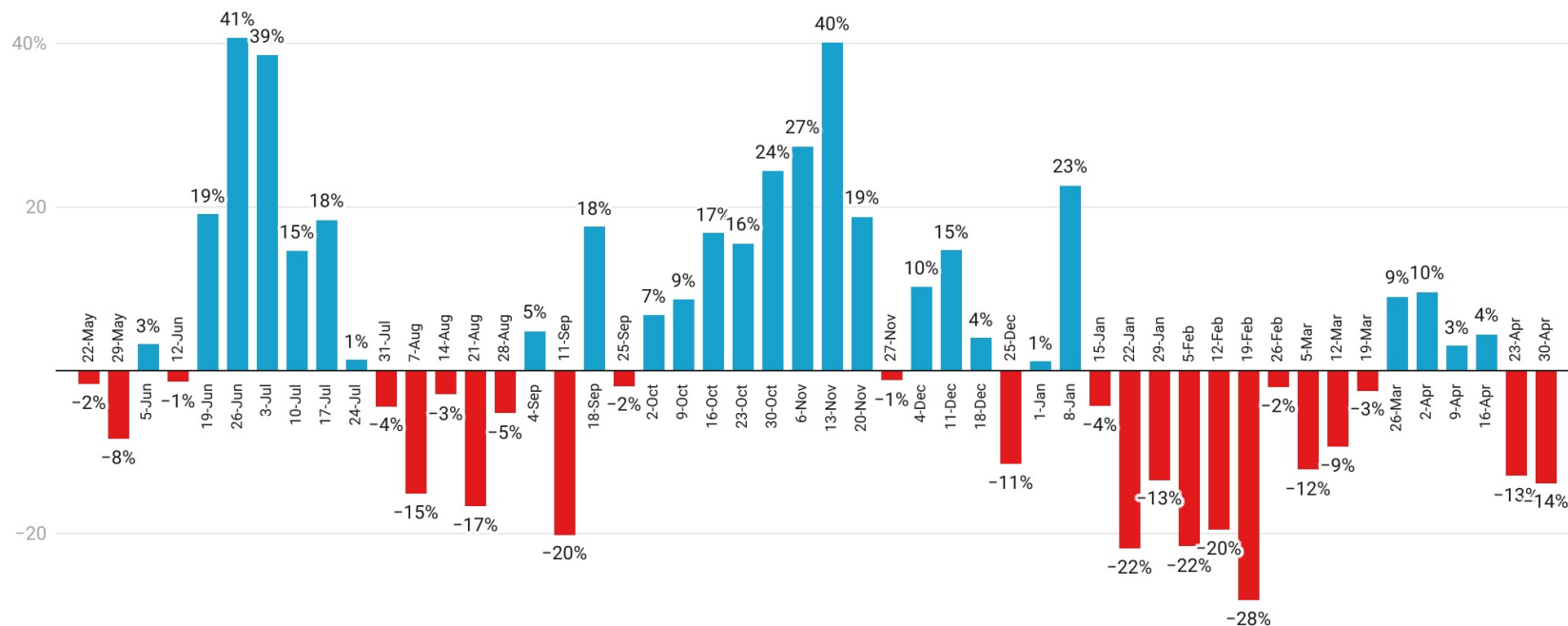


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Newly Detected Cases - By State

Nearly 40% of all new cases in the past week were detected in just five states: Florida, Michigan, New York, Pennsylvania, and Texas.

New Weekly Detected Cases - By State

April 17 - 23

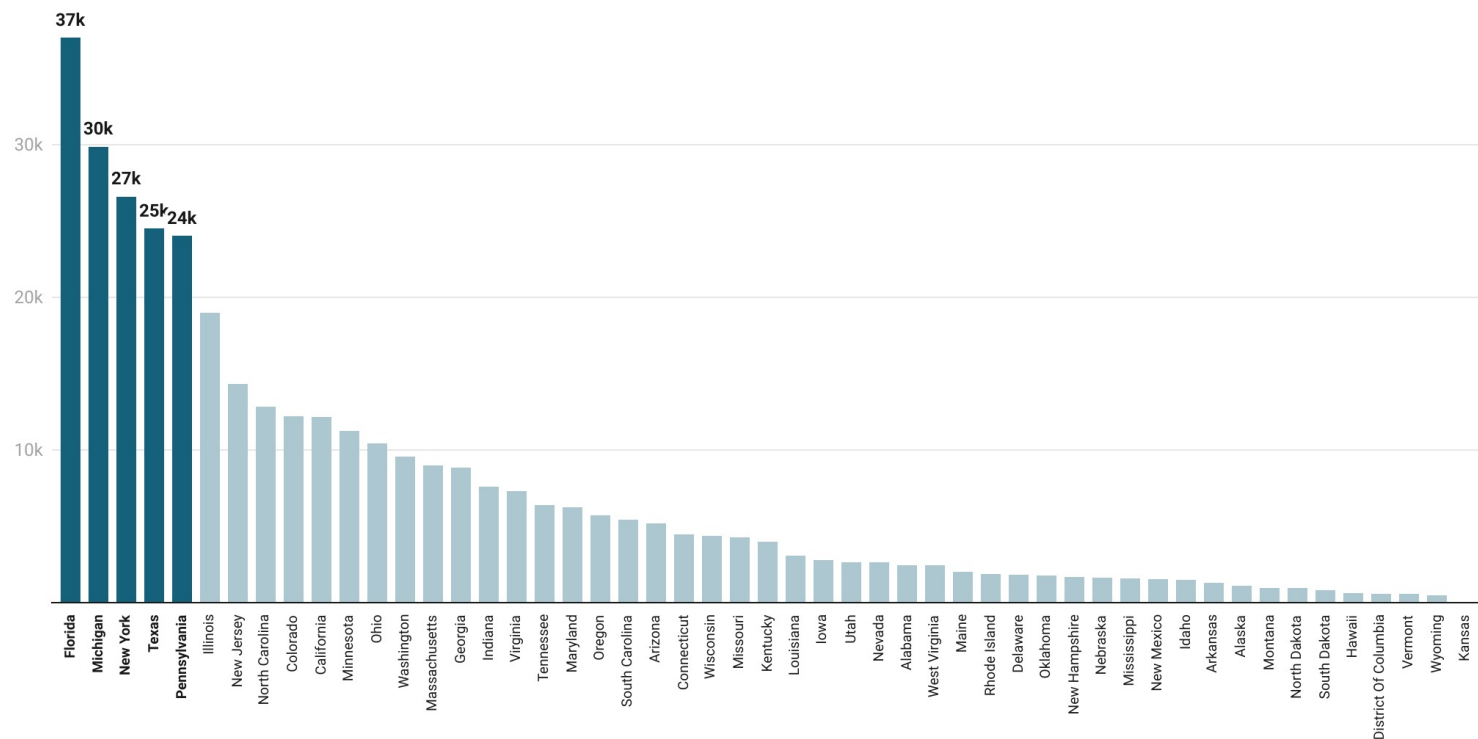


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

Week-Over-Week Change in Newly Detected Cases

Michigan saw nearly 12,000 fewer new cases this week than last. Indeed, most states experienced declining new cases week-over-week.

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

April 24-30 vs. April 17-23

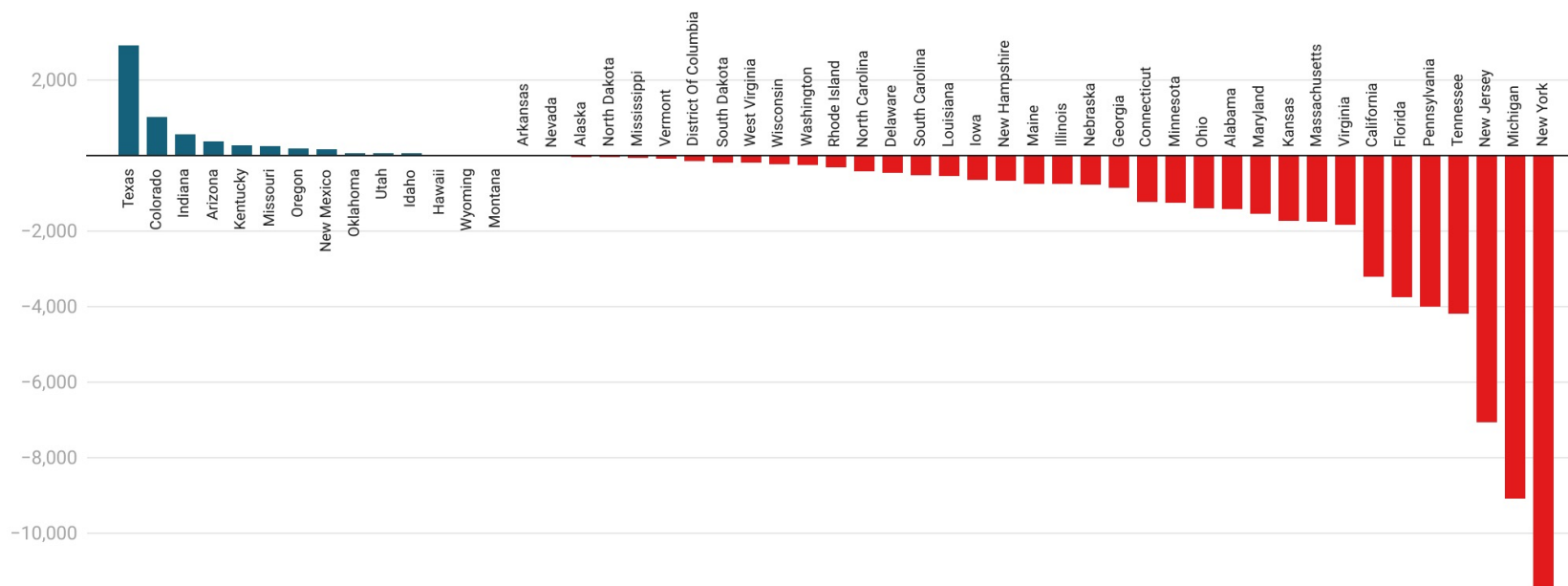


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper



Covid-19 Testing

Test-positivity declined week-over week, dropping below the WHO recommended target.

Weekly Test-Positive% - United States

For the 7 days ending on date shown

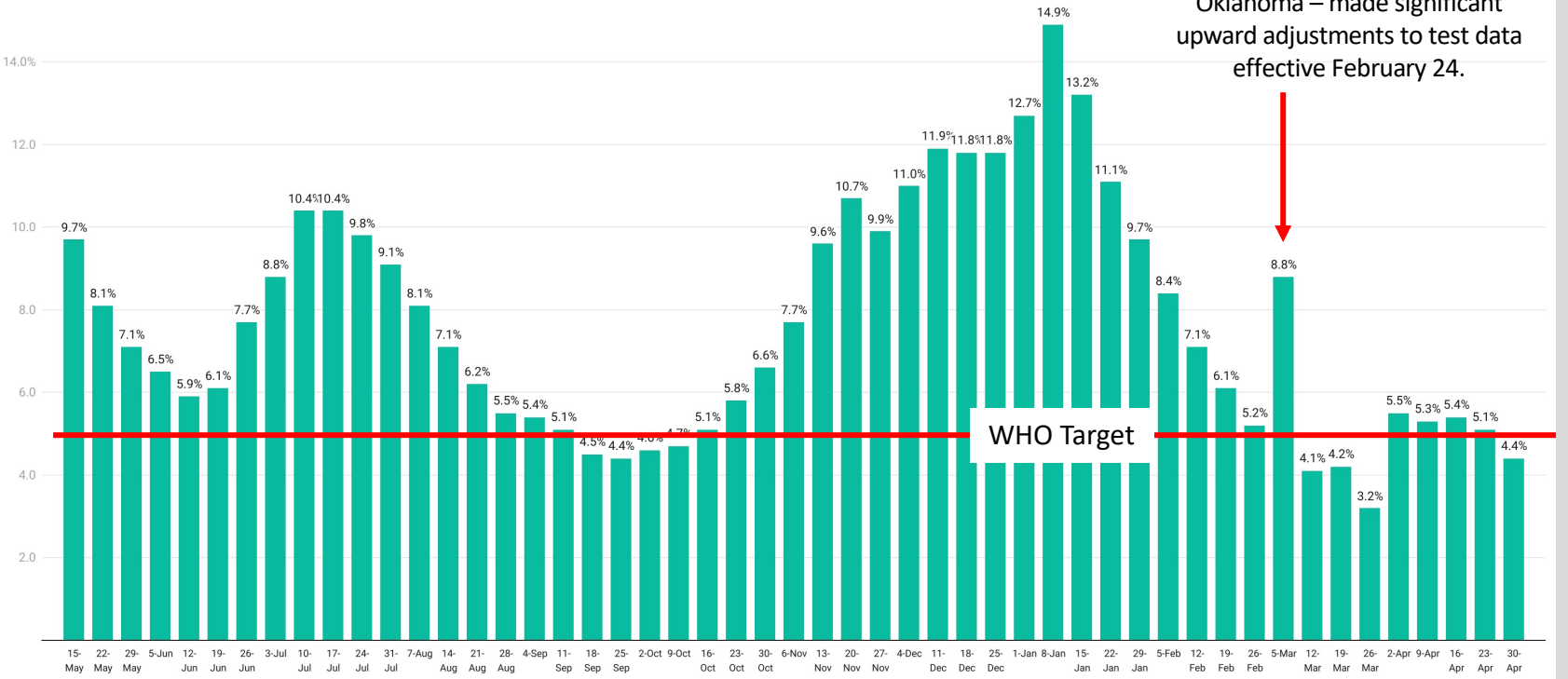


Chart: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Test Efficiency: Tests Per Case Detected

Test efficiency improved week-over-week.

Weekly Tests / Newly Detected Case - United States

For the 7 days ending on date shown

Two states – Montana and Oklahoma – made significant upward adjustments to test data effective February 24.

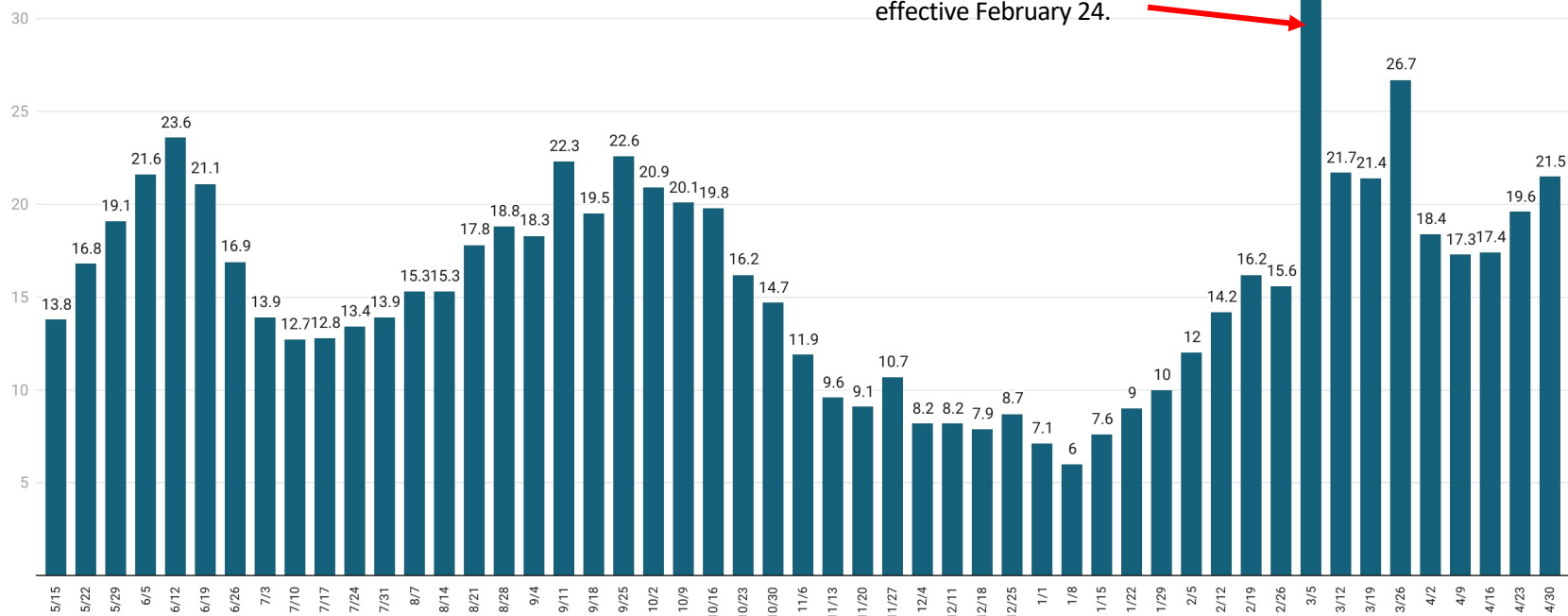


Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project & worldometers.info • Created with Datawrapper



Active Cases

The number of Active Cases declined slightly last week.

Current Active Cases - United States

For the 7 days ending on date shown

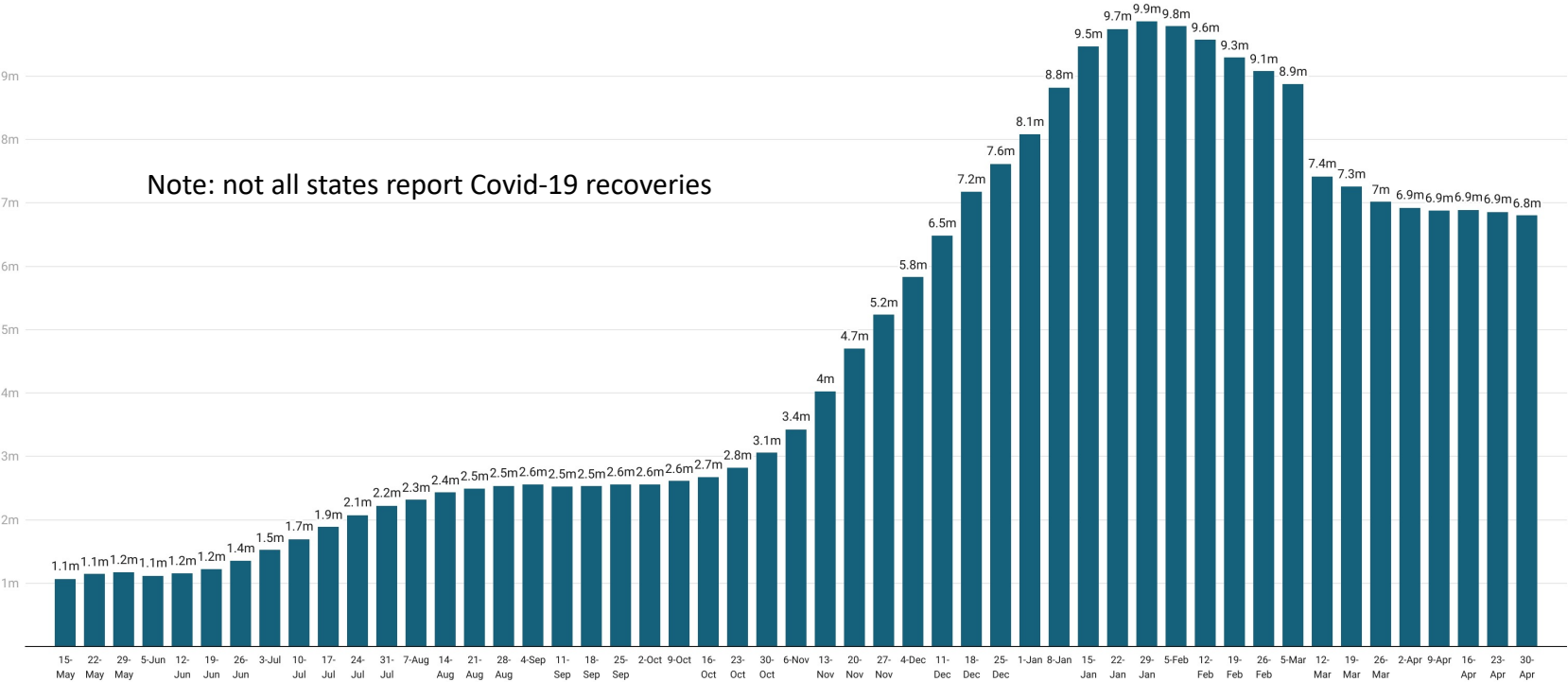


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

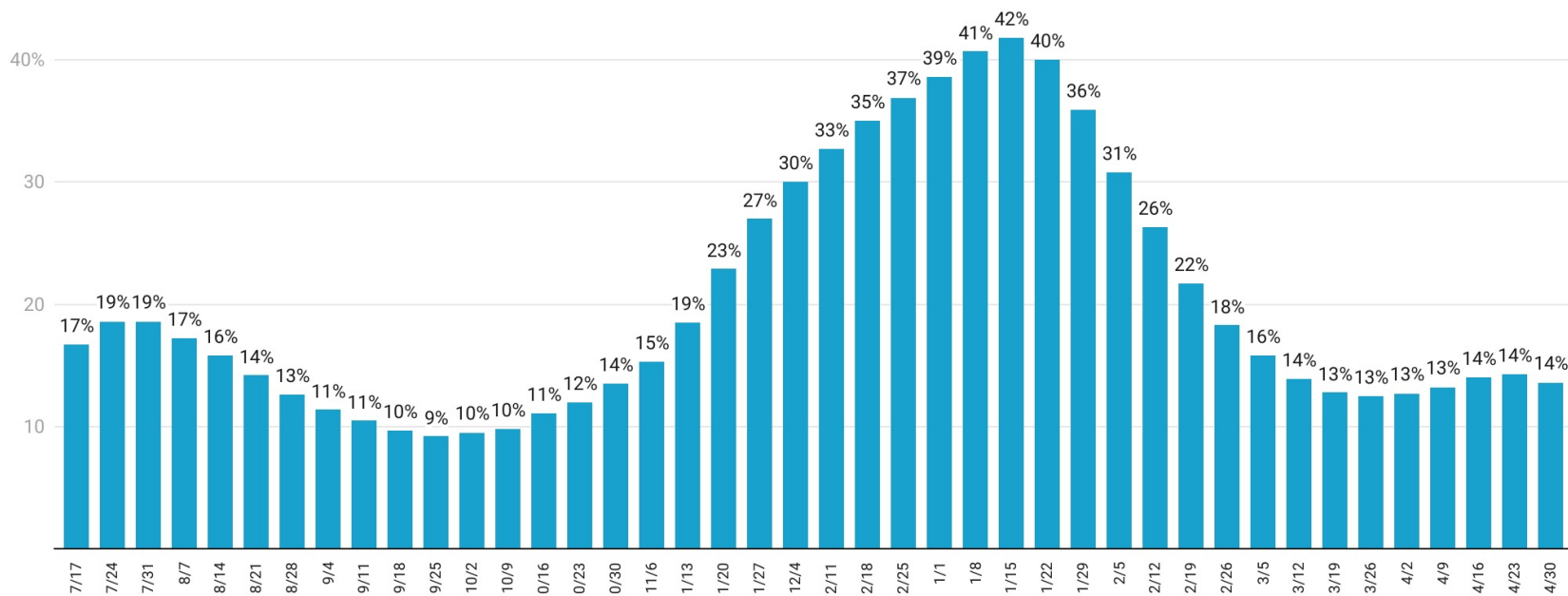
Covid-19 "Vital Signs"

Covid-19 Hospital Occupancy

Covid-19 occupancy dropped last week yet remains about where it has been for the last seven weeks. The current Covid-19 census is one third of where it was at peak.

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

For the 7 days ending on date shown



The following states started reporting data on: HI, 7/14; KS, 7/25

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

Covid-19 Hospital Occupancy

Covid-19 “Vital Signs”

Maryland and Michigan are the only states where Covid-19 patients occupy three of every ten inpatient beds. In Connecticut, Delaware, and New York, Covid-19 patients occupy more than 25% of inpatient beds.

Covid-19 Occupancy: % of Inpatient Beds By State

As of April 30

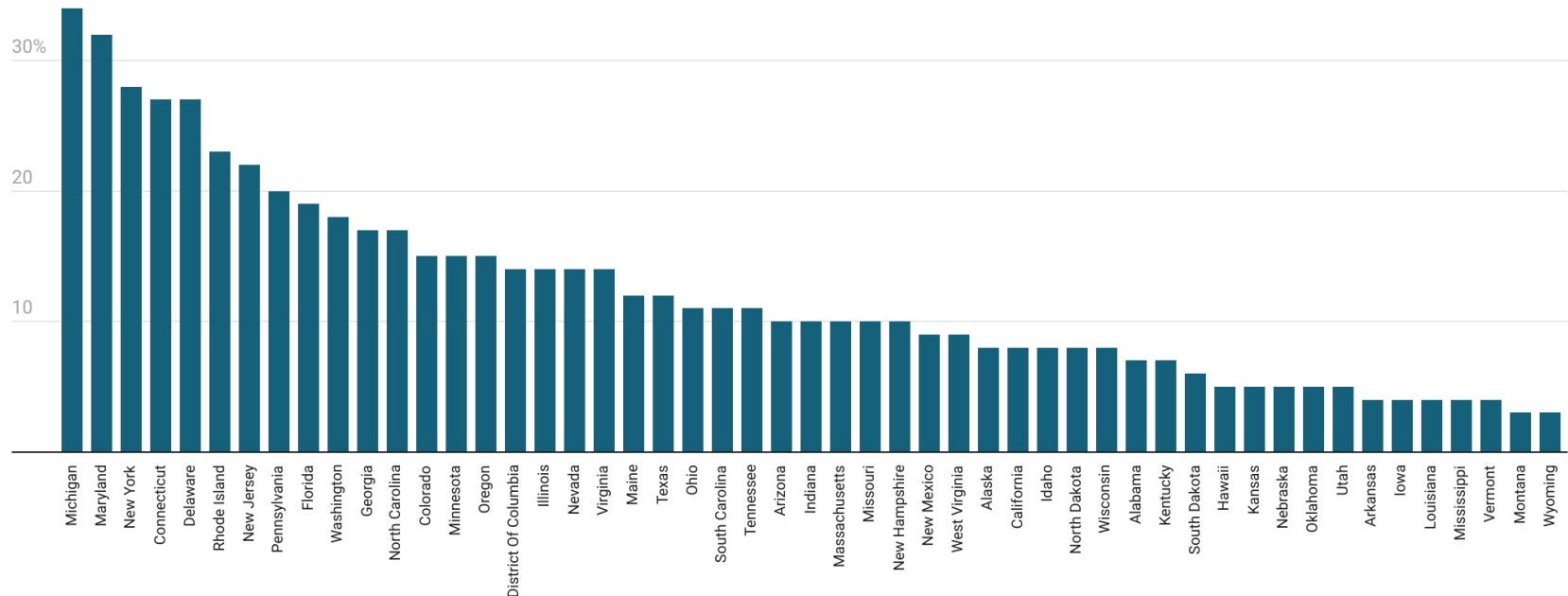


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control & Prevention • Created with Datawrapper

Covid-19 "Vital Signs"

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

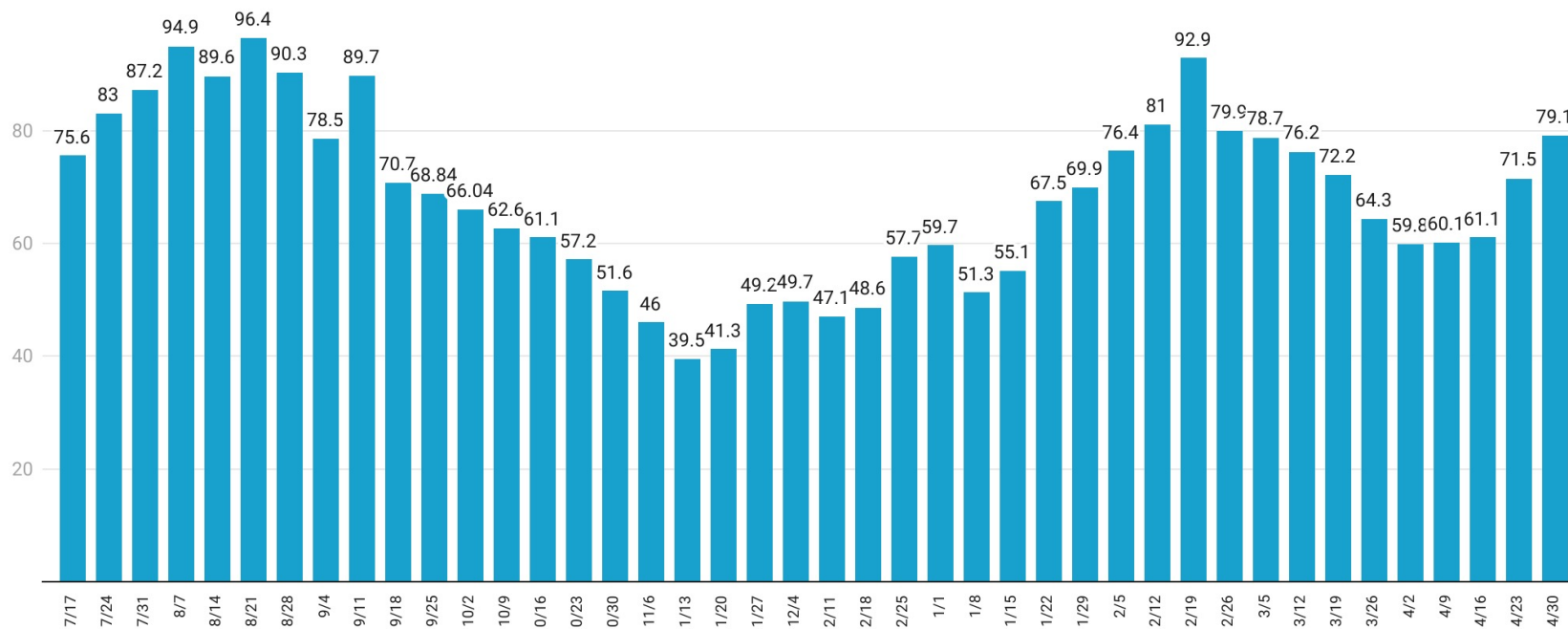


Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project & worldometers.info • Created with Datawrapper

% of Visits Relating to Influenza

The United States avoided the typical flu season this year.

% of Visits For Influenza-Like Illnesses, National Summary

By Week & Flu Season

— 2015-16 — 2016-2017 — 2017-2018 — 2018-2019 — 2019-2020 — 2020-2021

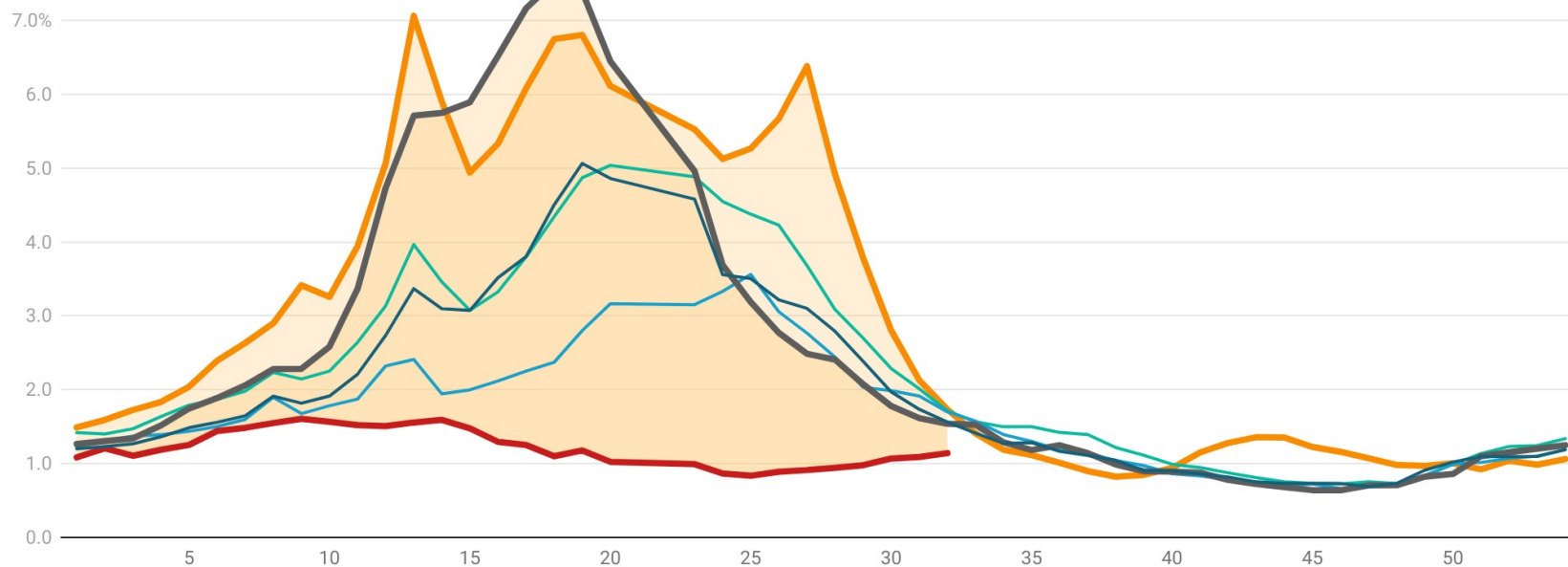


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control & Prevention • Created with Datawrapper

Covid-19 "Vital Signs"

Deaths With Coronavirus

Deaths with coronavirus declined slightly this week. The weekly death rate is as low as it has been in more than nine months.

Weekly Deaths - United States

For the 7 days ending on date shown

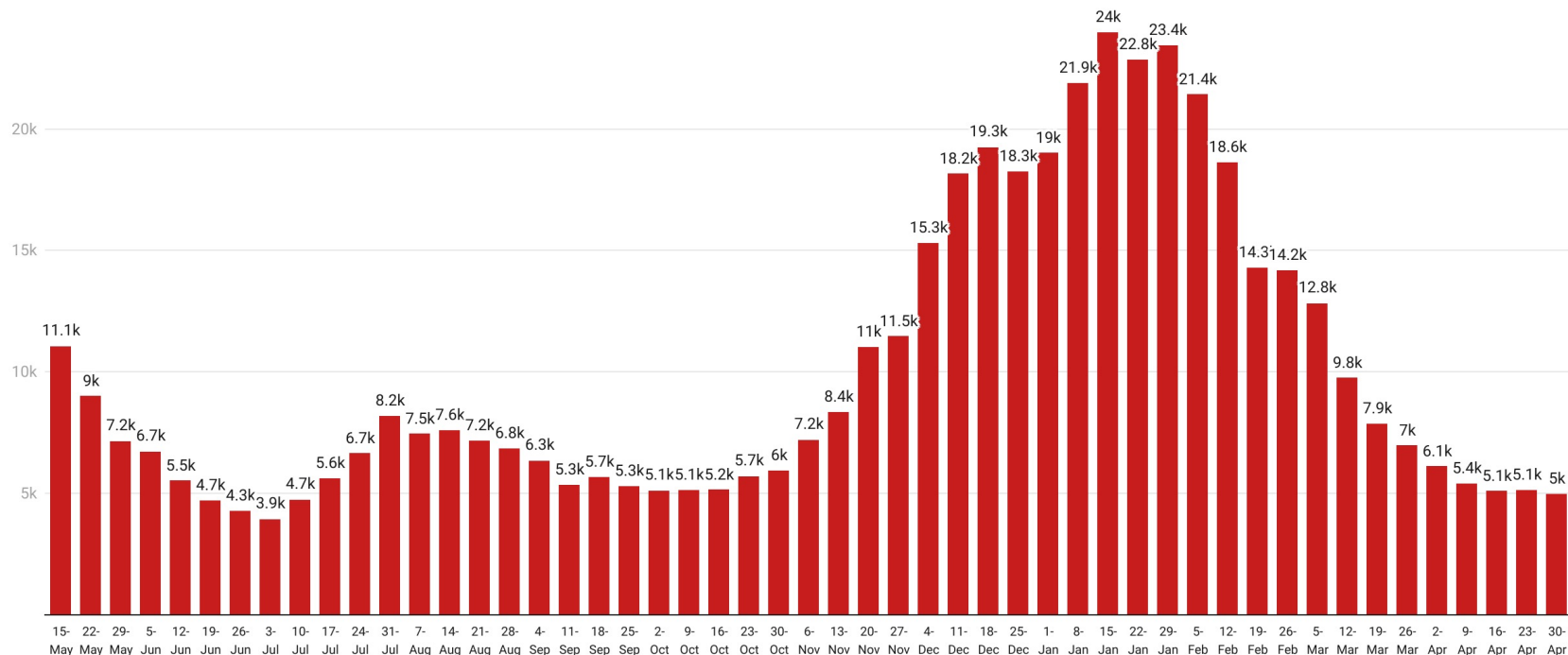


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

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>