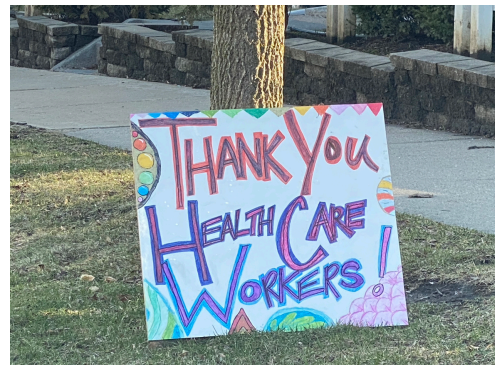
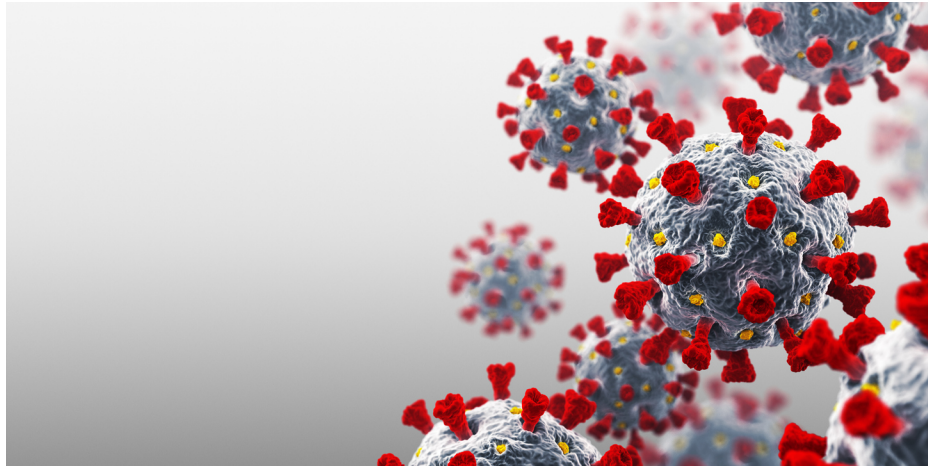
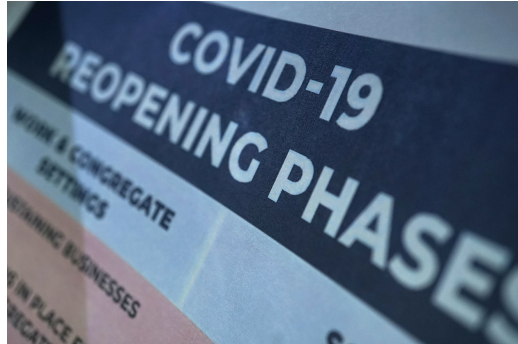




COVID-19 Report

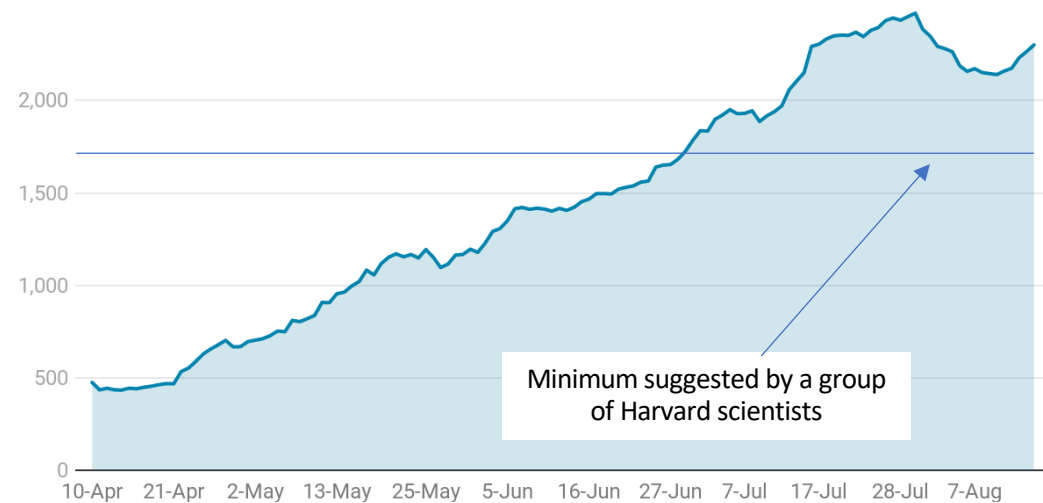
Issue # 137

Sunday, August 16, 2020

- **Test volume is continuing to show a resurgence in the US.** On a week-over-week basis, test volume is up 8%. Importantly, **the 7-day average test-positive rate is at its lowest since June 27**
- **Six states have both high (>10%) and increasing test-positive rates for the past week:** Alabama, Arkansas, Idaho, Kansas, Mississippi and Texas. Sixteen states are experiencing test-positive rates of 5% or lower
- New cases were sharply lower yesterday (not unusual for a Saturday) and are the fewest on any Saturday since Independence Day. On a week-over-week bases, new cases were down 2.6%
- **New infections per capita, on a 7-day moving average basis, inched lower again yesterday, continuing a new 5-day trend**
- At this point, the U.S. ranks 8th in the world on total cases per capita but, has fallen to 11th in the current rate of new infections per capita; it ranked 5th on this rate just two weeks ago
- **On a state-by-state basis, the new infection rate seems to be easing in the Southeast and parts of the West. Of the eleven states with the highest rates, only two, Alabama and California, saw these rates increase over the past week**
- Among Large Central Metro Areas, twelve of the twenty with the highest current infection rates are in California, Florida and Texas; Six of the ten with the lowest rates are in New Jersey and New York
- A similar pattern is observed with Large Fringe Areas: twelve of the twenty highest rates are in California, Florida and Texas; four of the ten lowest rates are in New Jersey and New York
- **Healthcare resource use for COVID-19 cases continues to decline**
 - Hospital census is down 22% since July 22 and 26+% since mid-April
 - ICU census is down 18% in the past two weeks and 42% since mid-April
 - ER visits % is now less than 1/2 its early-July peak
- **Deaths with the coronavirus remain too high, however, they declined slightly for the 4th consecutive day on Saturday**

Daily Tests Per 1 Million - United States

Trailing 7-Day Moving Average, As of August 15

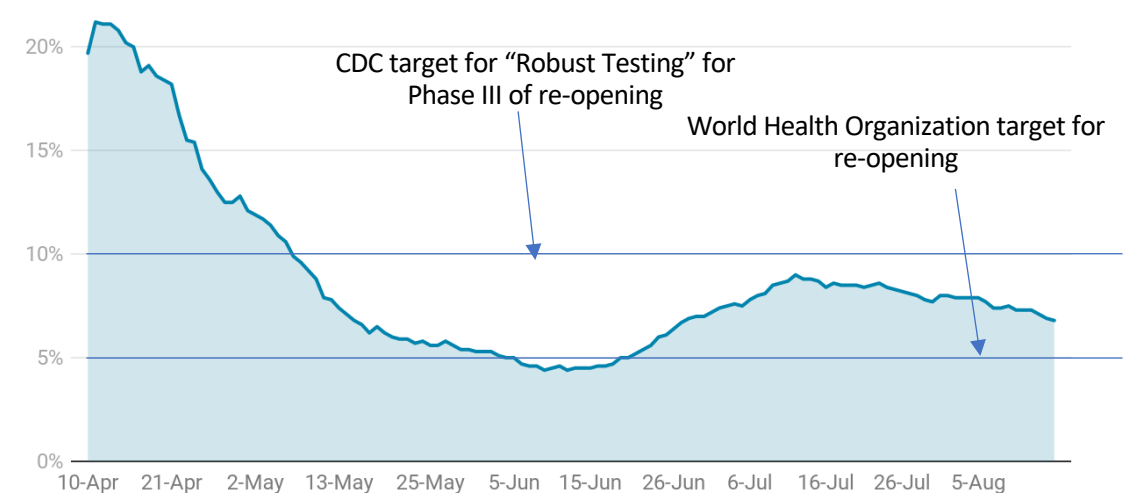


Health Industry Advisor LLC analysis

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

Test-Positive Rate - United States

Trailing 7-Day Moving Average, As of August 15



Health Industry Advisor LLC analysis

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

Note: On August 11, North Carolina made a significant adjustment, removing 220,000 tests from their YTD totals. We manually removed this negative adjustment from the August 11 data to better reflect actual testing for that date

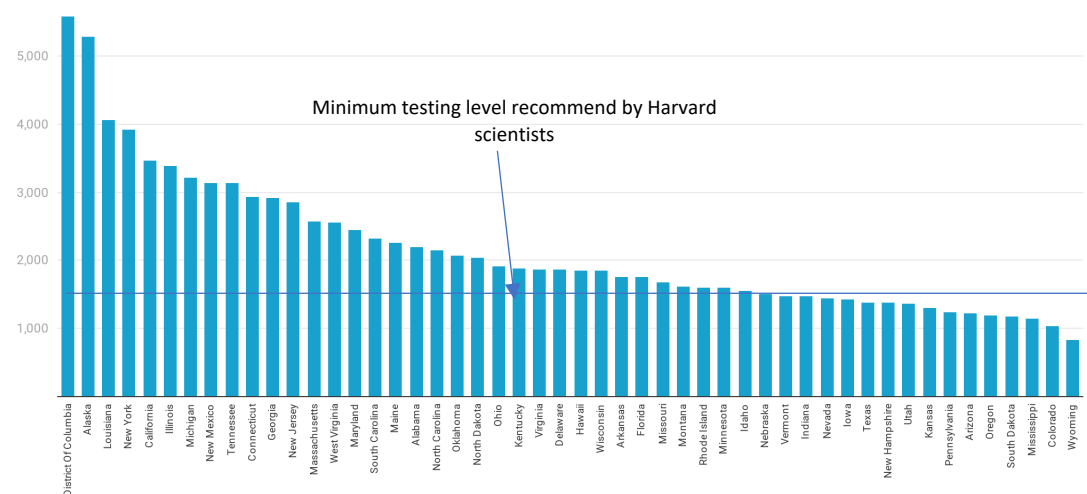
Note: Due to a computer glitch, Washington has only reported positive results since August 1. Therefore, test-positive rates from that point forward are slightly overstated by ~0.1%

State-By-State

Fifteen states are testing below the level suggested by Harvard scientists
 Eleven states have test-positive rates above the CDC-target for Phase III re-opening ; six of these saw increasing rates this week
 Thirty-four are above the more-stringent WHO recommended target

Daily Tests Per 1 Million Population

Trailing 7-Day Moving Average, As of August 15



Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid tracking Project • Created with Datawrapper

Test-Positive Rate

Trailing 7-Day Moving Average, As of August 15

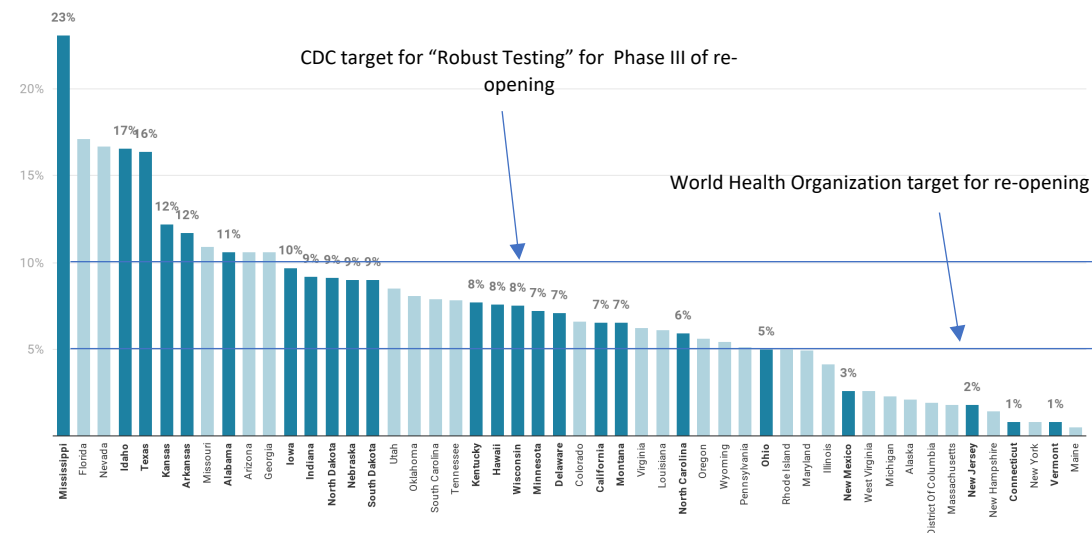


Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Projects • Created with Datawrapper

1 – source: (source: <https://www.kff.org/coronavirus-policy-watch/what-testing-capacity-do-we-need/>)

2- Minnesota made an adjustment to tests counts this week, rendering this value meaningless

Note: Due to a computer glitch, Washington has only reported positive results since August 1. On August 11, North Carolina made a significant adjustment, removing 220,000 tests from their YTD totals. We manually removed this negative adjustment from the August 11 data to better reflect actual testing for that date

New cases were down sharply yesterday; were the fewest new cases on a Saturday since July 4th; Week-over-week, new cases are down 2.6%

New Cases

Through August 15

Saturdays Highlighted

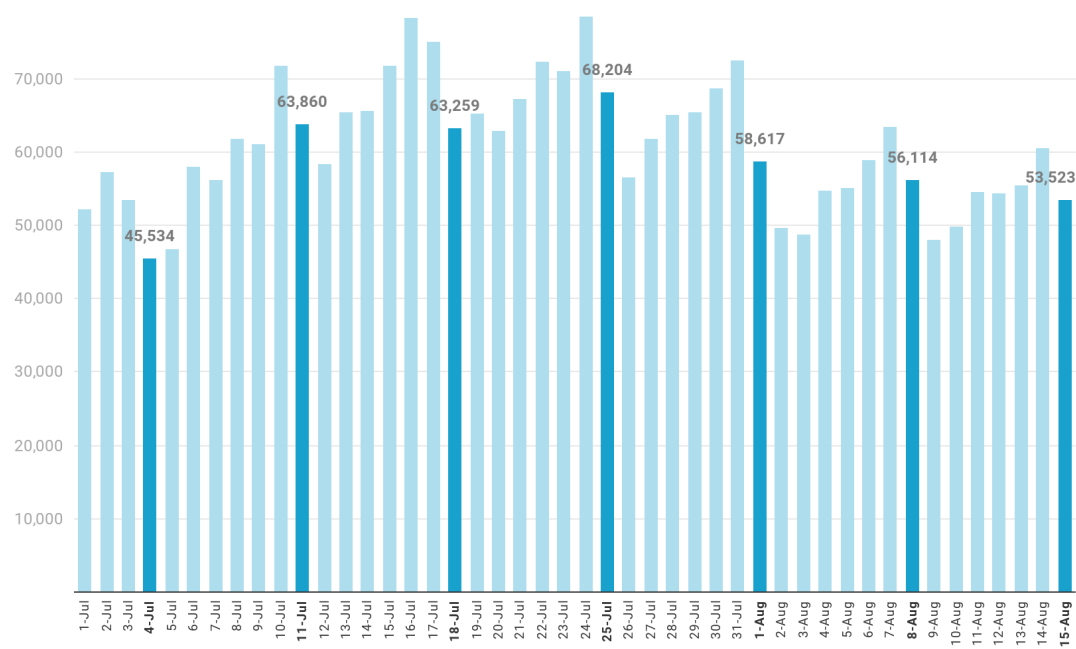
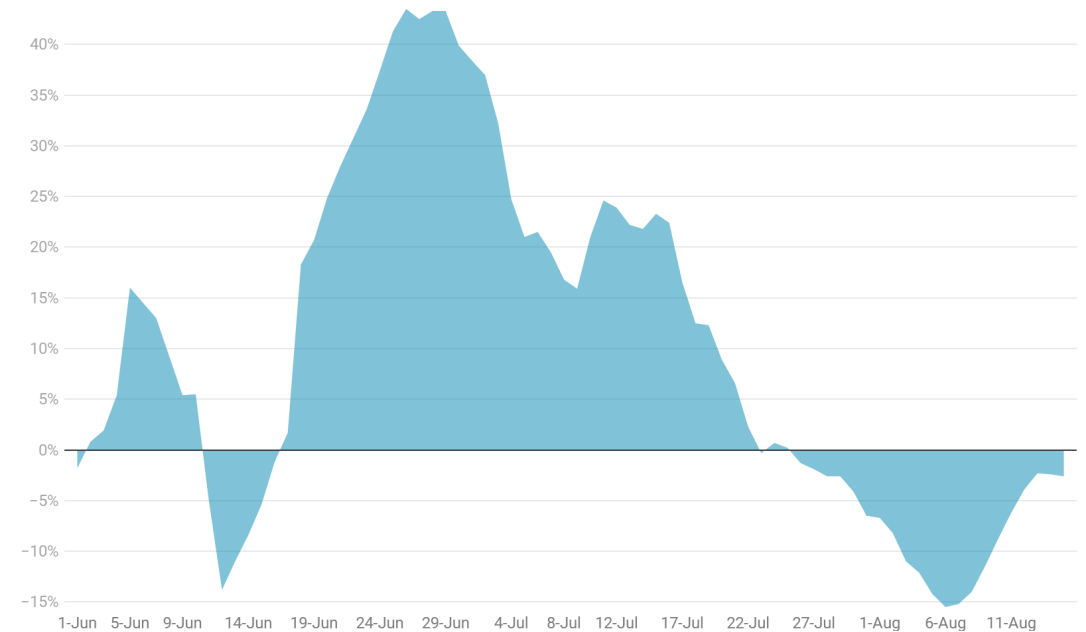


Chart: Health Industry Advisor LLC • Source: eorlometers.info • Created with Datawrapper

Note the daily pattern: new cases are typically low on Sunday, then increase each day through the week

Week-Over-Week Change In New Cases

Through August 15



Health Industry Advisor LLC analysis

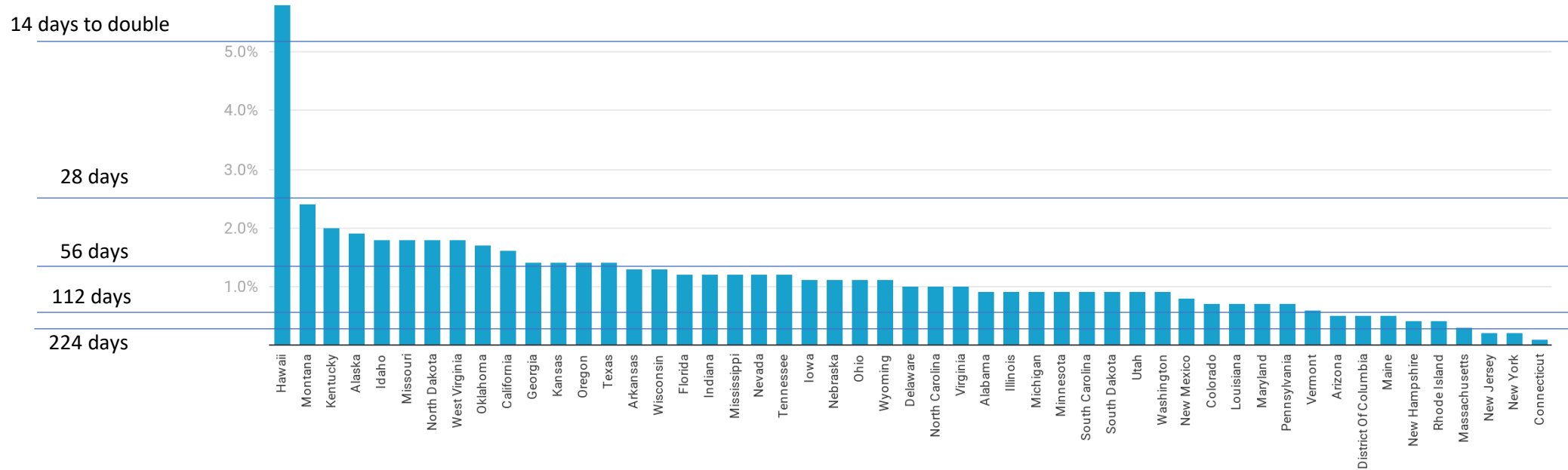
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

State-By-State

Case growth is slowing but, Hawaii remains the outlier. At current rates, cases are doubling every 12-13 days in Hawaii; every 533 days in Connecticut; 67 days for the United States overall

Growth Rate in Total Cases

Trailing 5-Day Moving Average, Through August 15

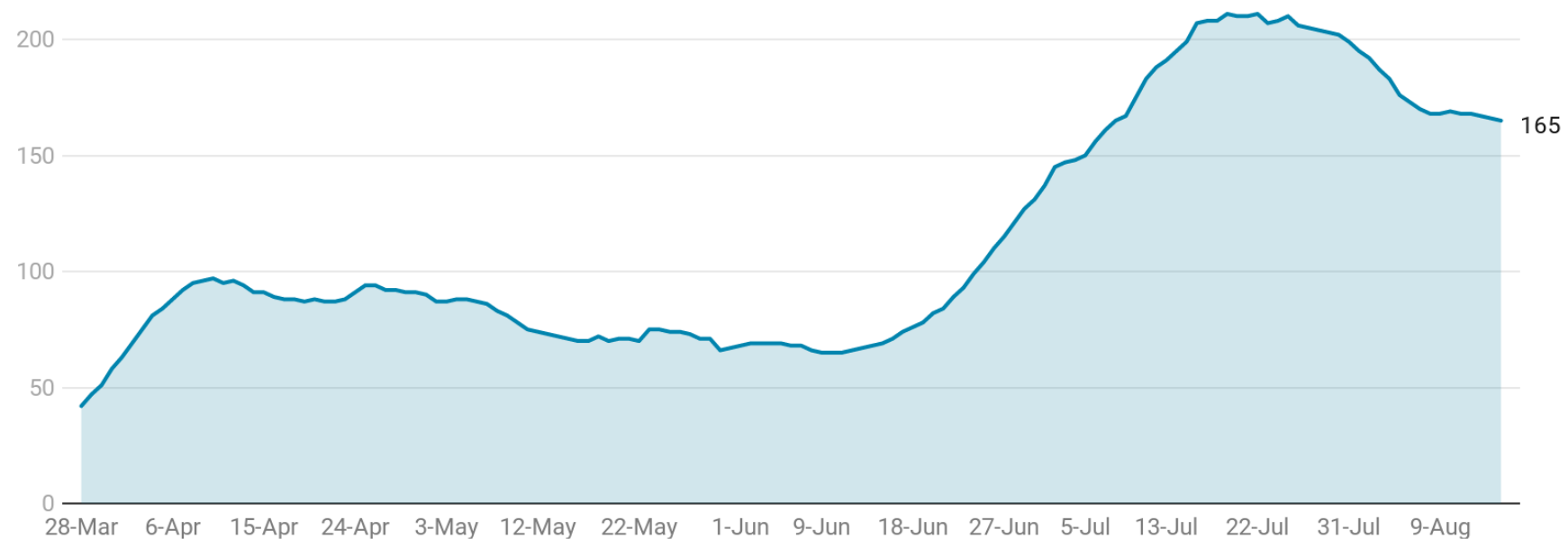


Health Industry Advisor LLC analysis

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

New Infections Per 1 Million Population - United States

Trailing 7-Day Moving Average, Through August 15



Health Industry Advisor LLC analysis

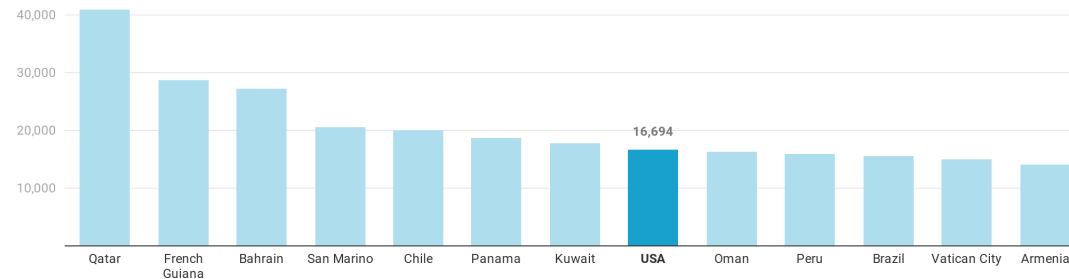
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

* - per million per day, trailing 7-day moving average

United States ranked 8th in the world in total infections per capita and 11th in the current infection rate per capita*. Two weeks ago, the U.S. had the 5th highest rate of infections per capita

Total Infections / Million Population

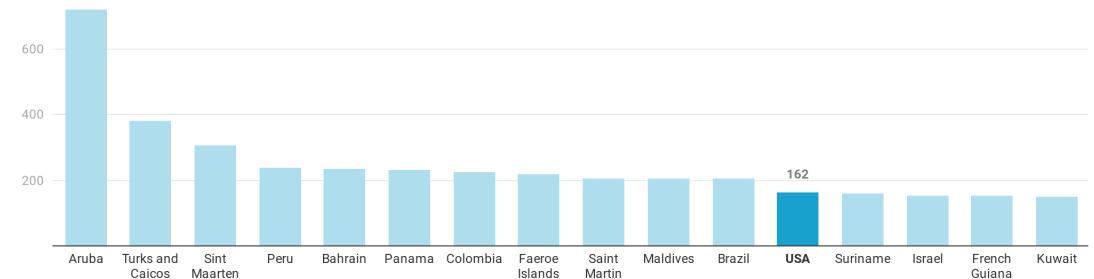
As of August 15



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

New Daily Infections / Million Population

Trailing 7-Day Moving Average, As of August 15



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

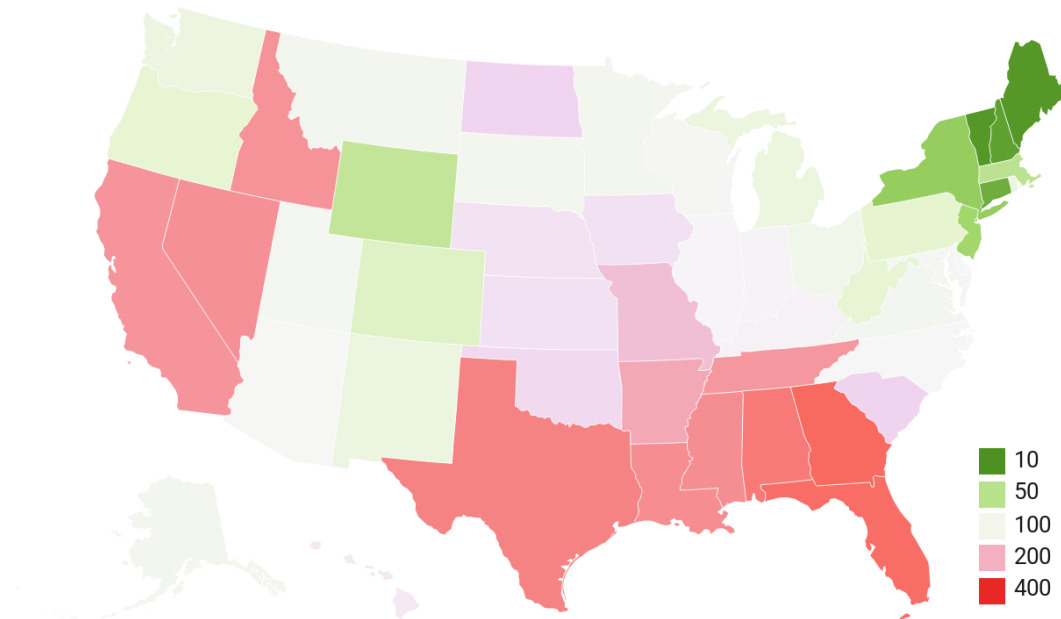
* - per million per day, trailing 7-day moving average

State-By-State

New daily infection rates, although easing, remain high in the Southeast and parts of the West; Of the eleven states with the highest rates, only two saw this rate increase last week

New Daily Infections Per 1 Million Population

Trailing 7-Day Moving Average, As of August 15



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

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

Trailing 7-Day Moving Average, August 15 v. August 8

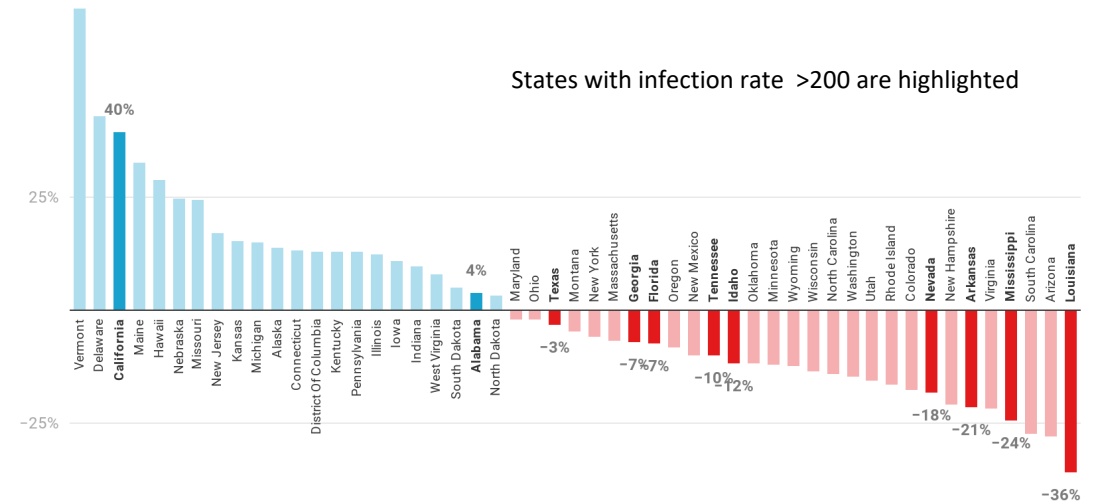


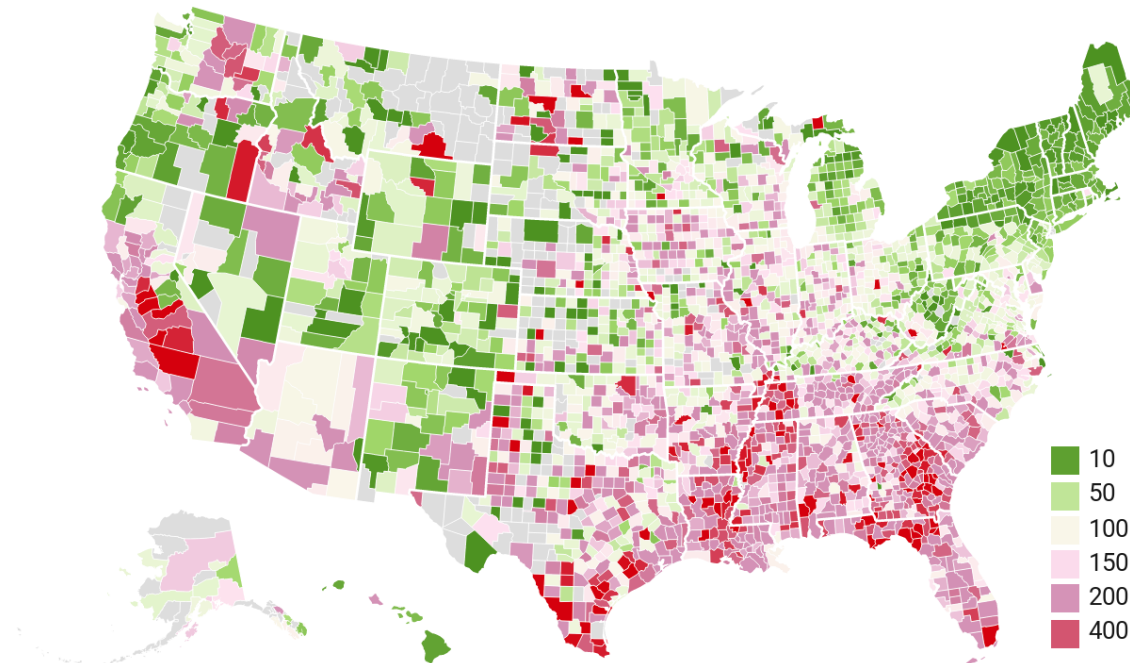
Chart: Health Industry Advisor LLC • Created with Datawrapper

* - per million per day, trailing 7-day moving average

New Infection rates remain high yet easing in parts of the Southeast; Increasing in parts of California

New Daily Infections Per Million Population

Trailing 7-Day Moving Average, As of August 15



Health Industry Advisor LLC analysis

Map: Health Industry Advisor LLC • Source: New York Times • Created with Datawrapper

Miami-Dade has by far the highest rate of new infections among Large Central Metro Areas this week; 12 of the top 20 are in California, Florida and Texas. Six of the ten areas with the lowest rates are in New Jersey and New York

New Daily Infections / Million - Large Central Metro Areas

Trailing 7-Day Moving Average, As of August 15

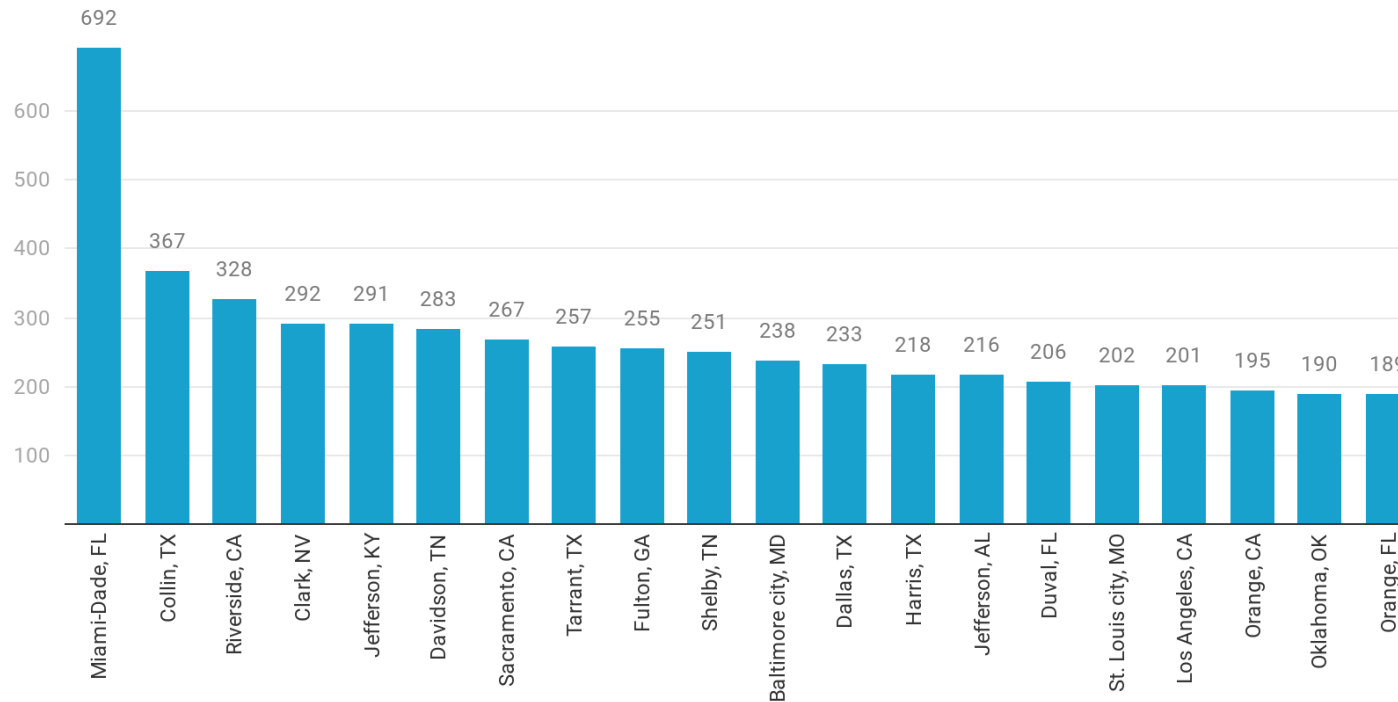


Chart: Health Industry Advisor LLC • Created with Datawrapper

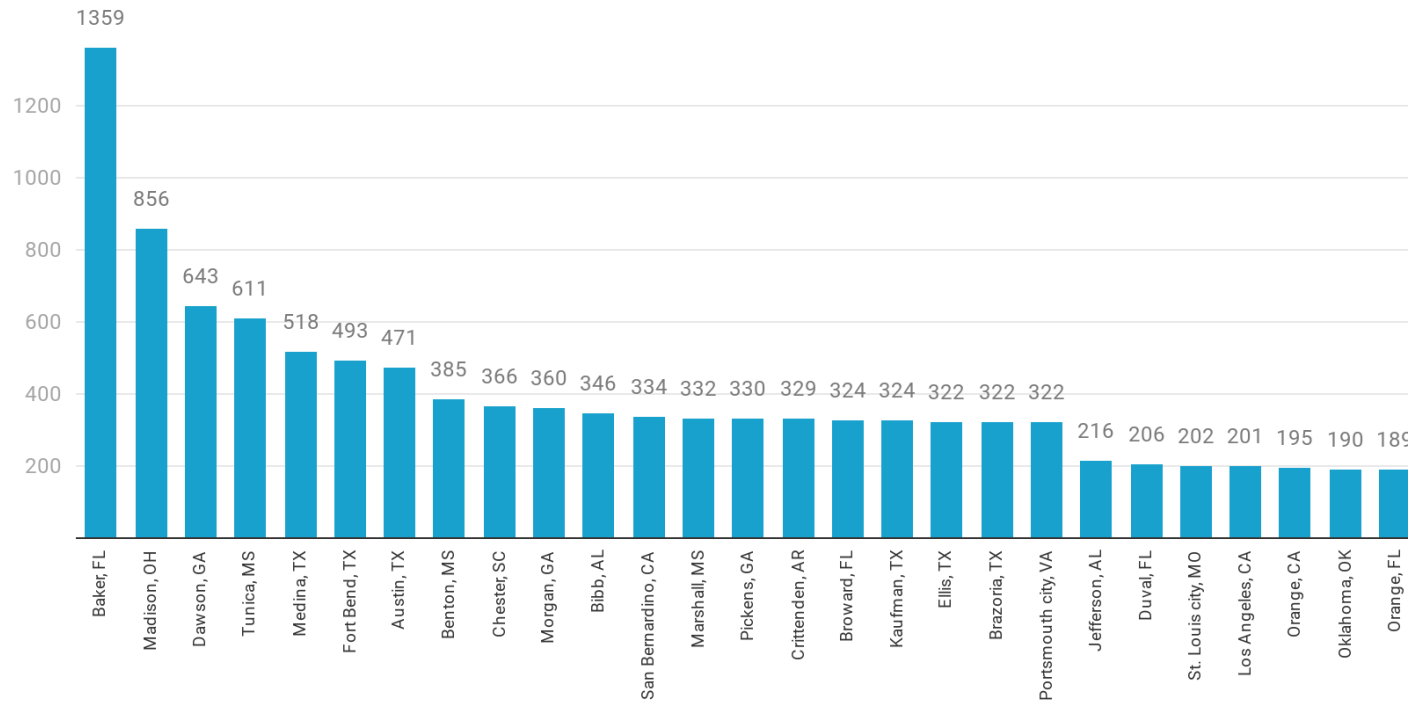
Areas with the lowest current infection rates:

1. Hartford, CT
2. Essex, NJ
3. New York City
4. Erie, NY
5. Monroe, NY
6. Suffolk, MA
7. Union, NJ
8. Hudson, NJ
9. Kent, MI
10. Multnomah, OR

Among Large Fringe Metro Areas, 12 of the top 20 highest current infection rates are in California, Florida and Texas. Four of the ten areas with the lowest rates are in New Jersey and New York

New Daily Infections / Million - Large Fringe Metro Areas

Trailing 7-Day Moving Average, As of August 15



Areas with the lowest current infection rates:

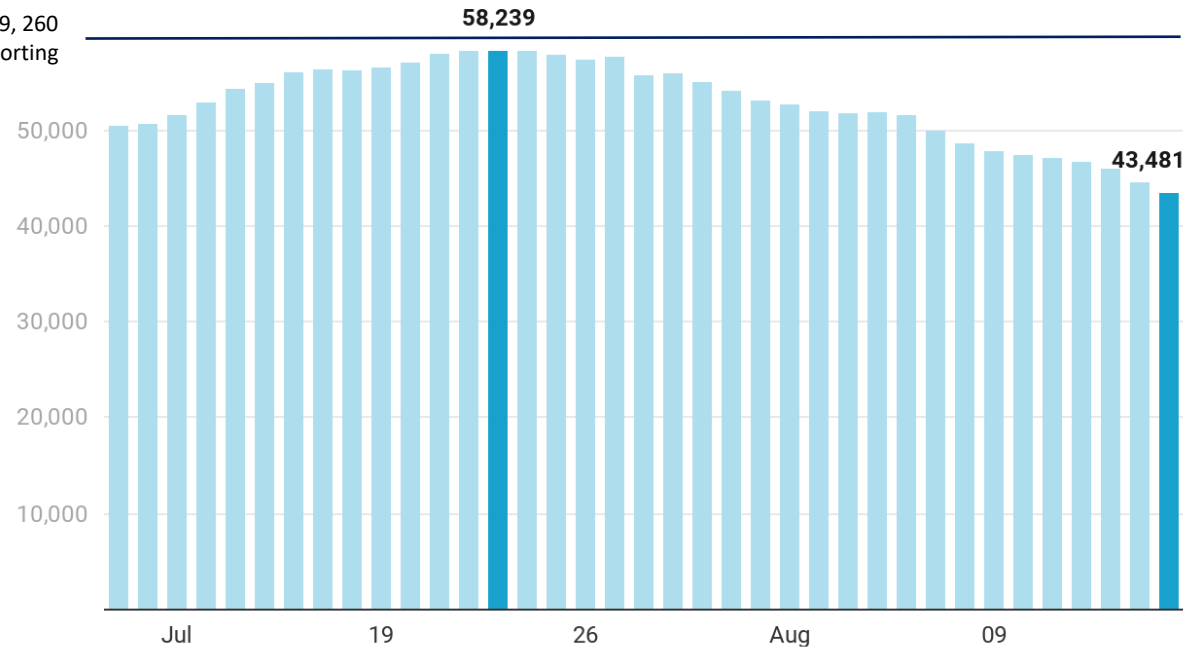
1. Caldwell, MO
2. Tolland, CT
3. Park, CO
4. Livingston, NY
5. Orleans, NY
6. Hunterdon, NJ
7. Ontario, NY
8. Clear Creek, CO
9. Rockingham, NH

Chart: Health Industry Advisor LLC • Created with Datawrapper

Hospital Census: COVID-19 Patients

As of August 15

April 15 Census: 59,260
8 fewer states reporting



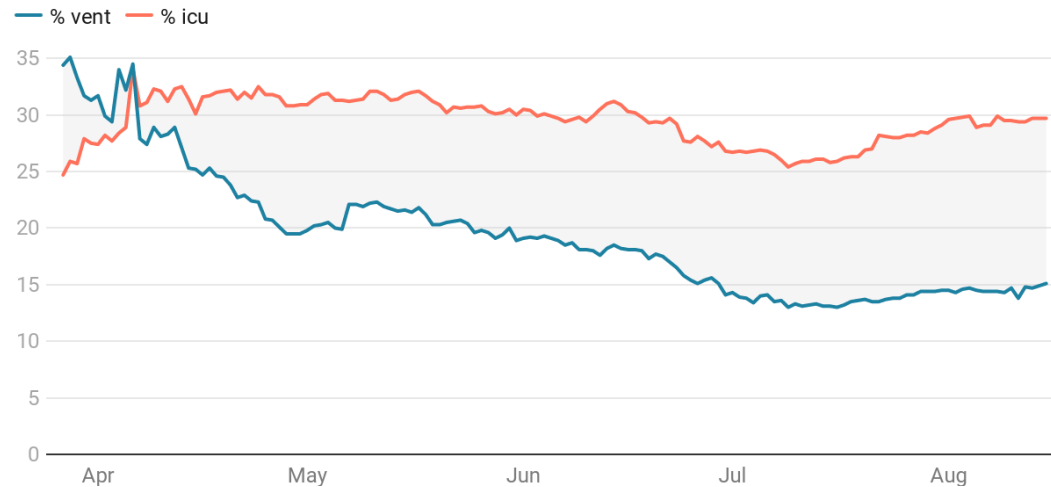
Florida data first available on July 10

Chart: Health Industry Advisor LLC • Source: the Atlantic's Covid Tracking Project • Created with Datawrapper

As hospital census declines, % in ICU is stable

Severity of Hospitalized Patients

% of patients on ventilators and in the ICU, As of August 15

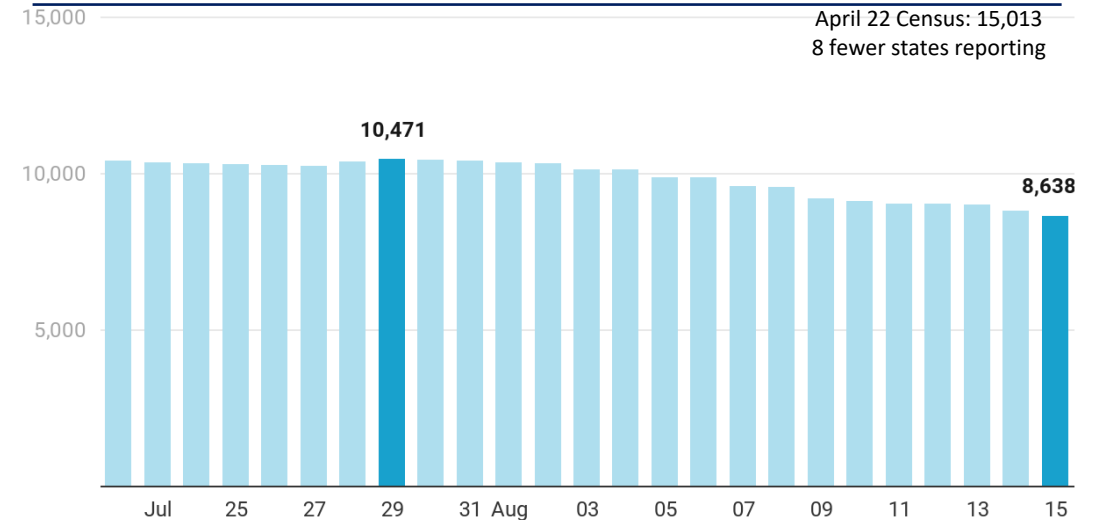


Health Industry Advisor LLC analysis

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

ICU COVID-19 Census Also Down

COVID-19 ICU Census

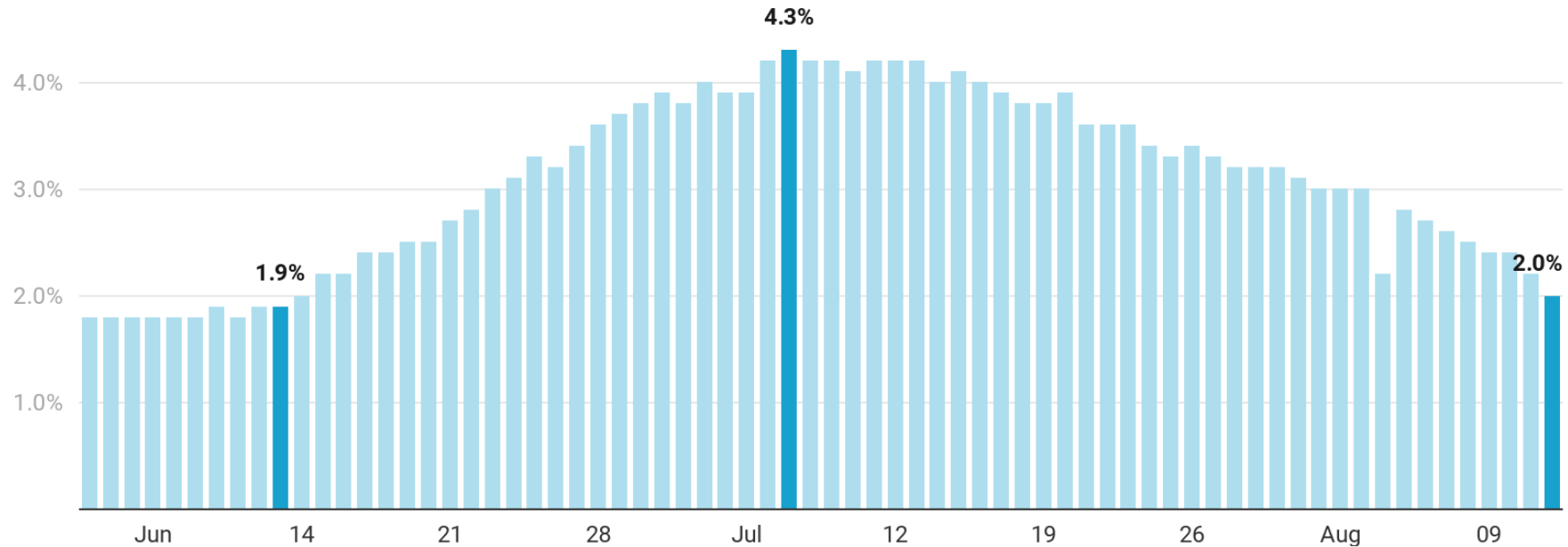


For states reporting these data: AZ, CA, ID, IL, IN, IA, KS, KY, ME, MD, MA, MI, MN, MS, NV, NJ, NY, NC, OH, OK, OR, RI, SC, TX, UT, VA, WI & WY

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

% of Emergency Department Visits for COVID-Like Illness

As of August 12



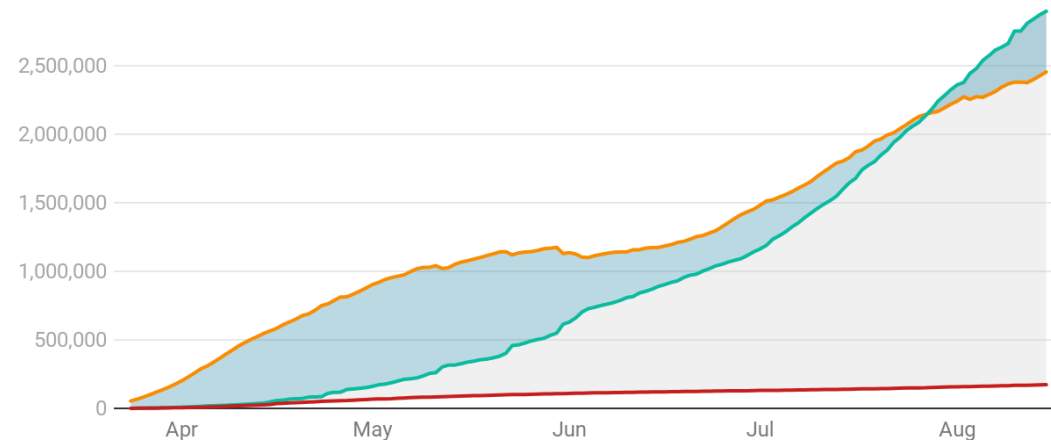
Health Industry Advisor LLC analysis

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

Active Cases v. Recoveries & Deaths

Through August 15

— Active Cases — Recoveries — Deaths

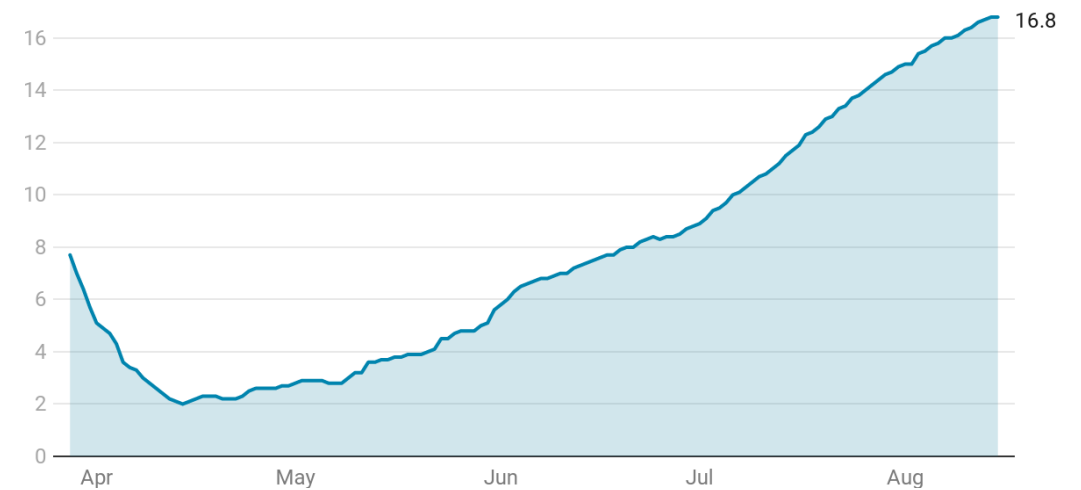


Health Industry Advisor LLC analysis

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

Recoveries: Deaths - United States

As of August 15



Health Industry Advisor LLC analysis

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

Deaths down slightly for 4th consecutive day yet, remained high on Saturday; Week-over-week rate continuing to decline slightly
Deaths per case down to 3.12%

Deaths Recorded With Coronavirus in the U.S.

Trailing 7-Day Moving Average, As of August 15

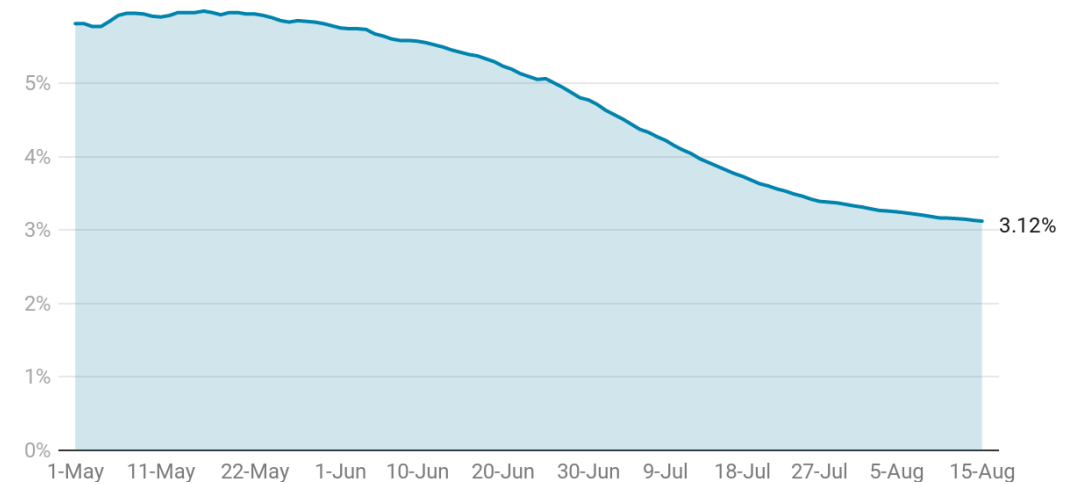


Health Industry Advisor LLC analysis

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

Deaths Per Case

As of August 15



Health Industry Advisor LLC analysis

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

The following data sources are accessed on a daily or weekly basis:

- The Atlantic's Covid Tracking Project: <https://covidtracking.com>
- Worldometers.info: <https://www.worldometers.info/coronavirus/>
- Centers for Disease Control, National, Regional, and State Level Outpatient Illness and Viral Surveillance <https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>
- Centers for Disease Control, COVID-19 Laboratory-Confirmed Hospitalizations https://gis.cdc.gov/grasp/COVIDNet/COVID19_5.html
- Centers for Disease Control, COVID Data Tracker <https://www.cdc.gov/covid-data-tracker/index.html#mobility>
- 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>