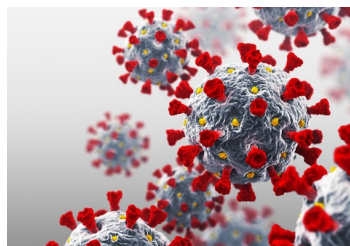


Covid-19 "Vital Signs"

Issue # 320

April 17, 2021



Covid-19 "Vital Signs"

Vaccination Status - US

More than 3.3 million Americans were vaccinated per day over the past week, a 10% increase over last week. For the first time, there were more second doses (or, lone JNJ doses) than first Moderna or Pfizer doses.

U.S. Covid-19 Vaccinations - Weekly

7-Day Average, Though the Date Shown

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

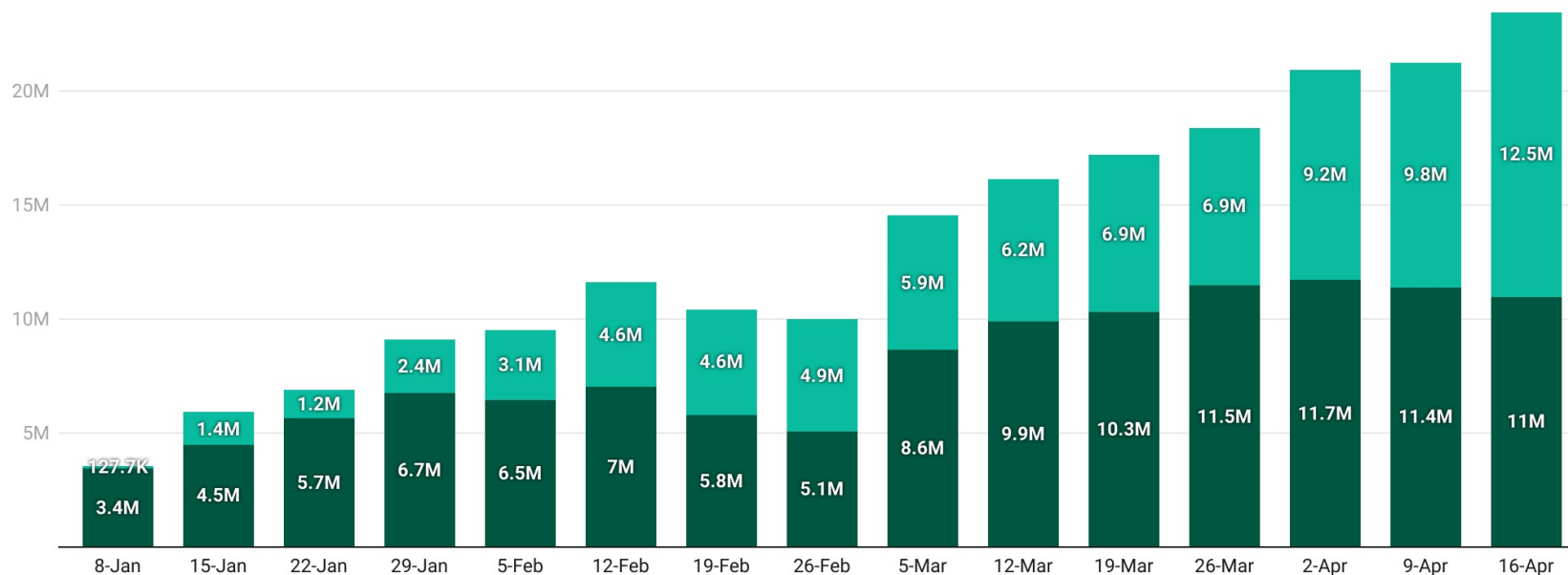


Chart: Health Industry Advisor • Source: Bloomberg • Created with Datawrapper

Vaccination Status - US

Covid-19 "Vital Signs"

Vaccinations exceeded 202 million to-date. 48% of adults have received at least one dose and 31.3% are fully vaccinated. Among senior citizens, 80% have received at least one dose and nearly 65% are fully inoculated.

Covid-19 Vaccinations - US

For the week shown

■ 1st of 2 Doses ■ Fully inoculated

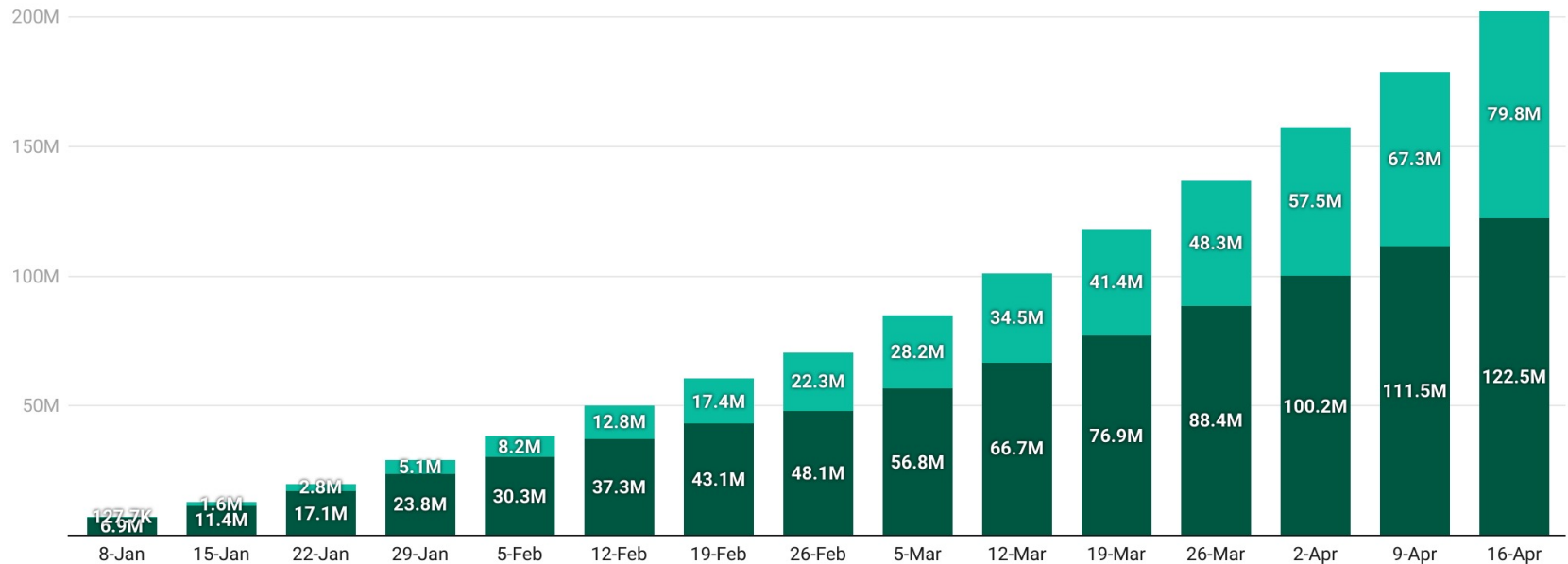


Chart: Health Industry Advisor LLC • Source: Bloomberg • Created with Datawrapper

Estimated Immunity Status - US

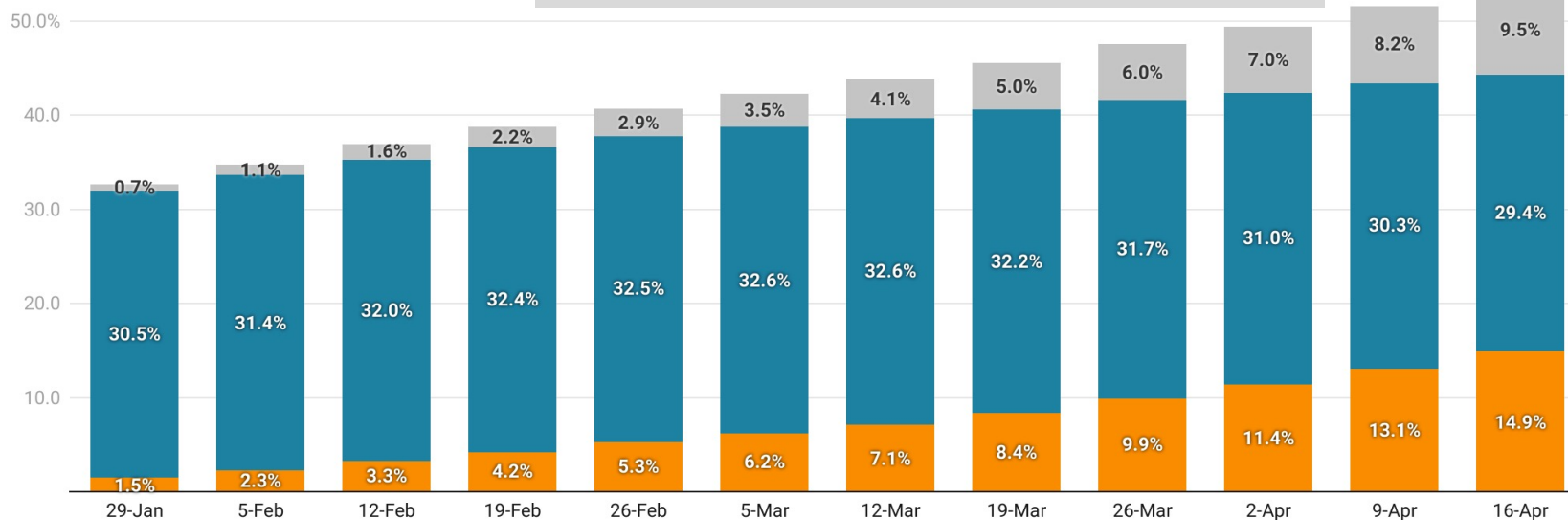
Estimated immunity reached 54% of the US population, still mostly coming from a prior infection.

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



Estimated Actual Infections – Yale/Harvard Model

Estimated infections increased slightly for the third consecutive week yet remain lower than any week from late April through early March.

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](#)

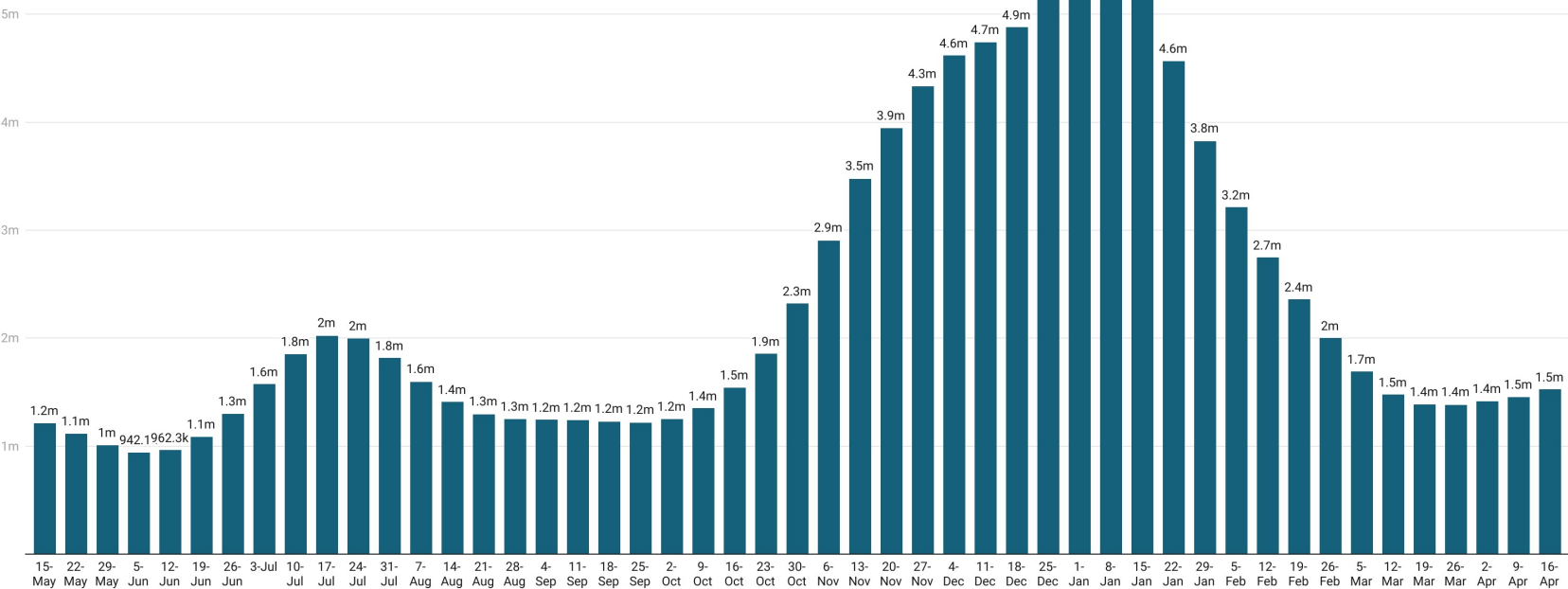


Chart: Health Industry Advisor LLC • Source: Yale and Harvard Schools of Public Health • Created with Datawrapper

Covid-19 "Vital Signs"

Newly Detected Cases

New cases increased week-over-week for the fourth straight week yet were lower than any week from late October through the end of February.

Weekly New Detected Cases - United States

For the 7 days ending on date shown

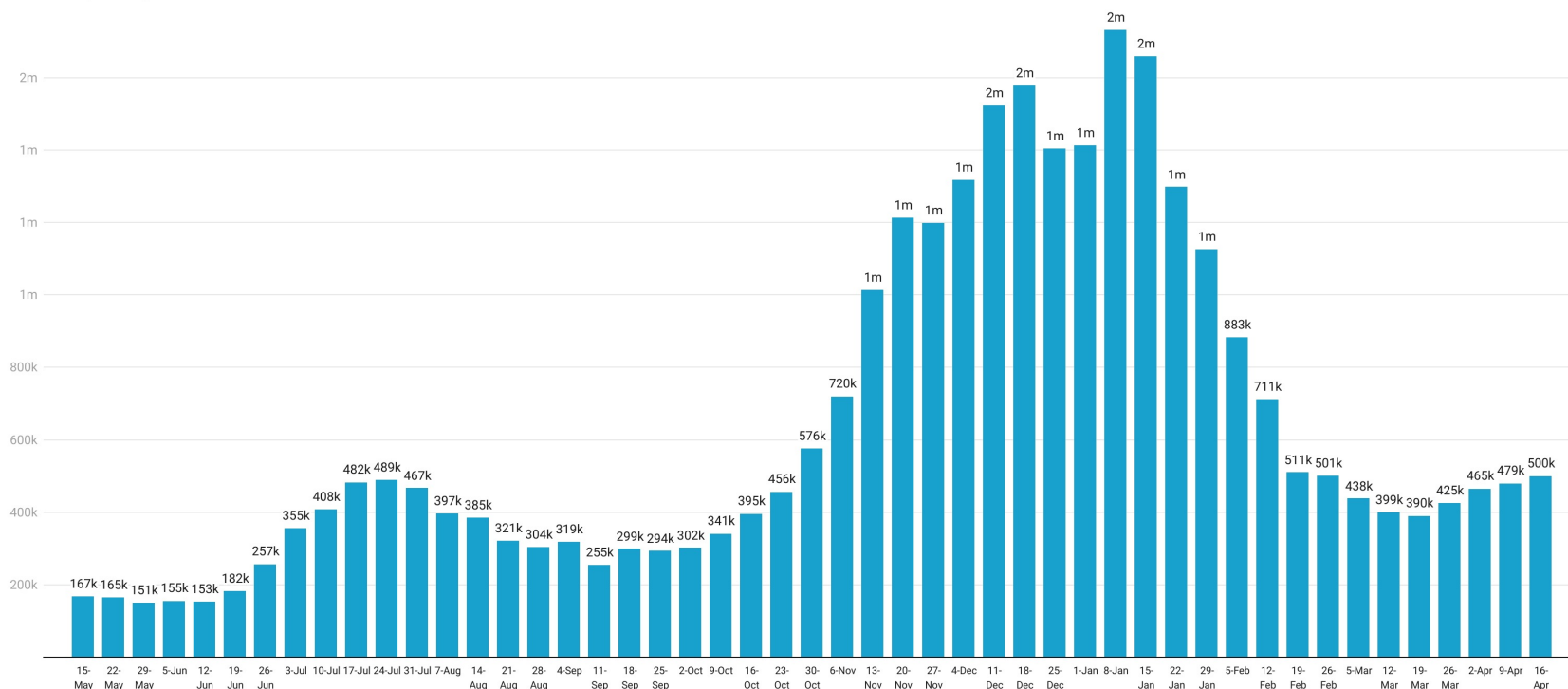


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Weekly Change in Newly Detected Cases

The rate of increase in new cases remained low compared previous surges

Weekly Change in New Detected Cases - United States

For the 7 days ending on date shown

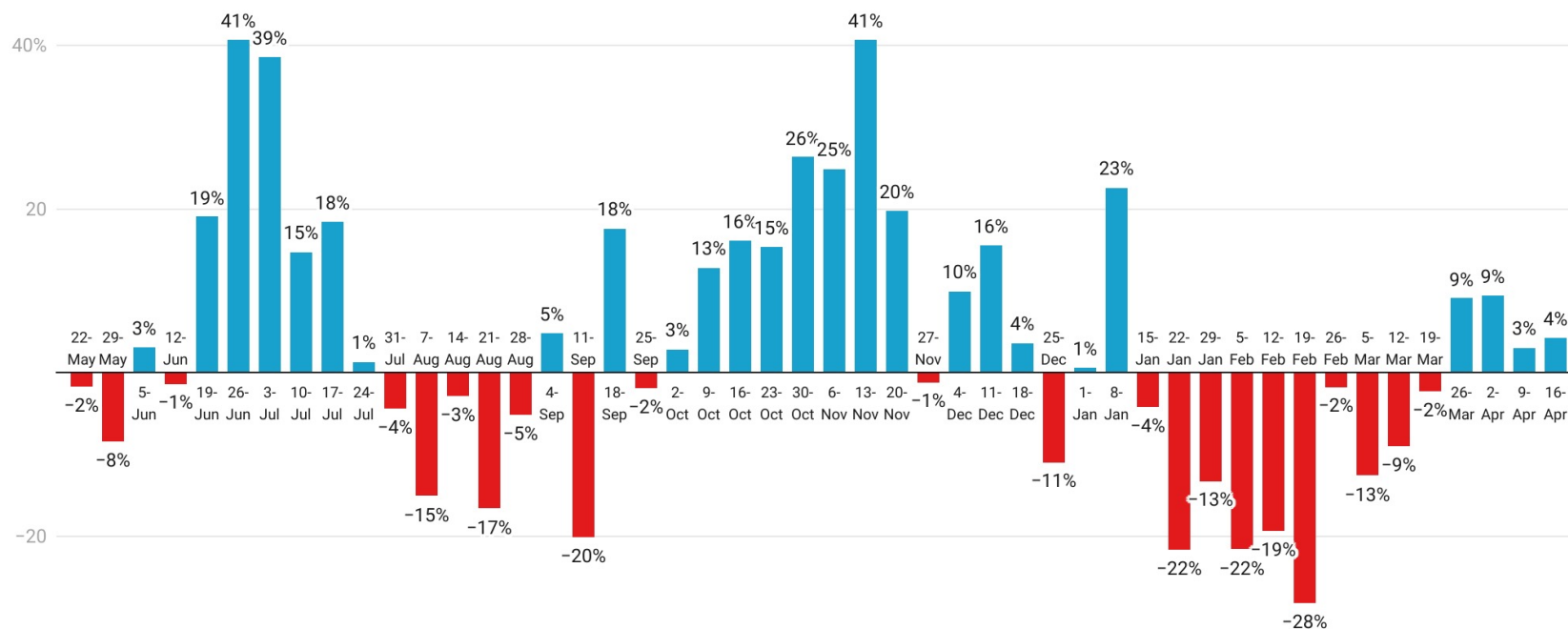


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Newly Detected Cases - By State

More than one third of all new cases in the past week were detected in just four states: Florida, Michigan, New York, and Pennsylvania.

New Weekly Detected Cases - By State

April 10 - 16

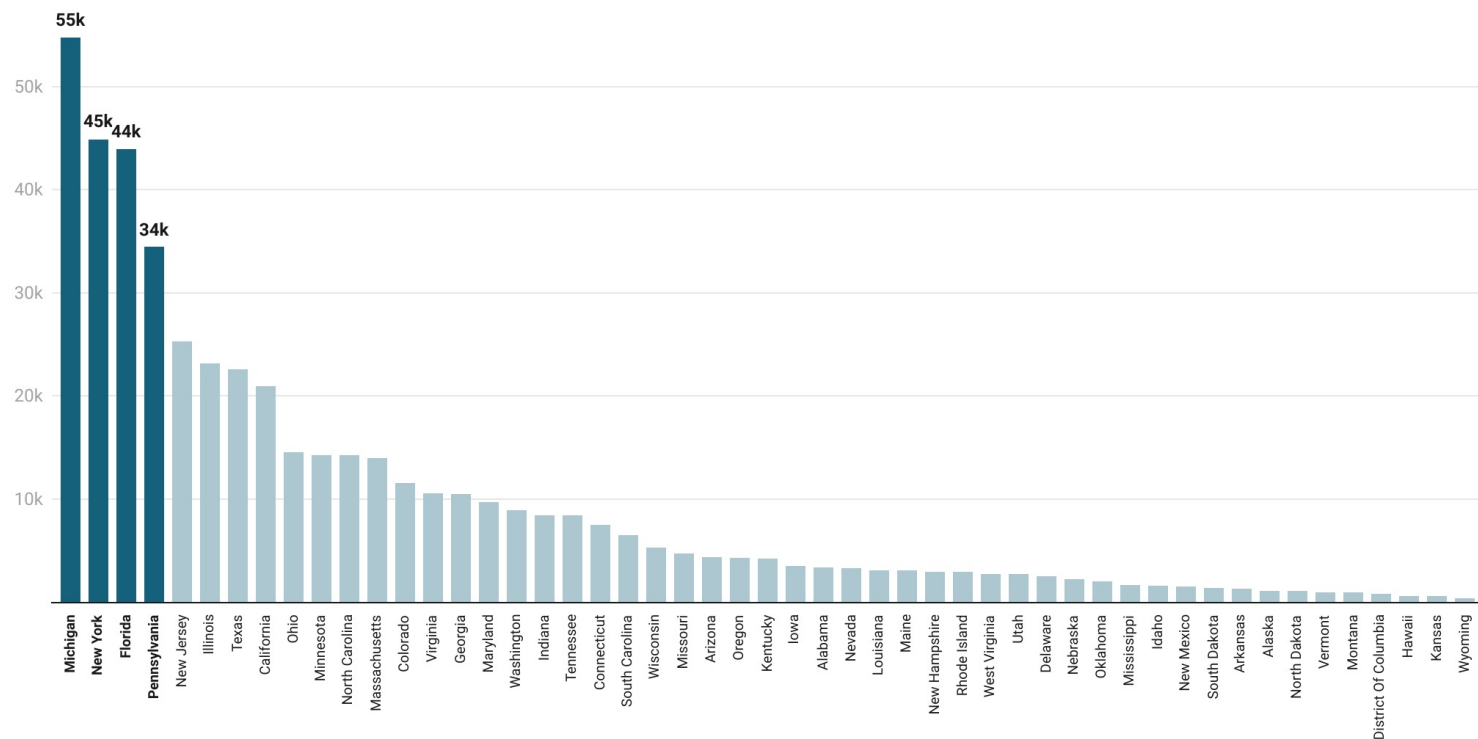


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

Week-Over-Week Change in Newly Detected Cases

Michigan saw "only" 1,500 more new cases this week than last week. In each of the prior three weeks, Michigan saw new cases rise by at least 10,000. Also, New York experienced a significant decline in new cases week-over-week.

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

April 10-16 vs. April 3-9

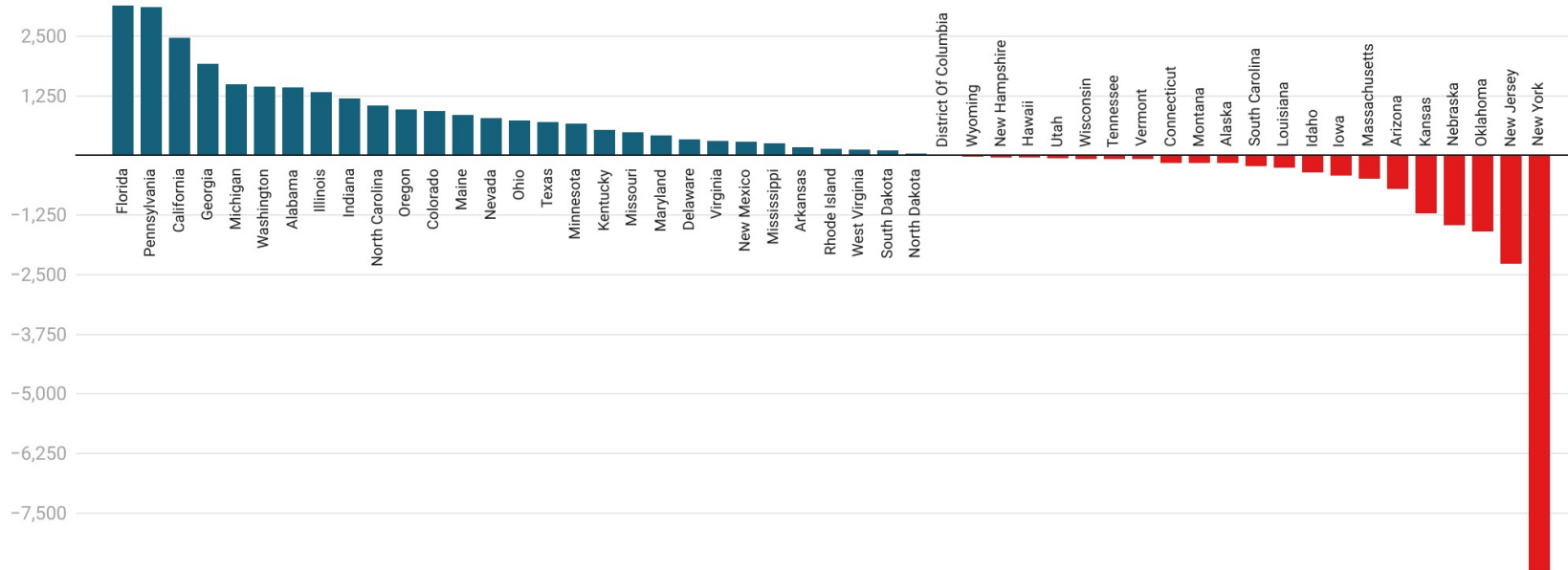


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

Covid-19 Testing

Test-positivity increased over recent weeks and is slightly above the WHO recommended target. Nonetheless, this rate remains lower than most weeks during the pandemic, especially periods of earlier surges.

Weekly Test-Positive% - United States

For the 7 days ending on date shown

Note: Ohio has not reported test data since April 4th and is excluded from this chart.

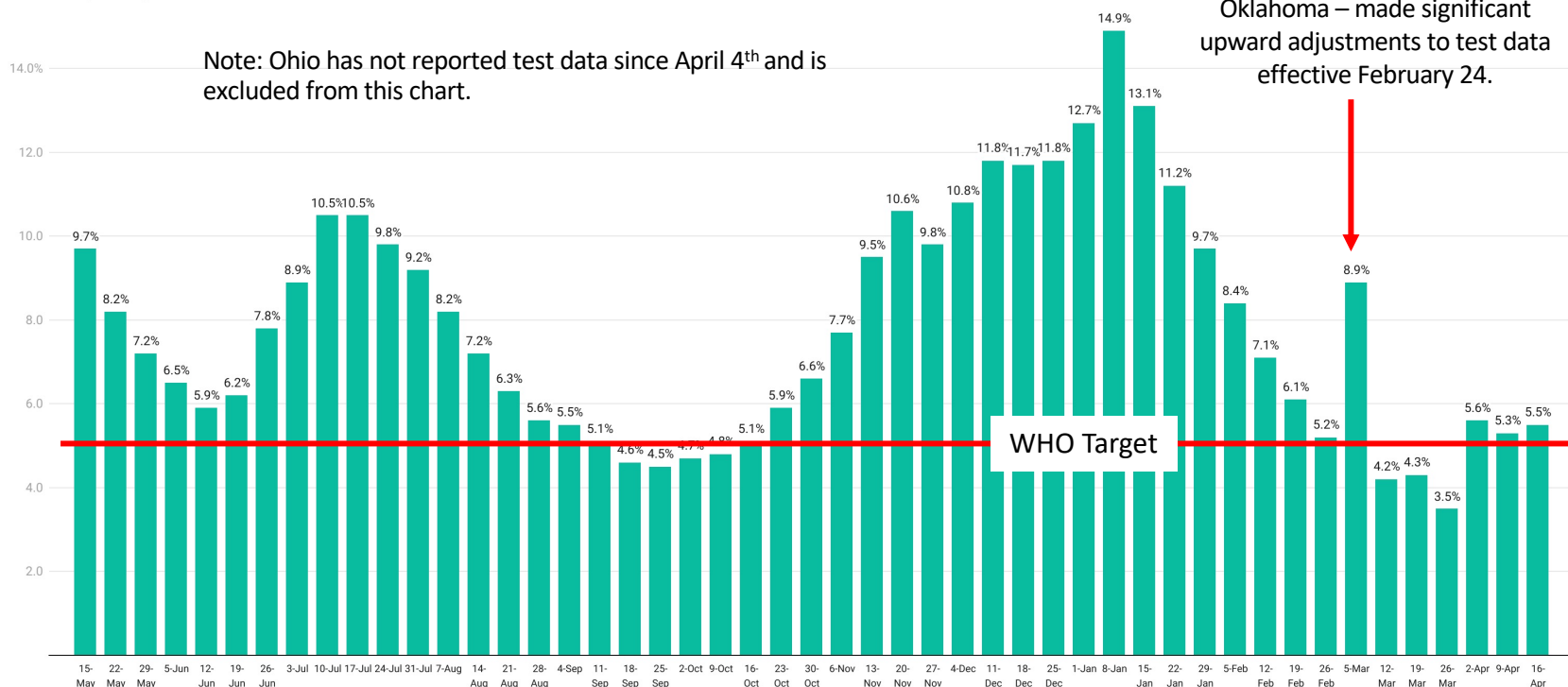


Chart: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Test Efficiency: Tests Per Case Detected

Test efficiency declined for the fifth straight week yet remains better than posted from late-October through much of February.

Weekly Tests / Newly Detected Case - United States

For the 7 days ending on date shown

Note: Ohio has not reported test data since April 4th and is excluded from this chart.

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

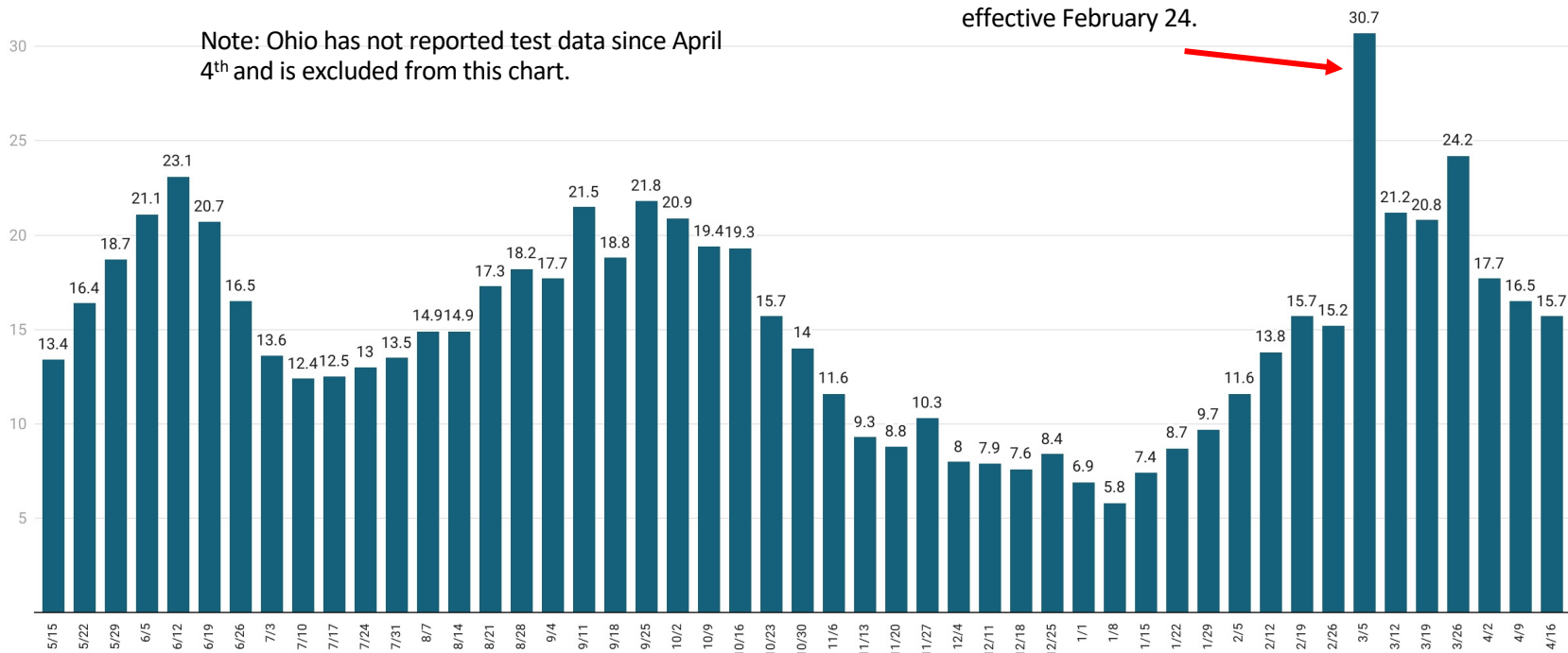


Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project & worldometers.info • Created with Datawrapper



Active Cases

The number of Active Cases increased slightly last week, after declining ten straight weeks.

Current Active Cases - United States

For the 7 days ending on date shown

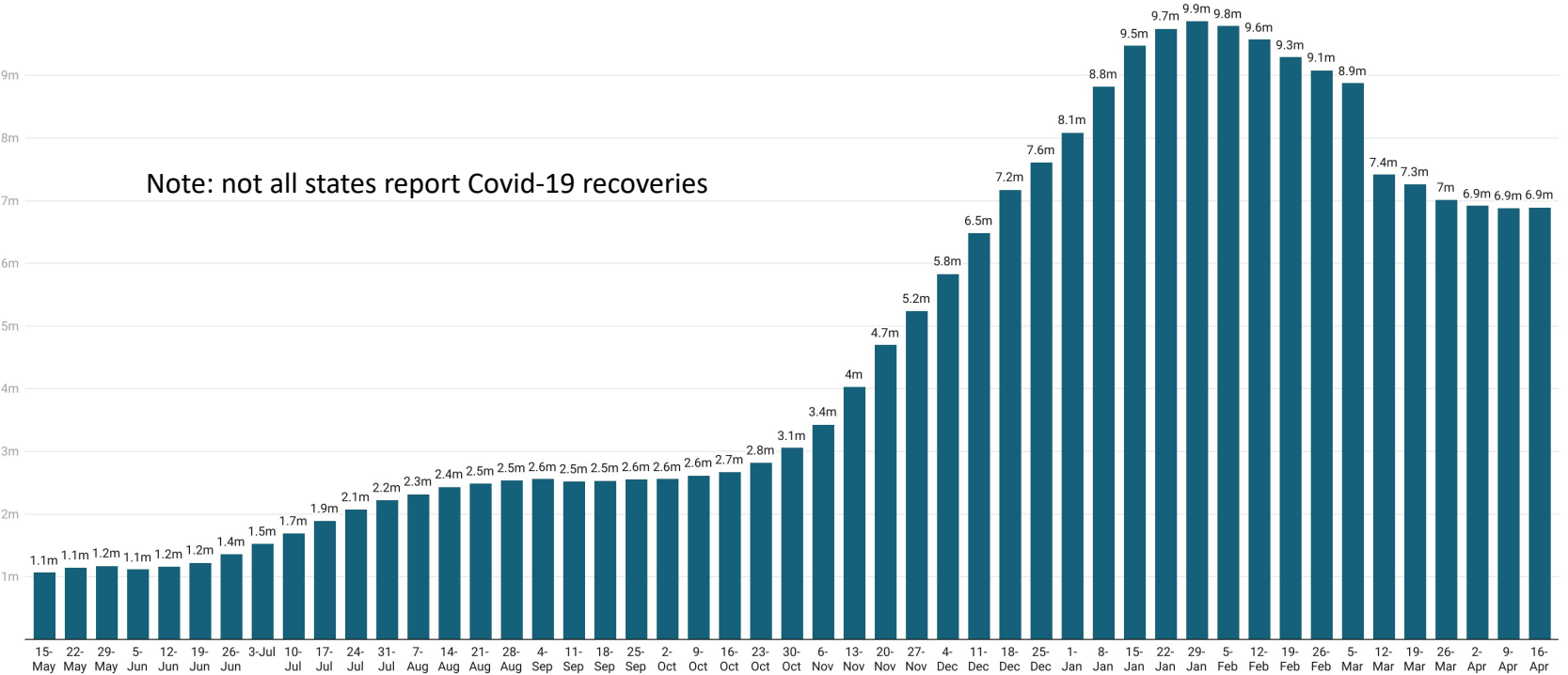


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

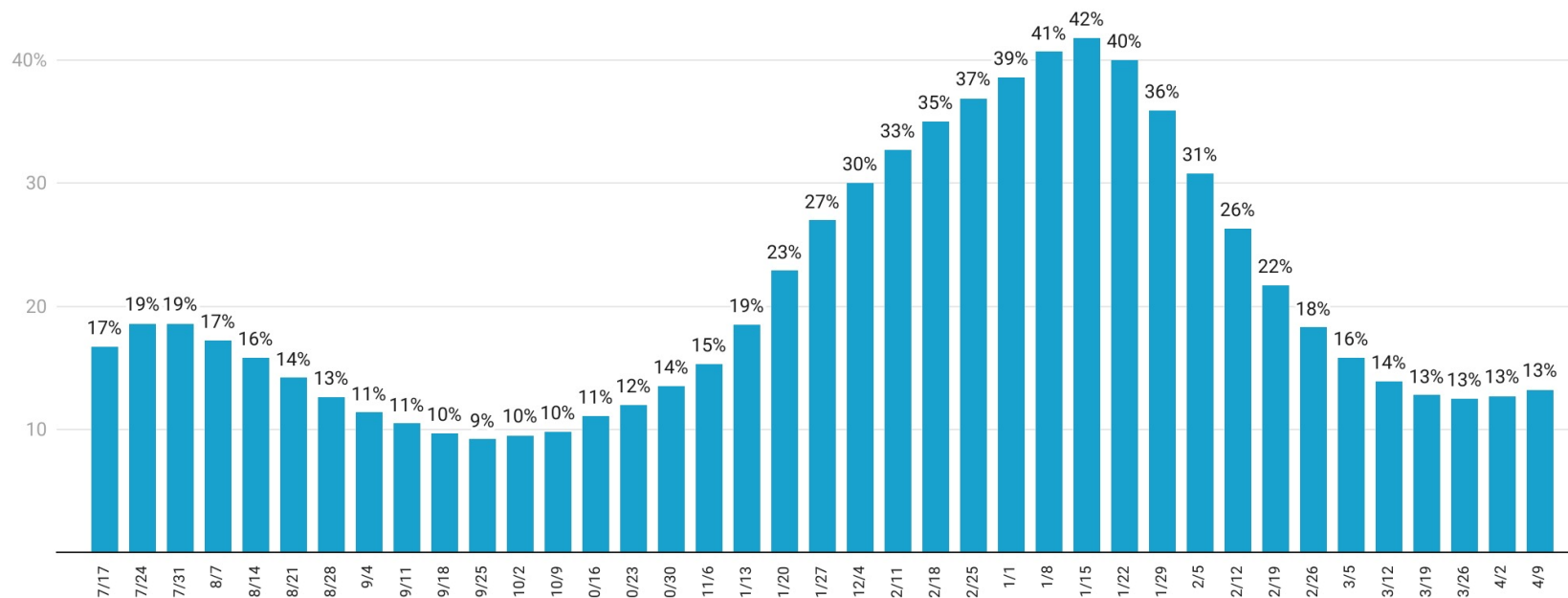
Covid-19 "Vital Signs"

Covid-19 Hospital Occupancy

Covid-19 occupancy inched higher last week yet remains about where it has been for a month. The current Covid-19 census is less than 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"

Michigan is the only state where Covid-19 patients occupy four of every ten inpatient beds. In Connecticut, Maryland and New York, Covid-19 patients occupy more than three of every ten beds.

Covid-19 Occupancy: % of Inpatient Beds By State

As of April 16

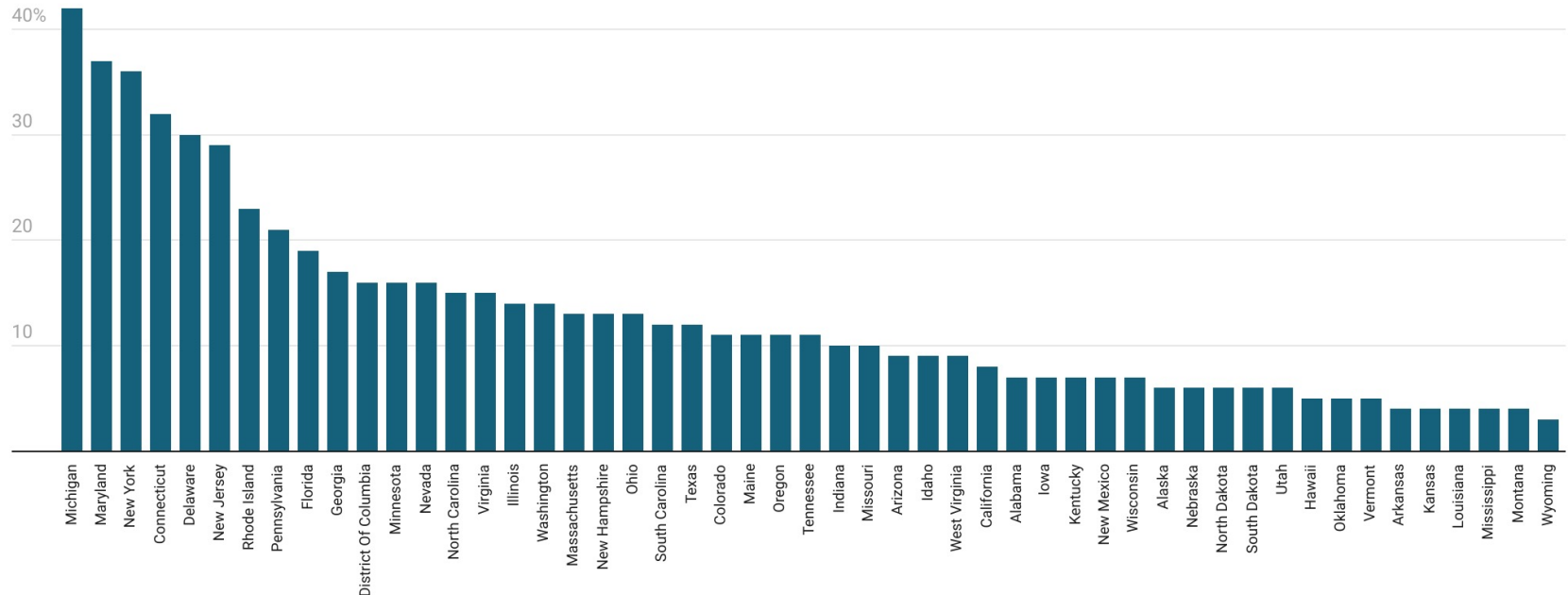


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control & Prevention • Created with Datawrapper

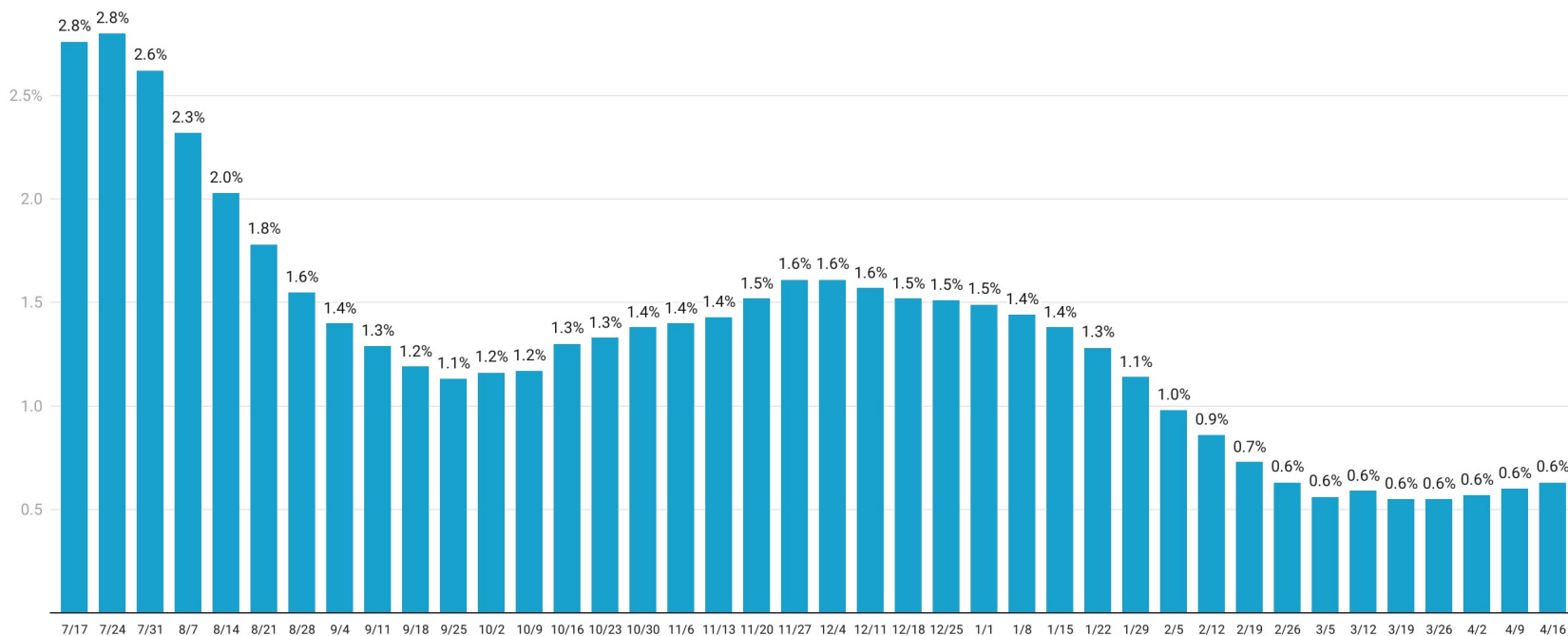
Covid-19 "Vital Signs"

Hospitalized Covid-19 Patients / Active Cases

Active Covid-19 cases requiring hospital care remains substantially lower than earlier in the pandemic.

Estimated % of Detected & Active Covid-19 Patients in the Hospital

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: The Atlantic's Covid Tracking Project & Worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

Covid-19 Patient Days / 100 New Cases

Hospitalization rates have moved in lockstep with the rise in new cases in the past several weeks.

Covid-19 Inpatient Days / 100 New Cases

For the 7 days ending on the date shown

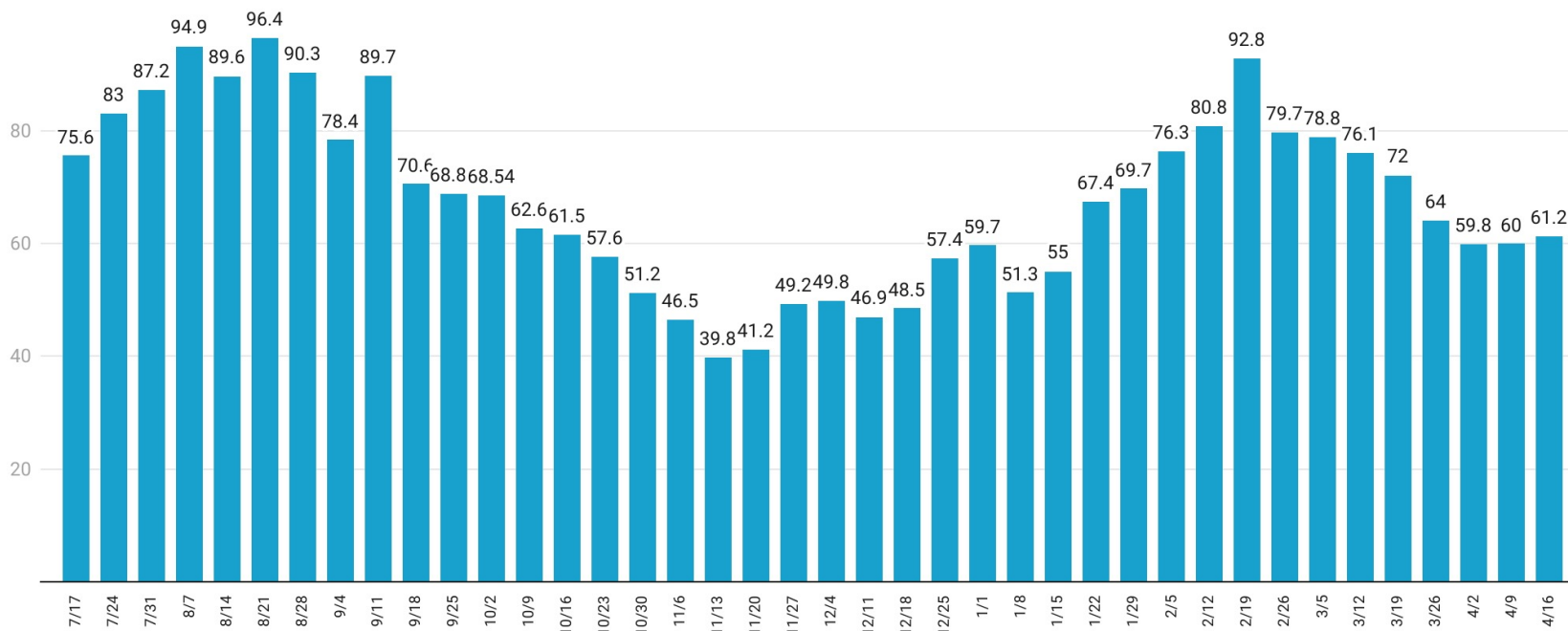


Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project & worldometers.info • Created with Datawrapper

% 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

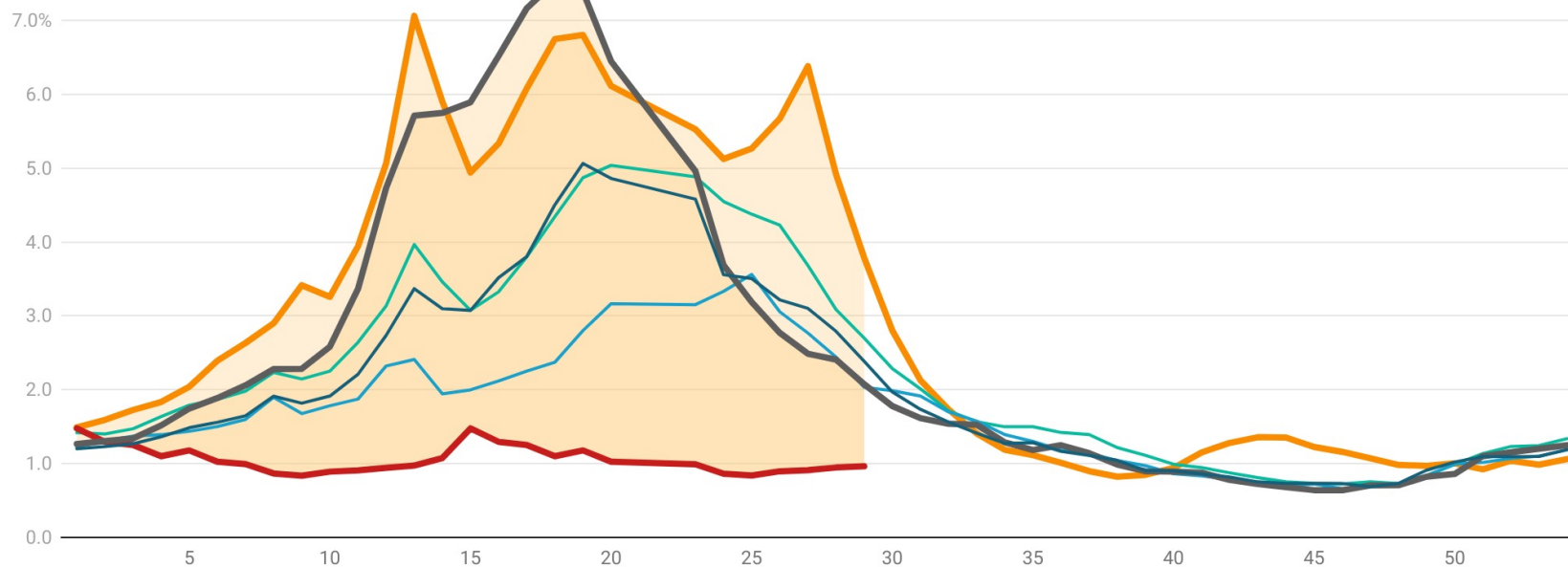


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control & Prevention • Created with Datawrapper

Covid-19 "Vital Signs"

Deaths With Coronavirus

Deaths with coronavirus this week dropped to 5,100 this week. The U.S. has not experienced fewer Covid-19 deaths since mid-July.

Weekly Deaths - United States

For the 7 days ending on date shown

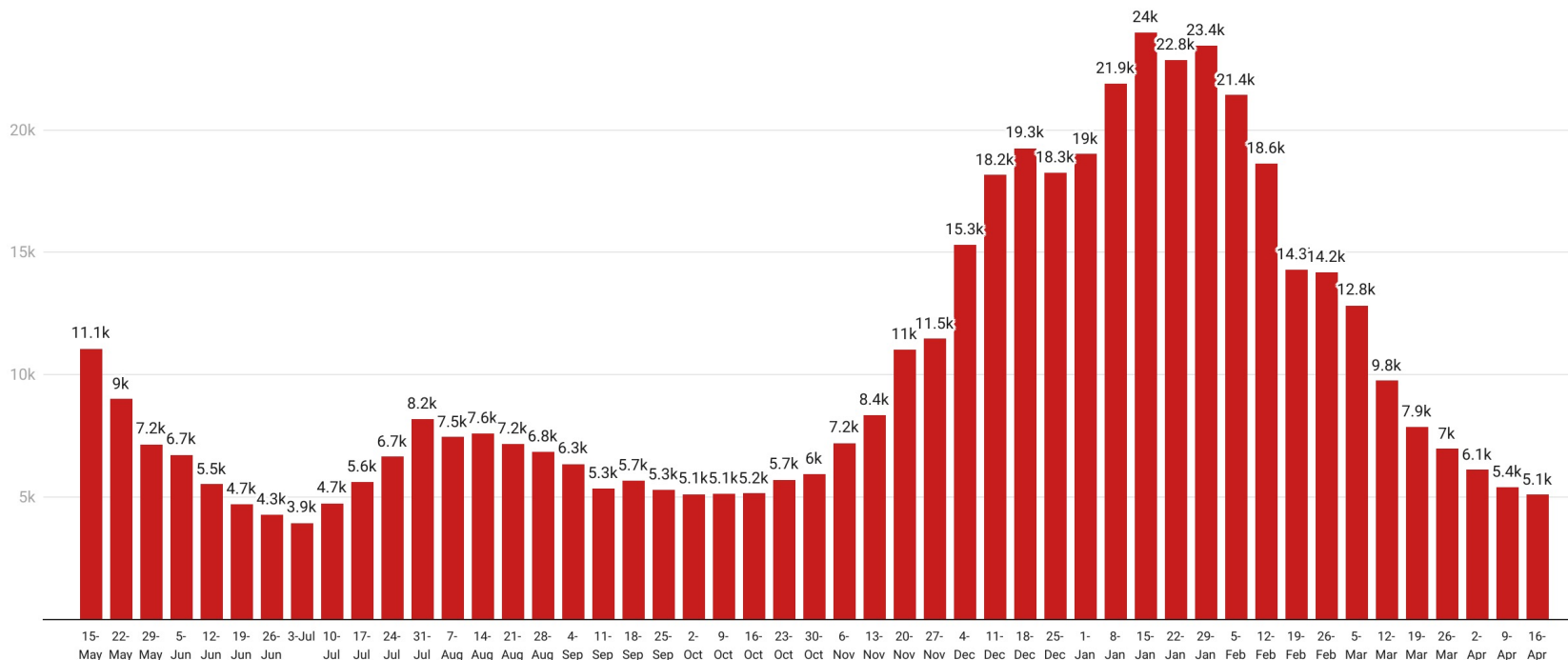


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

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>