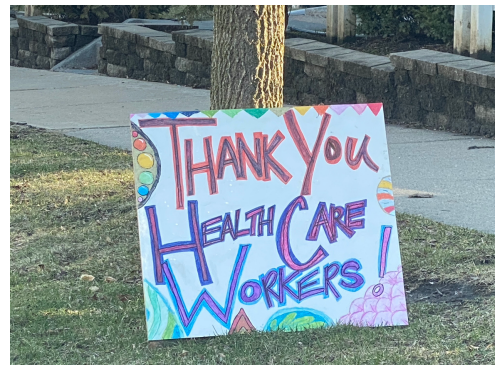
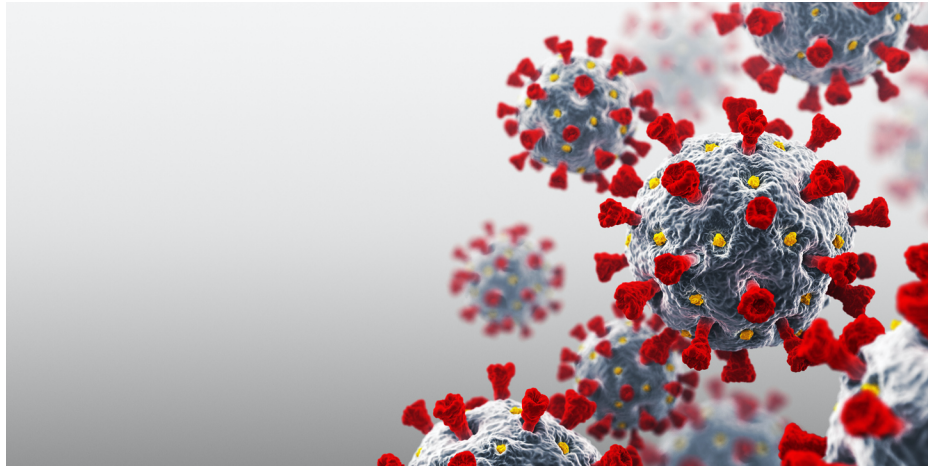
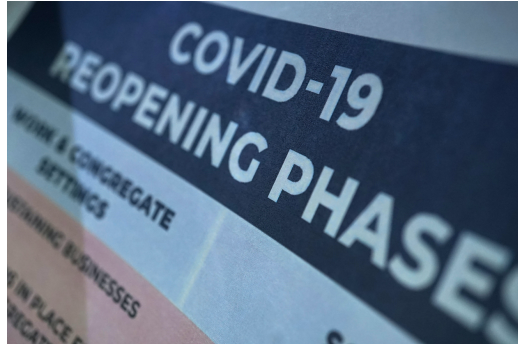




COVID-19 Report

Issue # 138

Monday, August 17, 2020

- As we set our baseline for monitoring infection rates in University towns, schools in the SEC territory are starting from a point of higher infections than their Big Ten counterparts (this should not be a surprise, if you have been following this report)
- Just how "good" was Sunday? Starting with tests, the **test-positive rate for the day was just higher than the stringent WHO 5% standard (5.5%) and was the lowest for any day since June 21**. The 7-day average was the lowest since June 26
- **Test volume is up nearly 10% week-over-week**; the 7-day average is its highest since July 30
- **Twelve states still report test-positive rates above the CDC-target of 10%; all except three of these saw this rate decline last week**. An additional nineteen states are above the more-stringent WHO target; none of these saw their rate increase in the past week
- Even with the improved testing, **new cases were the fewest on a Sunday since June 21**; week-over-week, new cases are down 6.2%
- **New infections per capita, while still too high, have been declining since the third week of July**, and have returned to early July levels
- A sign of the easing stress on the healthcare system - **Florida and Texas each have 1,000+ fewer COVID-19 inpatients than a week ago**. Nationwide, COVID-19 inpatient census is down 23.5% since July 24
- ICU census for COVID-19 patients, as well as ER visits are similarly continuing to decline
- **There were fewer deaths reported yesterday than any single day since August 2 and the 4th fewest in a month**
- All-in-all, considering current infection rates, hospitalizations, case growth and test-positive rates, **much of the country continues to warrant "high" or "moderately high" concern**. Since the beginning of the month, however, there has been a marked shift in several states from a "high" to "moderately high" designation

University Towns – Will the return to school impact infection rates?

With the Fall Semester upon us, we begin to track Net Infections / Million for Select University Towns (1 of 2)

Selected metro areas encompass 7 of the 8 cities of 100k-1M population, in which student population accounts for largest % of total population, plus Tuscaloosa for my Roll Tide fan-readers

New Daily Infections / Million Population

Trailing 7-Day Moving Average

Tuscaloosa, AL (Univ. of Alabama)

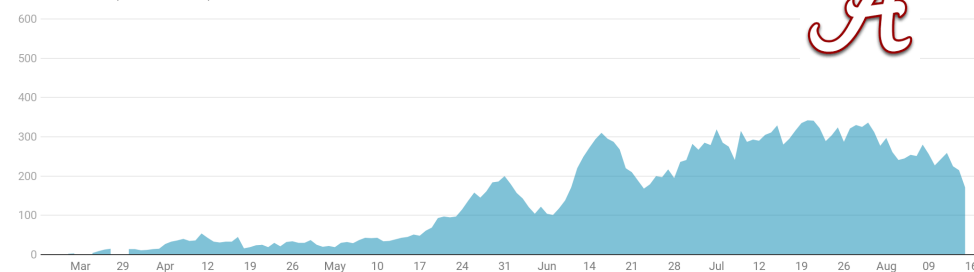


Chart: Health Industry Advisor LLC - Created with Datawrapper



New Daily Infections / Million Population

Trailing 7-Day Moving Average

Brazos, TX (Texas A&M)

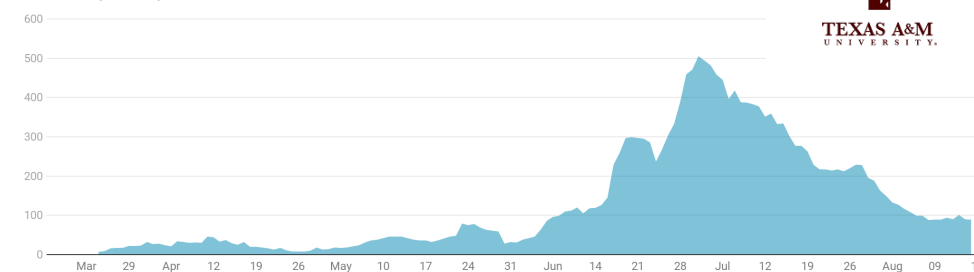


Chart: Health Industry Advisor LLC - Created with Datawrapper



New Daily Infections / Million Population

Trailing 7-Day Moving Average

Washtenaw, MI (Univ. of Michigan)

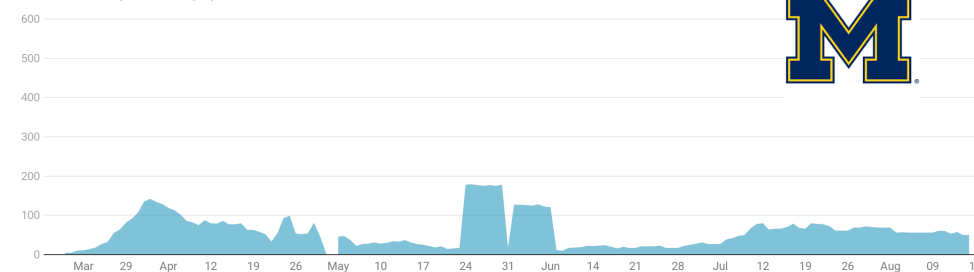


Chart: Health Industry Advisor LLC - Created with Datawrapper



New Daily Infections / Million Population

Trailing 7-Day Moving Average

Alachua, FL (Univ. of Florida)

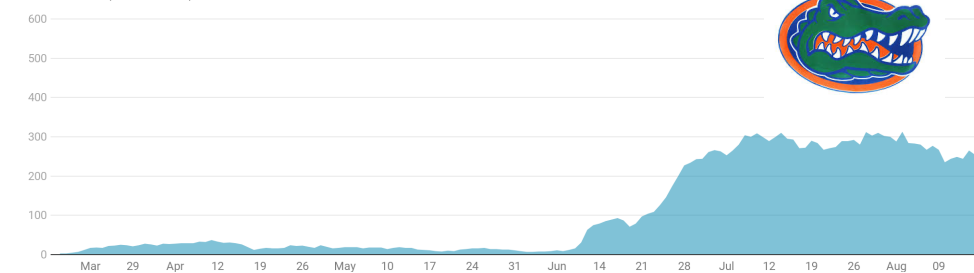


Chart: Health Industry Advisor LLC - Created with Datawrapper



Logos are the property of the respective Universities. Used here for informational purposes only.

University Towns – Will the return to school impact infection rates?

With the Fall Semester upon us, we begin to track Net Infections / Million for Select University Towns (2 of 2)

Selected metro areas encompass 7 of the 8 cities of 100k-1M population, in which student population accounts for largest % of total population, plus Tuscaloosa for my Roll Tide fan-readers

New Daily Infections / Million Population

Trailing 7-Day Moving Average

■ Tompkins, NY (Cornell)



Chart: Health Industry Advisor LLC • Created with Datawrapper



New Daily Infections / Million Population

Trailing 7-Day Moving Average

■ Centre, PA (Penn State)

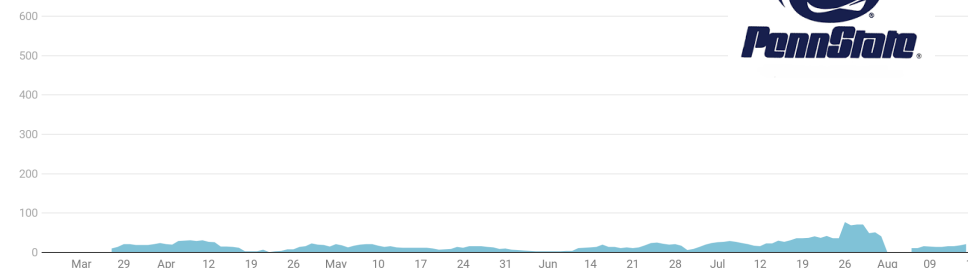


Chart: Health Industry Advisor LLC • Created with Datawrapper



New Daily Infections / Million Population

Trailing 7-Day Moving Average

■ Champaign, IL (Univ. of Illinois)



Chart: Health Industry Advisor LLC • Created with Datawrapper



New Daily Infections / Million Population

Trailing 7-Day Moving Average

■ Montgomery, VA (Virginia Tech)



Chart: Health Industry Advisor LLC • Created with Datawrapper



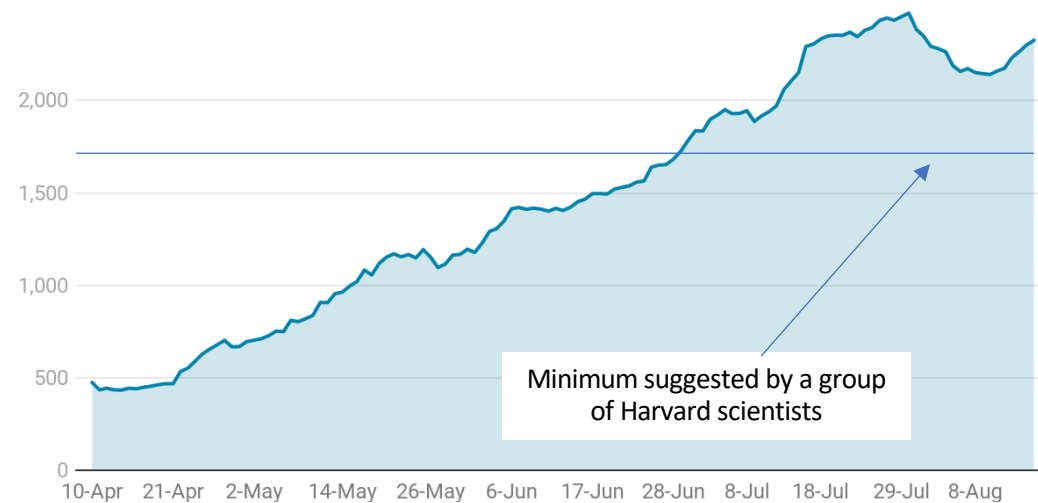
Logos are the property of the respective Universities. Used here for informational purposes only.

Testing volume up 9.6% week-over-week, 7-day average is highest since July 30
 Test-positive % on Sunday (5.5%) was lowest for any day since June 21; 7-day average is lowest since June 26

Testing refers to tests for active infection, as reported via state health agencies; does not reflect antibody testing for prior infection

Daily Tests Per 1 Million - United States

Trailing 7-Day Moving Average, As of August 16

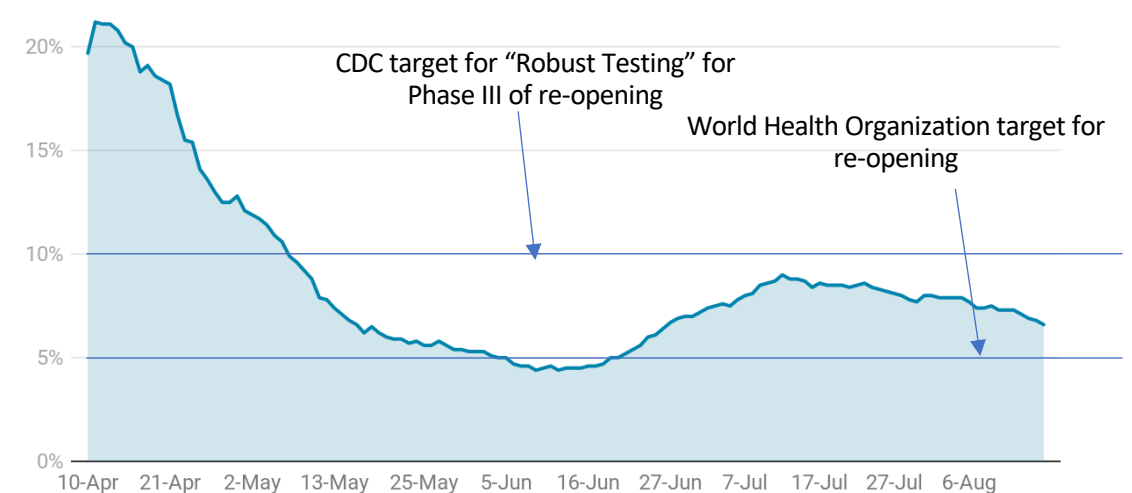


Health Industry Advisor LLC analysis

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 16



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

Twelve states have test-positive rates above the CDC-target for Phase III re-opening; only three of these saw increasing rates this week
Nineteen others are above the more-stringent WHO-recommended target; nine of these saw increasing rates week-over-week

Testing refers to tests for active infection, as reported via state health agencies; does not reflect antibody testing for prior infection

Test-Positive Rate

Trailing 7-Day Moving Average, August 15 v. August 9

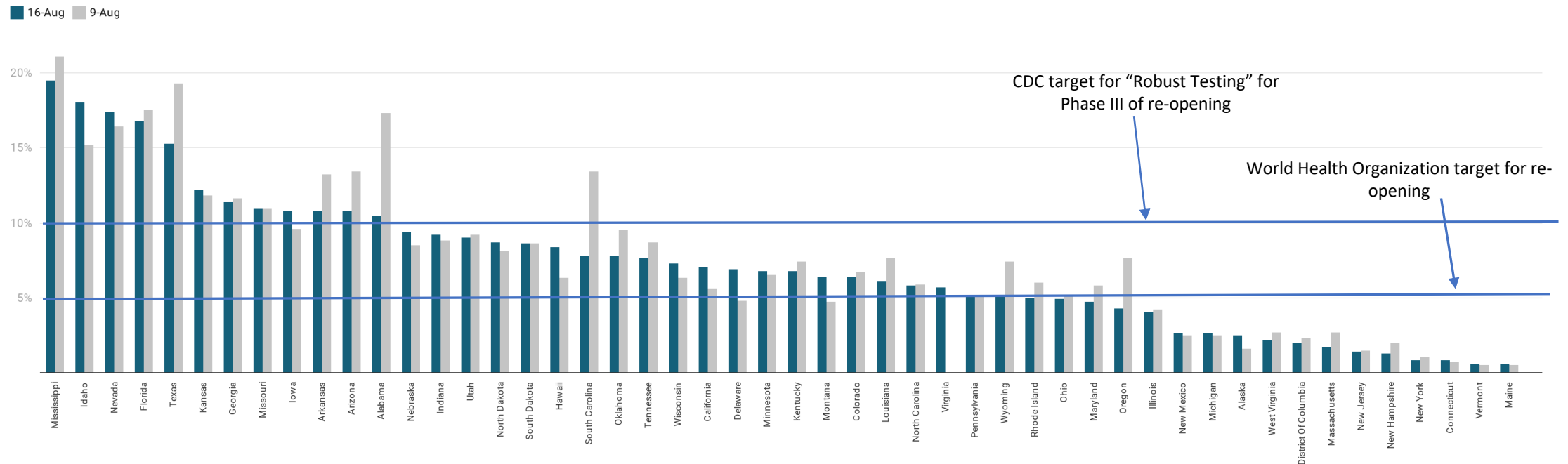


Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Projects • Created with Datawrapper

Note: Due to a computer glitch, Washington has only reported positive results since August 1.

New cases were down sharply again yesterday; were the fewest new cases on a Sunday since June 21; Week-over-week, new cases are down 6.2%

New Cases

Through August 16

Sundays Highlighted

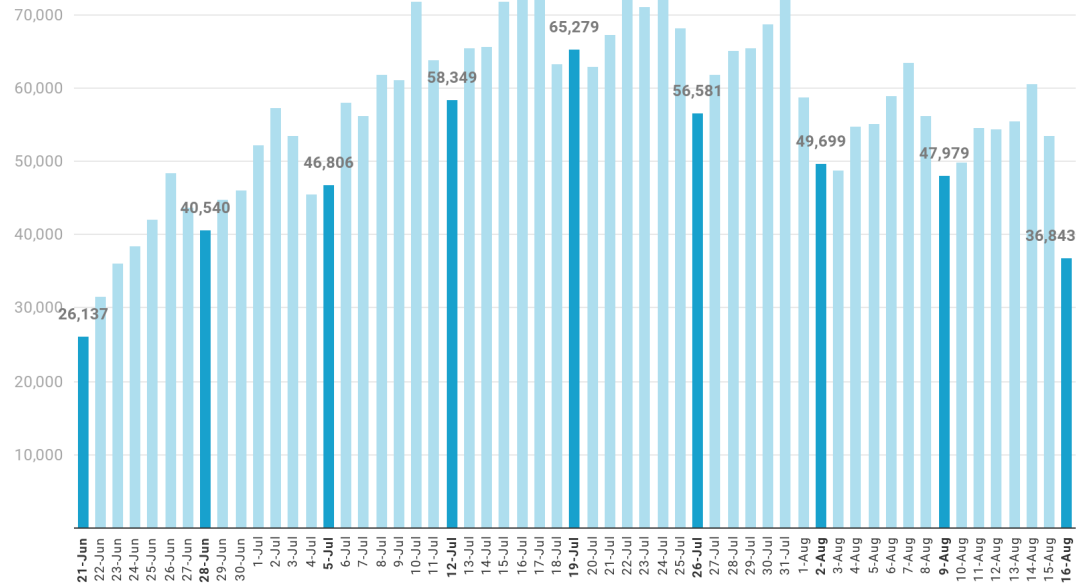
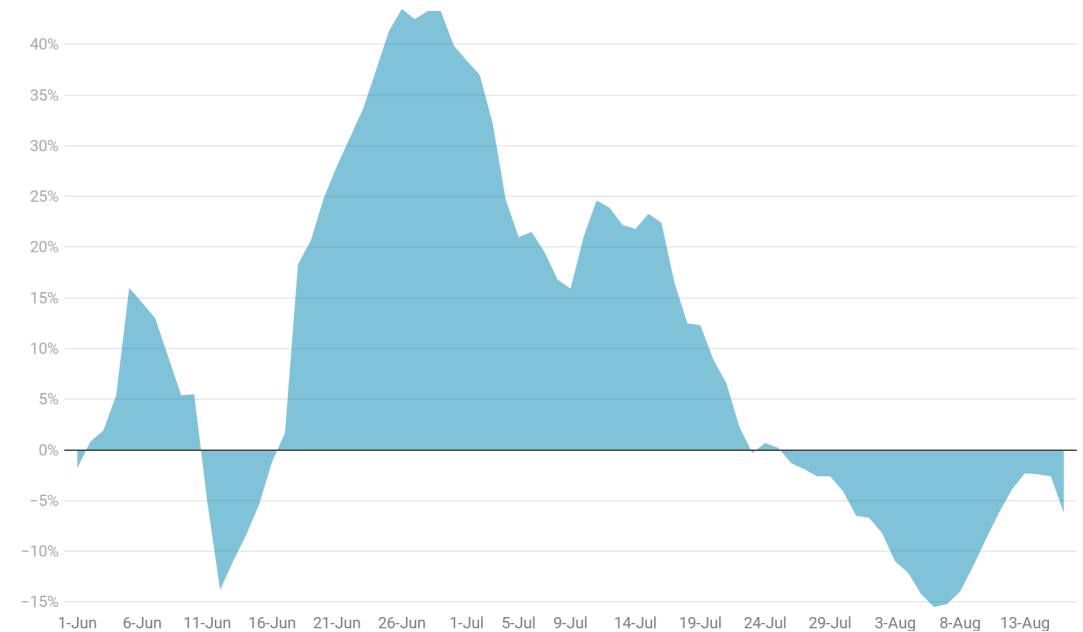


Chart: Health Industry Advisor LLC • Source: eorlometers.info • Created with Datawrapper

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 16



Health Industry Advisor LLC analysis

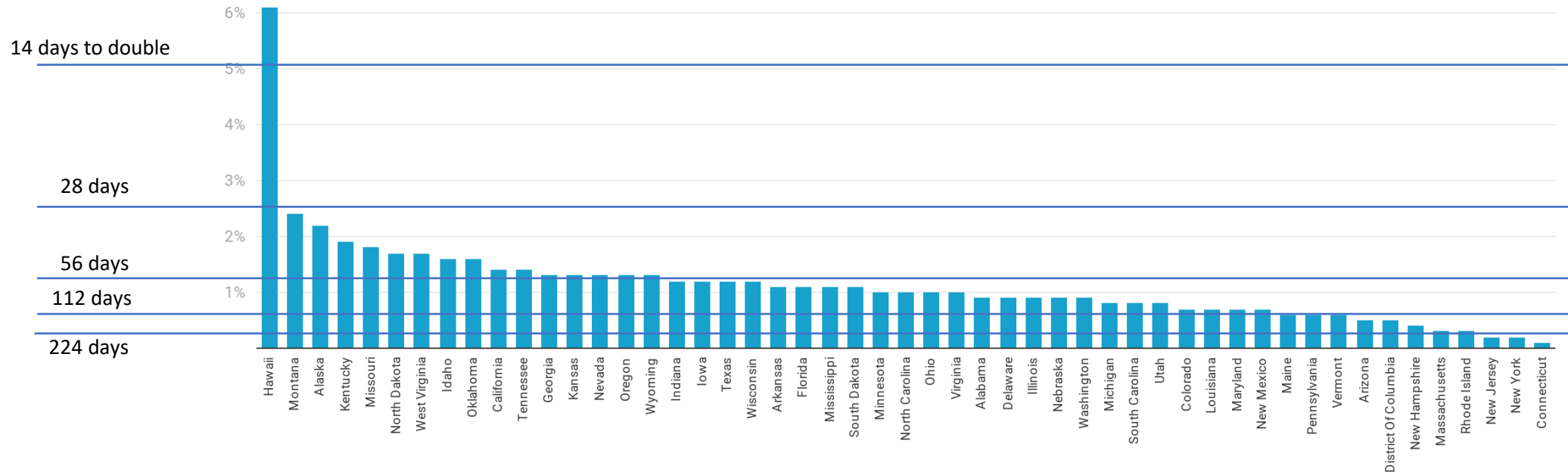
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

State-By-State

Case growth is slowing but, Hawaii remains the outlier. At current rates, cases are doubling every 12 days in Hawaii; every 825 days in Connecticut; 83 days for the United States overall

Growth Rate in Total Cases

Trailing 5-Day Moving Average, Through August 16

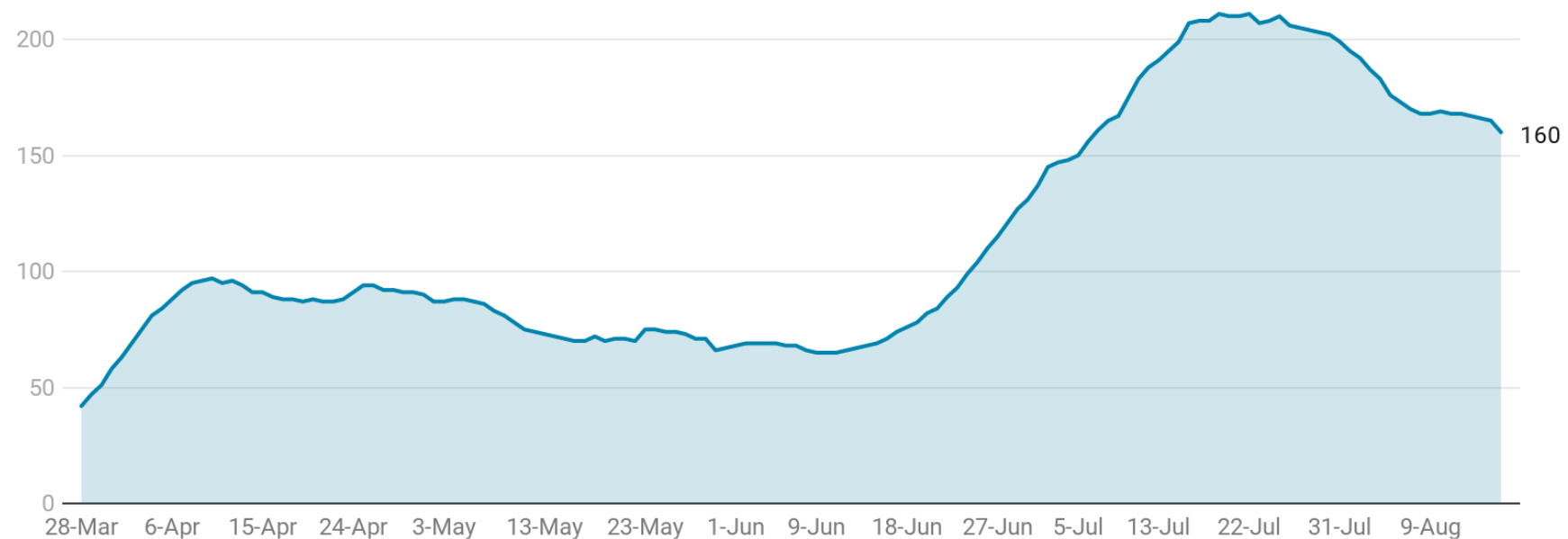


Health Industry Advisor LLC analysis

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 16



Health Industry Advisor LLC analysis

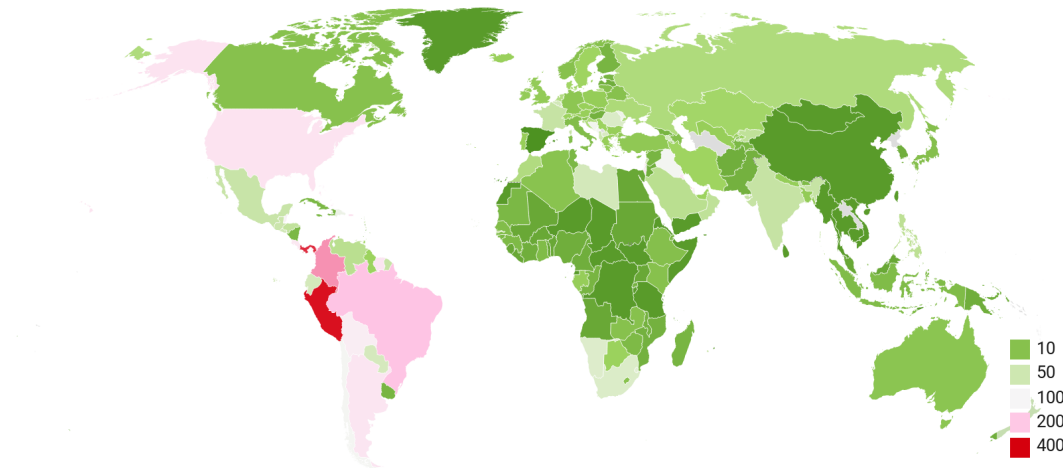
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

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

Peru, Colombia and Brazil have high New Daily Infection Rates; Rest of the world and much of the US is generally seeing an easing in rates. Rates still highest in South and parts of West

New Daily Infections / 1 Million Population

Trailing 7-Day Moving Average, As of August 16

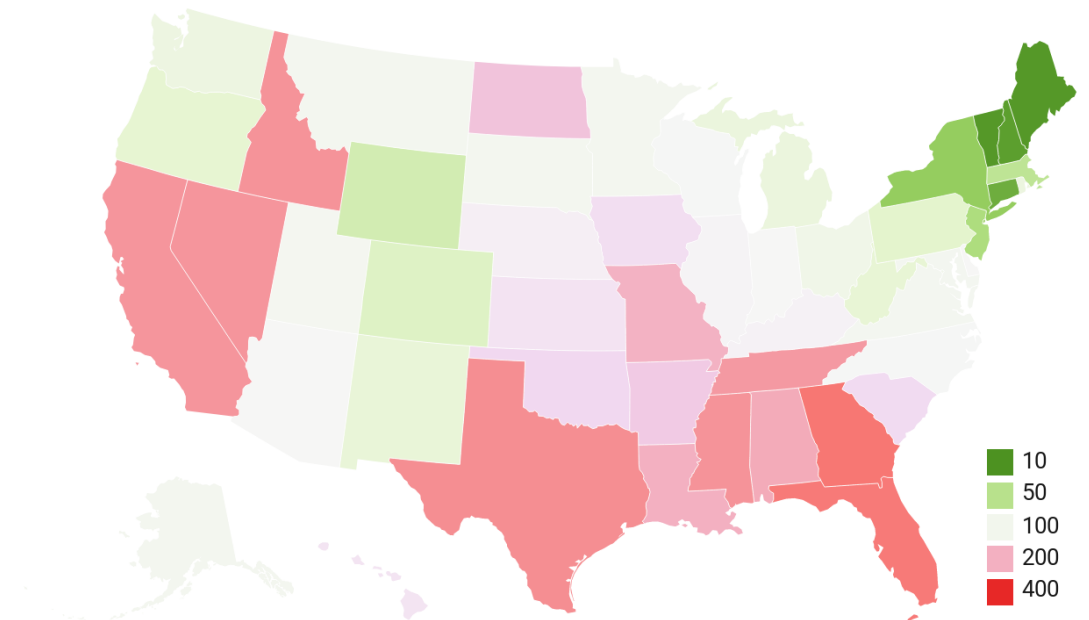


Health Industry Advisor LLC analysis

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

New Daily Infections Per 1 Million Population

Trailing 7-Day Moving Average, As of August 16



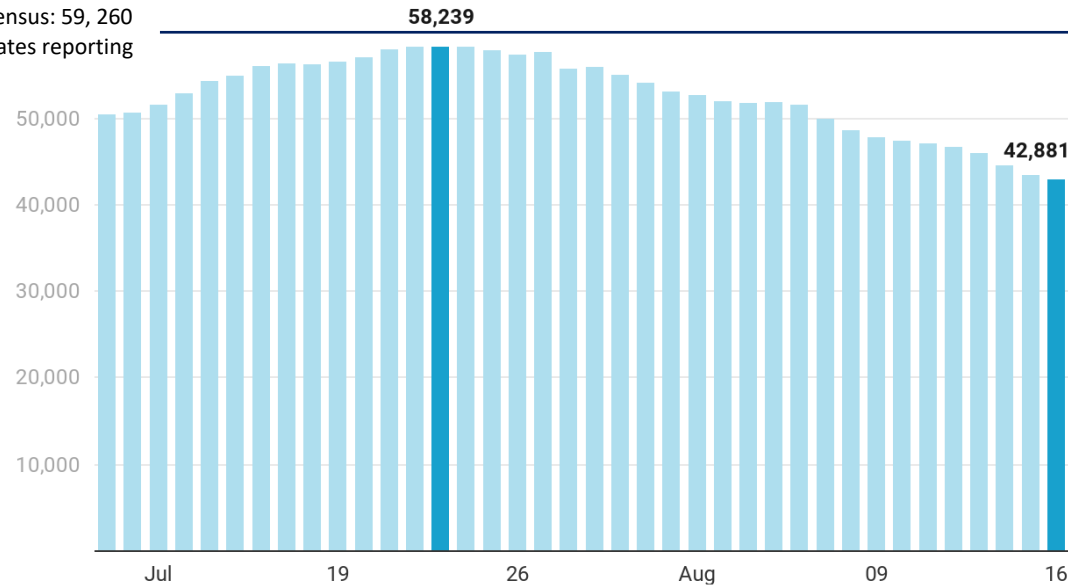
Map: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

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

Hospital Census: COVID-19 Patients

As of August 16

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

Week-Over-Week Change in COVID-19 Hospital Census

August 16 v. August 9

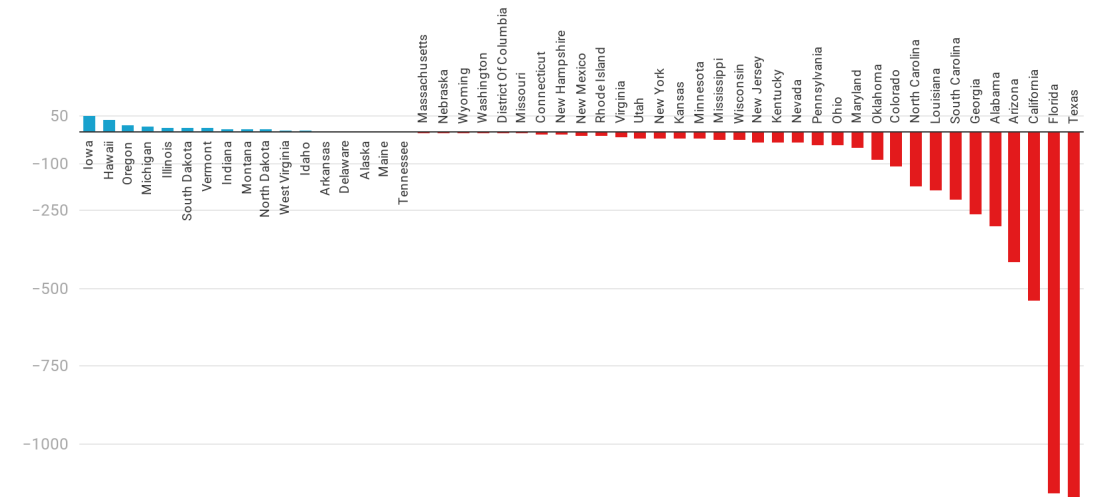
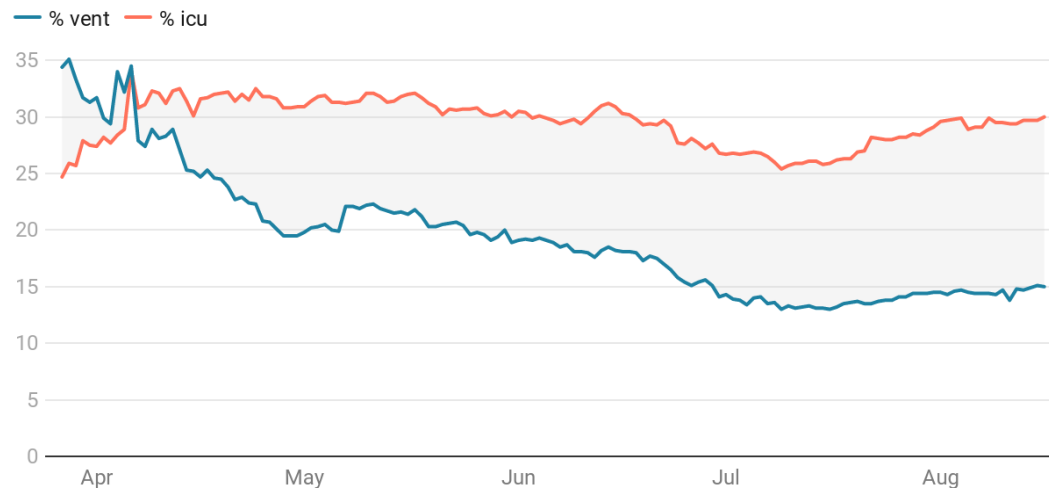


Chart: Health Industry Advisor LLC • Created with Datawrapper

As hospital census declines, % in ICU is stable

Severity of Hospitalized Patients

% of patients on ventilators and in the ICU, As of August 16

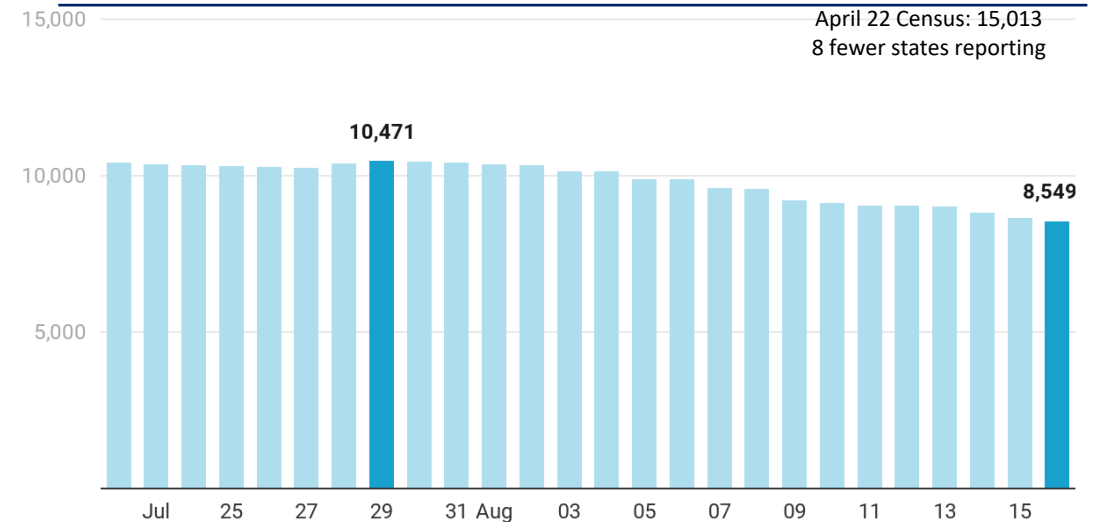


Health Industry Advisor LLC analysis

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



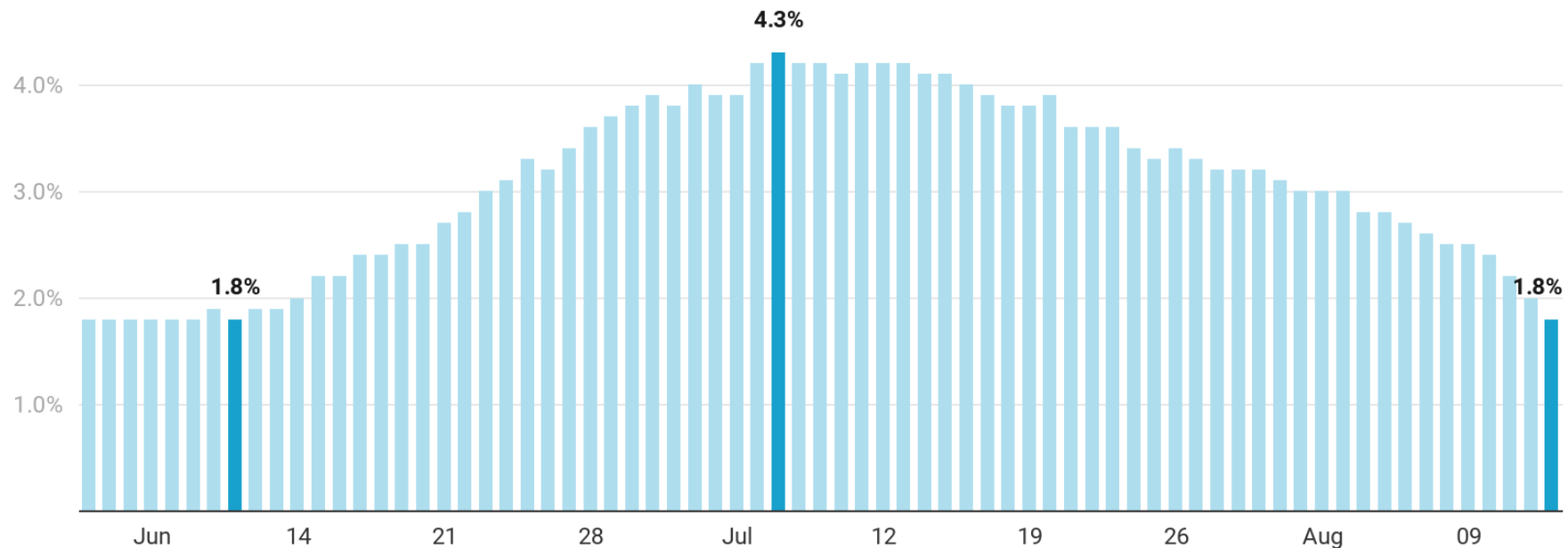
For states reporting these data: AZ, CA, ID, IL, IN, IA, KS, KY, ME, MD, MA, MI, MN, MS, NV, NJ, NY, NC, OH, OK, OR, RI, SC, TX, UT, VA, WI & WY

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

ER visits for COVID-19-like illnesses continue to decline; Now, ~40% of its peak rate and as low as its been since at least the beginning of June

% of Emergency Department Visits for COVID-Like Illness

As of August 13



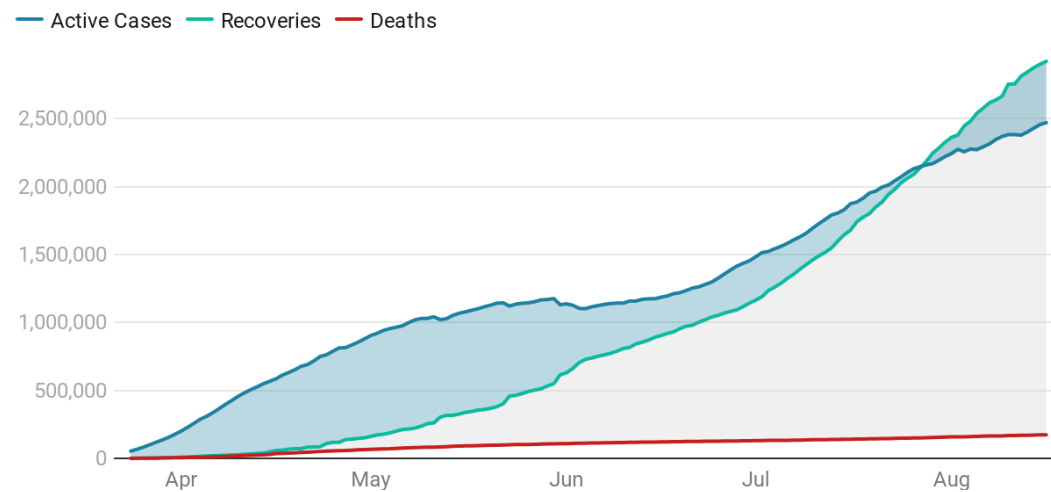
Health Industry Advisor LLC analysis

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

Nearly 2.9 million have recovered from the coronavirus in the U.S.; Nearly 17 recovered persons for each death

Active Cases v. Recoveries & Deaths

Through August 16

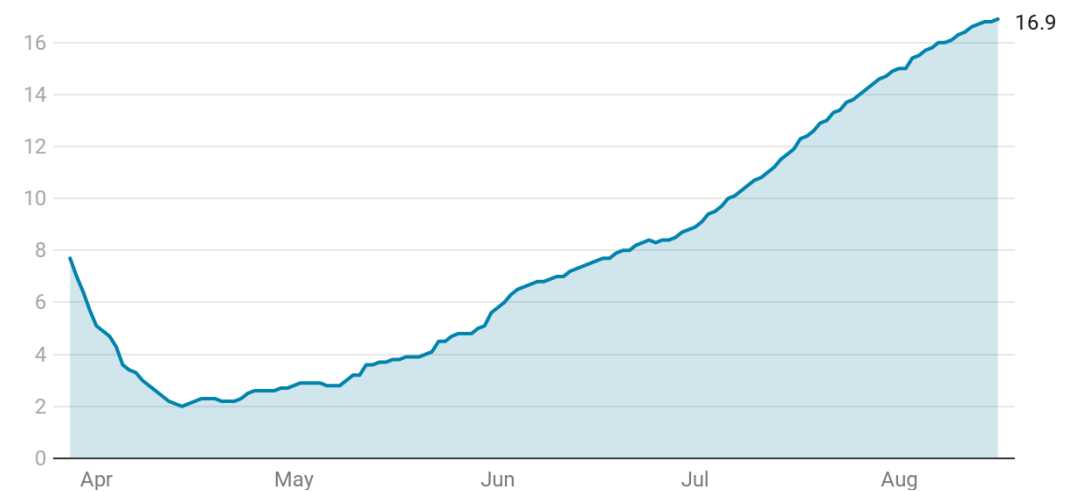


Health Industry Advisor LLC analysis

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

Recoveries: Deaths - United States

As of August 16



Health Industry Advisor LLC analysis

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

**Fewest deaths reported on a single day since August 2 and the 4th fewest in a month. Seven-day average down 9% in past five days
Deaths per case down to 3.121%**

Deaths Recorded With Coronavirus in the U.S.

Trailing 7-Day Moving Average, As of August 16

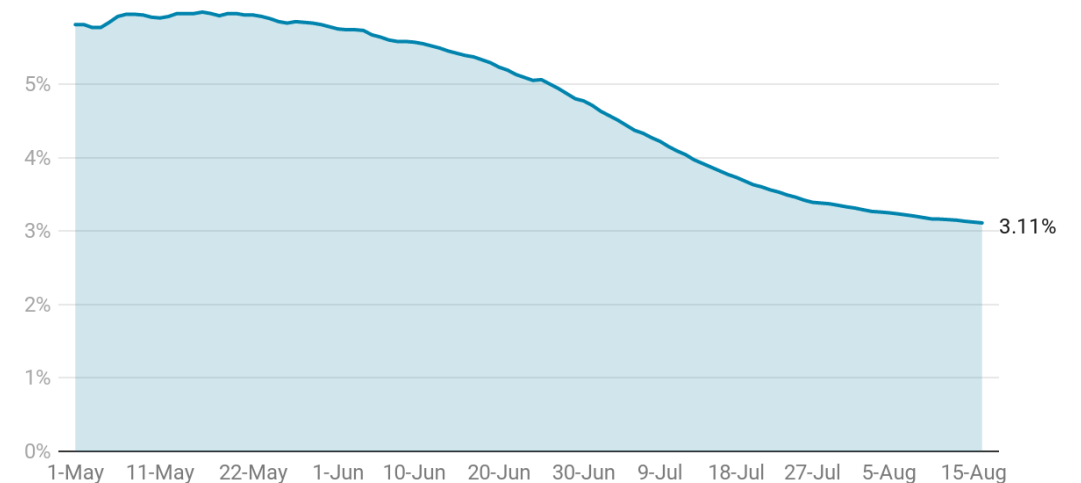


Health Industry Advisor LLC analysis

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

Deaths Per Case

As of August 16

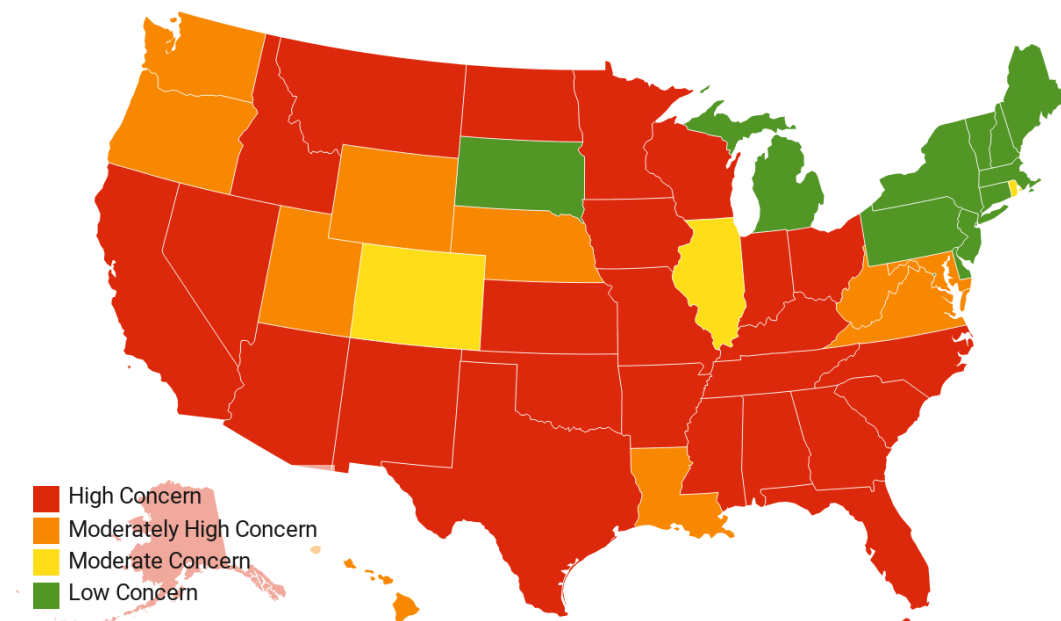


Health Industry Advisor LLC analysis

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

Scorecard

As of July 31

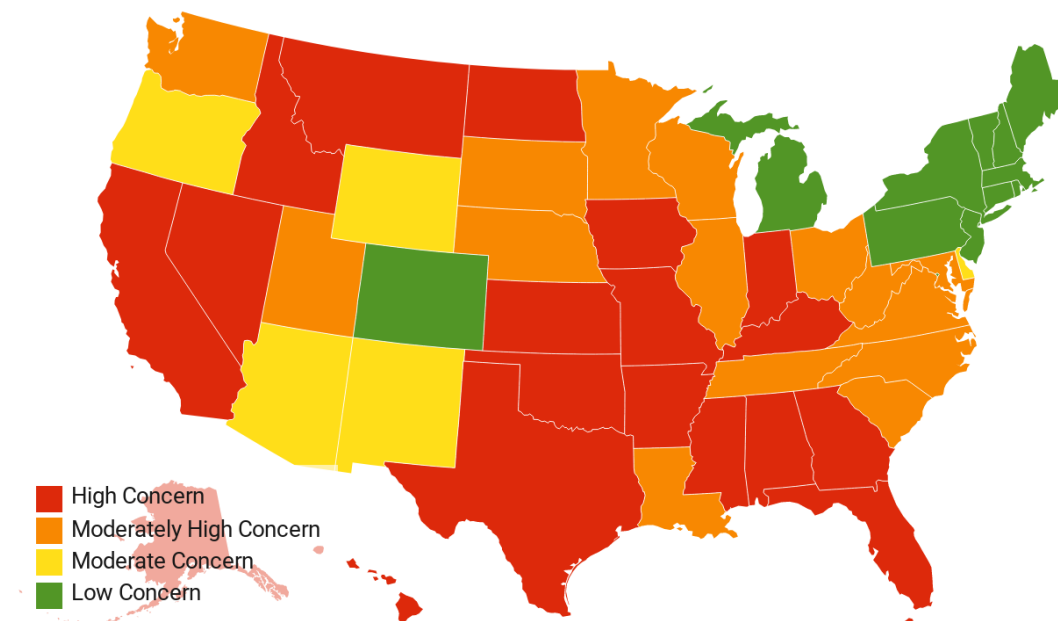


Scoring based on new infection, test-positive, hospitalization and case growth rates

Map: Health Industry Advisor LLC • Created with Datawrapper

Scorecard

As of August 16



Scoring based on new infection, test-positive, hospitalization and case growth rates

Map: Health Industry Advisor LLC • 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>