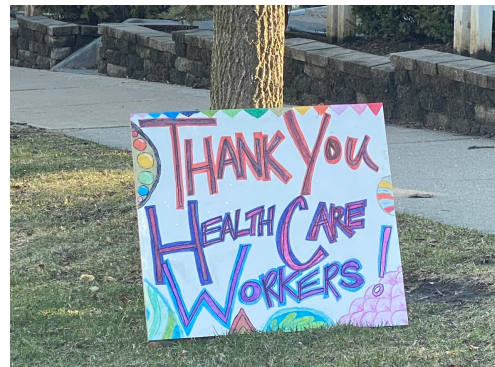
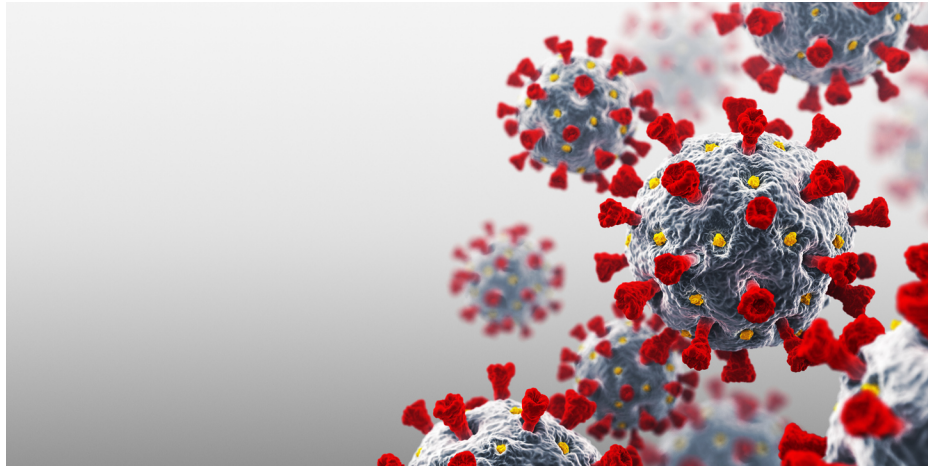
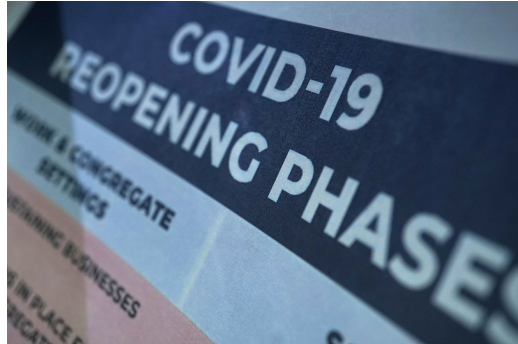




COVID-19 Report

Issue # 157

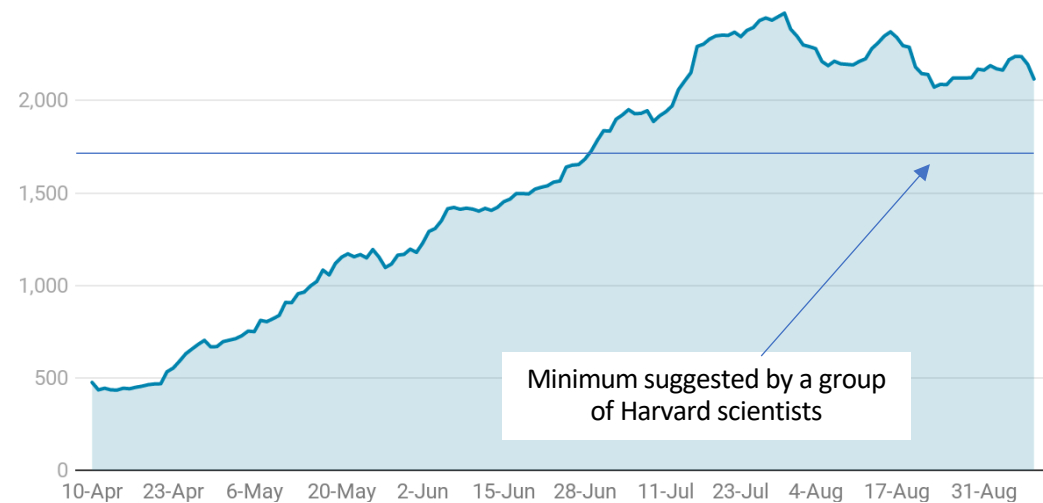
Wednesday, September 9, 2020

- Testing in the U.S.
 - Test volume has yet to reflect the introduction of new rapid-testing capabilities. **On a week-over-week basis, test volume is down more than 9%**
 - **Test-positivity continues to improve: this rate was <5% yesterday, marking for the 4th consecutive day this was achieved;** the 7-day average rate through yesterday was as low as it has been since June 15-21
- New Cases and Infection Rates
 - With three consecutive days of relatively low cases, **new cases are down 12.7% on a week-over-week basis.** Case reporting practices over the holiday weekend likely influenced these low totals. Still, the low case total yesterday is encouraging
 - **New cases** reported yesterday were the fewest for a Tuesday in the past 12 weeks; they also **were more in-line with daily case totals recorded in early- to- mid-June, before the June/July surge in cases**
 - With the downturn in new cases, **new daily infections per capita fell to its lowest point since June 26;** this rate has now declined 45% from its July 22 peak
 - New infection rates have fallen sharply in the Southeast and West since this July 22 U.S. peak; These rates have intensified, however, in the Heartland and Upper Midwest
- Observing large central and large fringe metro areas, there are current **"hotspots" in several metro areas in Illinois, Tennessee and Wisconsin**
- Active Cases, Deaths and Recoveries
 - With recoveries from the virus steadily increasing, **active cases are now beginning to taper in the U.S.;** there are currently 50% more persons recovered from the virus than are considered active cases
 - Deaths reported with the virus were <1,000 yesterday - the 4th consecutive day below this level; they were the fewest deaths reported on a Tuesday since March 24
 - On a 7-day average basis, **deaths per day have been declining for the past month;** this death rate has now returned to its July 10th level, and is **1/3 of what it was at its peak in mid-April**
- Healthcare Resource Use
 - Inpatient occupancy of COVID-19 patients increased slightly yesterday - only the 7th such occurrence in the past 47 days; this census is still 46% lower than it was in late-July
 - ICU census of these patients declined again yesterday; this census has declined 38% since late-July
 - **The % of ER visits for COVID-19 illnesses, as well as influenza-like illness, pneumonia and shortness of breath each continued to decline**

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 September 8

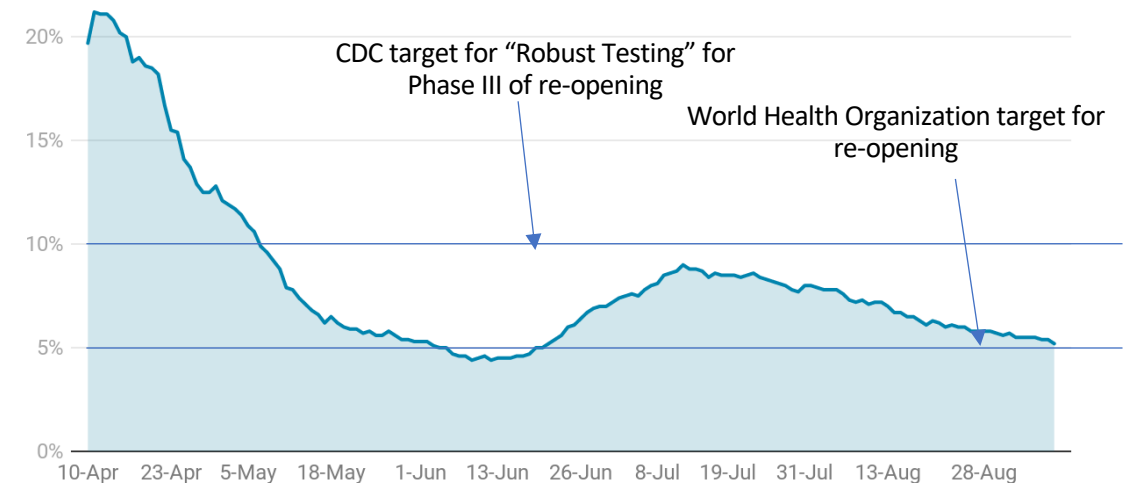


Health Industry Advisor LLC analysis

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 September 8



Health Industry Advisor LLC analysis

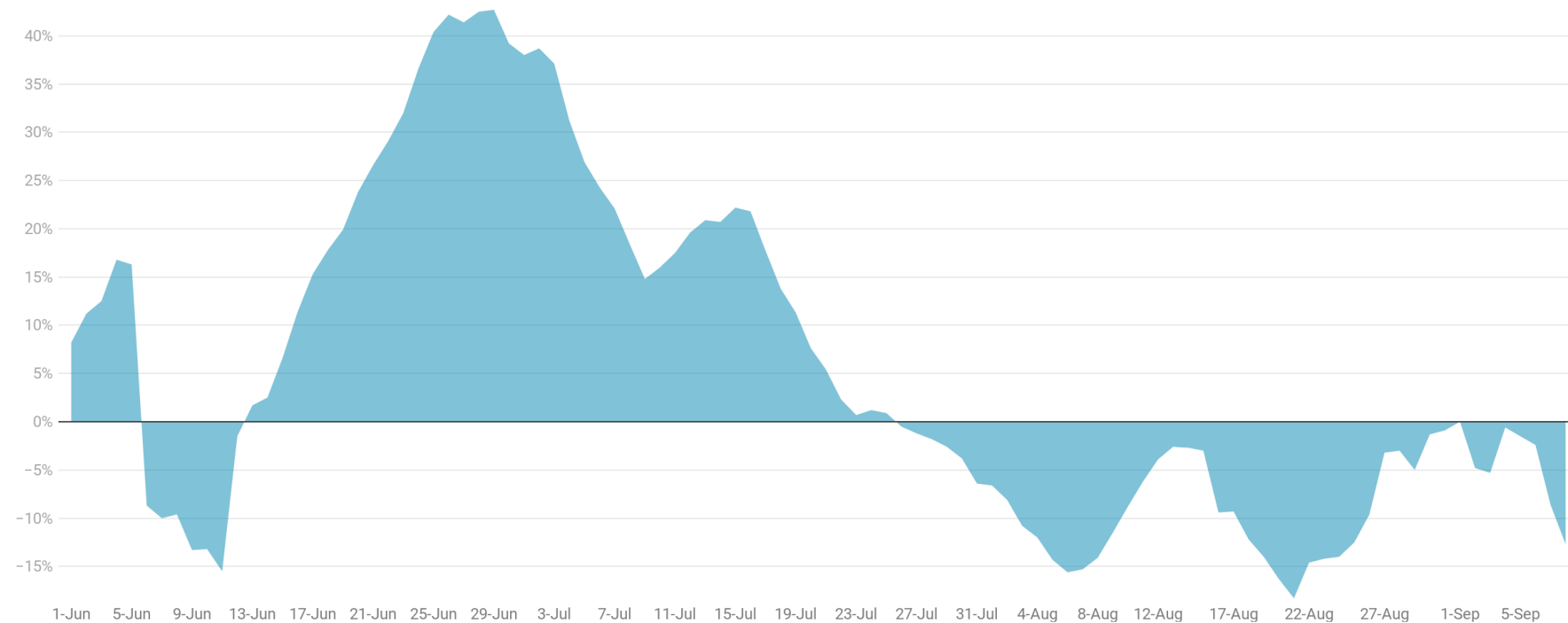
Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

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 batch-reported on August 26 all its negative test results from August 1-25. We "smoothed" the data, by applying a constant test-positive rate to estimate the negative tests by day for this period

Week-Over-Week Change In New Cases

Through September 8

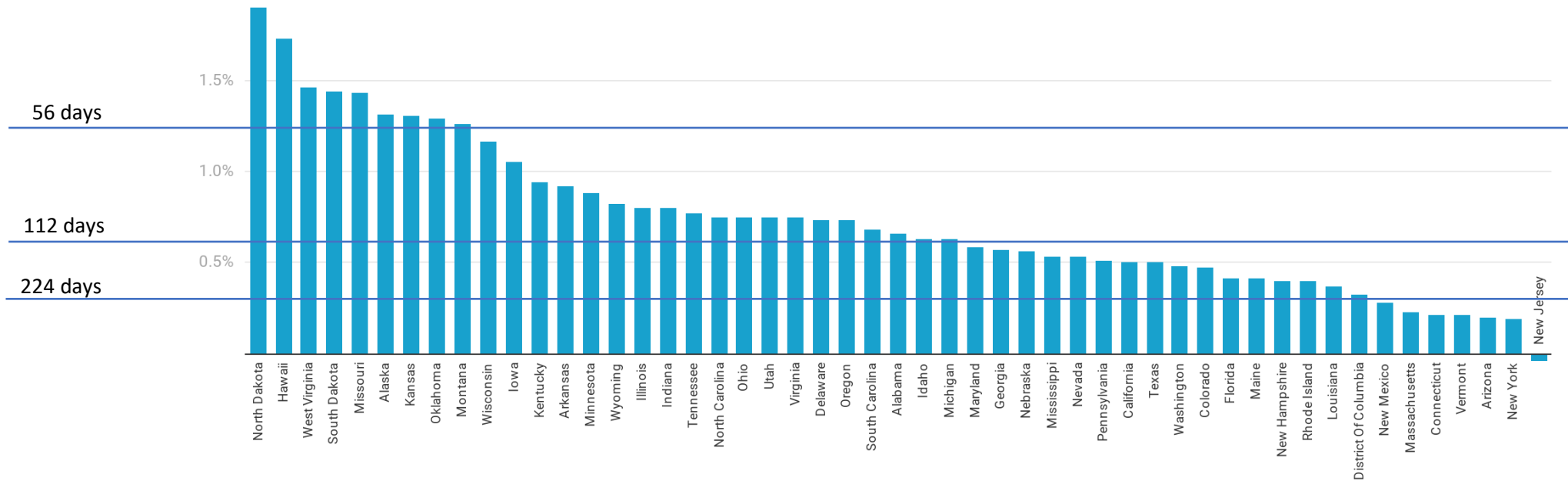


Health Industry Advisor LLC analysis

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

Growth Rate in Total Cases

Trailing 5-Day Moving Average, Through September 8



Health Industry Advisor LLC analysis

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

Tuesday's Experience— New Cases

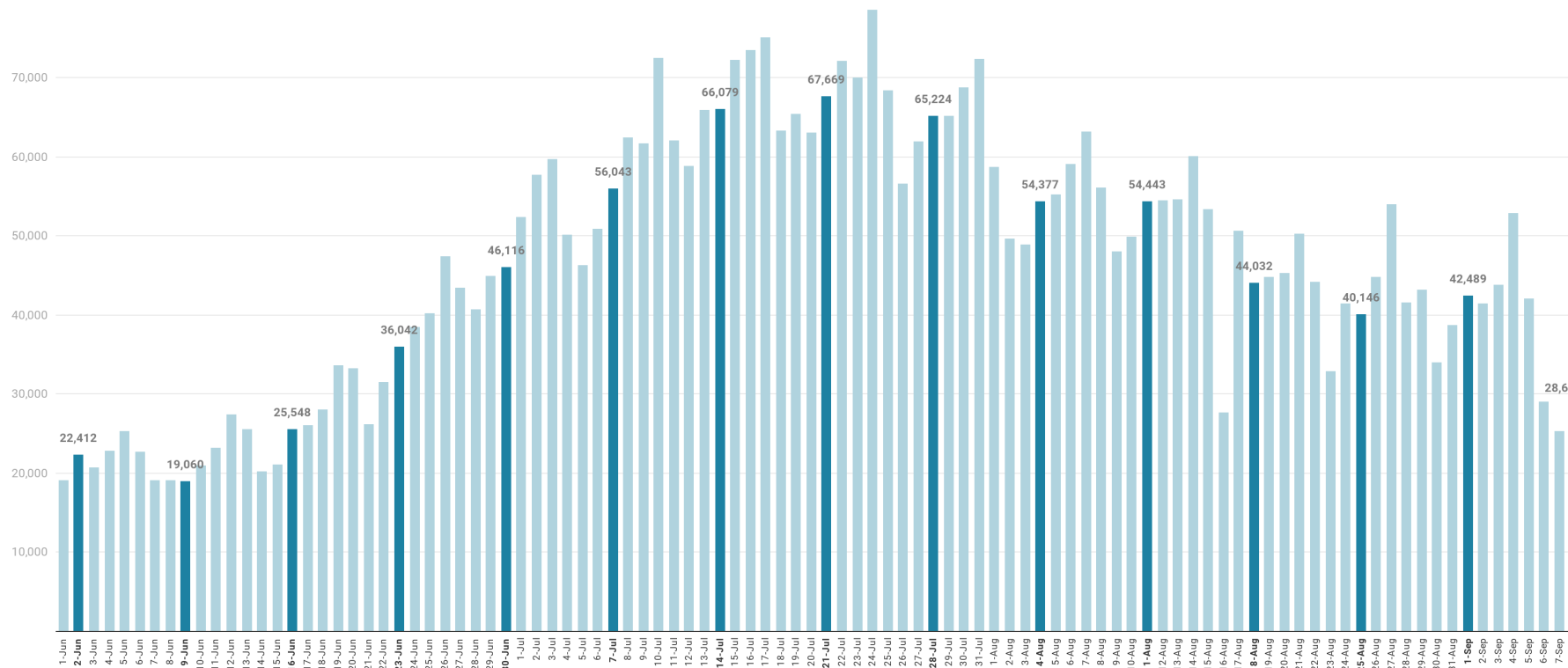
New cases on Tuesday were lowest on a Tuesday in 12 weeks

New cases are nearly back to levels experienced prior to the June-July surge

New Daily Cases

Through September 8

Tuesdays Highlighted



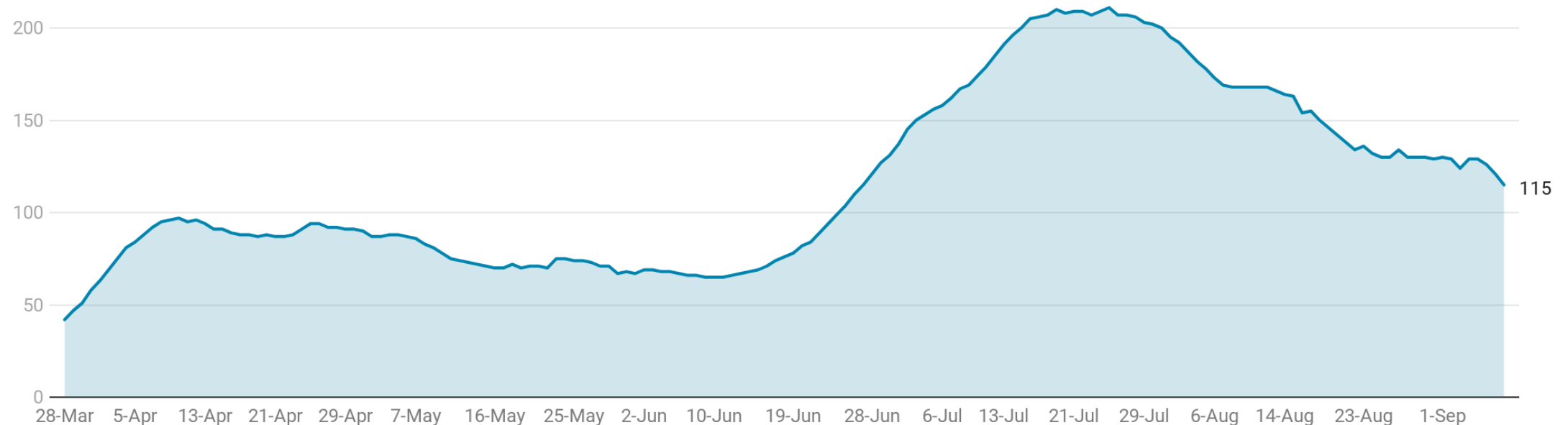
Note the daily pattern: new cases are typically low on Sunday, then increase each day through the week. While we have been noting this for the past few weeks, researchers from MIT, Boston University and Harvard Medical School confirmed this in [a report published by CIDRAP on August 17](#)

New infections per capita* dropped again yesterday, to its lowest point since June 26

Rate has dropped 45% since July 22

New Infections Per 1 Million Population - United States

Trailing 7-Day Moving Average, Through September 8

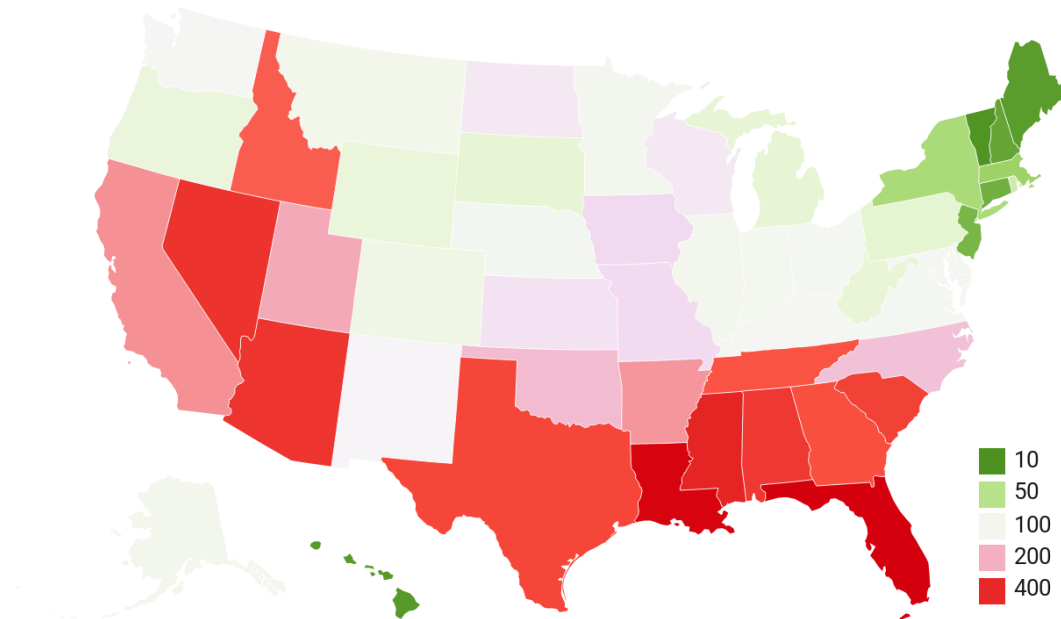


Health Industry Advisor LLC analysis

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

New Daily Infections Per 1 Million Population

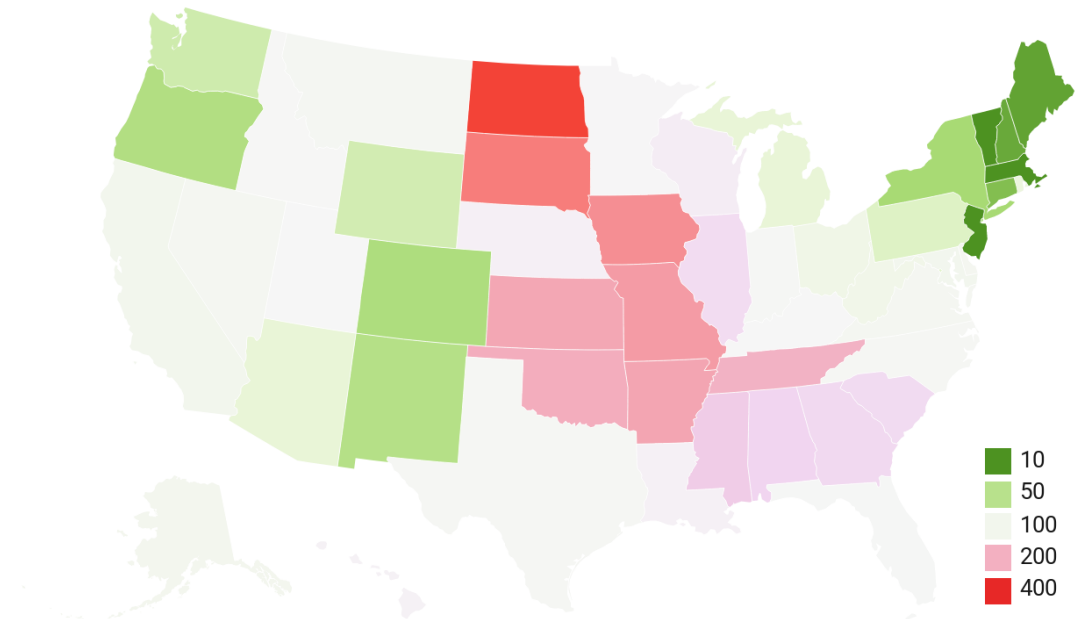
Trailing 7-Day Moving Average, As of July 22



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 September 8

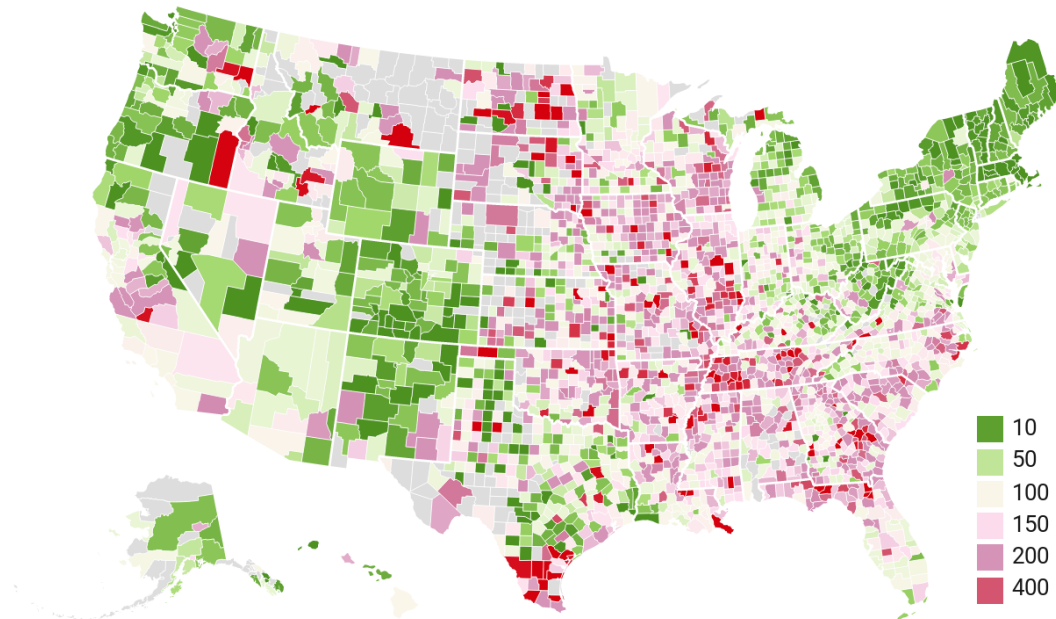


Map: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Infection rates have eased across the Southeast, are growing in intensity in the Heartland and Upper Midwest
“Hot-spots” in metros in Illinois, Tennessee and southeast Wisconsin

New Daily Infections Per Million Population

Trailing 7-Day Moving Average, As of September 8



Health Industry Advisor LLC analysis

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

Current "Hot Spot" Metro Areas - New Infections / Million

Includes Large Central and Large Fringe Metro Areas, Trailing 7-Day Moving Average

County	State	Daily Inf Rate (Last 7-Day MA)
Baker	Florida	610
Plaquemines	Louisiana	599
Smith	Tennessee	536
Bond	Illinois	524
Clinton	Illinois	519
Fayette	Tennessee	428
Dickson	Tennessee	425
Caldwell	Texas	421
Kenosha	Wisconsin	379
Pierce	Wisconsin	349
Milwaukee	Wisconsin	347
Jefferson	Kentucky	326
Jersey	Illinois	313
Chilton	Alabama	304
Monroe	Illinois	303
Crittenden	Arkansas	302
Walker	Alabama	296
Cleveland	Oklahoma	296
Waukesha	Wisconsin	295
Cannon	Tennessee	291

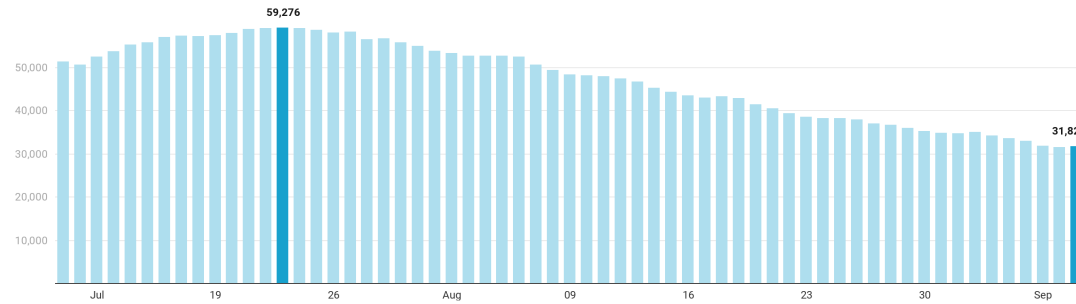
Table: Health Industry Advisor LLC • Created with Datawrapper

Stress placed on the U.S. healthcare system by COVID-19 has eased since mid-July

Flu and other respiratory illnesses not (yet) stressing ERs

Hospital Census: COVID-19 Patients

As of September 8

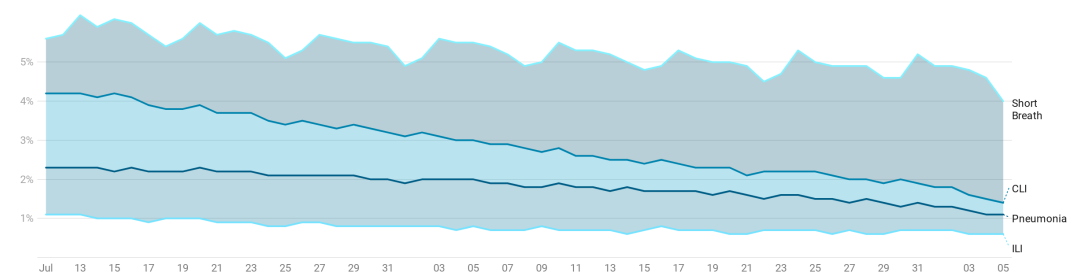


Florida data first available on July 10

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

% of Emergency Department Visits for COVID-Like Illness (CLI), Influenza-Like Illness (ILI), Pneumonia & Shortness of Breath

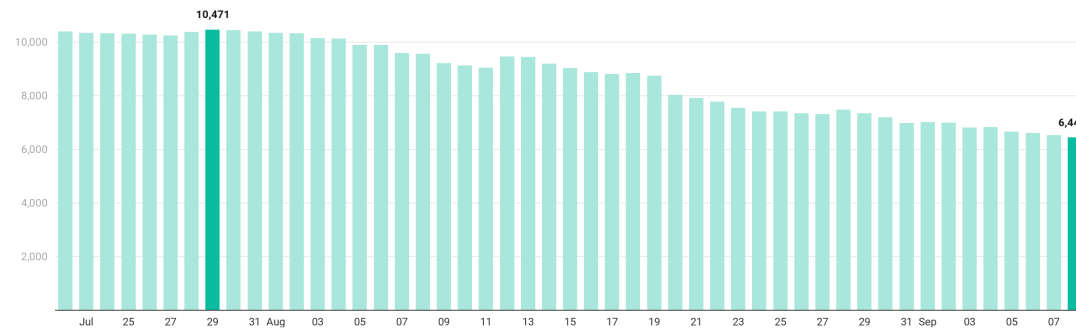
As of September 5



Health Industry Advisor LLC analysis

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

COVID-19 ICU Census

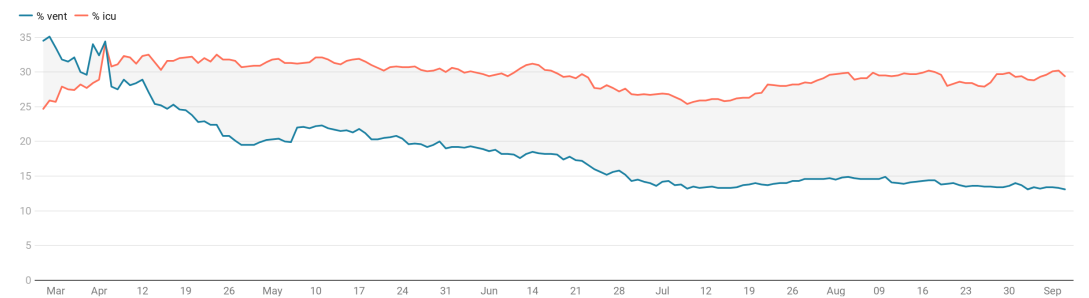


For states reporting these data: AZ, CA, ID, IL, IN, IA, KS, KY, ME, MD, MA, MI, MN, MS, NV, NJ, NY, NC, OH, OK, OR, RI, SC, TX, UT, VA, WI & WY

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

Severity of Hospitalized Patients

% of patients on ventilators and in the ICU, As of September 8



Health Industry Advisor LLC analysis

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

Wednesday's Experience— Newly Reported Deaths

Newly reported deaths yesterday were lowest on a Tuesday since March 24
Fourth consecutive day with fewer than 1,000 deaths reported

Newly Reported Deaths

Through September 8

Tuesdays Highlighted

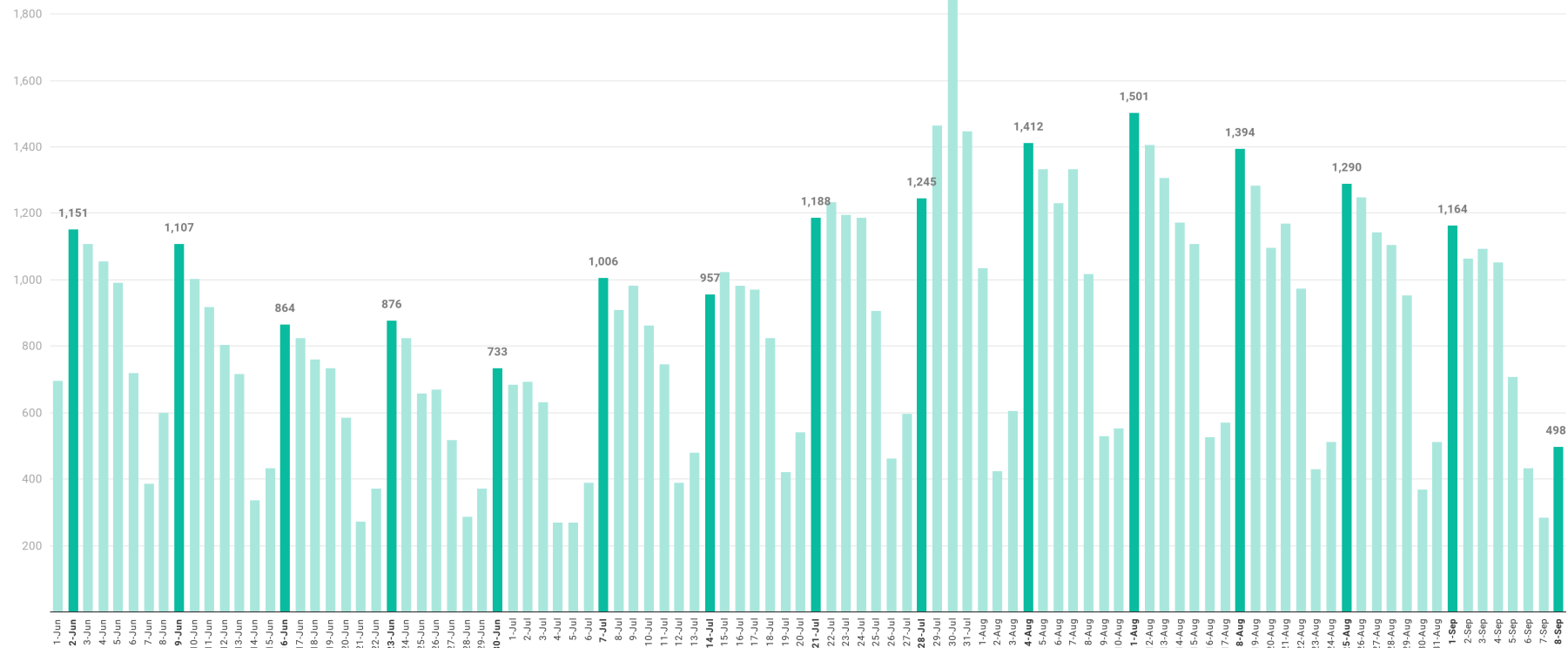
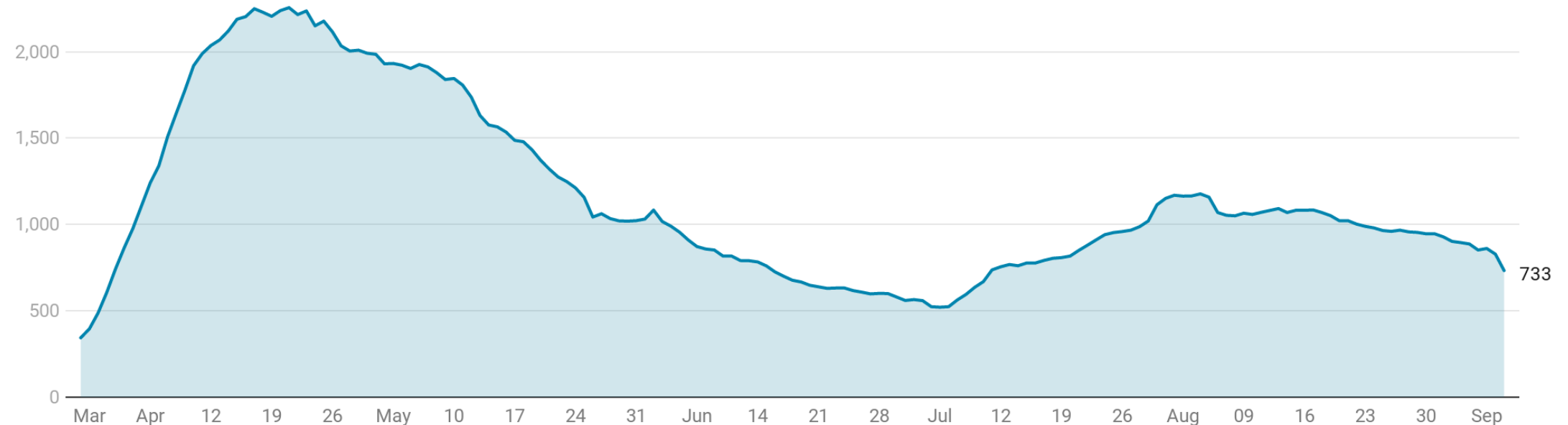


Chart: Health Industry Advisor LLC • Source: eoridometers.info • Created with Datawrapper

Deaths Reported With Coronavirus in the U.S.

Trailing 7-Day Moving Average, As of September 8



Health Industry Advisor LLC analysis

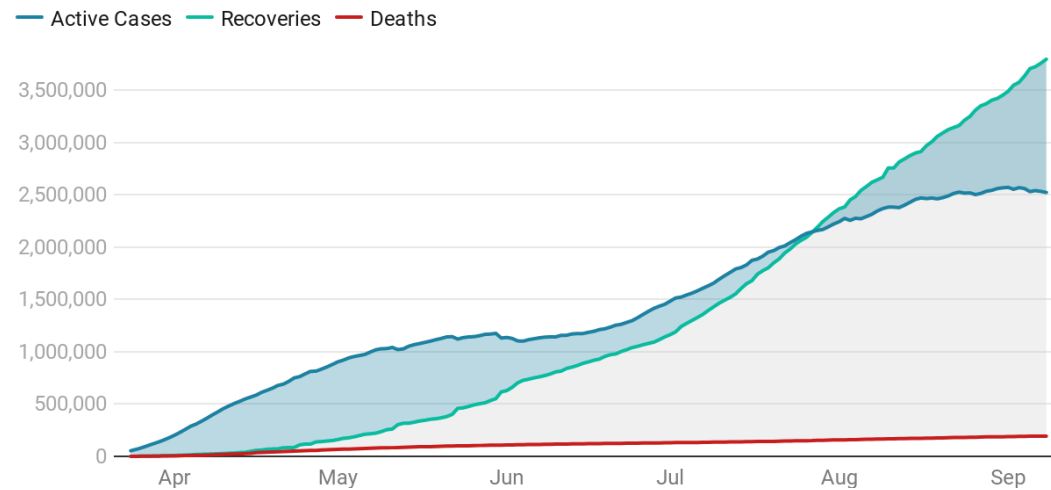
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Recoveries are on a steep upward climb, while active cases may be starting to taper off

50% more recoveries than active cases at this point; ~20 recoveries for every death

Active Cases v. Recoveries & Deaths

Through September 8

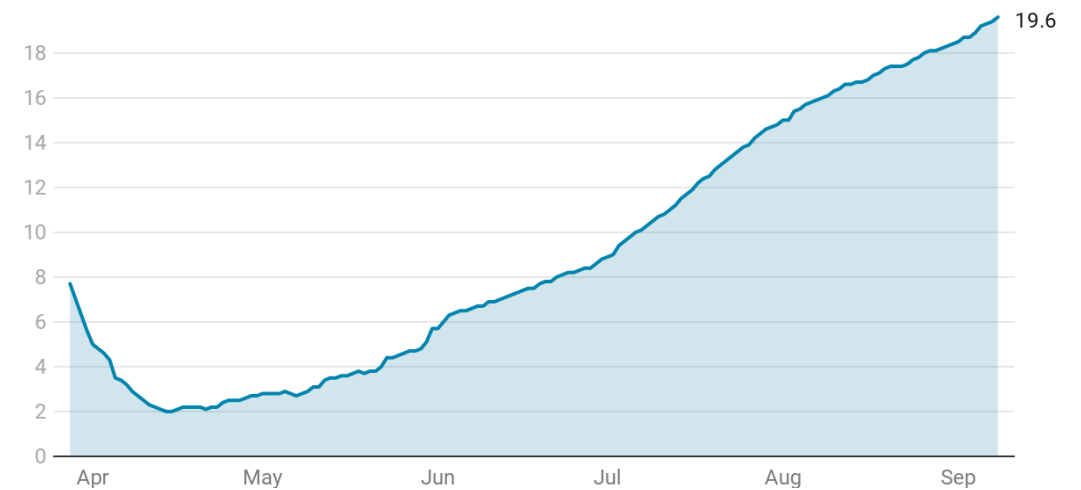


Health Industry Advisor LLC analysis

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

Recoveries: Deaths - United States

As of September 8



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>