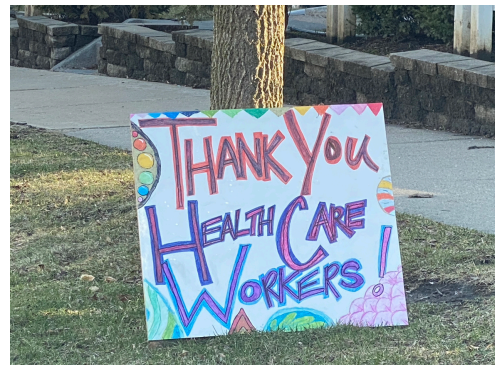
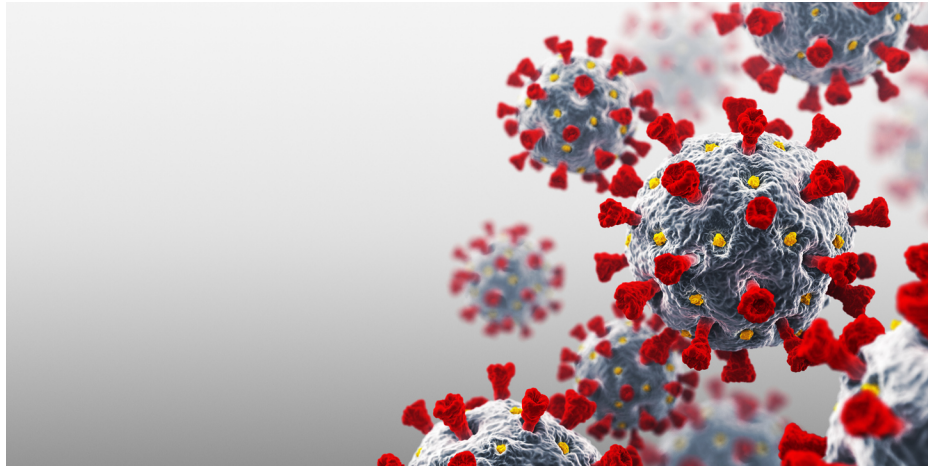
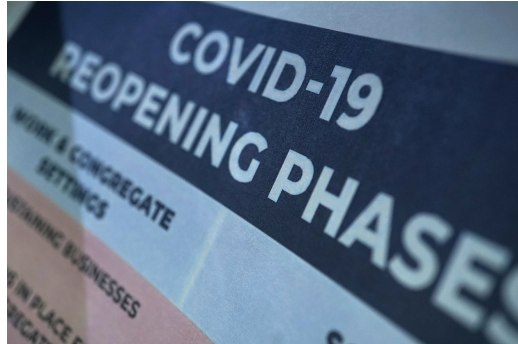




COVID-19 Report

Issue # 140

Wednesday, August 19, 2020

- **The metro areas around the Universities of Notre Dame and North Carolina are both experiencing increasing and relatively high infection rates.** The University of Oklahoma, which reported a recent infection cluster among football players, is in an area with a declining infection rate. Michigan State University is in an area with a relatively low infection rate - was their switch to virtual classes a preemptive move?
- **In general, Big Ten campuses are in metro areas that are experiencing relatively low infection rates. SEC schools, in contrast, are generally in areas with higher infection rates.** Of note, rates around the Universities of Florida and Georgia, while high, are trending down
- The area around Iowa State University experienced a dramatic one-day spike in new cases a few days ago; hopefully, this isn't indicative of an emerging issue
- **The trend in test-positive rates is encouraging:** the 7-day rate is at its lowest point since June 26. Only seven states were above The CDC-target rate of 10% for the past week. At least seven states, including Mississippi and Texas reported marked declines in test-positive rates over the past week
- New cases continue to decline: yesterday, the U.S. reported the fewest new cases on a Tuesday since June 23; **New cases are down 10.6% on a week-over-week basis**
- **New infections per capita have been declining for the past month;** the trailing 7-day rate is now back to where it was six weeks ago
- COVID-19 inpatient and ICU census inched up slightly (~0.5%) yesterday - pausing the steady decline that has occurred for the past month. ER visits continued to trend down
- The United States reached a milestone yesterday – more than 3 million people are reported to have recovered from their infection
- Fewer deaths reported with the coronavirus yesterday than a week ago, however, they were higher than most Tuesdays for the past three months. **The weekly average deaths per day has been stable during August, albeit at a high level (>1,000 per day)**

University Areas – Tracking infections as students return to campus
Several campuses have been in the news this week – either for infection clusters or for reverting to on-line only classes

New Daily Infections / Million: Select University Areas With Recent News

Trailing 7-Day Moving Average

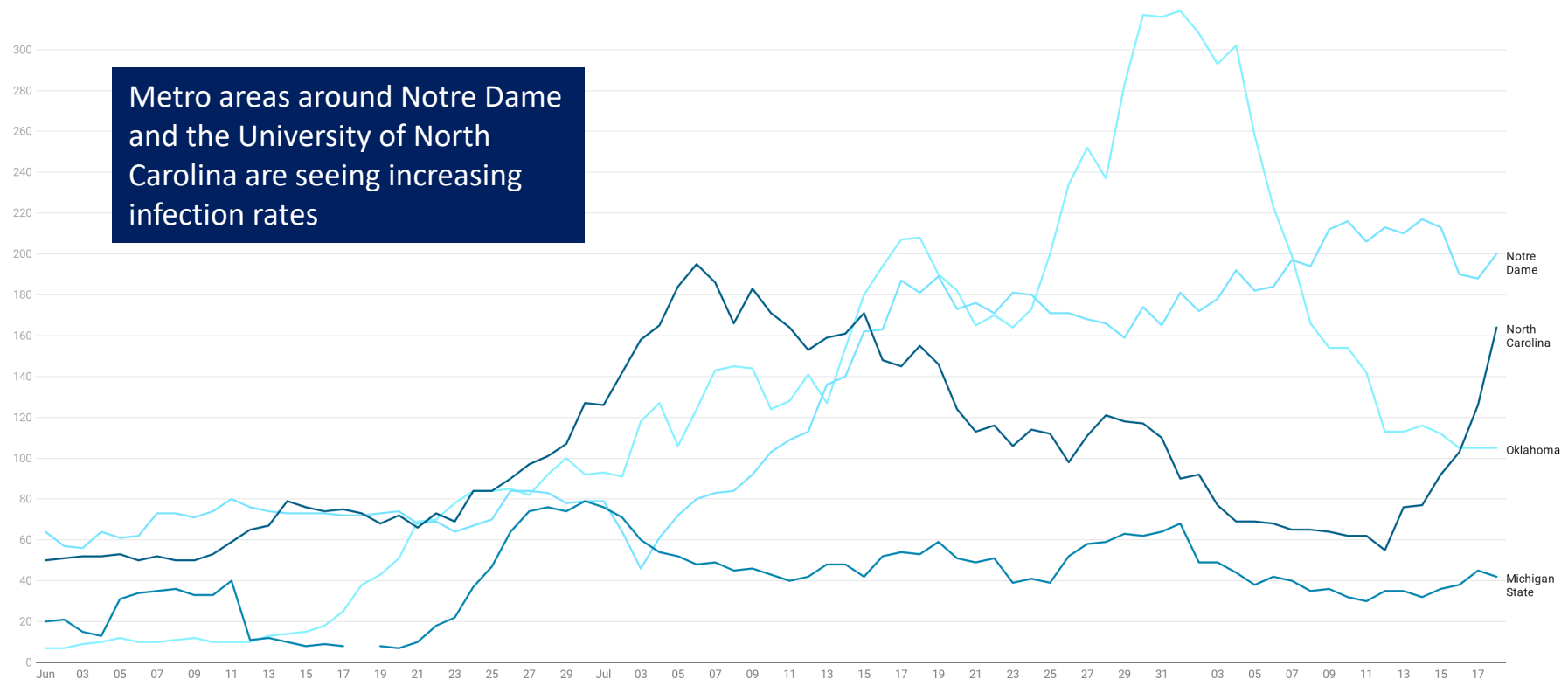
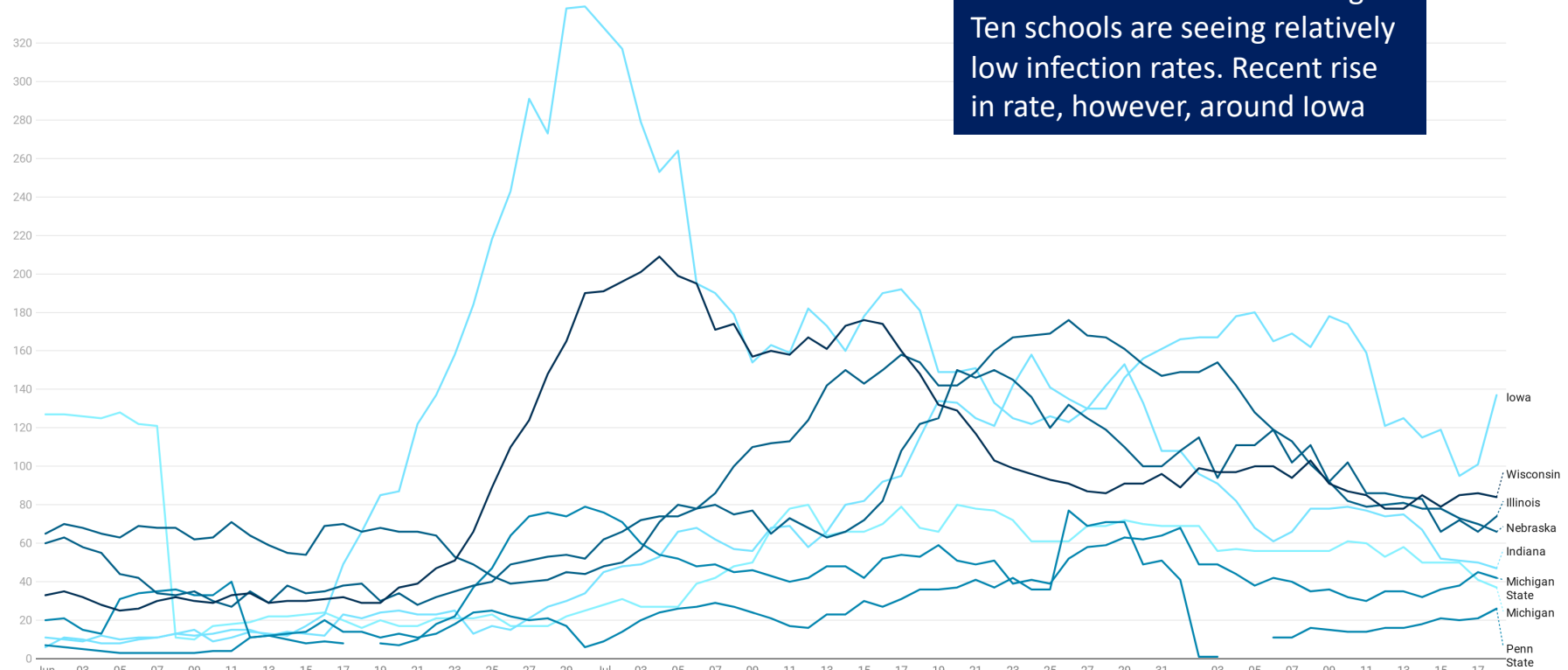


Chart: Health Industry Advisor LLC • Created with Datawrapper

University Areas – Tracking infections as students return to campus Selected Big Ten Campuses

New Daily Infections / Million: Select Big Ten University Areas

Trailing 7-Day Moving Average



Metro areas around these Big Ten schools are seeing relatively low infection rates. Recent rise in rate, however, around Iowa

Chart: Health Industry Advisor LLC • Created with Datawrapper

University Areas – Tracking infections as students return to campus Selected SEC Campuses

New Daily Infections / Million: Select SEC University Areas

Trailing 7-Day Moving Average

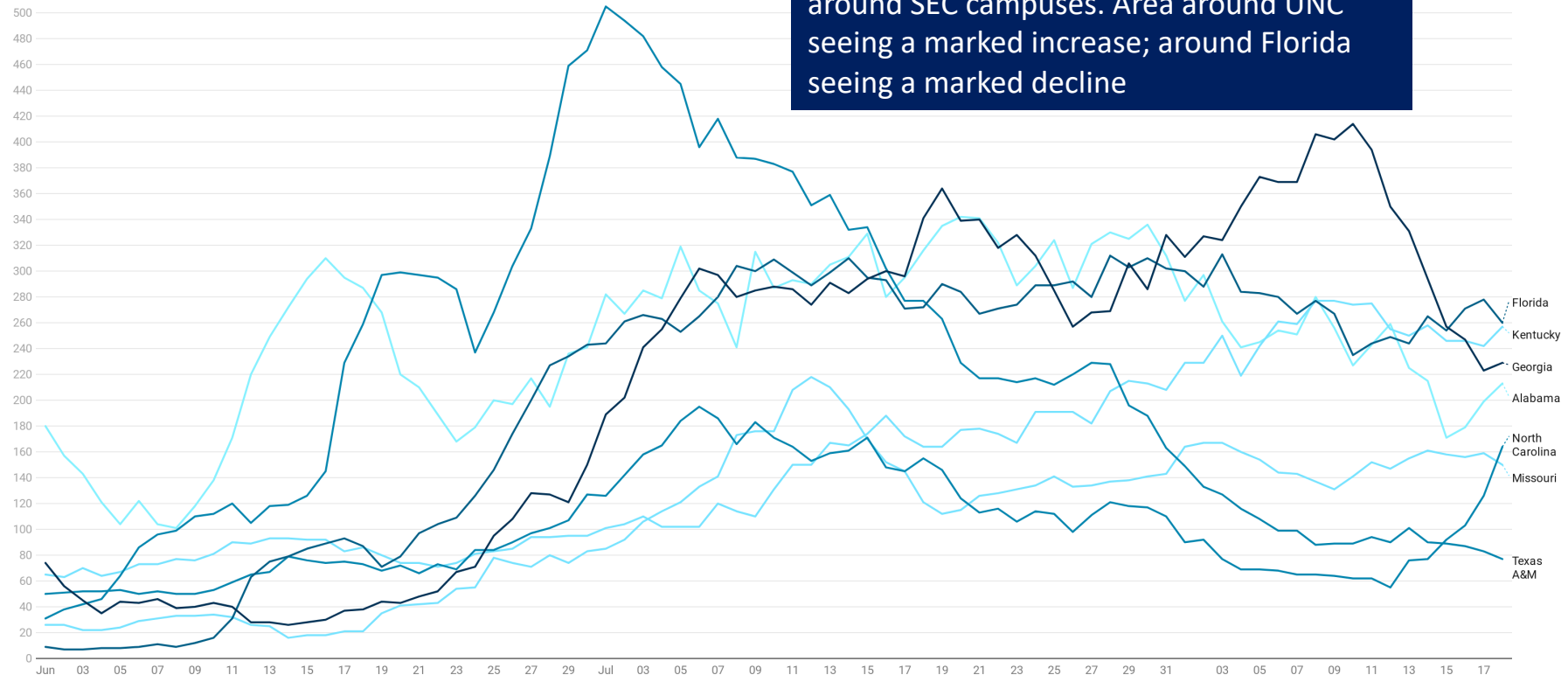
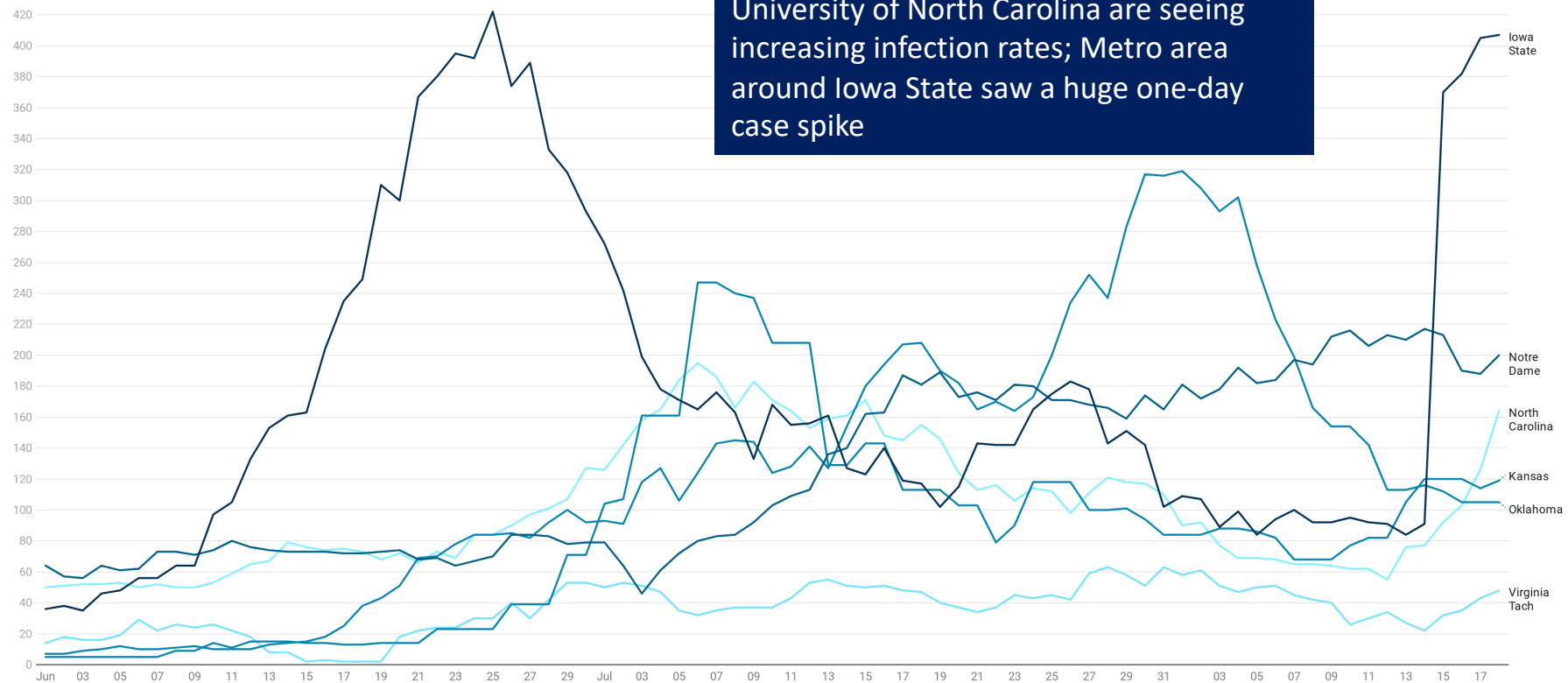


Chart: Health Industry Advisor LLC • Created with Datawrapper

University Areas – Tracking infections as students return to campus Selected ACC & Big 12 Campuses

New Daily Infections / Million: Select ACC & Big 12 University Areas

Trailing 7-Day Moving Average



Metro areas around Notre Dame and the University of North Carolina are seeing increasing infection rates; Metro area around Iowa State saw a huge one-day case spike

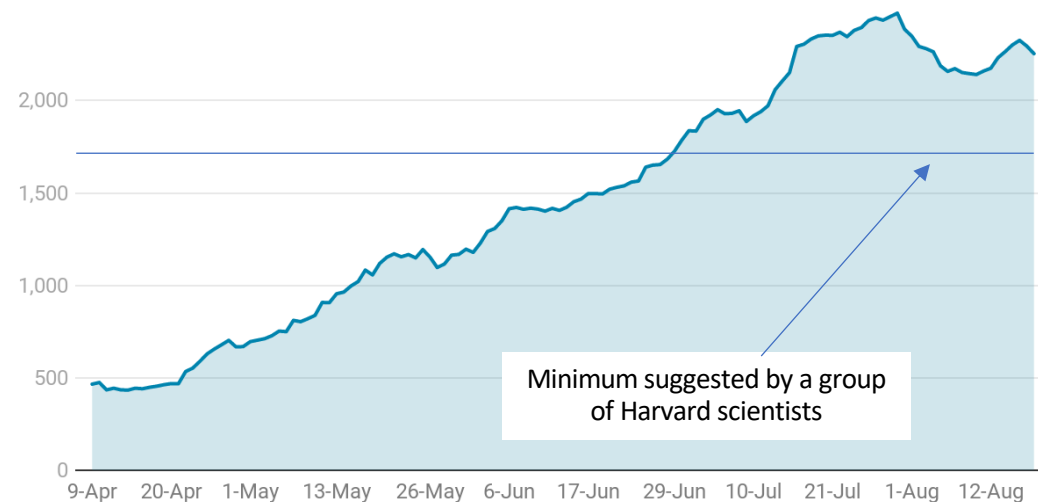
Chart: Health Industry Advisor LLC • Created with Datawrapper

Testing volume fell again yesterday to its lowest single-day volume since July 11; Test-positive rate, however, fell to its lowest 7-day average 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 18

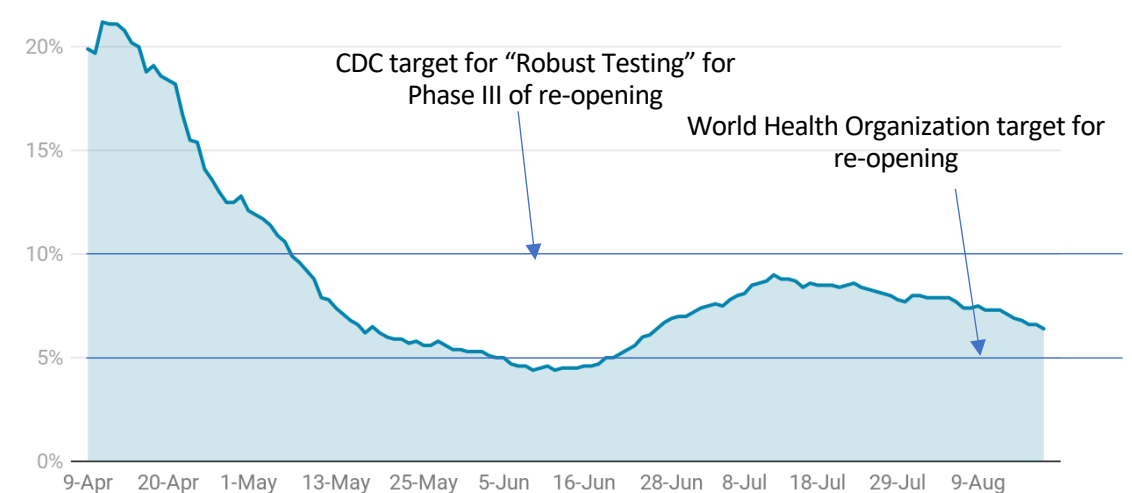


Health Industry Advisor LLC analysis

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 18



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

Test results are improving: Only Florida, Idaho, Iowa, Kansas, Mississippi, Nevada and Texas report test-positive% >10% for the past 7 days; Rates for Alabama, Arkansas, Arizona, Mississippi, Missouri, South Carolina and Texas fell sharply

Test-Positive Rate

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

■ 18-Aug ■ 11-Aug

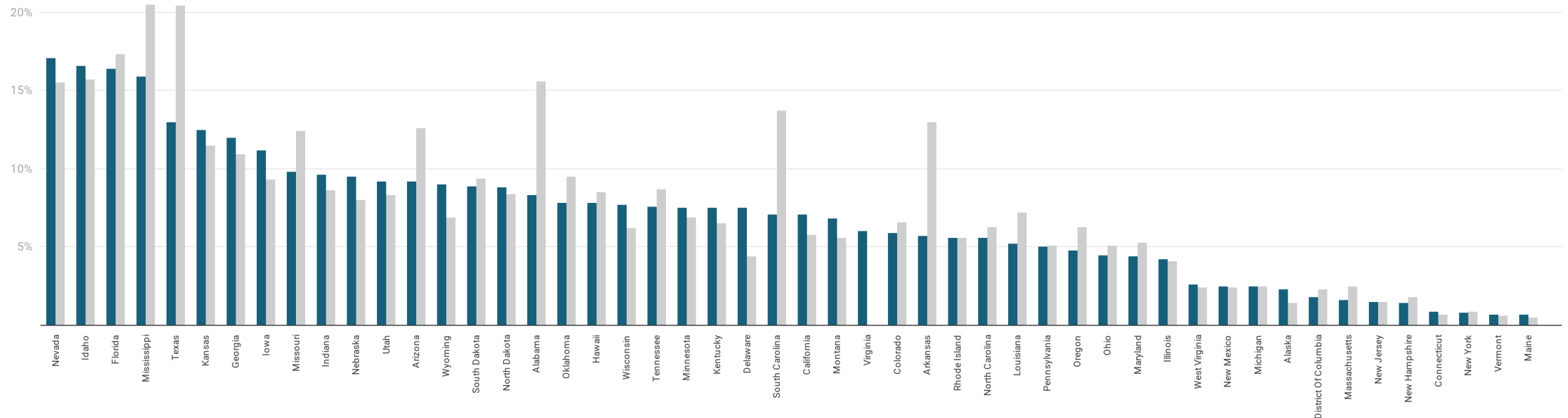


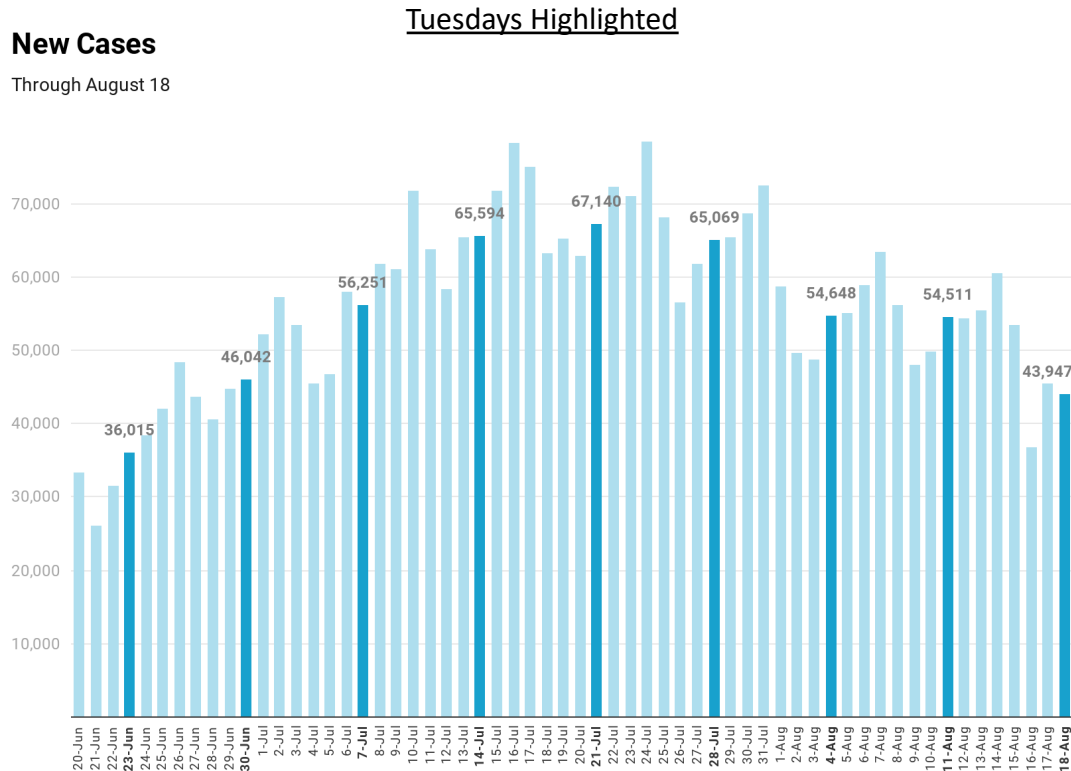
Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Projects • Created with Datawrapper

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

Fewer new cases yesterday; Fewest new cases on a Tuesday since June 23; Week-over-week, new cases are down 10.6%

New Cases

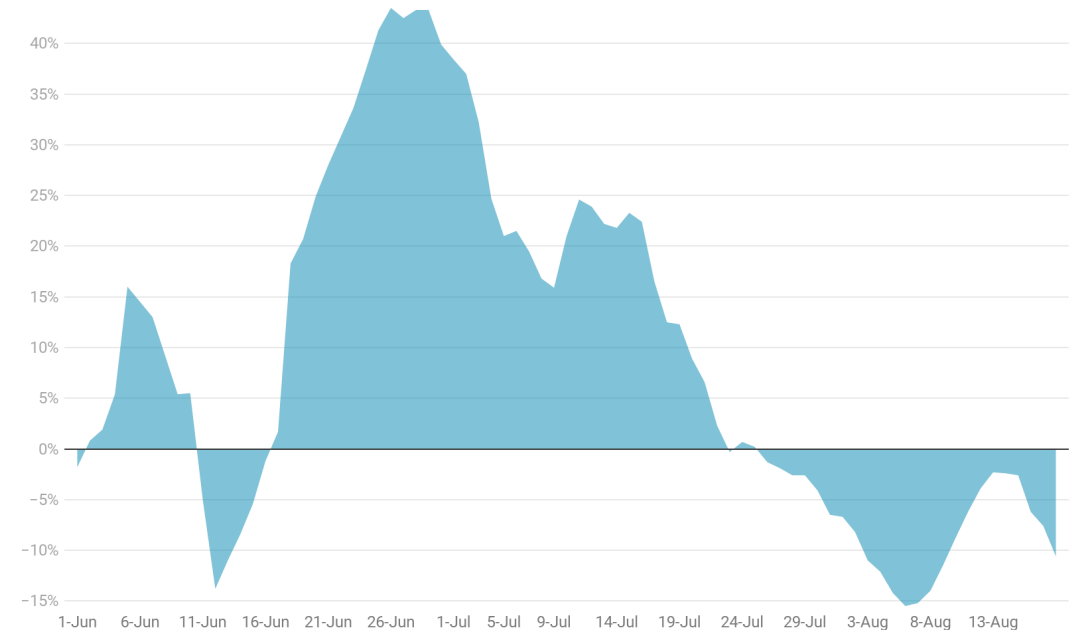
Through August 18



Note the daily pattern: new cases are typically low on Sunday, then increase each day through the week. While we have been noting *this for the past few weeks*, researchers from MIT, Boston University and Harvard Medical School confirmed this in a report published by CIDRAP on August 17

Week-Over-Week Change In New Cases

Through August 18



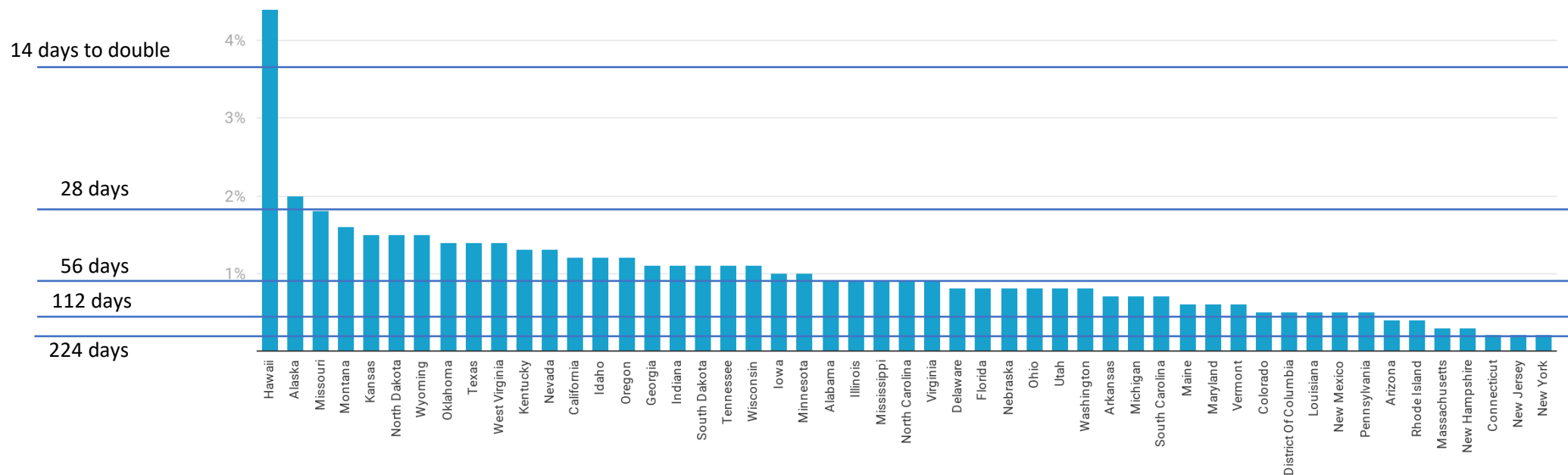
Health Industry Advisor LLC analysis

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

Case growth is slowing , even Hawaii is seeing a slowdown. At current rates, cases are doubling every 17-18 days in Hawaii; every 450 days in New York; 80 days for the United States overall

Growth Rate in Total Cases

Trailing 5-Day Moving Average, Through August 18

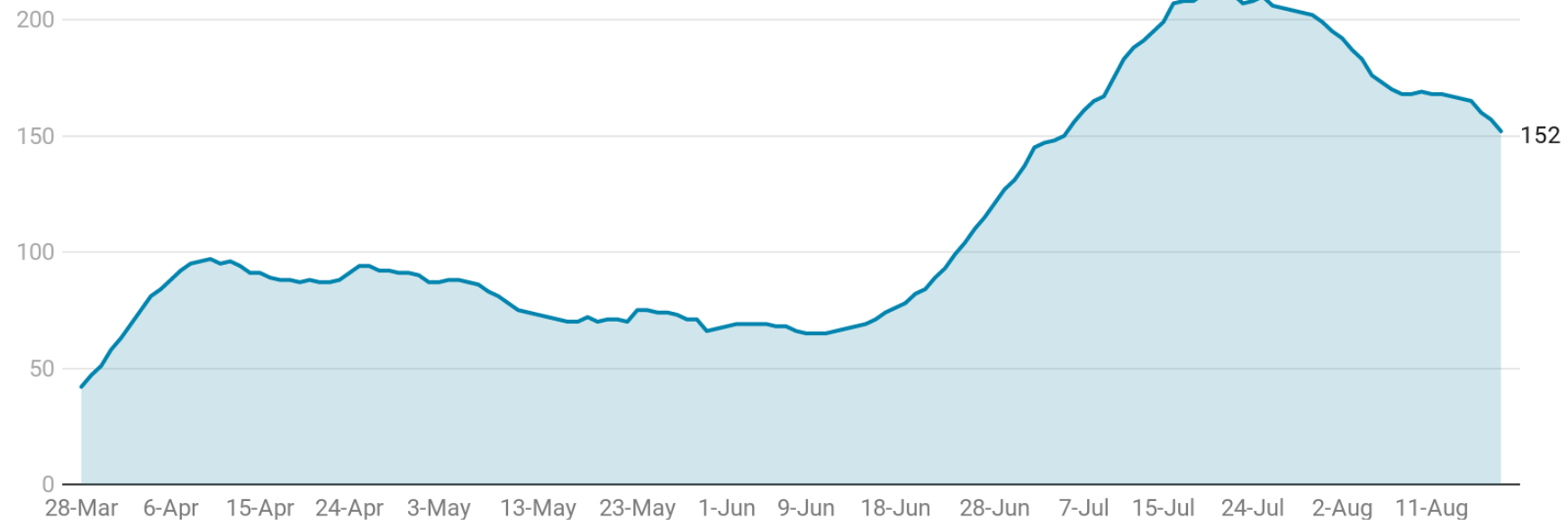


Health Industry Advisor LLC analysis

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 18



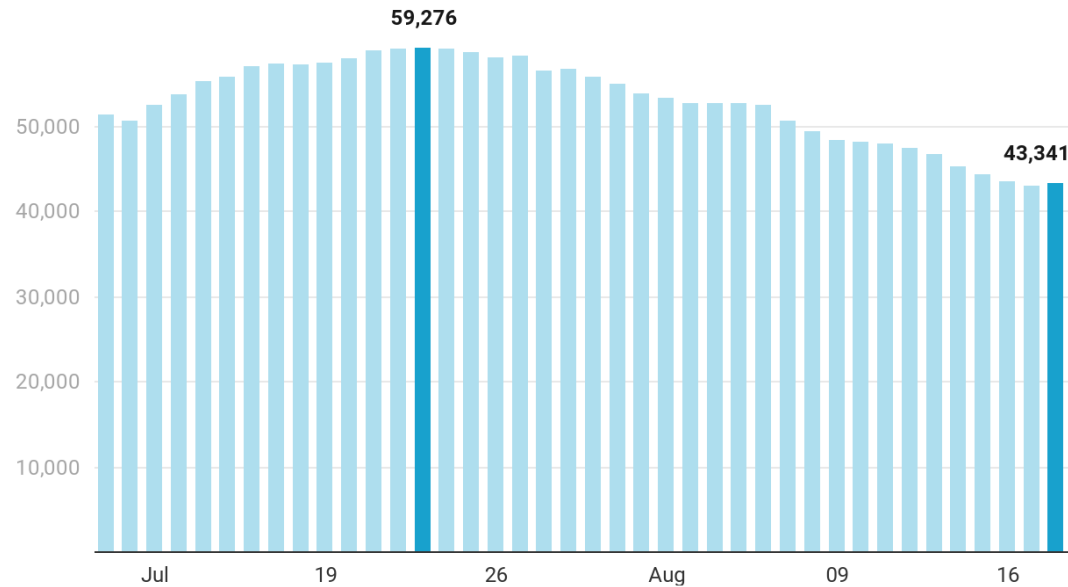
Health Industry Advisor LLC analysis

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

ng average

Hospital Census: COVID-19 Patients

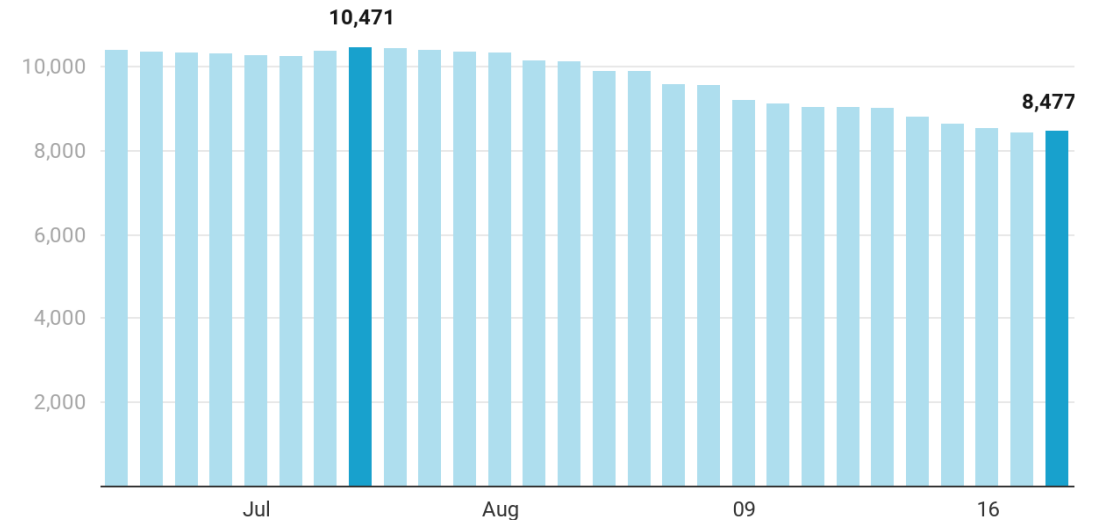
As of August 18



Florida data first available on July 10

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

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

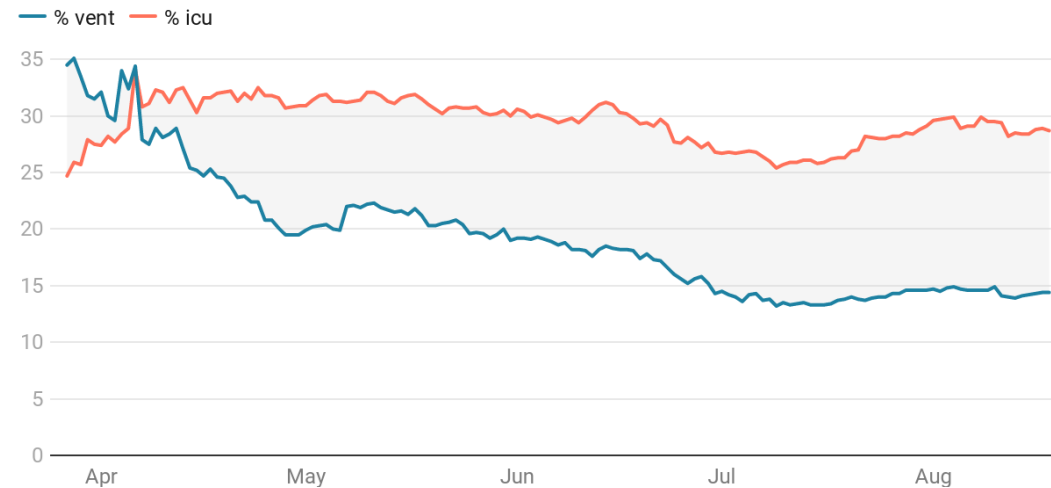
Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

As hospital census declines, % in ICU is stable

ER Visits Are Also Down

Severity of Hospitalized Patients

% of patients on ventilators and in the ICU, As of August 18

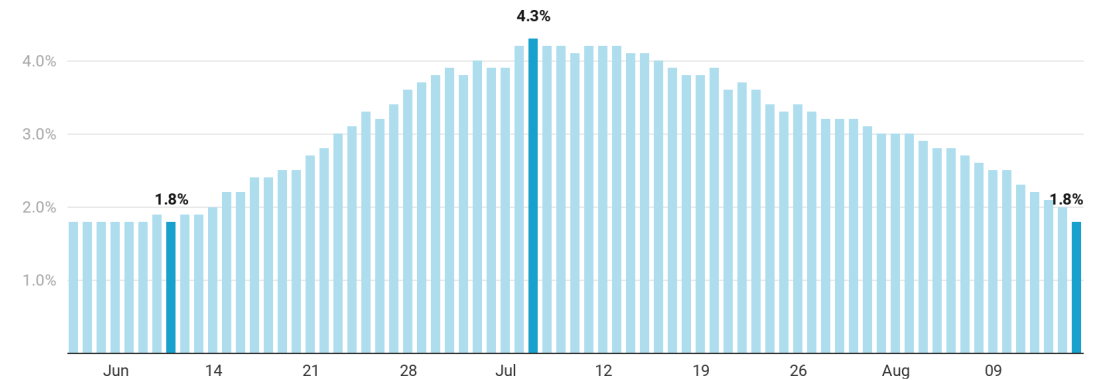


Health Industry Advisor LLC analysis

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 15



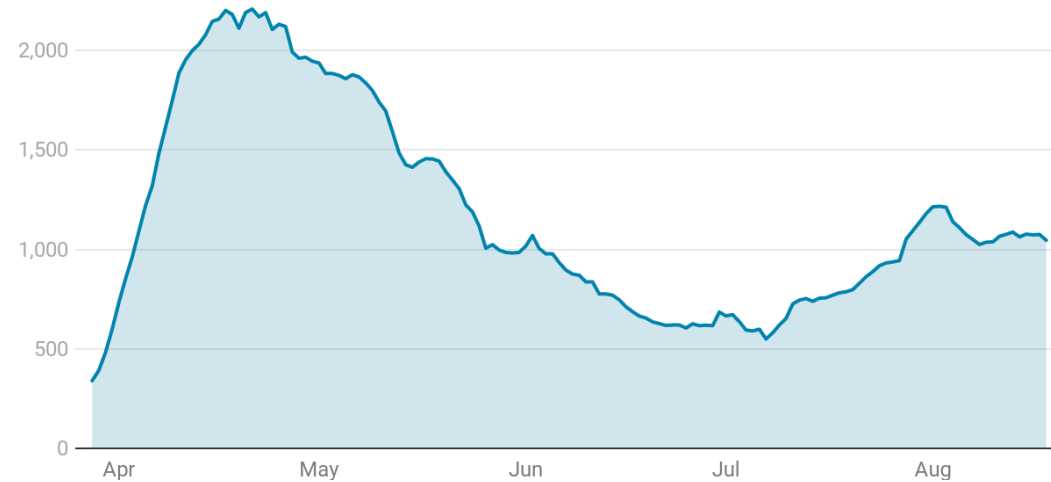
Health Industry Advisor LLC analysis

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

Deaths reported yesterday, although lower than a week ago, were relatively high for a Tuesday; weekly average remains stable

Deaths Recorded With Coronavirus in the U.S.

Trailing 7-Day Moving Average, As of August 18



Health Industry Advisor LLC analysis

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

Tuesdays Highlighted

Daily Deaths Reported

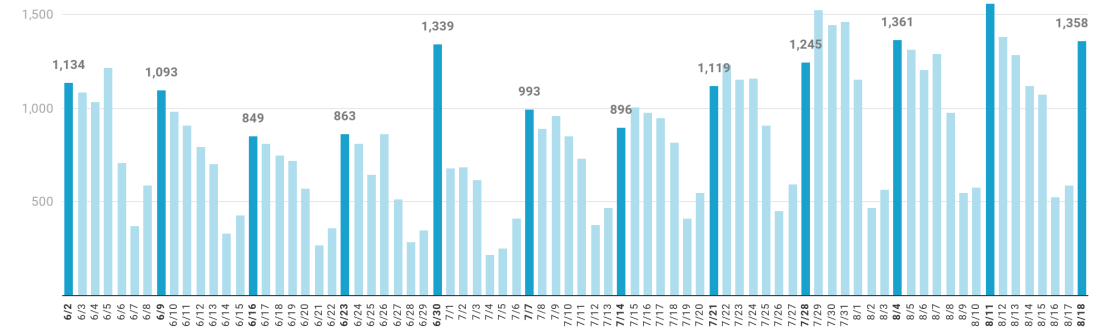


Chart: Health Industry Advisor LLC • Created with Datawrapper

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>