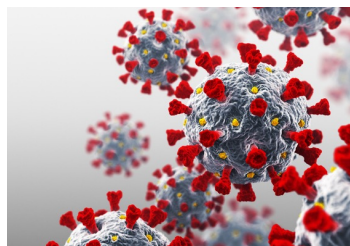


Covid-19 "Vital Signs"

Issue # 344

August 23, 2021



Covid-19 "Vital Signs"

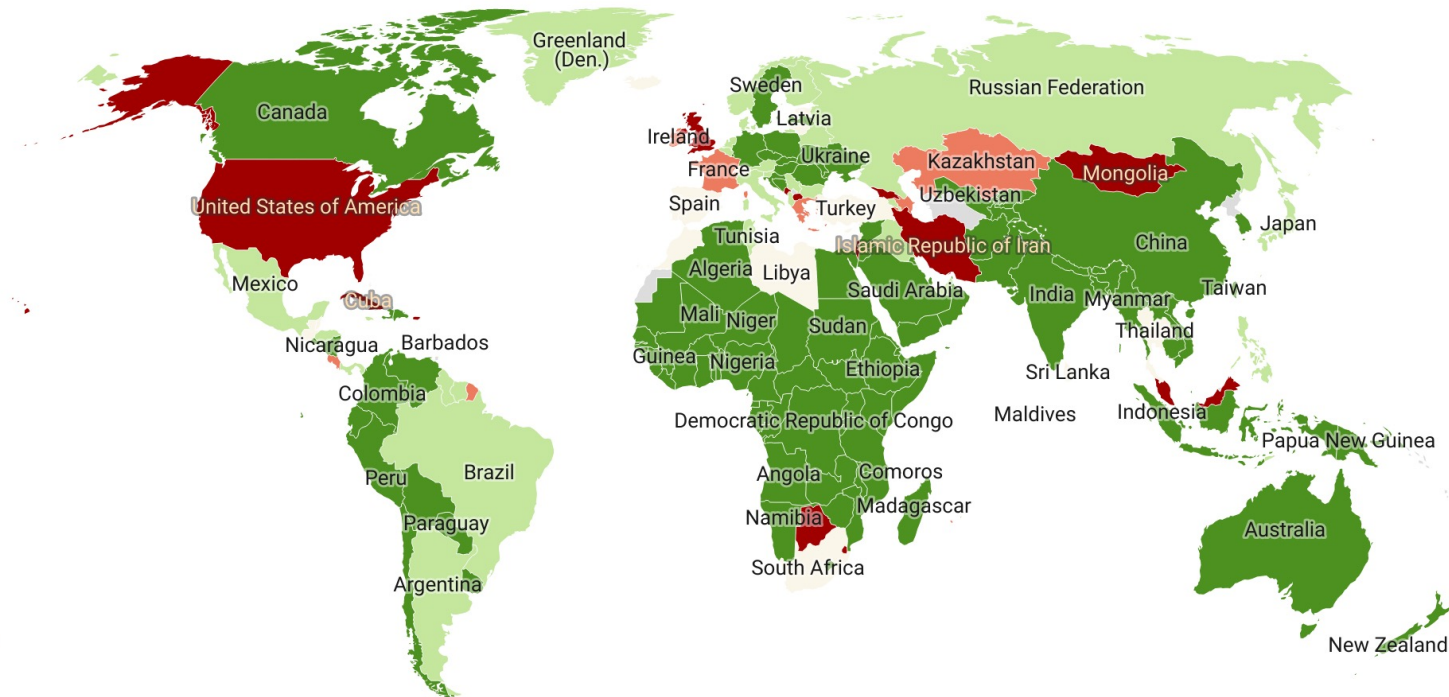
Newly Detected Cases / Million

Infection "hot-spots" exist on each populated continent

New Infections / Million

7-Day Average, As of August 20

< 100 100-200 200-300 300-400 ≥ 400



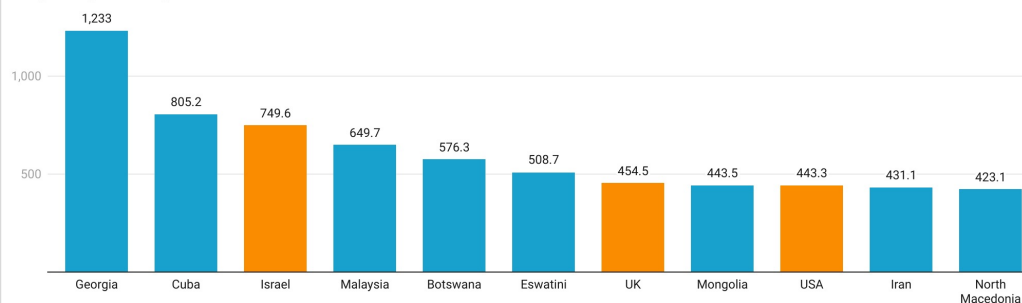
Map: Health Industry Advisor LLC • Source: worldometer.info • Created with Datawrapper

Countries With the Highest Current Infection Rates Per Capita

The United States ranks ninth in new cases per capita among countries with population of at least 1 million. Israel ranks third and the United Kingdom, seventh

New Daily Infections / Million

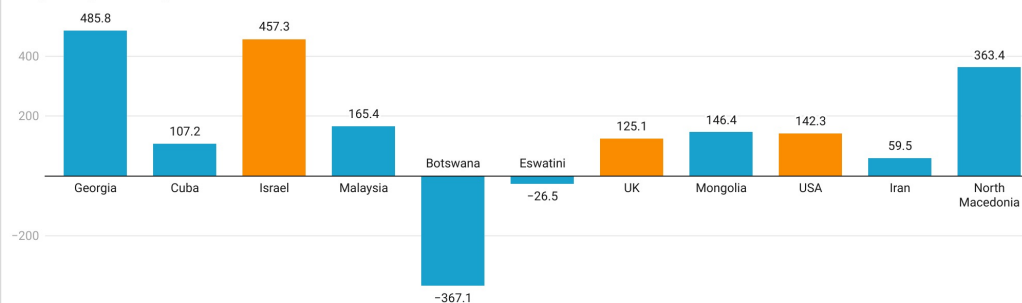
7-Day Average, As of August 20



Ten Highest rates among countries with 1 million or more population
Chart: Health Industry Advisor LLC • Source: Worldometers.info • Created with Datawrapper

Change in New Daily Infections / Million - Past Two Weeks

7-Day Average, As of August 20



Ten 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

New infections are surging in the United Kingdom again. Unlike prior surges, however, hospital and death rates have not increased appreciably.

Covid-19 Infections, Hospital Admissions & Deaths

United Kingdom

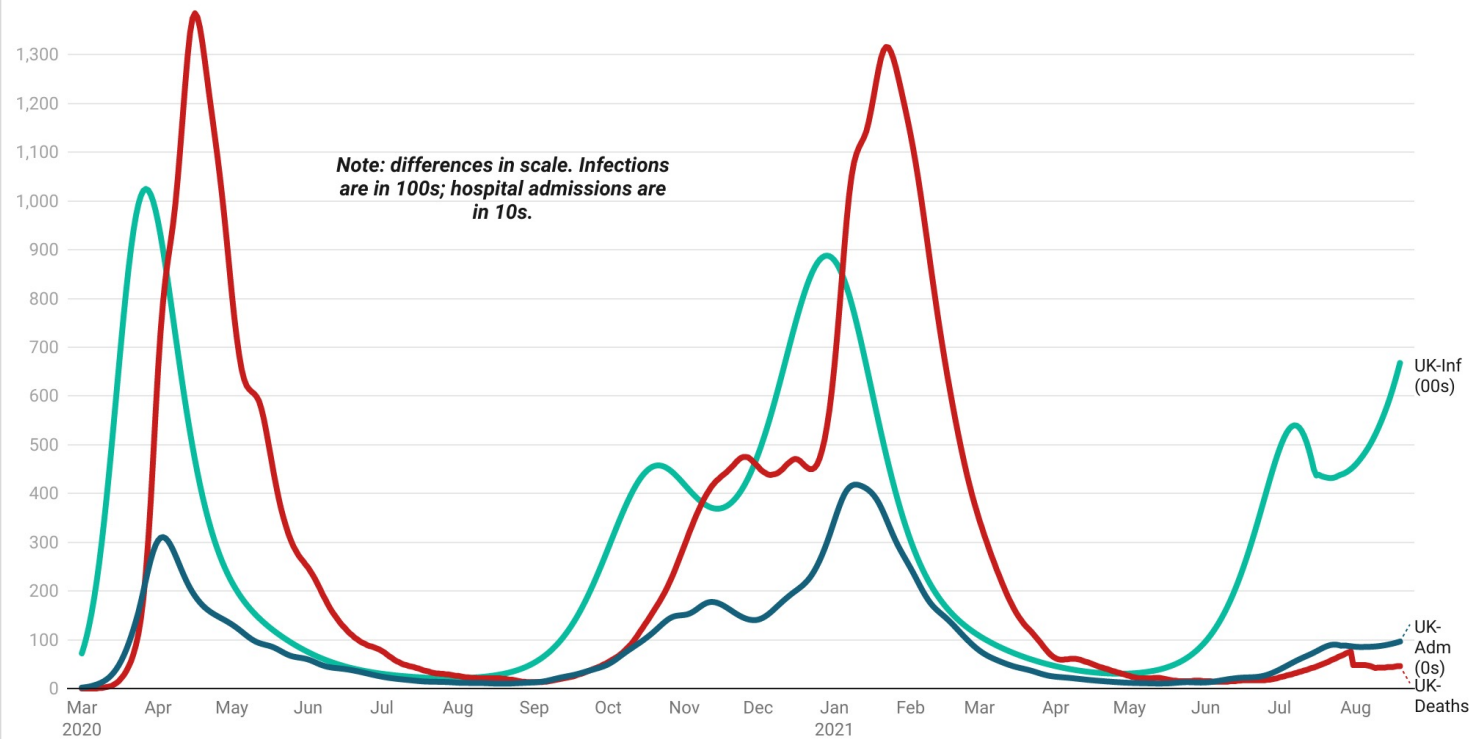


Chart: Health Industry Advisor LLC • Source: Institute for Health Metrics and Evaluation • Created with Datawrapper

Covid-19 "Vital Signs"

Trends in New Infections, Hospitalizations and Deaths – Israel

New infections are surging in the Israel too. Like with United Kingdom, hospital and death rates have not increased as greatly as during prior surges.

Covid-19 Infections, Hospital Admissions & Deaths

Israel

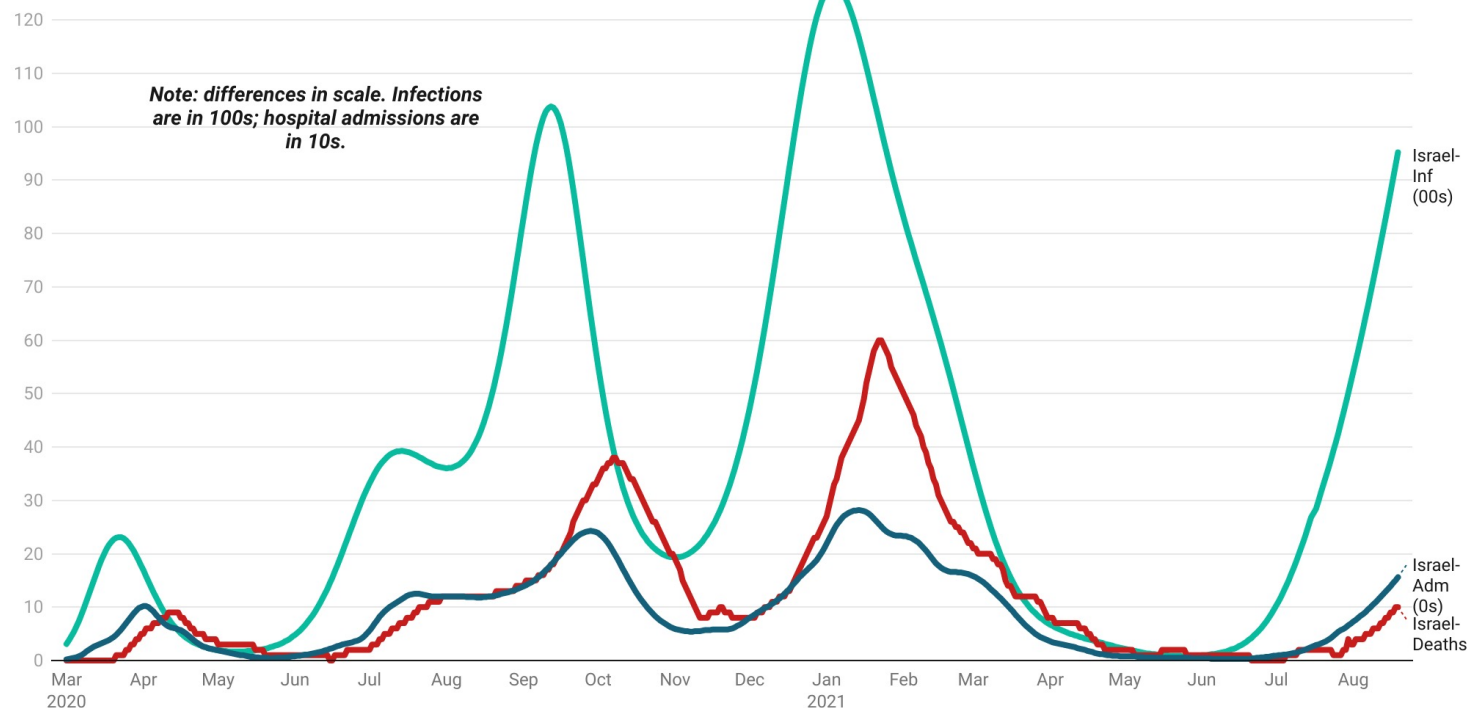


Chart: Health Industry Advisor LLC • Source: Institute for Health Metrics and Evaluation • Created with Datawrapper

Covid-19 “Vital Signs”

Trends in New Infections, Hospitalizations and Deaths – United States

IHME estimates that new infections are declining in the United States. Hospital and death rates in the United States seem to have increased during the latest surge more so than in the UK and Israel.

Covid-19 Infections, Hospital Admissions & Deaths

United States

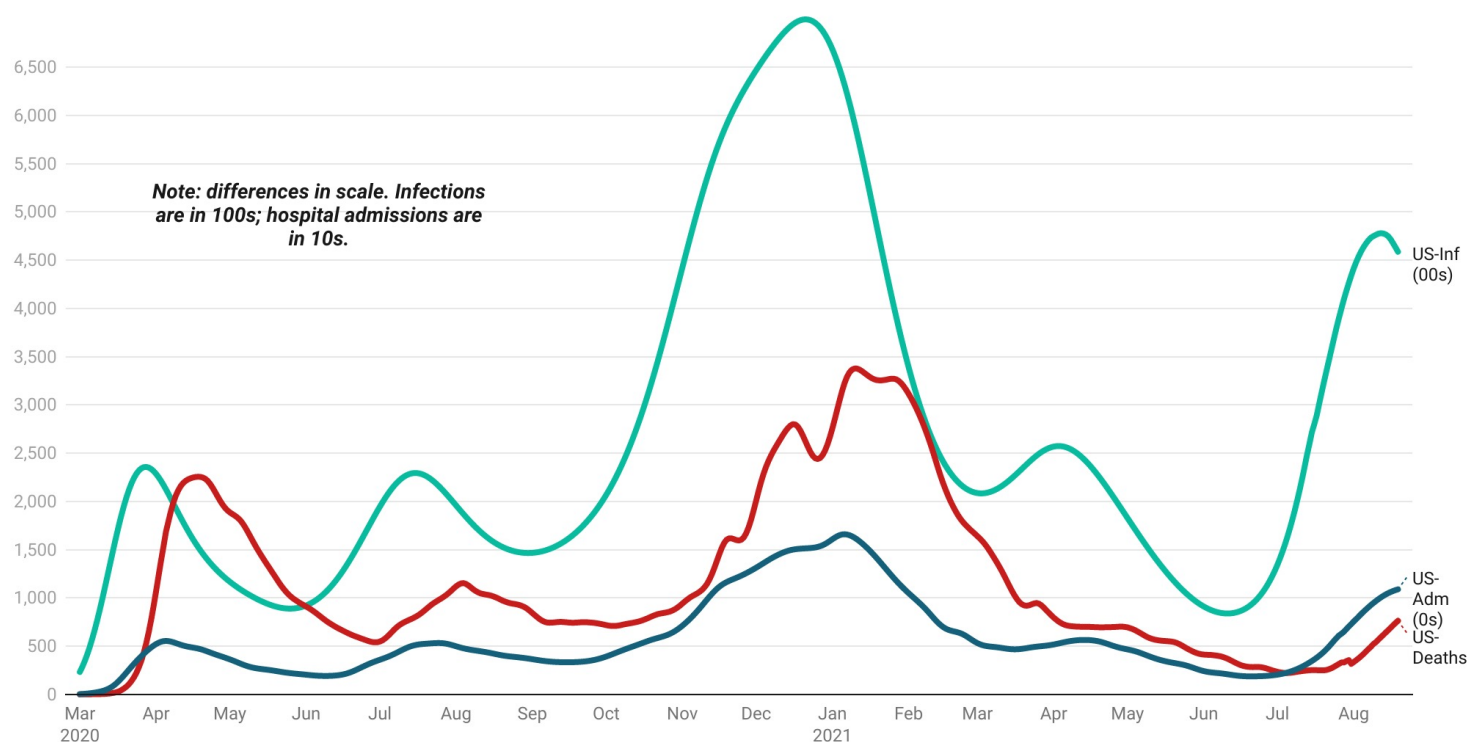


Chart: Health Industry Advisor LLC • Source: Institute for Health Metrics and Evaluation • Created with Datawrapper

Covid-19 "Vital Signs"

Newly Detected Cases

Reported new cases remain on the rise in the United States. The rate of increase, however, is slowing.

Newly-Detected Cases / Million

7-Day Average

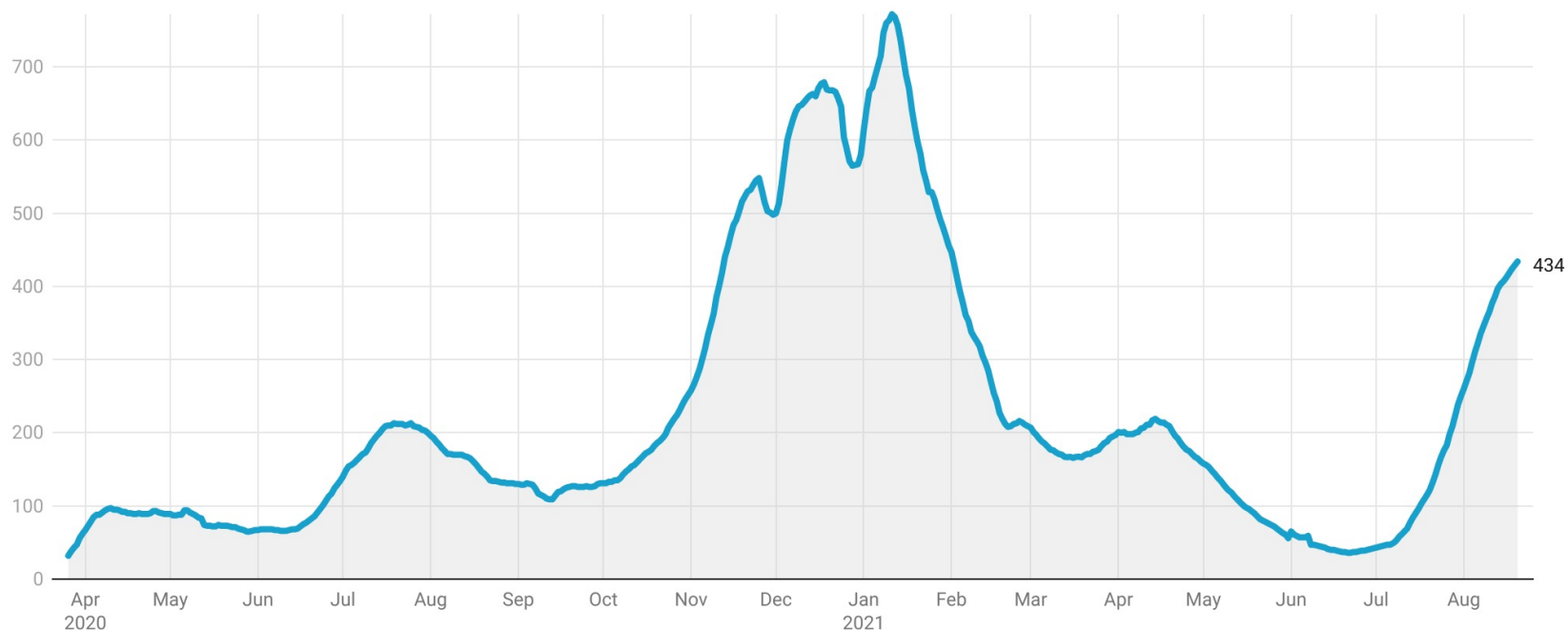


Chart: Health Industry Advisor LLC • Created with Datawrapper

Covid-19 "Vital Signs"

Weekly Change in Newly Detected Cases

Despite the two-month long infection surge in the United States, the rate of increase in new cases declined over the last month. The current growth rate fell to single digits on Friday.

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

7-Day Moving Average, As of August 20

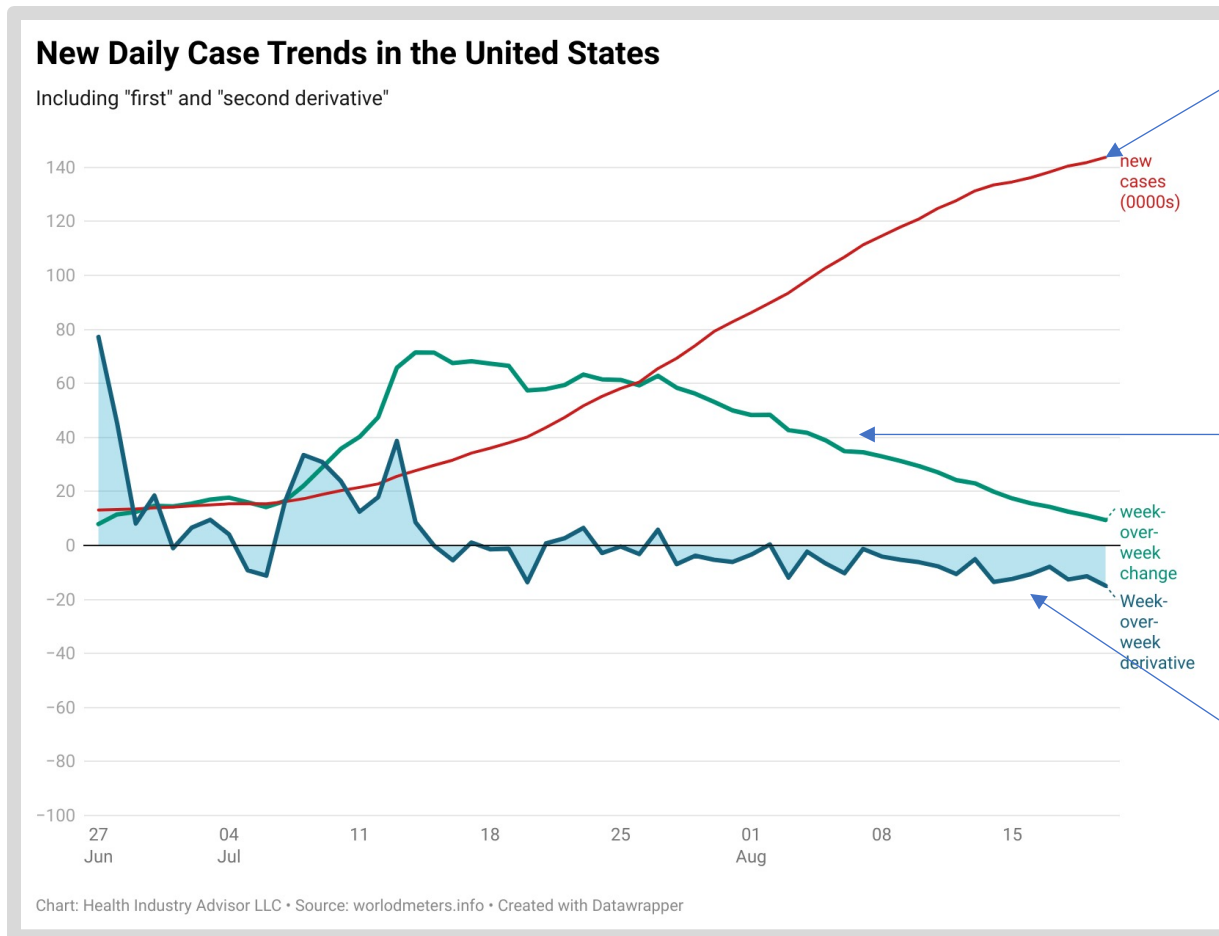


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

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 24 consecutive days and 30 of the last 32.

Estimated Daily Infections & New Case Rates

The gap between estimated infections and detected cases widens during surges. Some of the growing gap should be tied to insufficient testing.

Estimated Daily Infections v. Detected Cases

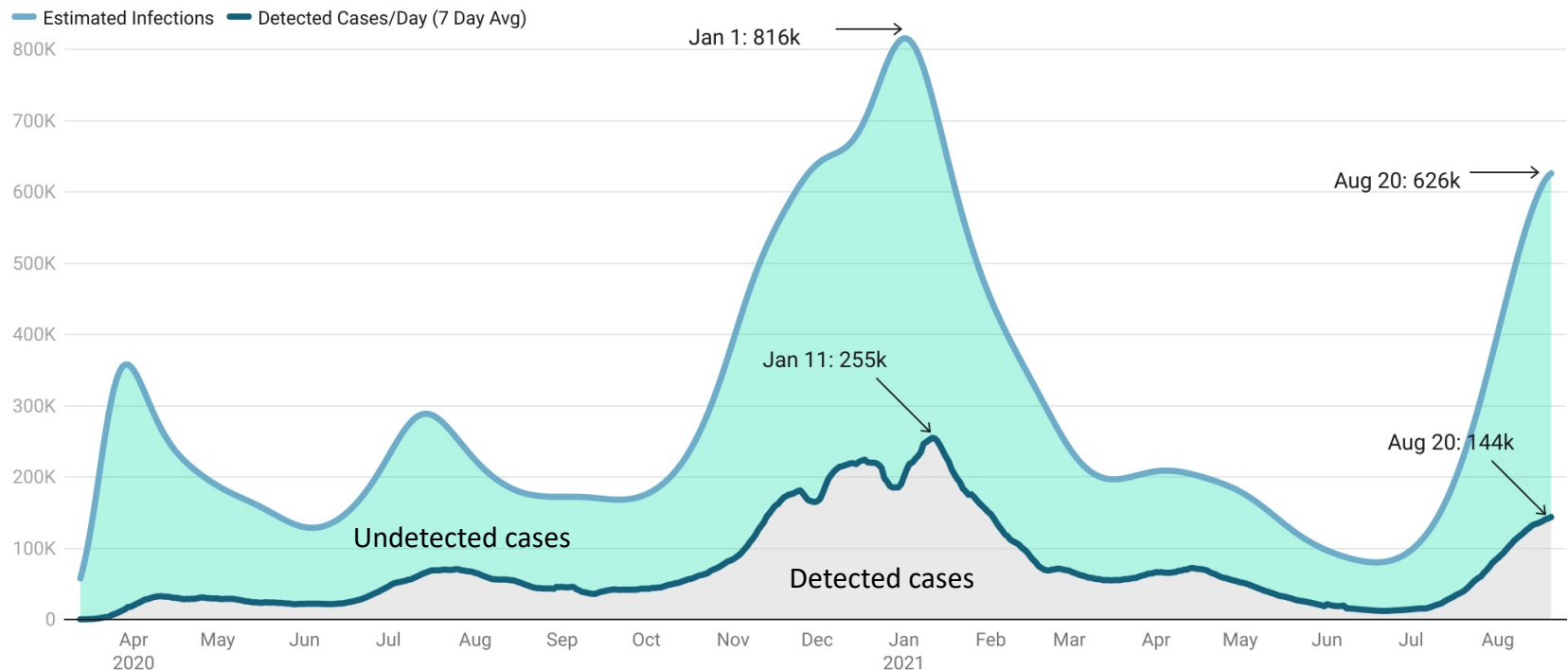


Chart: Health Industry Advisor LLC • Source: Yale School of Public Health • Created with Datawrapper

Covid-19 "Vital Signs"

New Cases / Million By State

The current surge is hitting Florida, Louisiana, and Mississippi harder than other states. Fortunately, case rates in each of these states eased within the past several days.

New Daily Cases / Million

7-Day Average, As of August 20

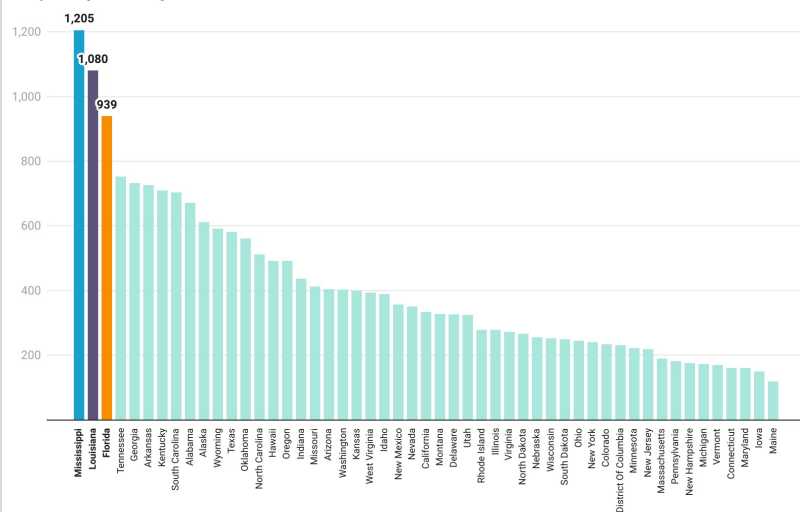


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

New Daily Cases / Million

7-Day Average

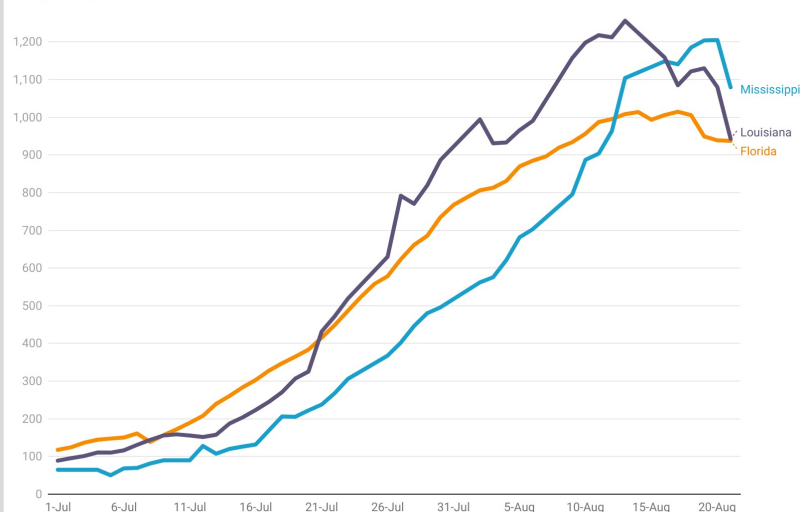


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

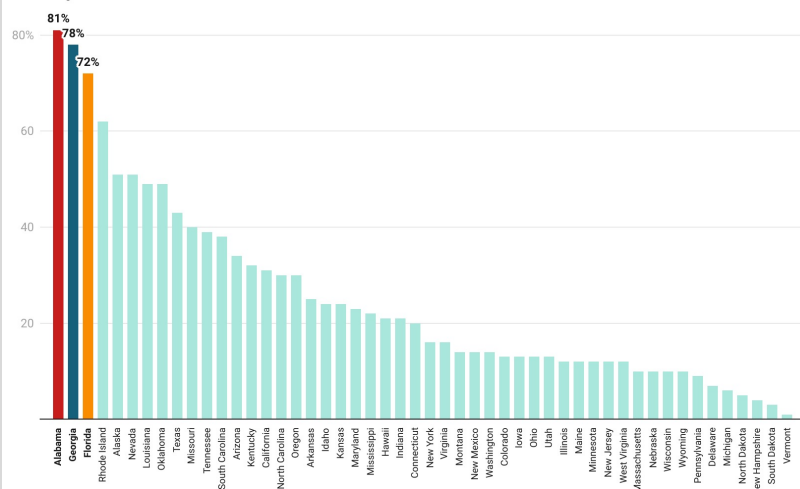
Covid-19 “Vital Signs”

Covid-19 Hospitalizations

The current hospital crisis is concentrated in a handful of states, especially Alabama, Georgia, and Florida. IHME estimates that Covid census reached its peak in Florida last week and will peak in Alabama later this week. Georgia faces another difficult period ahead.

Covid Occupancy as % of All Beds

As of August 21



Based on IHME's latest forecast, published August 20

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

Estimated & Projected Covid Occupancy

As % of All Inpatient Beds

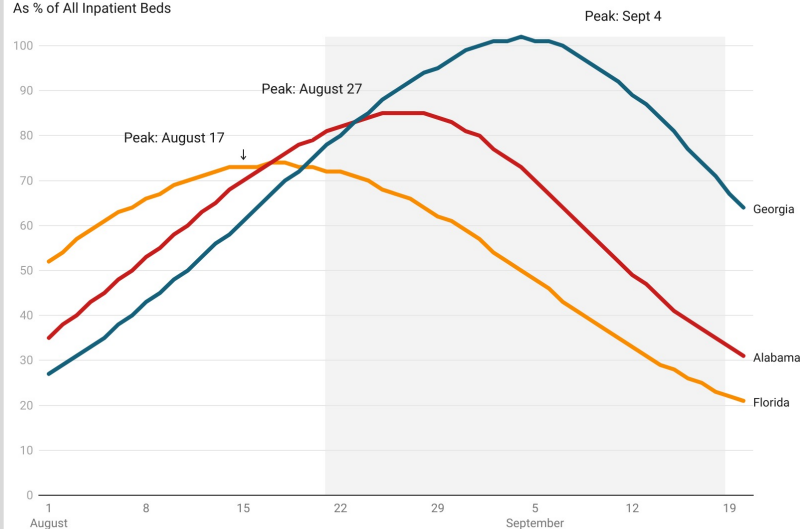


Chart: Health Industry Advisor LLC • Source: Institute for Health Metrics and Evaluation • Created with Datawrapper

Hospitalization Rates By Age Group

Despite recent press reports, CDC data suggests that hospitalization rates among minors remain low. Hospital rates among senior citizens dropped and has remained low since vaccinations began.

Hospital Admissions per 100,000 By Age

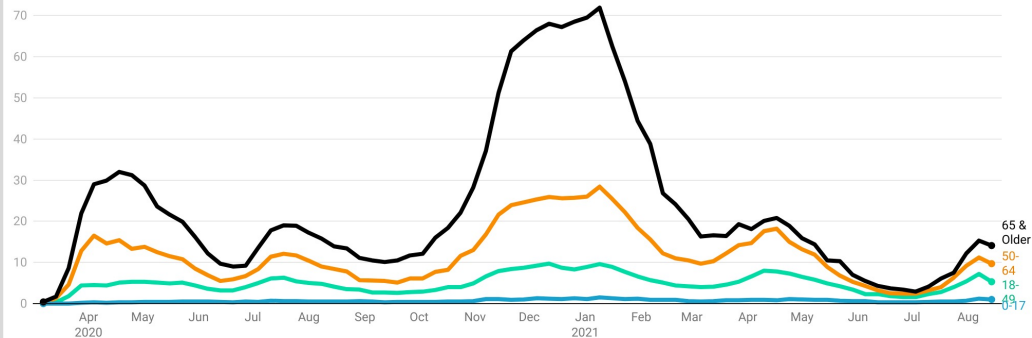


Chart: Health Industry Advisors LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Covid Hospital Admissions By Age Group

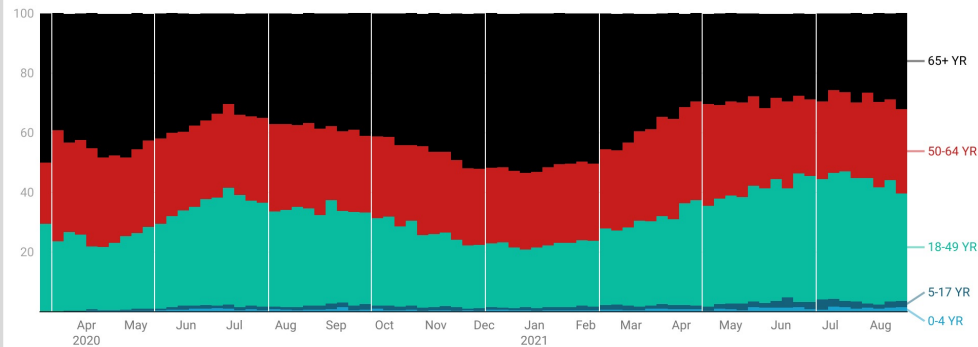


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

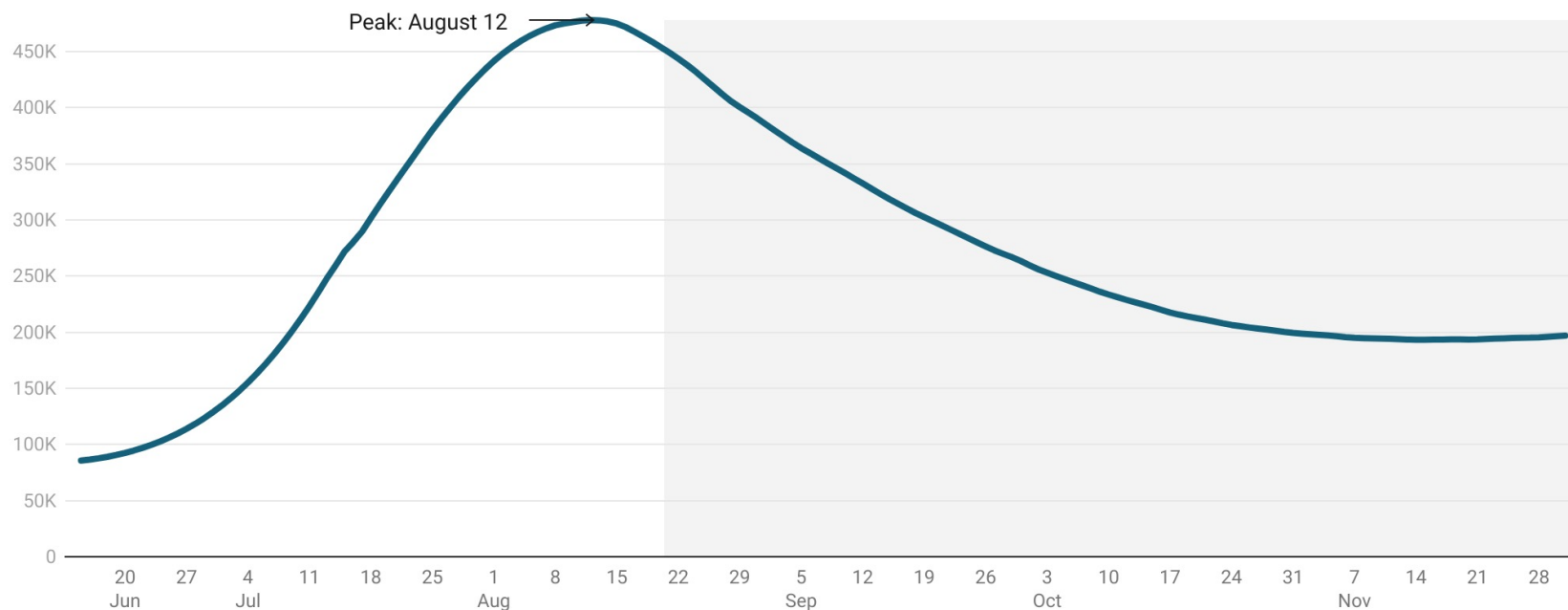
Covid-19 "Vital Signs"

Estimated Infections- IHME Projections

In its latest model (published August 20) IHME re-affirmed its assertion that the current Delta infection wave has crested in the United States. IHME foresees infections dropping by more than half then, stabilizing through the end of November

Estimated and Projected Infections - U.S.

Institute For Health Metrics and Evaluation



Forecast Date: August 19

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

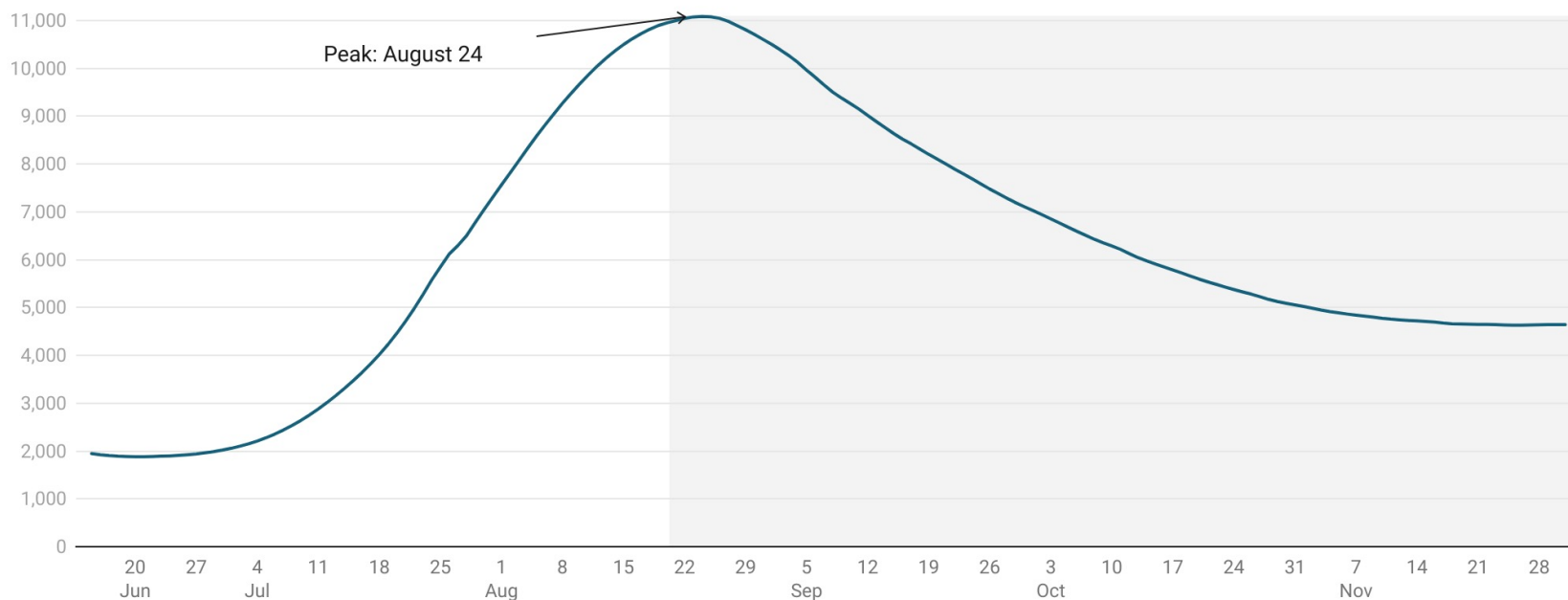
Covid-19 "Vital Signs"

Covid-19 Inpatient Admissions – IHME Projections

With declining infections, hospitals should see relief soon. IHME anticipates that Covid admissions will peak early this week.

Estimated and Projected Covid Hospital Admissions - U.S.

Institute For Health Metrics and Evaluation



Forecast Date: August 19

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

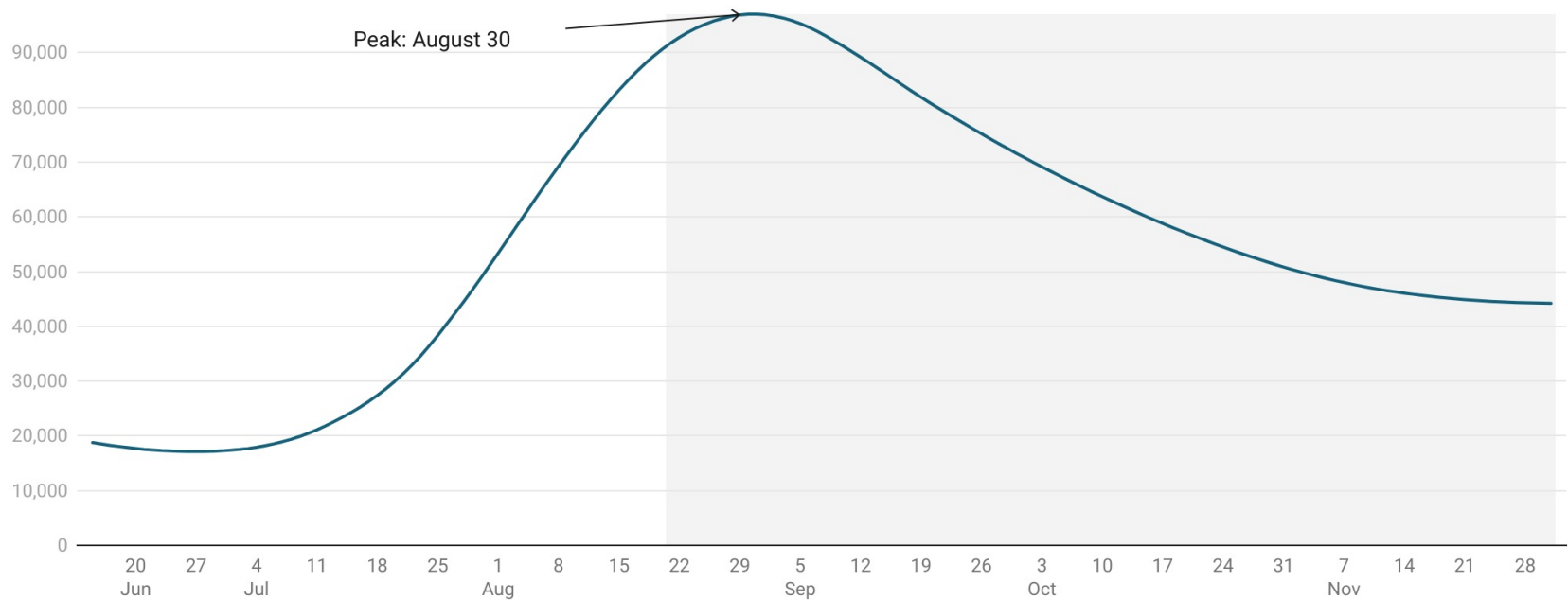
Covid-19 "Vital Signs"

Covid-19 Inpatient Census – IHME Projections

As admissions decline, Covid census will shortly follow suit. The peak in Covid census may come as soon next week.

Estimated and Projected Covid Hospital Census - U.S.

Institute For Health Metrics and Evaluation



Forecast Date: August 19

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

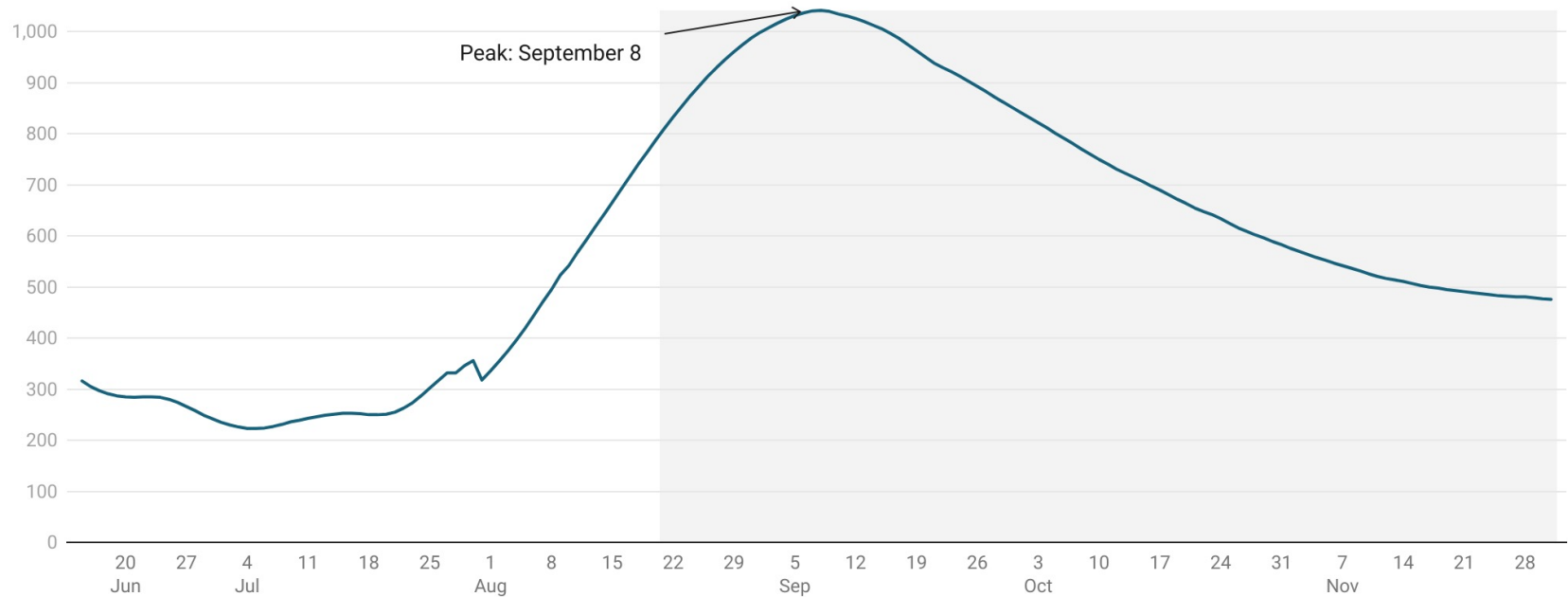
Covid-19 "Vital Signs"

Deaths With Covid-19: IHME Projection

The final benefit of slowing infections should be a drop in daily deaths reported with Covid. IHME expects deaths to peak early in September, at about 1,000 daily.

Estimated and Projected Covid Deaths - U.S.

Institute For Health Metrics and Evaluation



Forecast Date: August 19

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>