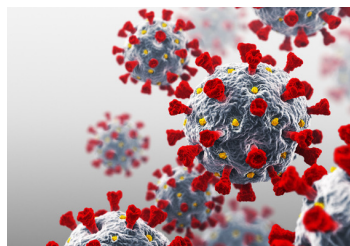


Covid-19 "Vital Signs"

Issue # 345

August 29, 2021

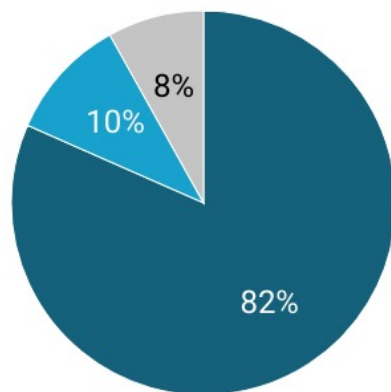


Vaccination Status By Age – United States

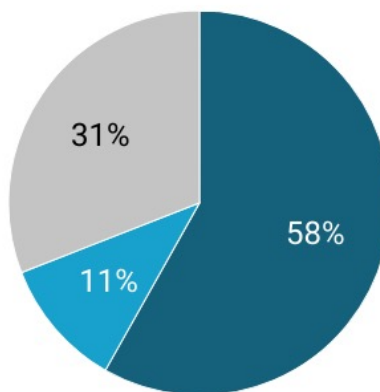
Ninety percent of eligible school-aged persons have received at least one dose. More than half are fully vaccinated. Non-senior adults have been the most resistant to getting vaccinated.

Vaccination Status By Age

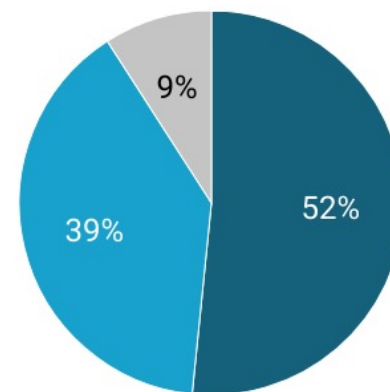
As of August 27



65+



18-64



12-17

■ Fully Vaccinated ■ Partially Vaccinated ■ Unvaccinated

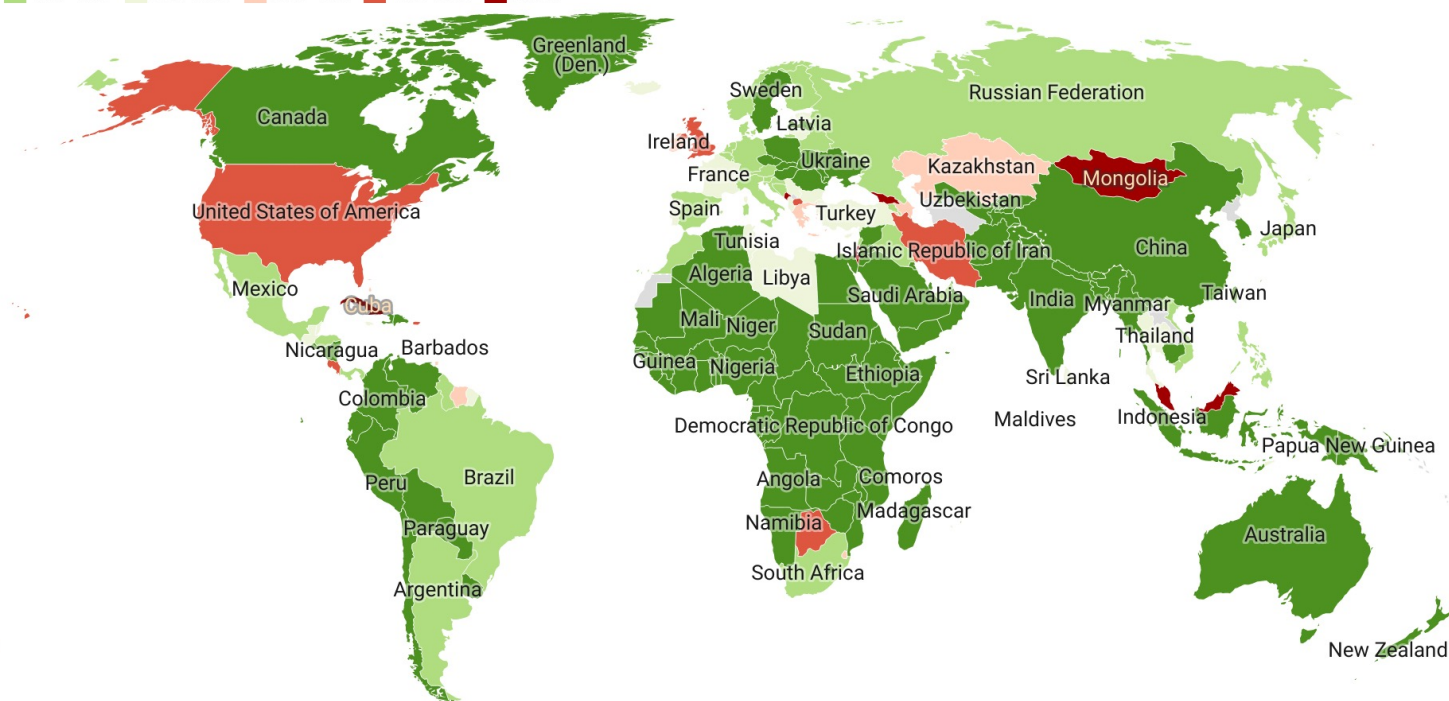
Chart: Health Industry Advisor LLC • Source: CDC • Created with Datawrapper

Newly Detected Cases / Million

Several large countries are suffering with high infection rates, including the United States.

New Infections / Million

7-Day Average, As of August 27



Map: Health Industry Advisor LLC • Source: worldometer.info • Created with Datawrapper

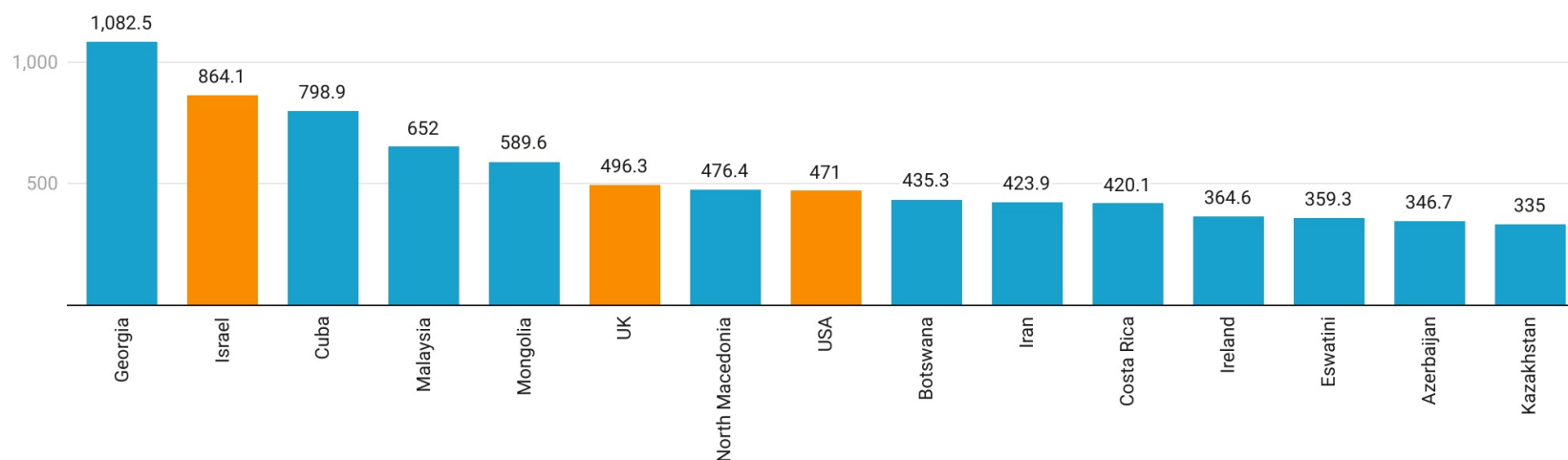
Covid-19 "Vital Signs"

Countries With the Highest Current Infection Rates Per Capita

The United States ranks eighth in recent infection rates per capita, among countries with at least one million population. Israel and the United Kingdom rank second and sixth, respectively.

New Daily Infections / Million

7-Day Average, As of August 27



Fifteen highest rates among countries with 1 million or more population

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

Covid-19 “Vital Signs”

Trends in New Infections, Hospitalizations and Deaths – United Kingdom

Infection rates are slowing in the United States and perhaps, United Kingdom. Israel's rate has been up and down recently.

New Infections Per Million

7-Day Average

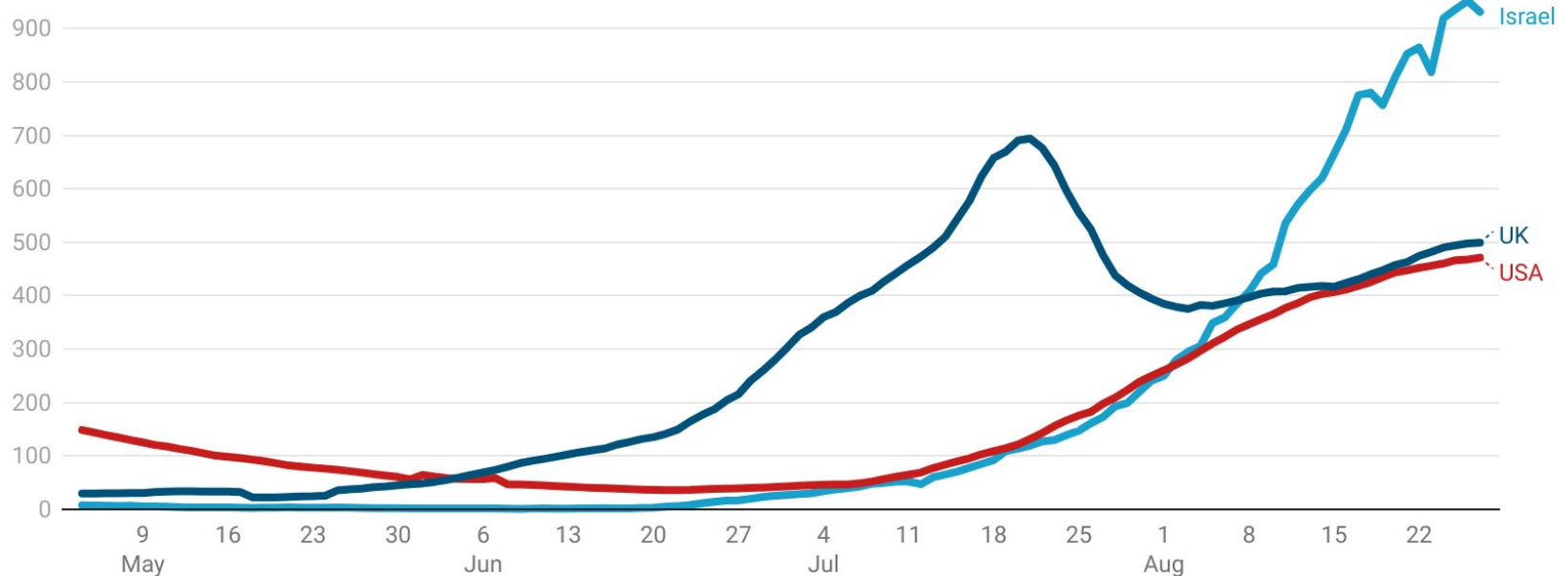


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid-19 “Vital Signs”

Newly Detected Cases

The infection rate in the United States reached 57% of its early-January peak – despite reasonably strong vaccination efforts.

Newly-Detected Cases / Million

7-Day Average

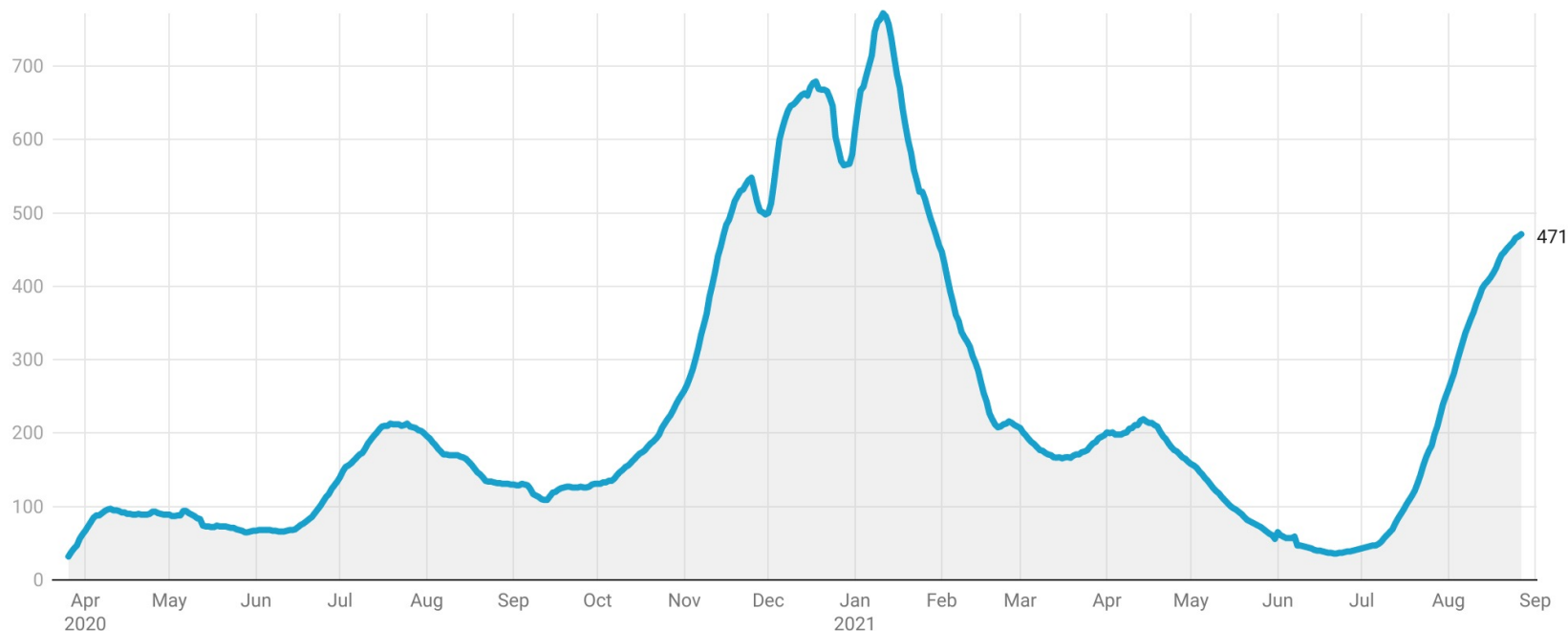


Chart: Health Industry Advisor LLC • Created with Datawrapper

Covid-19 "Vital Signs"

Weekly Change in Newly Detected Cases

The rate of increase in new cases has slowed significantly for the past month.

Week-Over-Week Changes in Newly-Detected Cases: USA

7-Day Moving Average, As of August 27

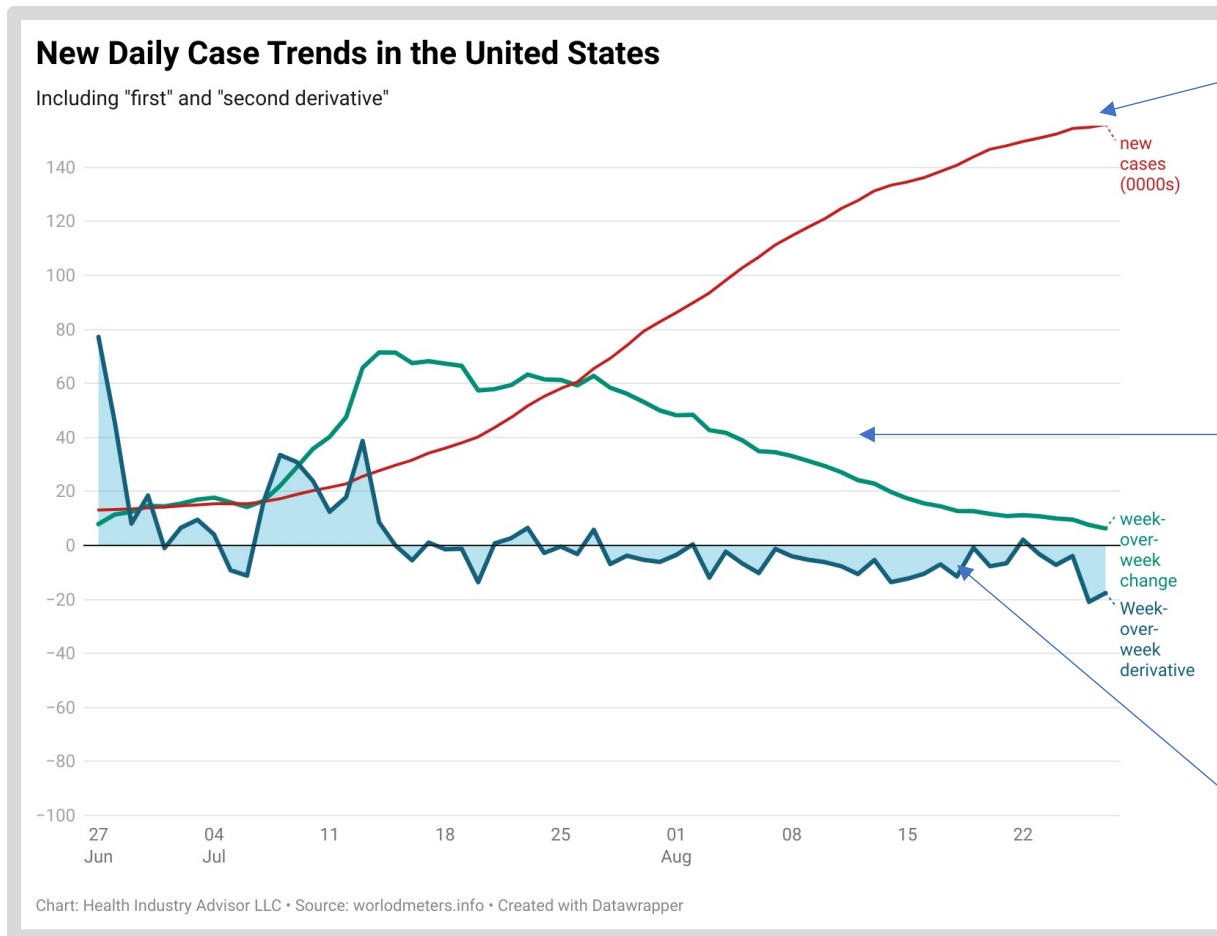


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

New Case Trends

A closer inspection of new case trends suggest that case growth rate is slowing each day. Should this continue, new cases should begin to decline soon.



New cases continue rising each day

However, the rate of case growth has declined since mid-June. The current rate is 1/3 of what it was in mid-June.

The algebraic derivative of case growth has been negative 33 of the last 36 days.

Covid-19 "Vital Signs"

Estimated Daily Infections & New Case Rates

Estimated infections in the United States may have peaked last week, according to a model published by public health experts from Harvard, Stanford, and Yale.

Estimated Daily Infections v. Detected Cases

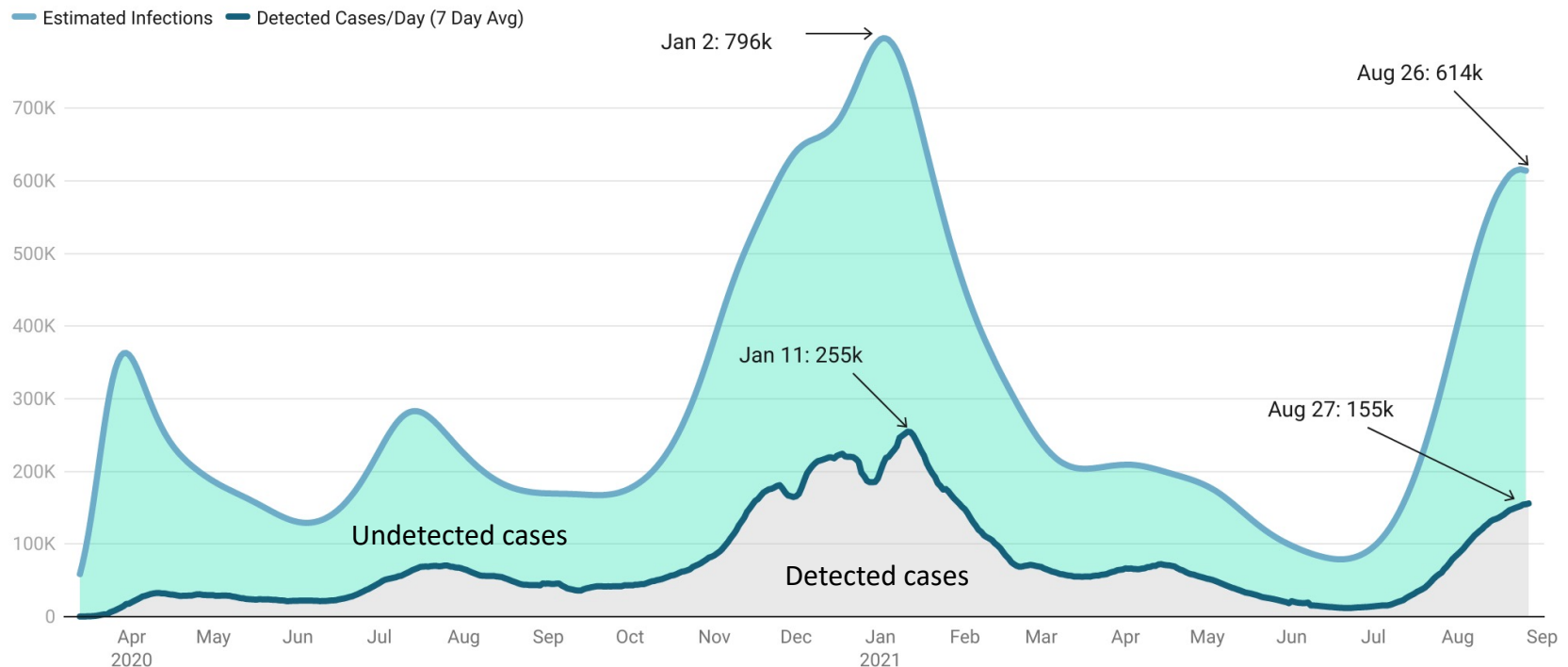


Chart: Health Industry Advisor LLC • Source: Yale School of Public Health • Created with Datawrapper

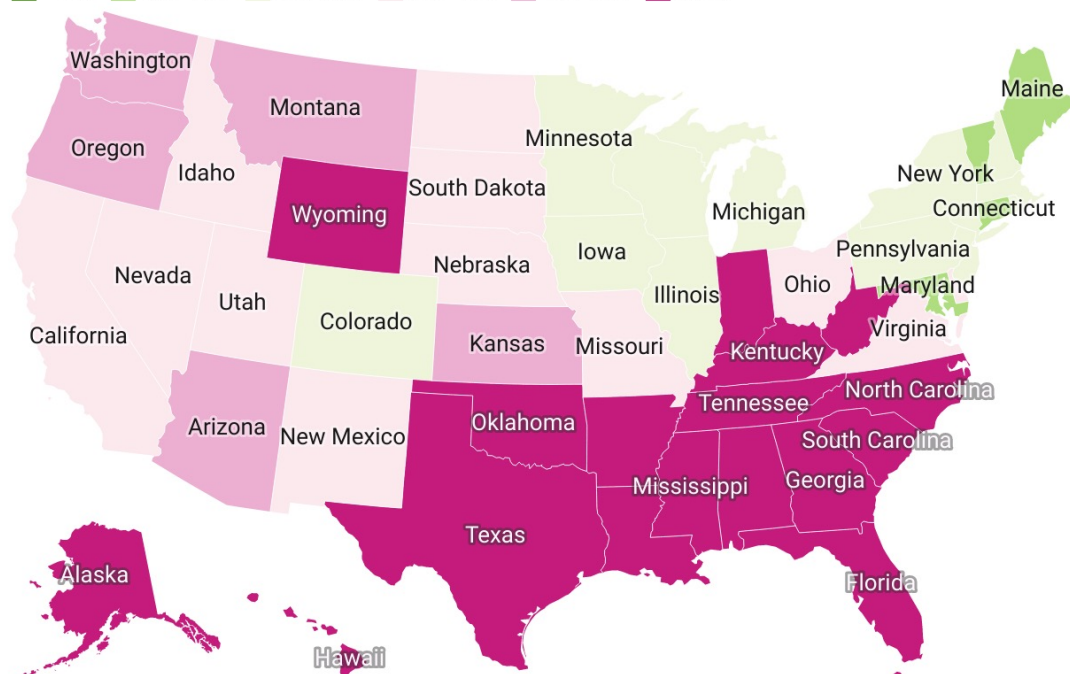
New Cases per Capita By States

Fifteen states posted new cases rates of 500 per million population per day. Five additional states posted more than 400 new cases per million per day. Eleven others posted more than 300 new cases per million per day.

New Cases / Million

7-Day Moving Average, As of August 27

■ < 100
 ■ 100–200
 ■ 200–300
 ■ 300–400
 ■ 400–500
 ■ ≥ 500



Map: Health Industry Advisor LLC • Created with Datawrapper

Covid-19 "Vital Signs"

Weekly Change in New Cases Per Capita

New case rates in hard-hit Alabama, Arkansas, Florida, and Louisiana were lower this week than a week ago. However, Kentucky, Tennessee led several states with large increases in new cases per capita compared to last week.

Week-Over-Week Change in New Daily Cases / Million

7-Day Average, August 27 v. August 20

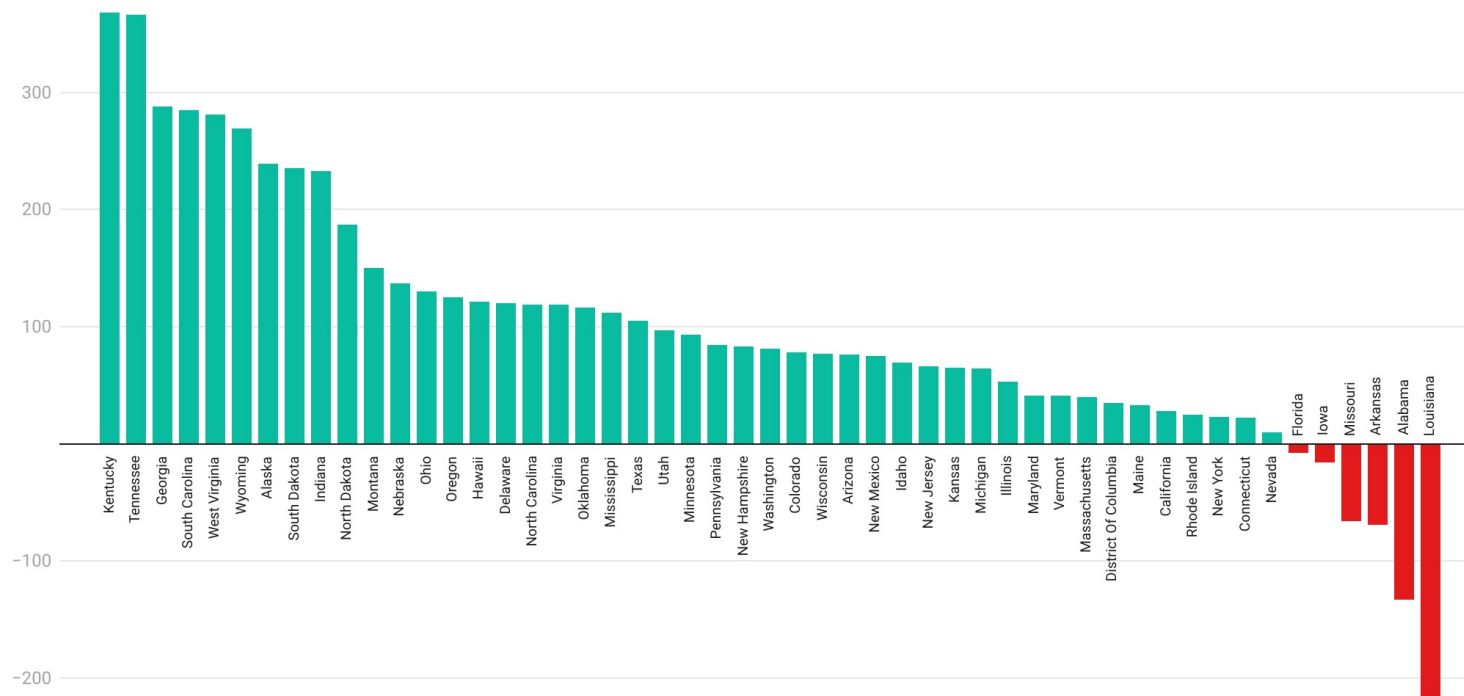
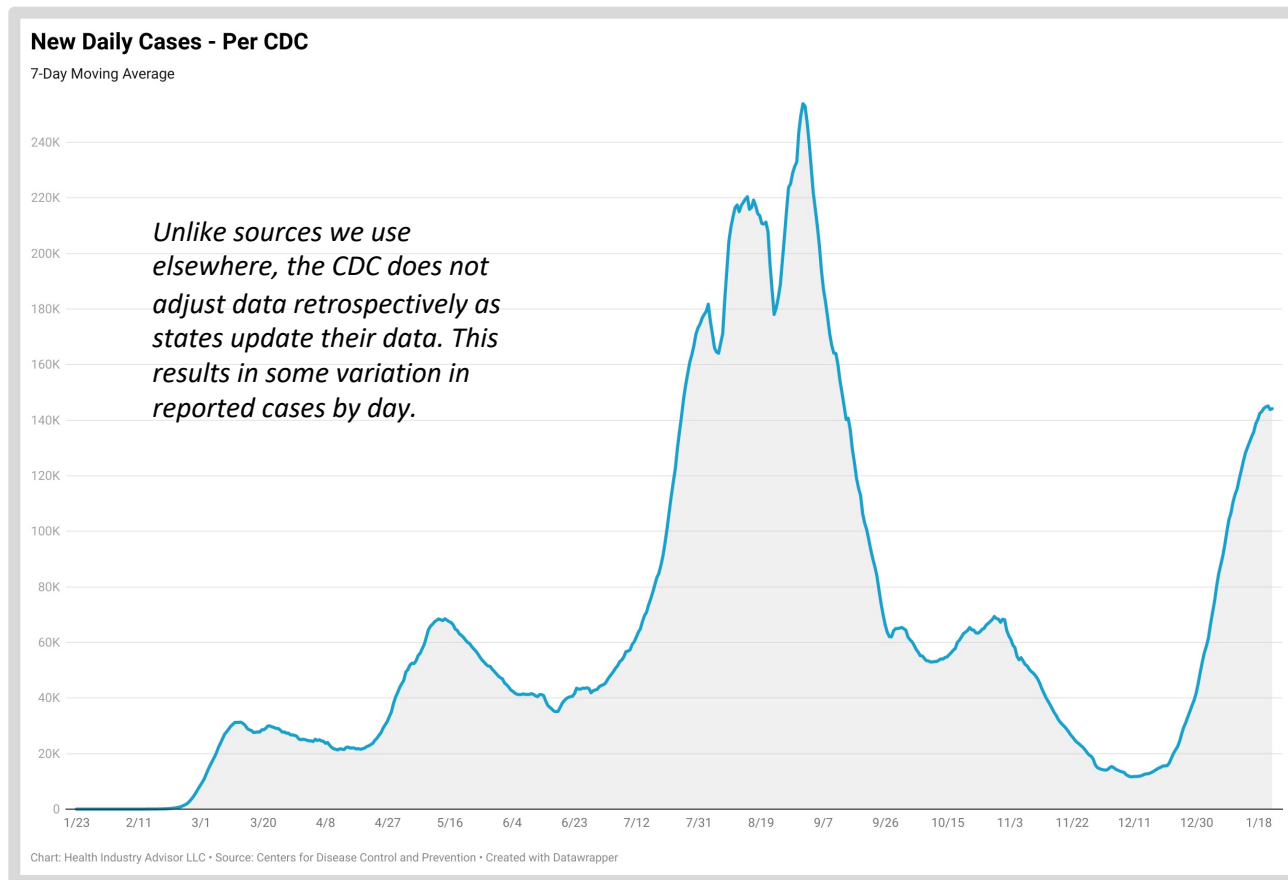


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

New Cases – Per CDC

According to CDC-published data, the 7-day new cases have already plateaued or declined.



Covid-19 "Vital Signs"

Covid Hospital Admissions – Per CDC

Covid admissions may have peaked nationwide.

Covid-19 Hospital Admissions

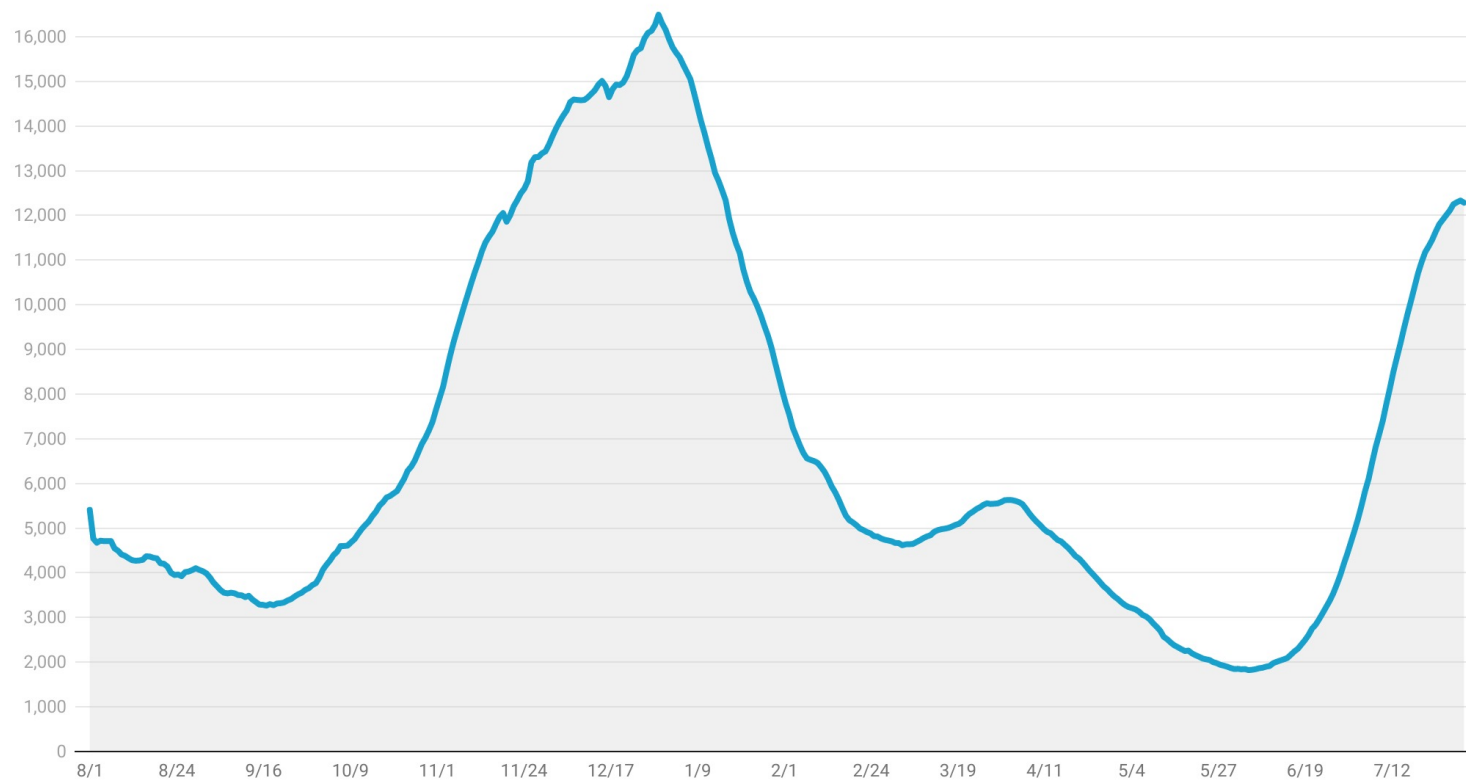


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Covid-19 “Vital Signs”

Cases Per Capita By Age Group

Infants and young school children now have slightly higher infection rates than senior citizens. Rates for both groups are lower than for most other age groups. Infection rates among seniors have dropped farther since January than they have for any other age group – likely because of strong vaccine participation.

Cases per 100,000 By Age

Week Ending:

9-Jan 14-Aug

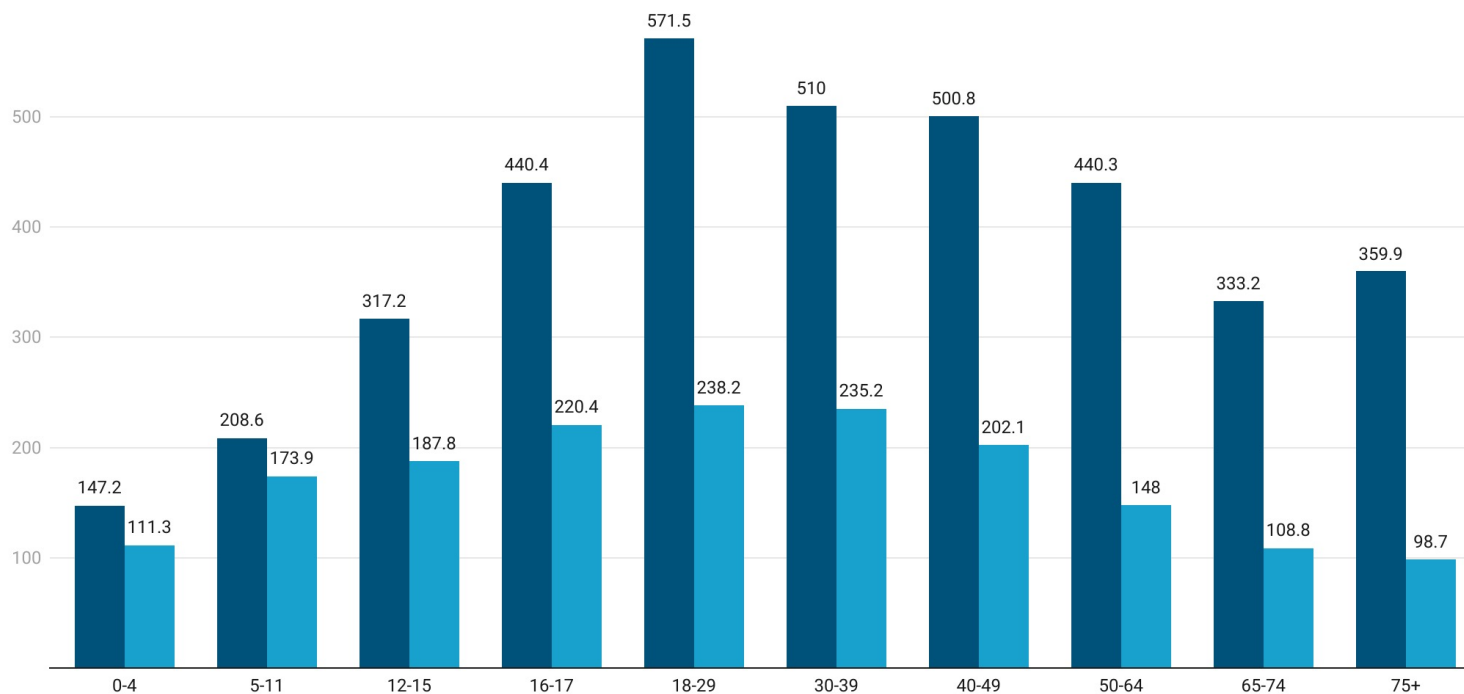


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

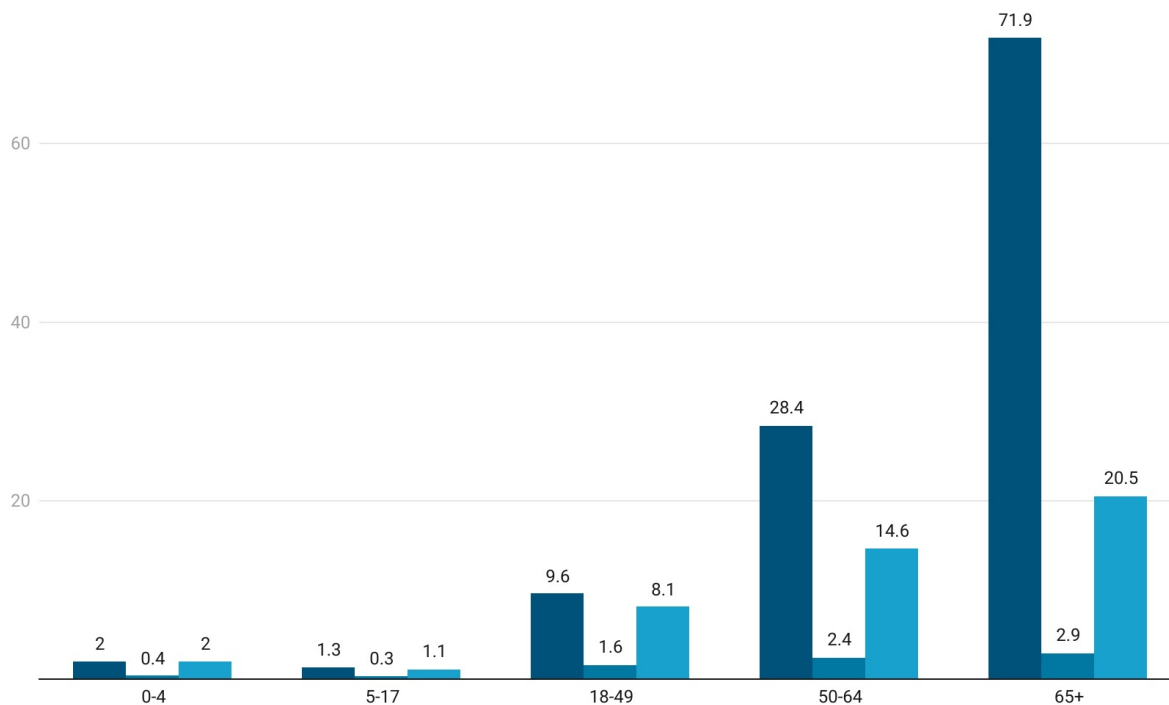
Covid-19 "Vital Signs"

Covid Hospital Admissions Per Capita By Age Group

Hospital admission rates rise with age. However, admission rates among the elderly have dropped dramatically since the vaccine effort began.

Covid-19 Hospital Admissions Per 100,000 By Age

■ 9-Jan ■ 3-Jul ■ 14-Aug



Week of January 9 was peak admissions; Week of July 3 was low point

Chart: Health Industry Advisor LLC • Source: Center for Disease Control and Prevention • Created with Datawrapper

Covid-19 "Vital Signs"

Covid Deaths Per Capita By Age Group

Death rates rise also with age. Like hospital admissions, death rates among the elderly have dropped dramatically since the vaccine effort began.

Deaths per 100,000 By Age

Week Ending:

9-Jan 14-Aug

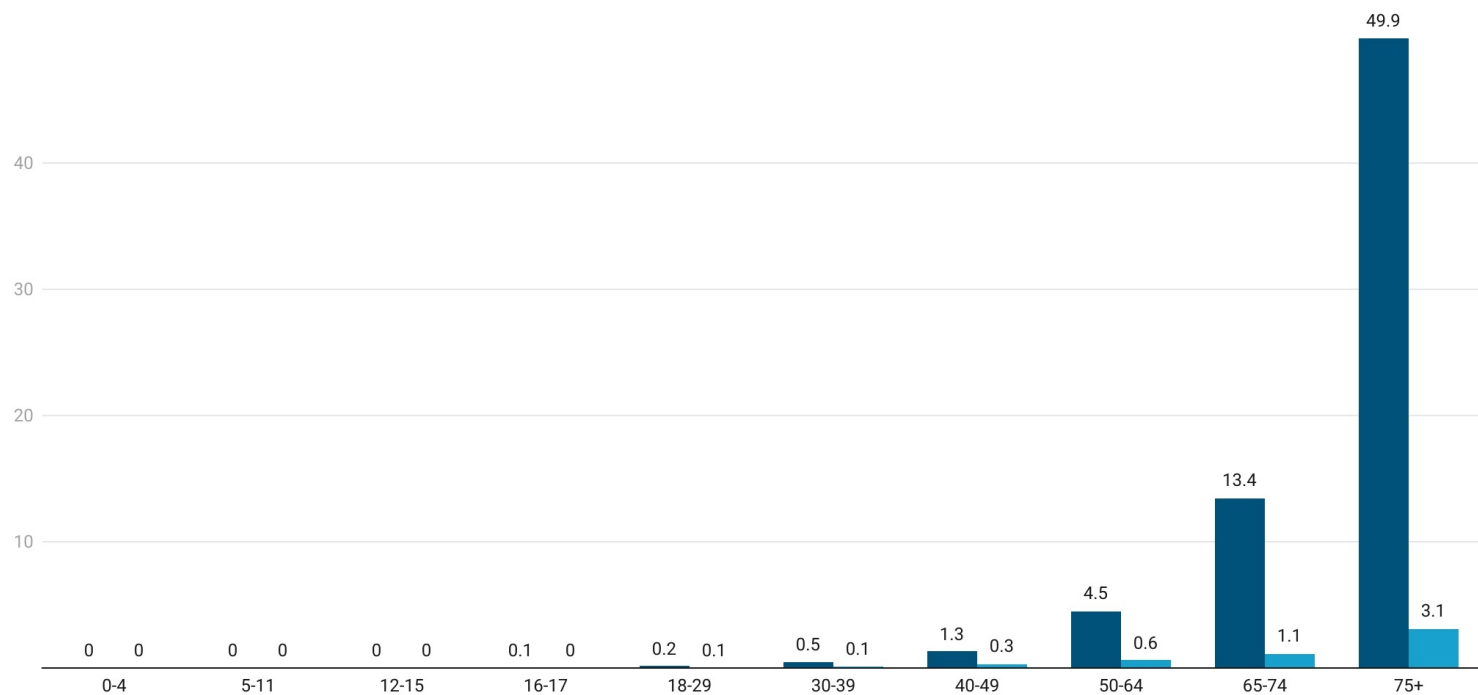


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

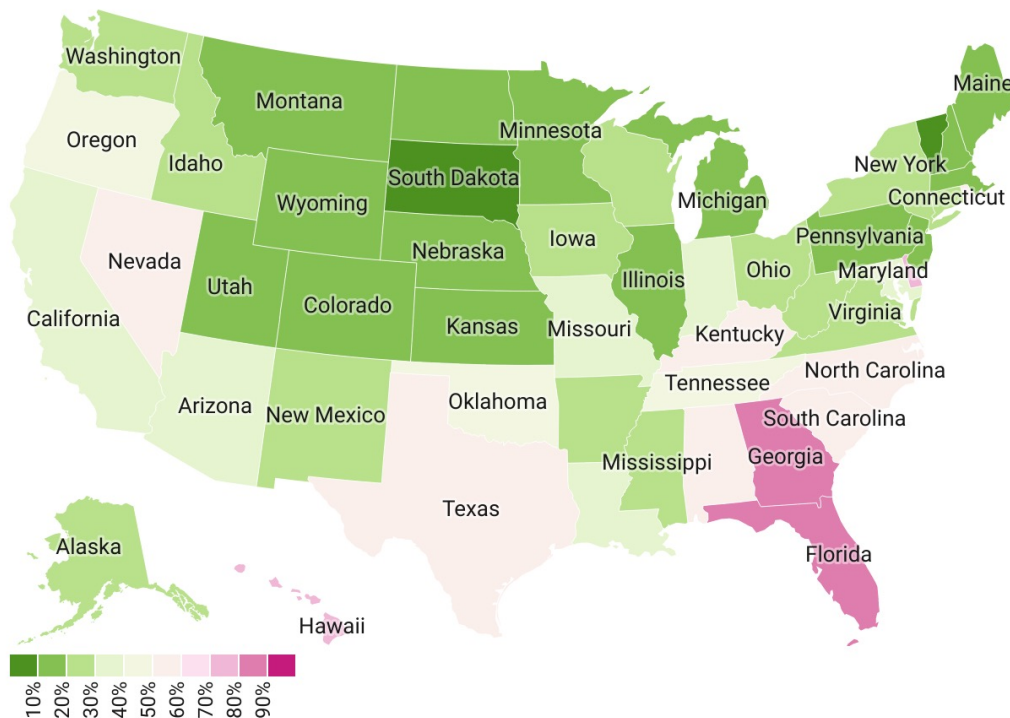
Covid-19 "Vital Signs"

Covid Hospital Occupancy By State

Florida and Georgia hospitals are straining from Covid patients. More than four of every five hospital beds in these states are in use treating Covid patients. Half or more of all beds in Alabama, Delaware, Hawaii, Kentucky, Nevada, North Carolina, Rhode Island, South Carolina, and Texas are occupied by Covid patients

Covid-19 Patients As % of All Inpatient Beds

As of August 27

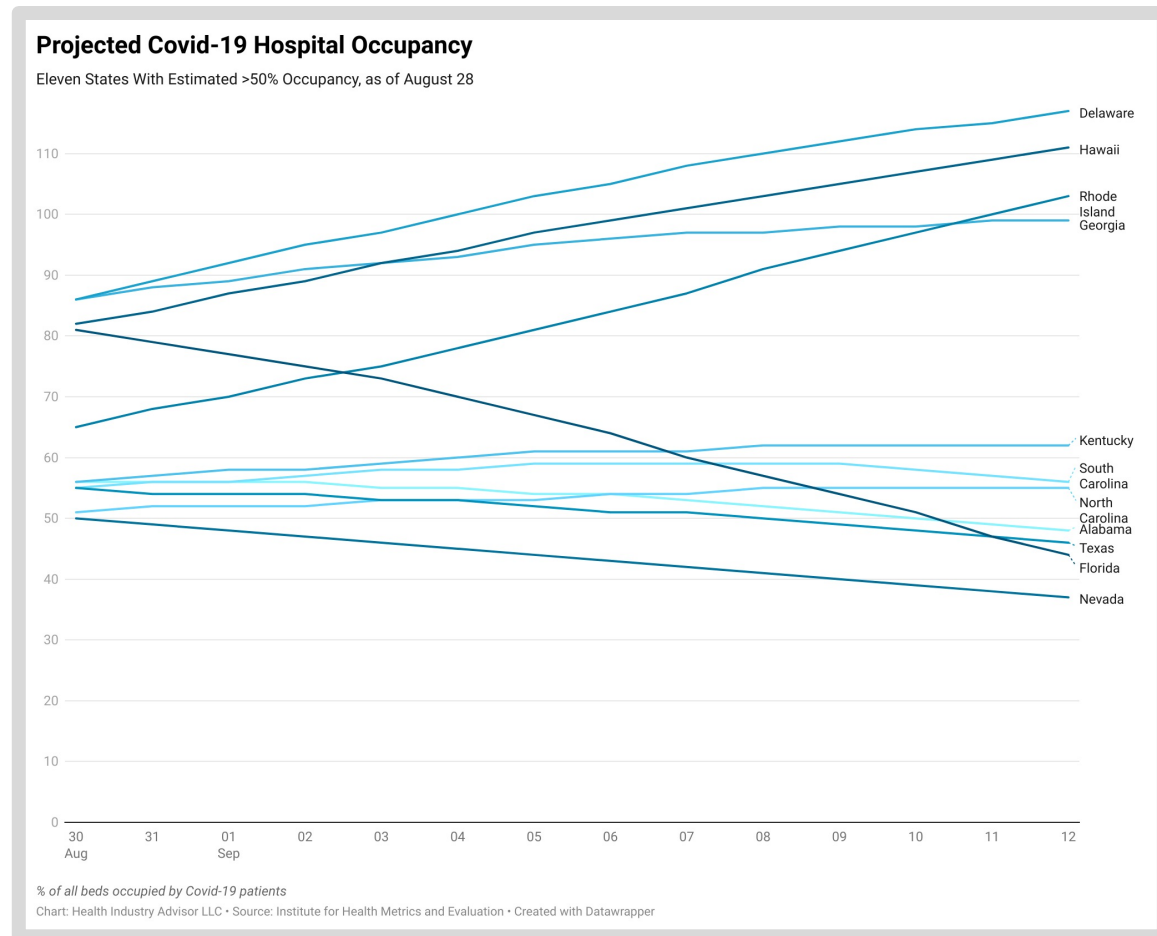


Map: Health Industry Advisor LLC • Source: Institute for Health Metrics and Evaluation • Created with Datawrapper

Covid-19 "Vital Signs"

Projected Covid Hospital Occupancy By State

The strain on hospitals in Delaware, Georgia, Hawaii, and Rhode Island may worsen in the next few weeks, according to the latest modeling from IHME. However, Florida hospitals may get significant relief soon.



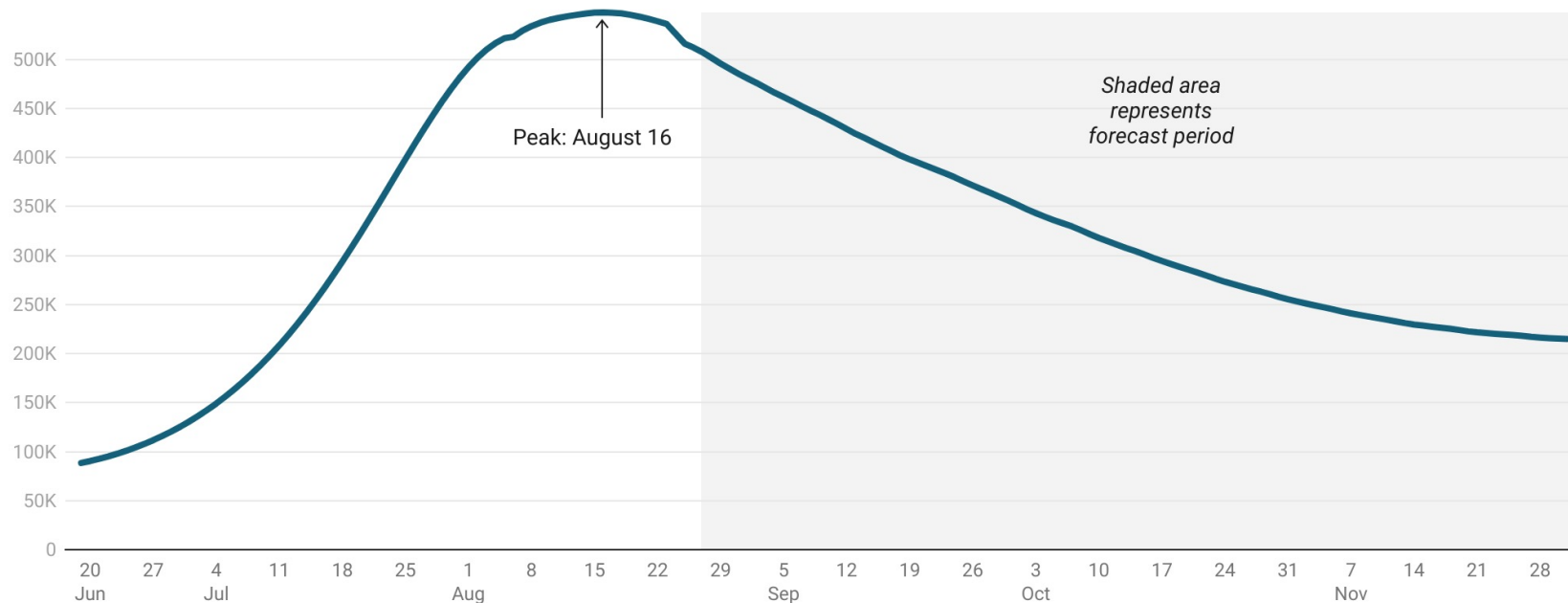
Covid-19 "Vital Signs"

Estimated Infections- IHME Projections

IHME's latest mode reaffirms its view that new infections in the United States peaked about two weeks ago.

Estimated and Projected Infections - U.S.

Institute For Health Metrics and Evaluation



Forecast Date: August 26

Chart: Health Industry Advisor LLC • Source: Institute For Health Metrics and Evaluation • Created with Datawrapper

Covid-19 “Vital Signs”

Covid-19 Inpatient Admissions & Census – IHME Projections

IHME predicts that Covid hospital admissions peaked over the weekend. Hospital occupancy could peak today.

Covid-19 Admissions & Inpatient Census

IHME Projections, As of August 26

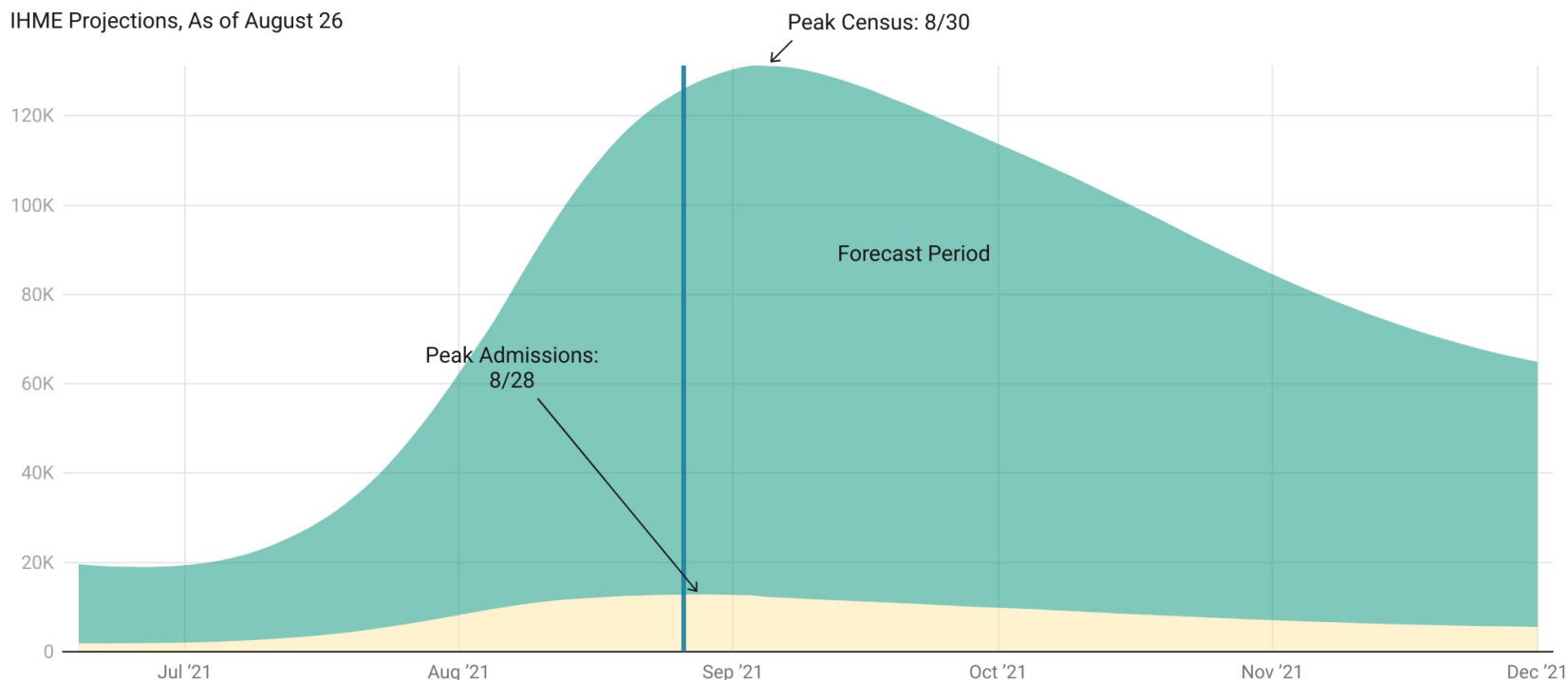


Chart: Health Industry Advisor LLC • Source: Institute for Health Metrics and Evaluation • Created with Datawrapper

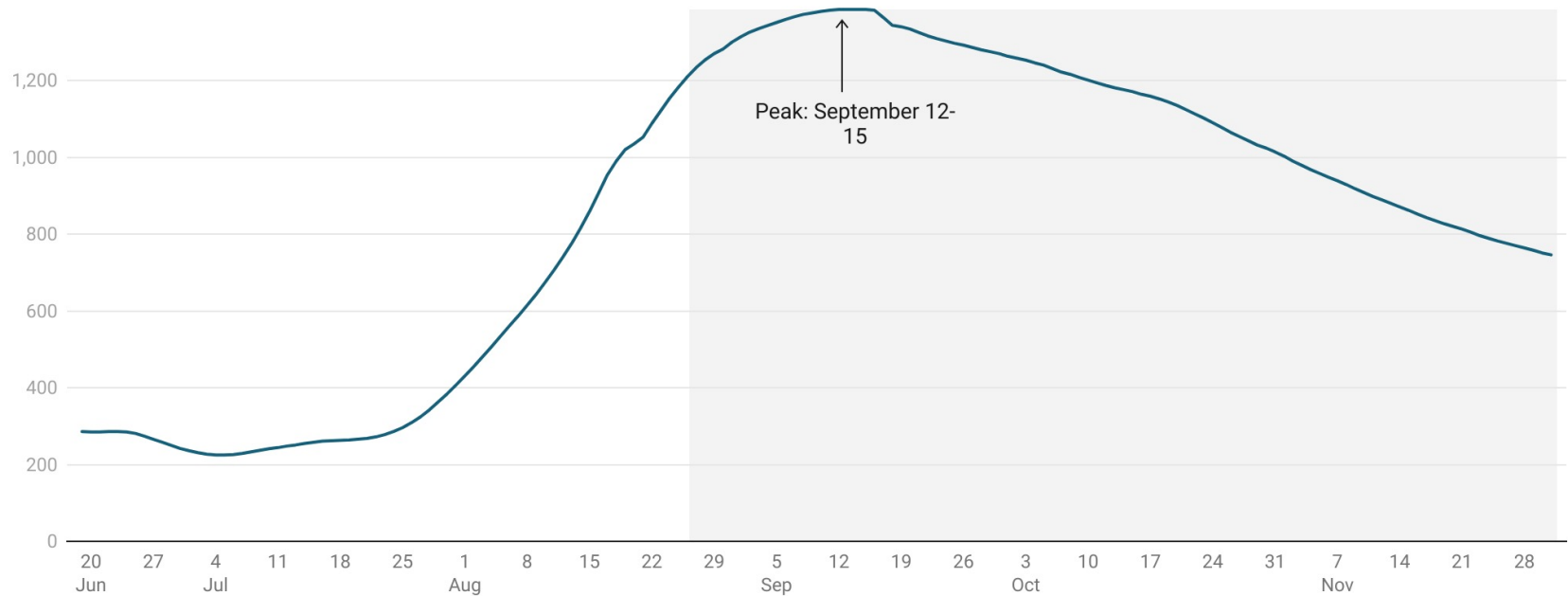
Covid-19 "Vital Signs"

Deaths With Covid-19: IHME Projection

IHME anticipates deaths will rise until September 12, stabilize for four days then decline through at least November.

Estimated and Projected Covid Deaths - U.S.

Institute For Health Metrics and Evaluation



Forecast Date: August 26

Chart: Health Industry Advisor LLC • Source: Institute For Health Metrics and Evaluation • 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>