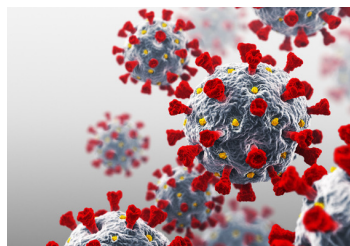


Covid-19 "Vital Signs"

Issue # 343

August 16, 2021



Covid-19 "Vital Signs"

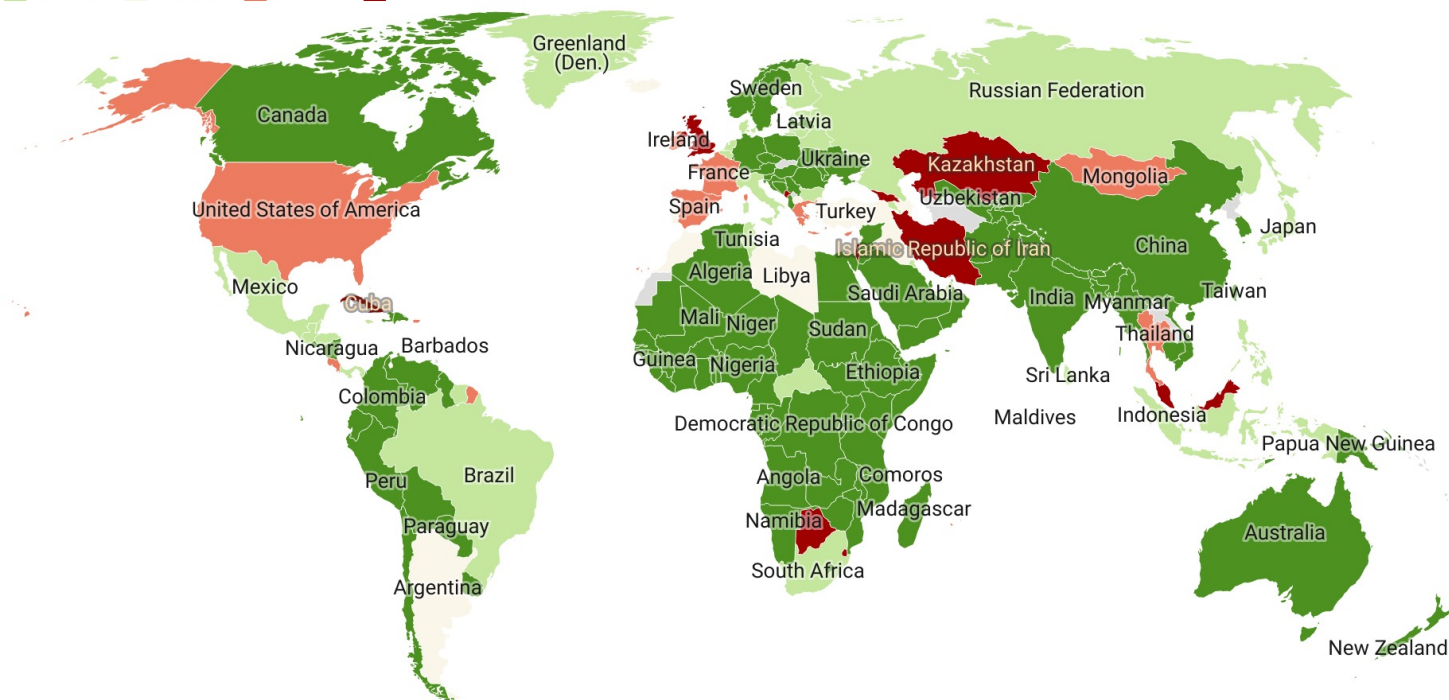
Newly Detected Cases / Million

Among countries with population greater than 1 million, Georgia, Botswana and Cuba posted the highest infection rates per capita last week. Israel had the 5th highest, United Kingdom 8th highest and the United States the 10th highest.

New Infections / Million

7-Day Average, As of August 14

< 100 100–200 200–300 300–400 ≥ 400



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

Covid-19 "Vital Signs"

Infection Rate Trends – Israel, United Kingdom & the United States

Infection rates in the United Kingdom have increased slightly during the past two weeks. Israel's infection rate has increased rapidly.

New Infections Per Million

7-Day Average

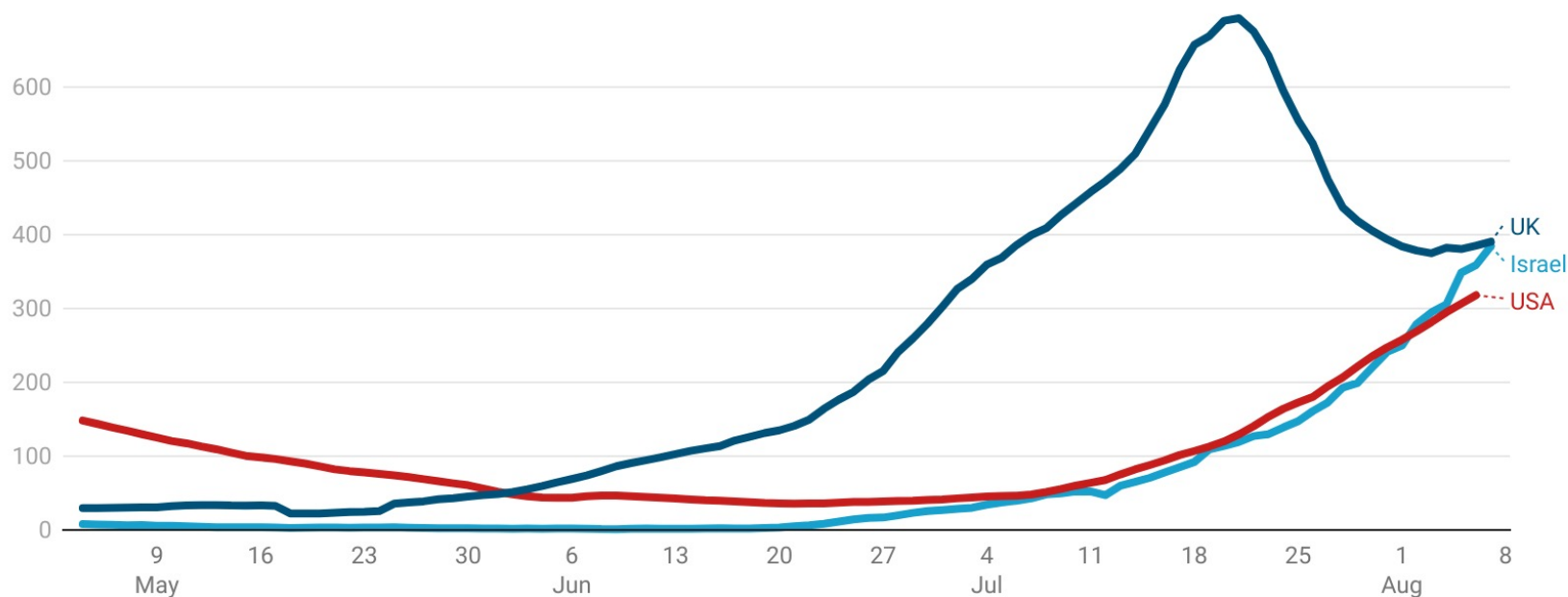


Chart: Health Industry Advisor LLC • Source: [worldometers.info](https://www.worldometers.info) • Created with Datawrapper

Covid-19 “Vital Signs”

Newly Detected Cases

The infection rate in the United States has surged since late June. This rate exceeds that posted during the first two waves yet, is half the peak posted during the third wave.

Newly-Detected Cases / Million

7-Day Average

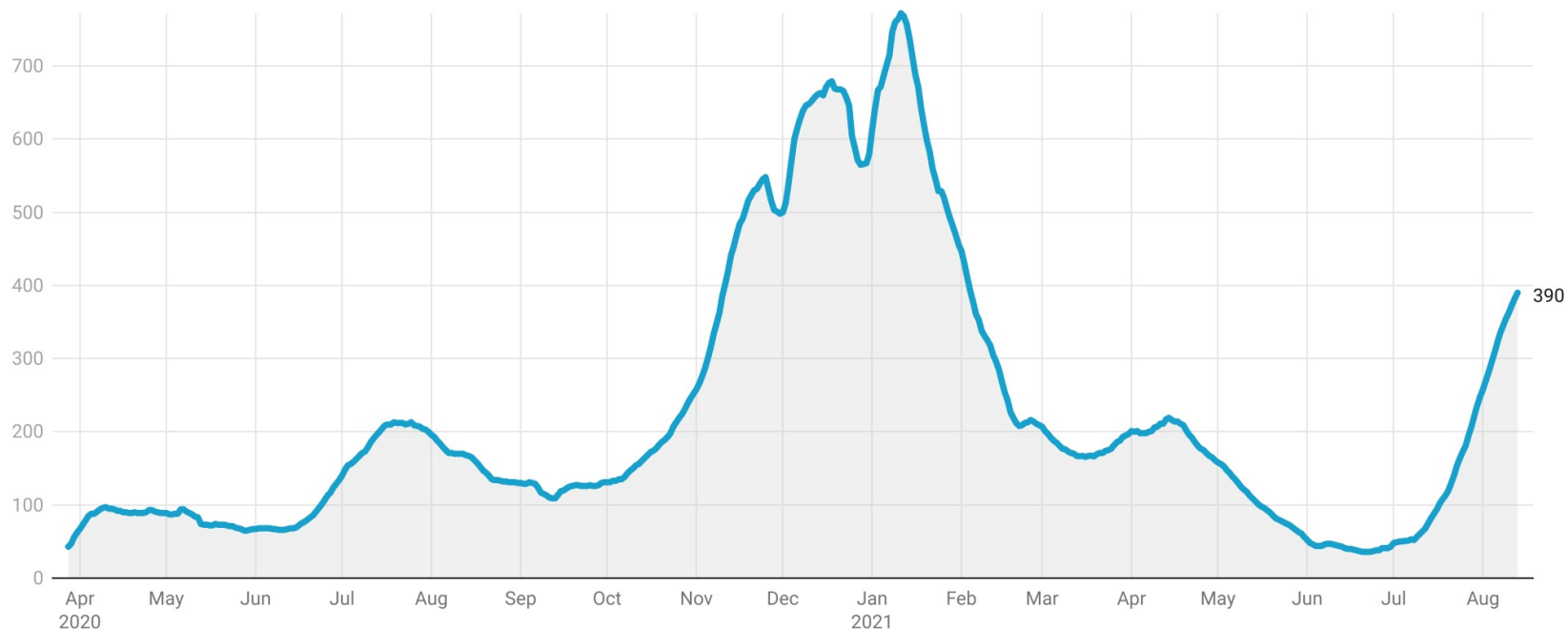


Chart: Health Industry Advisor LLC • Created with Datawrapper

Weekly Change in Newly Detected Cases

Despite the nearly two-month long infection surge in the United States, the rate of increase in new cases has declined over the last three weeks.

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

7-Day Moving Average, As of August 13



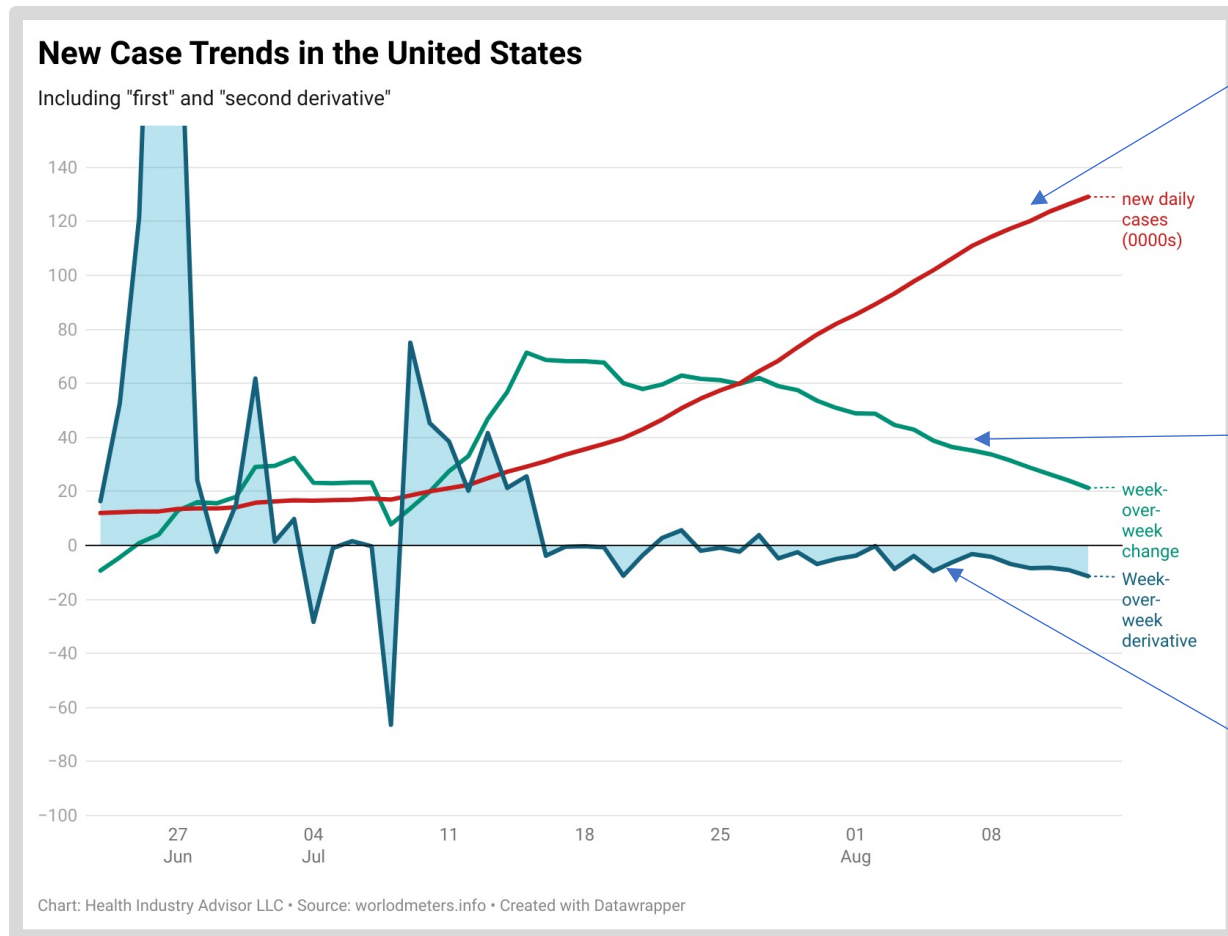
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

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 17 consecutive days and 23 of the last 25.

Covid-19 "Vital Signs"

New Cases / Million

Infection rates remain highest in the South, followed by the West.

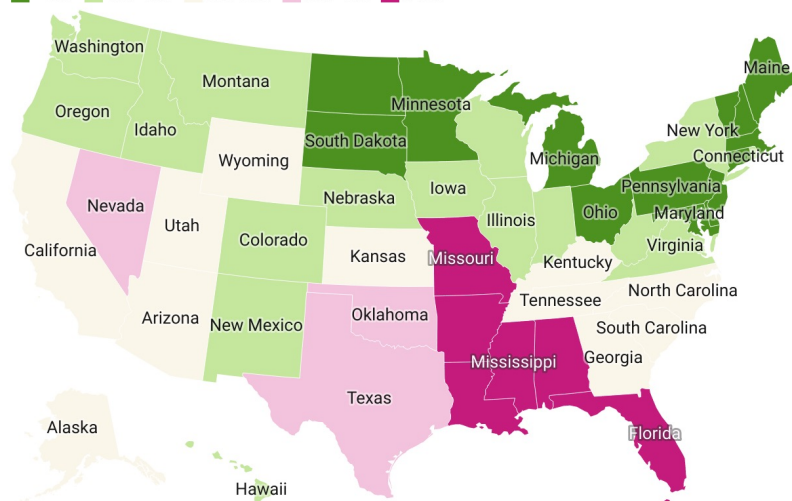
July 30

August 13

New Cases / Million

7-Day Moving Average, As of July 30

■ < 100
 ■ 100-200
 ■ 200-300
 ■ 300-400
 ■ ≥ 400

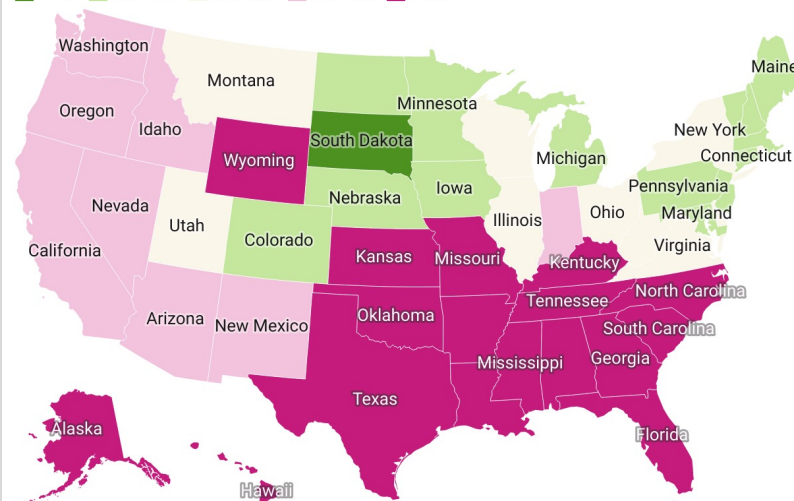


Map: Health Industry Advisor LLC • Created with Datawrapper

New Cases / Million

7-Day Moving Average, As of August 13

■ < 100
 ■ 100-200
 ■ 200-300
 ■ 300-400
 ■ ≥ 400

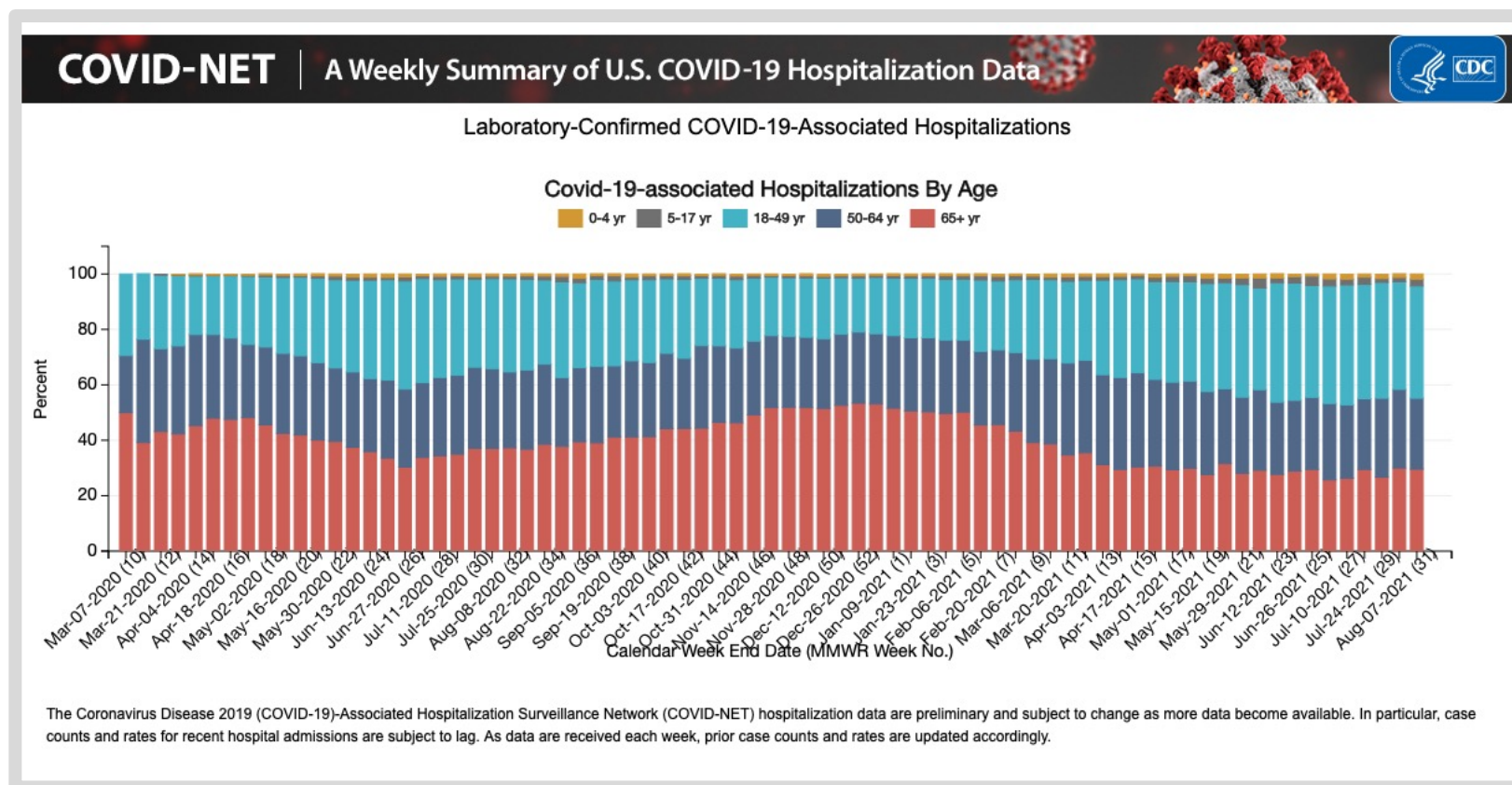


Map: Health Industry Advisor LLC • Created with Datawrapper

Covid-19 "Vital Signs"

Covid-19 Hospitalizations By Age

Hospitalized Covid patients have trended younger since the beginning of the year. In January, half of the Covid patients were 65 years or older. Now, three-in-ten are seniors. Four-in-ten now are 18-49 years old – twice the rate in January.



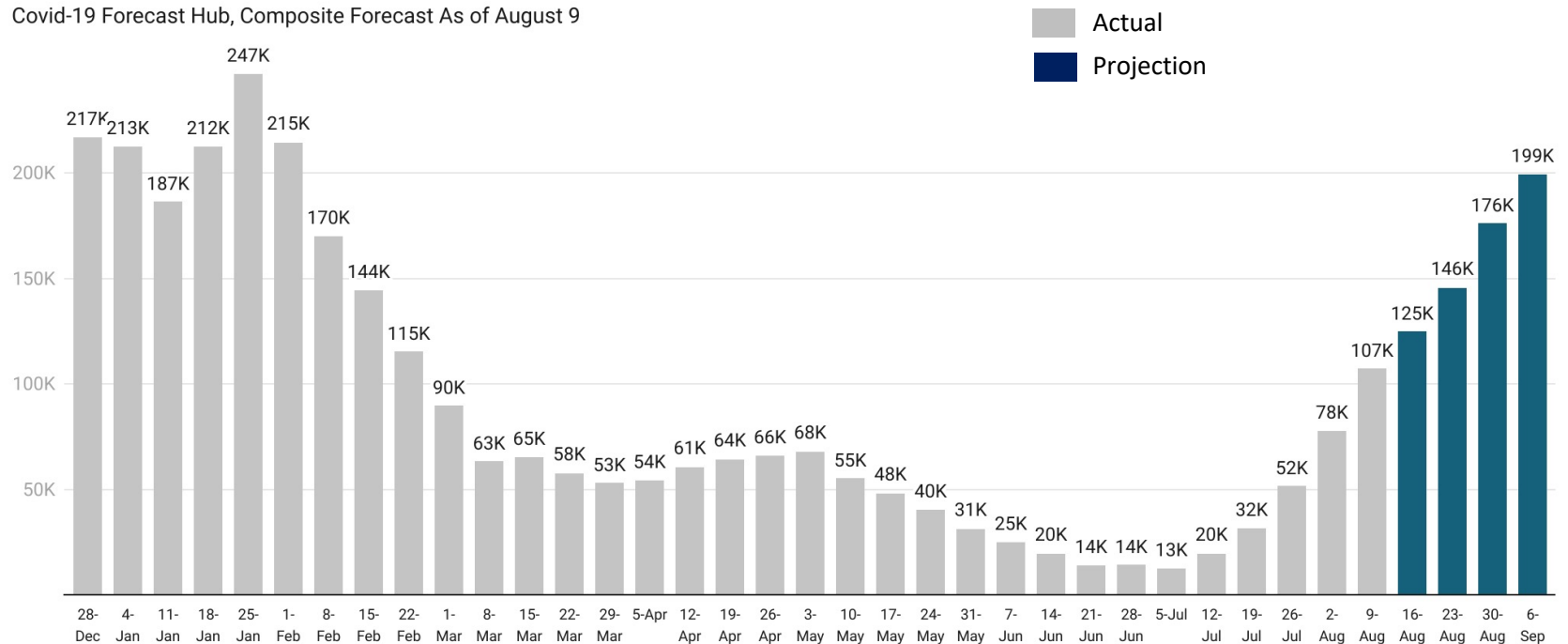
Covid-19 "Vital Signs"

Covid-19 Cases: Ensemble Forecast

The ensemble forecast published a week ago suggests that infections will continue surging. In this forecast, infections double in a month

Newly-Detected Cases Per Day

Covid-19 Forecast Hub, Composite Forecast As of August 9



For the week ending on the date shown

Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

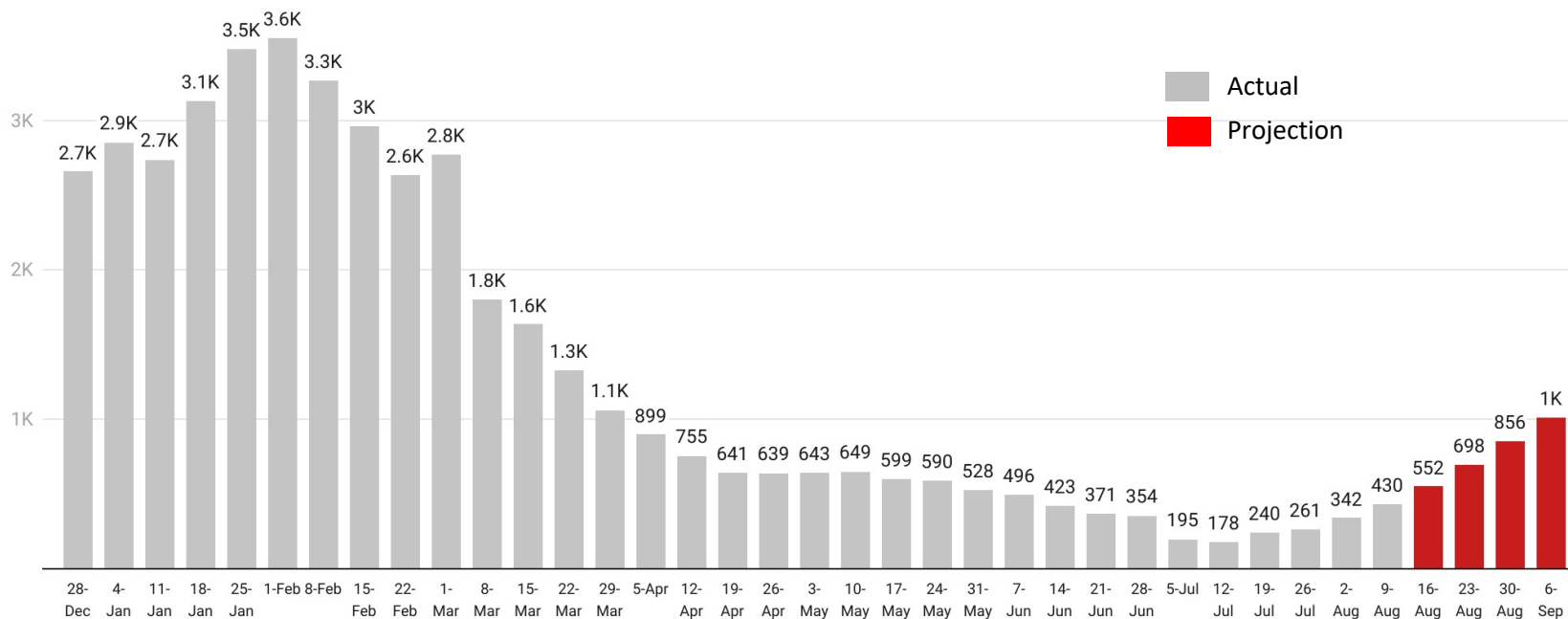
<https://viz.covid19forecasthub.org>

Death Projections – Ensemble Forecast

The ensemble forecast also hints at a increasing Covid deaths over the next four weeks.

Newly-Reported Deaths Per Day

Covid-19 Forecast Hub, Composite Forecast As of August 9



For the week ending on the date shown

Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

<https://viz.covid19forecasthub.org>

Covid-19 “Vital Signs”

Test-Positivity Rate

Throughout the current infection surge, more and more tests came back positive for Covid. However, in the last week, this test-positive rate stabilized and is now declining.

Test-Positivity Rate

7-Day Average, Through August 10

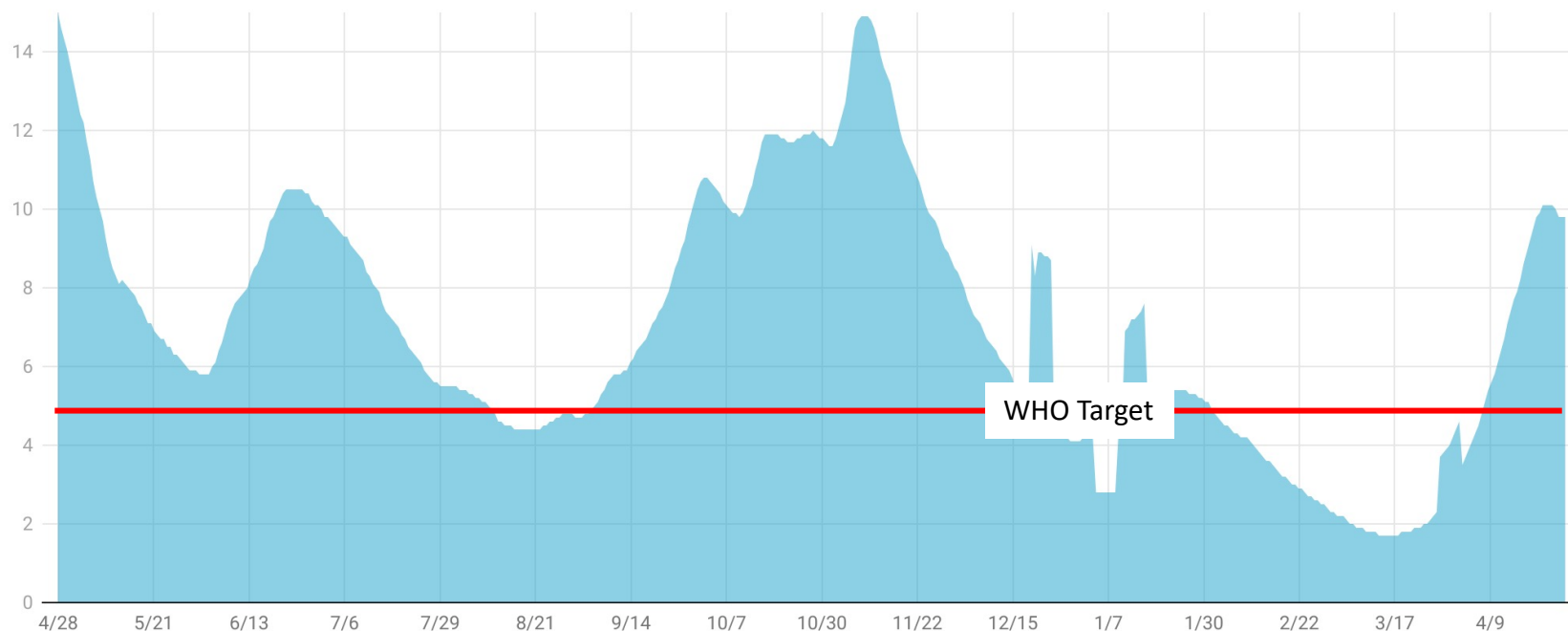


Chart: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Vaccination Status By Age

Covid-19 "Vital Signs"

The current infection surge has prompted more people to seek vaccination. For example, among 18–64-year-olds, the full vaccination rate jumped, from 51% to 56%. Among 12–17-year-olds, the rate remains low at 18% but, is improved from 11%.

Vaccination Status By Age

As of August 14

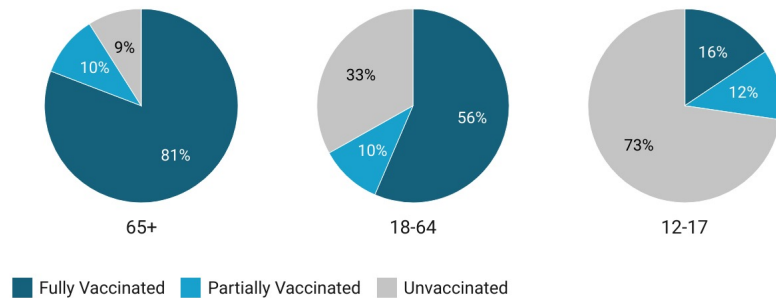


Chart: Health Industry Advisor LLC • Source: CDC • Created with Datawrapper

Vaccination Status By Age

As of June 23

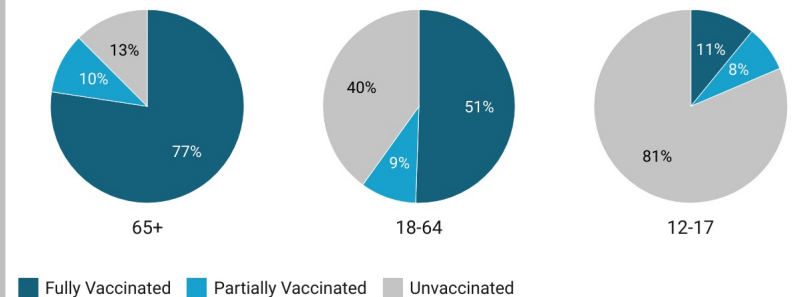


Chart: Health Industry Advisor LLC • Source: CDC • Created with Datawrapper

Pace of Vaccinations

Daily vaccinations have trended higher since early July.

Vaccines Administered per Day - United States

7-Day Average

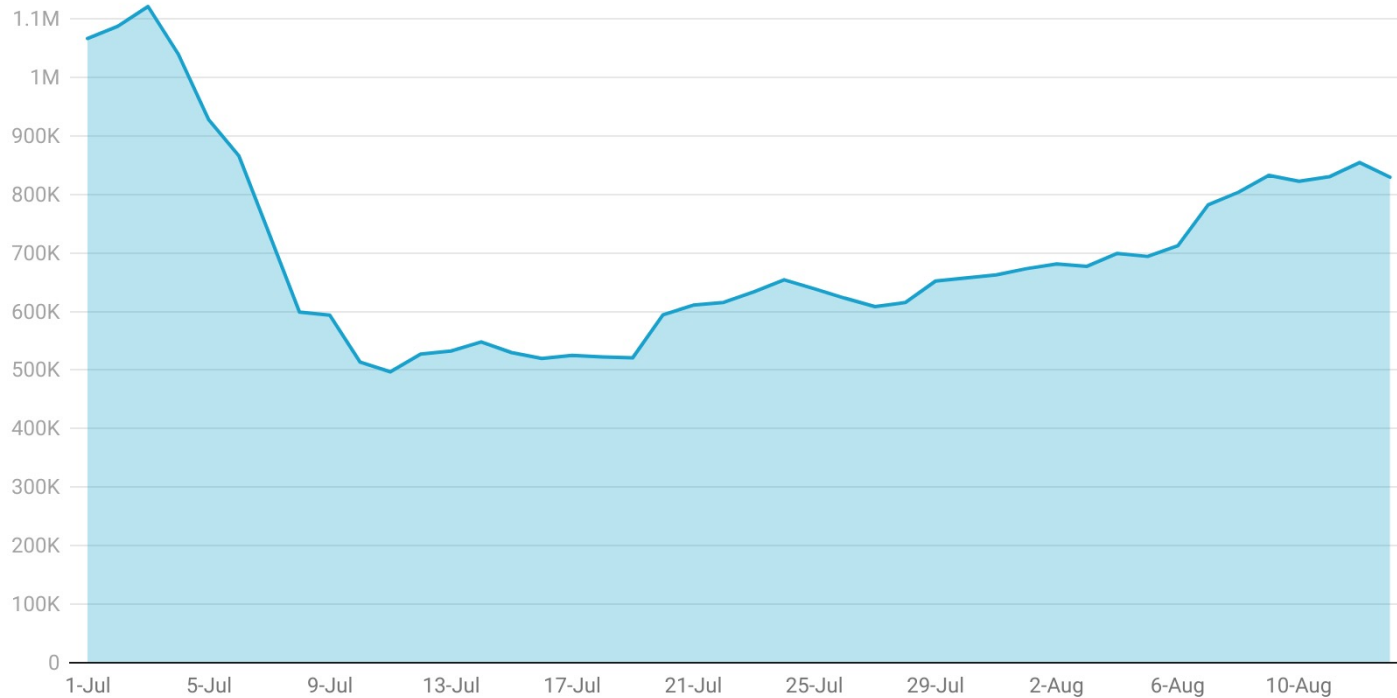


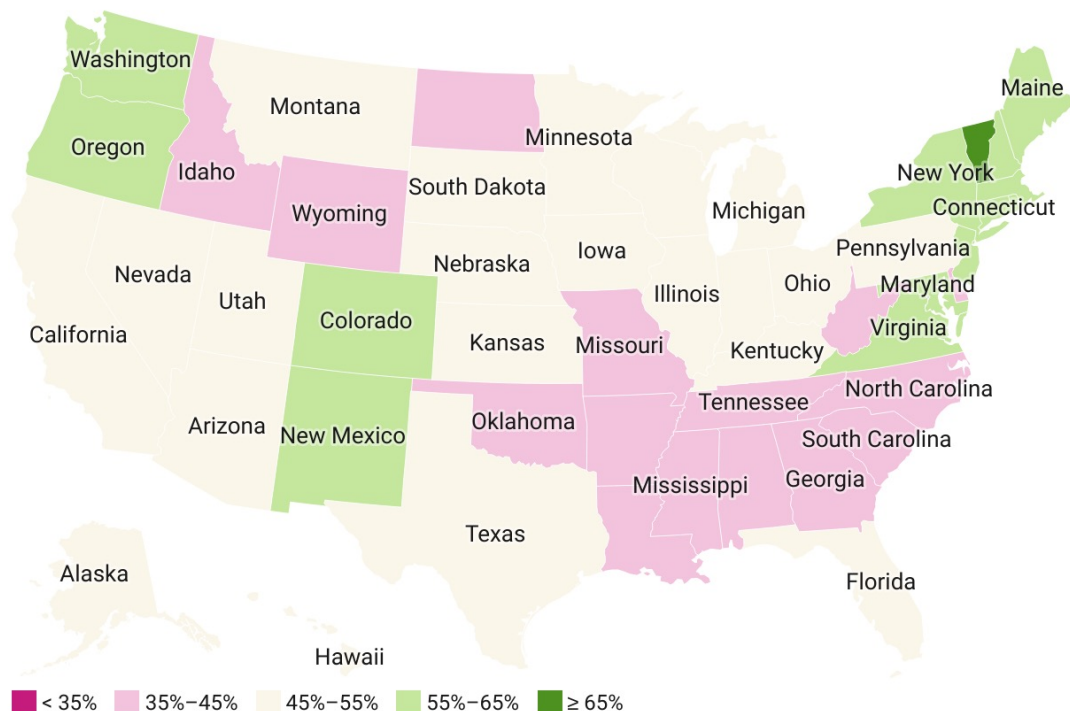
Chart: Health Industry Advisor LLC • Source: CDC, Bloomberg • Created with Datawrapper

Vaccine Tracking - % of Adult Population Vaccinated

Vermont is setting the pace for the country in full vaccination rates. Parts of the South and the Mountain States are lagging the rest of the country.

% of Population Fully Vaccinated

As of August 13



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

Covid-19 “Vital Signs”

Covid-19 Admissions & Inpatient Census

IHME latest forecast (August 6) predicted that Covid admissions would peak as soon as next week. Covid hospital census is expected to peak a week later.

Covid-19 Admissions & Inpatient Census

IHME Projections, As of August 6

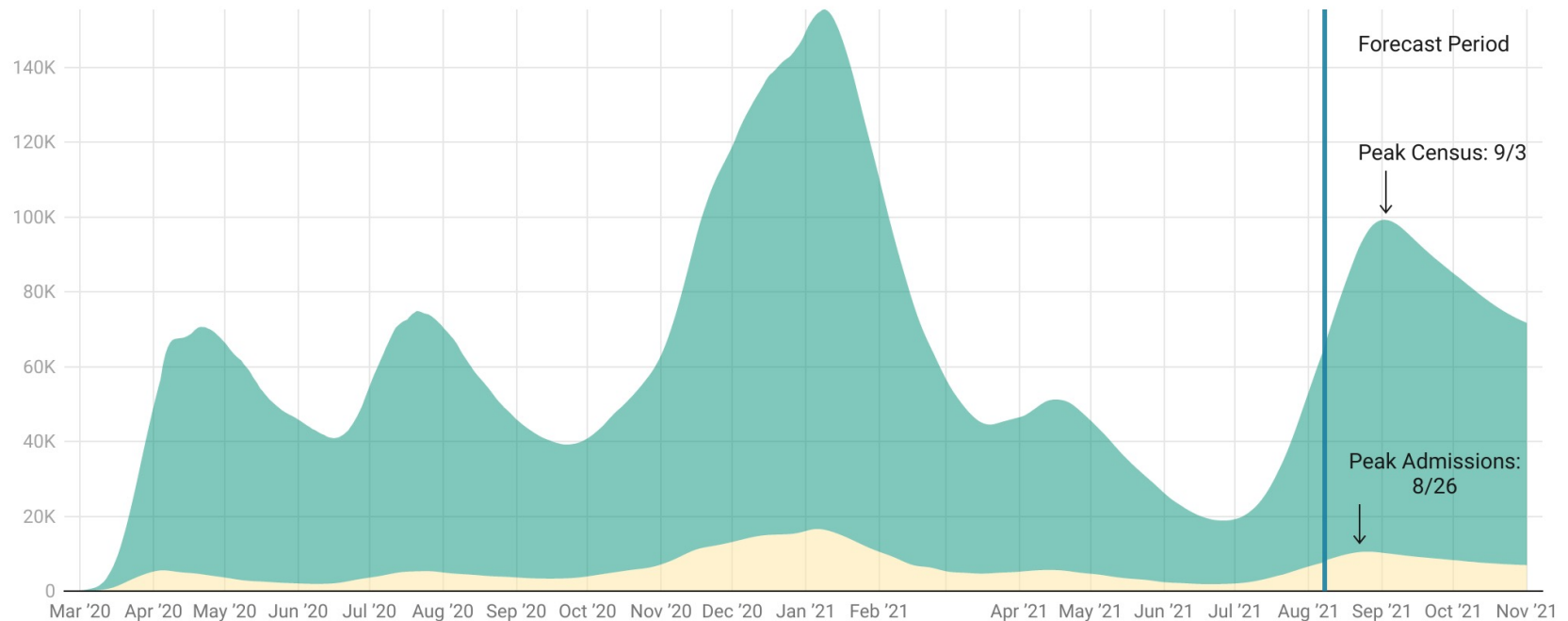


Chart: Health Industry Advisor LLC • Source: Institute for Health Metrics and Evaluation • Created with Datawrapper

Covid-19 "Vital Signs"

Deaths With Coronavirus

Deaths with Covid continue to increase. However, the current rate remains lower than it has been for most of the pandemic.

Deaths With Coronavirus

7-Day Average, Through August 13



Chart: Health Industry Advisor LLC • 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>