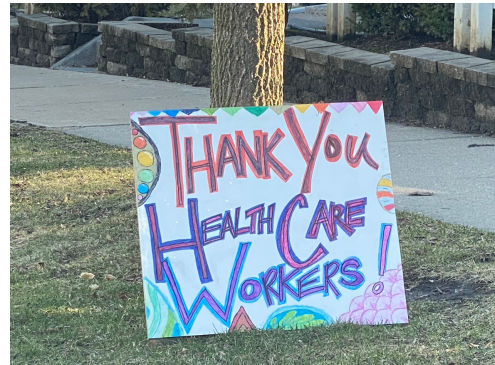
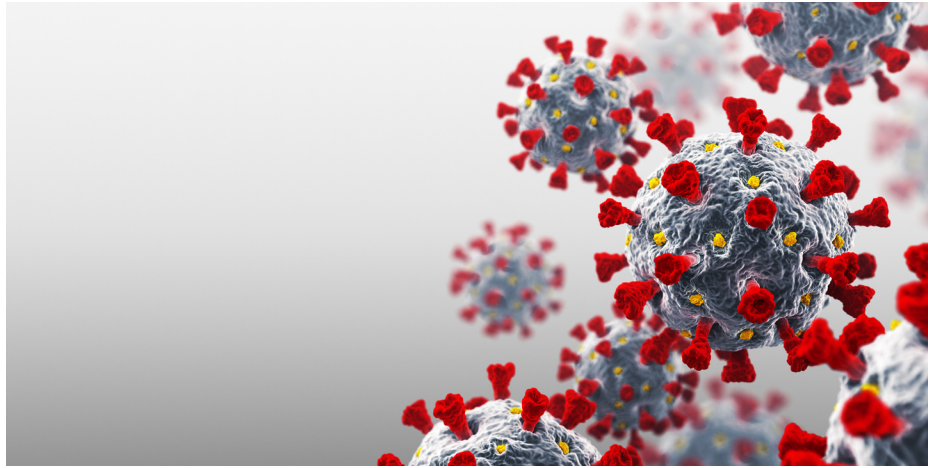
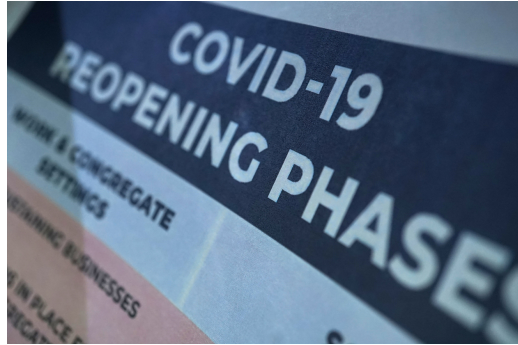




COVID-19 Report

Issue # 158

Thursday, September 10, 2020

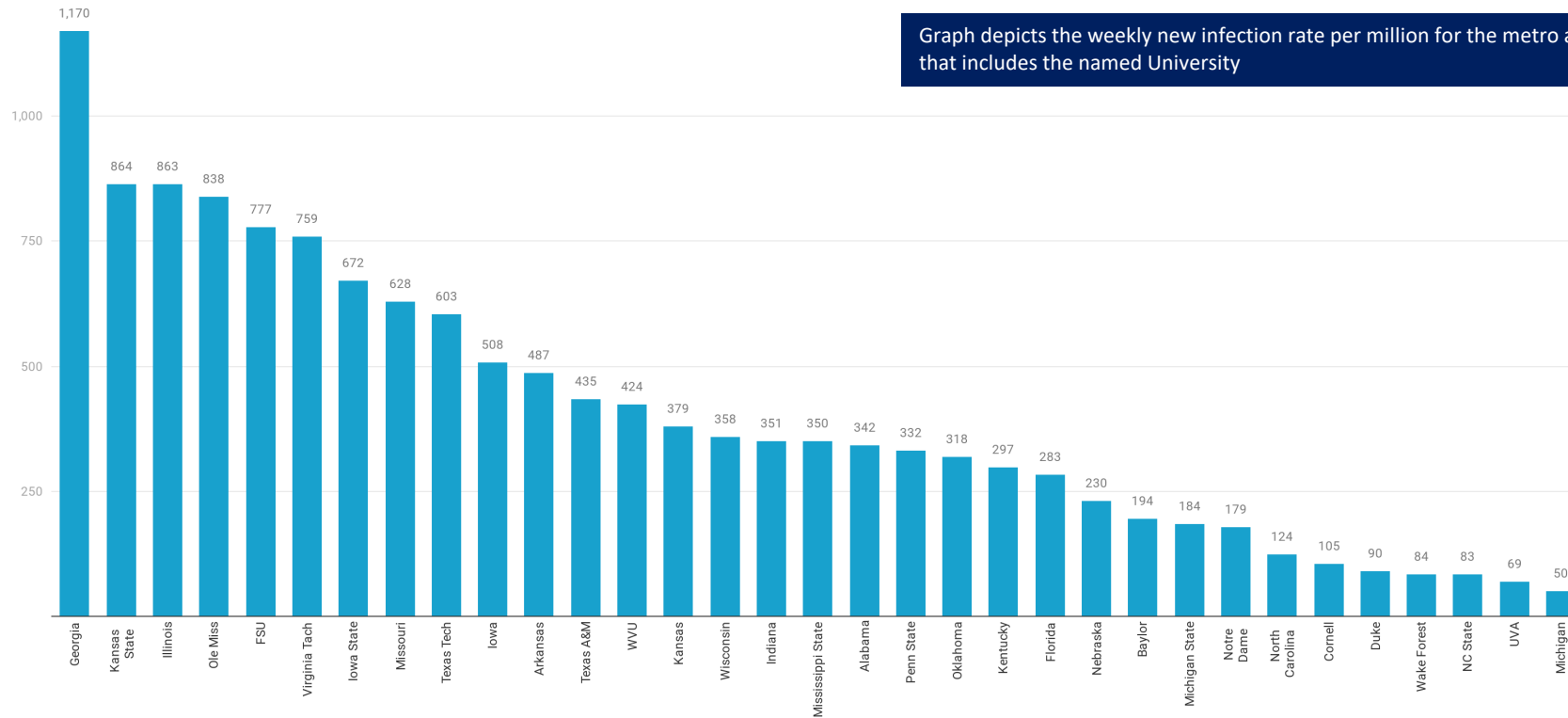
- **Return-to-Campus**
 - As a reflection of how quickly things change, **last week Story and Johnson Counties, home to Iowa State University and the University of Iowa, reported the highest infection rates among the areas in this analysis. Both counties now have experienced steep declines in rates since the beginning of September**
 - Other metro areas experiencing declines: Tuscaloosa (University of Alabama), Washington (University of Arkansas) and Oktibbeha (University of Mississippi)
 - Conversely, **metro areas experiencing sharp increases: Clarke (University of Georgia), Riley (Kansas State University), Leon (Florida State University), Montgomery (Virginia Tech) and Lubbock (Texas Tech University)**
 - **Clarke (University of Georgia) has the dubious distinction of the highest current rate of new infections among these 33 metro areas**, followed by Riley (Kansas State University), Champaign (University of Illinois), Lafayette (Ole Miss), and Leon (Florida State University)
 - **Washtenaw (University of Michigan), Albermarle (University of Virginia), Wake (NC State), Forsyth (Wake Forest) and Durham (Duke University) experienced the lowest infection rates**
- **Testing**
 - Test volume is down 5% on a week-over-week basis; it remains above minimum levels suggested by the World Health Organization
 - **The test-positive rate remains lower than July and August level; while it remains below the CDC-target for Phase III re-openings, it is slightly above the World Health Organization target**
- **New Cases & Infection Rates**
 - While **new cases** were higher yesterday than Tuesday (not uncommon, given the established day-of-week trend), they **were lower than any Wednesday in the past twelve weeks, and <1/2 peak July levels**
 - **On a week-over-week basis, new daily cases declined 11.8%**
- **New daily infection per capita in the U.S., on a 7-day moving average basis, declined again on Wednesday, continuing a trend that began on July 22; During this time, this rate has dropped 46%**
- North Dakota continued to report the highest new daily infection rates, followed by other Heartland and Upper Midwest states - South Dakota, Iowa, and Missouri; States in the Southeast and West continued to report declining rates
- No state reported a peak in infection rates on Tuesday or Wednesday and thirty-nine states have gone at least 4 weeks since posting their peak rate
- Fourteen states are within 25% of their peak rate; Another fourteen states are below 33% of their peak rate
- **Healthcare Resource Use**
 - A general easing of the stress from COVID-19 on the healthcare system has been one of the more encouraging points during the past two months
 - However, **inpatient COVID-19 census increased on consecutive days; ICU census also increased on Wednesday. Each of these, while slight, run counter to the long-term declines experienced since late-July**
 - **Further, the %'s of ER visits for COVID-19, influenza, Shortness-of Breath and Pneumonia each increased on Sunday (most-recently reported data), bucking their long-term trends**
 - **Of course, a single day or two doesn't establish a new trend. Nonetheless, we will continue to monitor these in the coming days and weeks**
- **Deaths With Coronavirus**
 - Reported deaths on Wednesday were up sharply from the previous two days and were higher than last Wednesday; Nonetheless, they were the 2nd fewest reported on a Wednesday in 8 weeks
 - **On a 5-day average basis, reported deaths per day declined again on Wednesday, continuing a month-long trend. This rate is 1/3 of what it was during its peak in April**

Back-to-Campus – Impact on Metro Infection Rates

Metro area home to the University of Georgia has the highest current rate of new infections, followed by areas home to Kansas State, Illinois, Ole Miss and Florida State
Areas home to Michigan, Virginia, NC State, Wake Forest and Duke have the lowest rate

New Daily Infections / Million - Metro Areas Home to Major Universities

Trailing 7-Day Moving Average, as of September 9



Rates reflect the metro area that houses the University's main campus
Chart: Health Industry Advisor LLC - Created with Datawrapper

Back-to-Campus – Impact on Metro Infection Rates

Metro areas home to Georgia, Kansas State, Florida State, Virginia Tech and Texas Tech have seen large spikes in new infections

Metro areas home to Iowa, Iowa State, Arkansas, Mississippi and Alabama have experienced notable declines in rates

New Daily Infections / Million: Metro Areas Encompassing Major Universities

Areas With Increasing Rates Since September 1; Trailing 7-Day Moving Average

Graph depicts the weekly new infection rate per million for the metro area that includes the named University

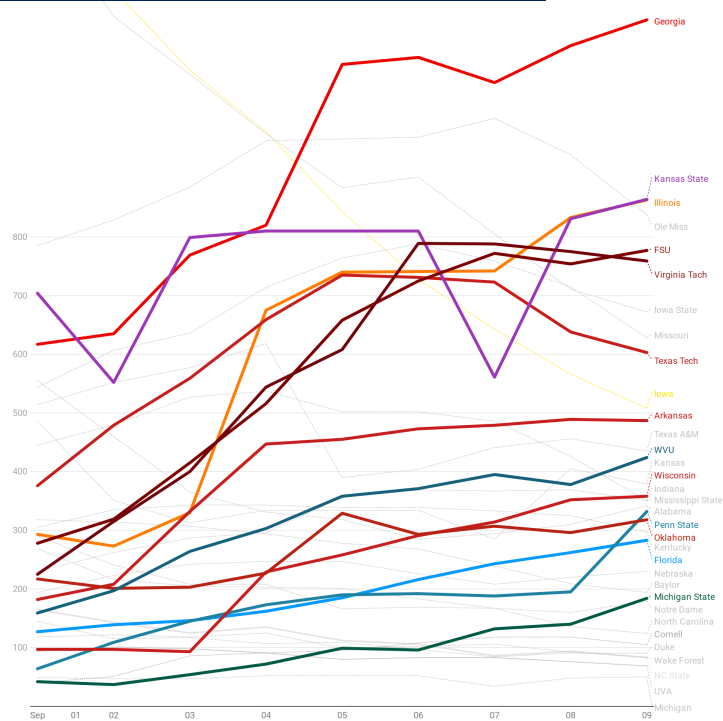


Chart: Health Industry Advisor LLC • Created with Datawrapper

New Daily Infections / Million: Metro Areas Encompassing Major Universities

Areas With Declining Rates Since September 1; Trailing 7-Day Moving Average

Graph depicts the weekly new infection rate per million for the metro area that includes the named University

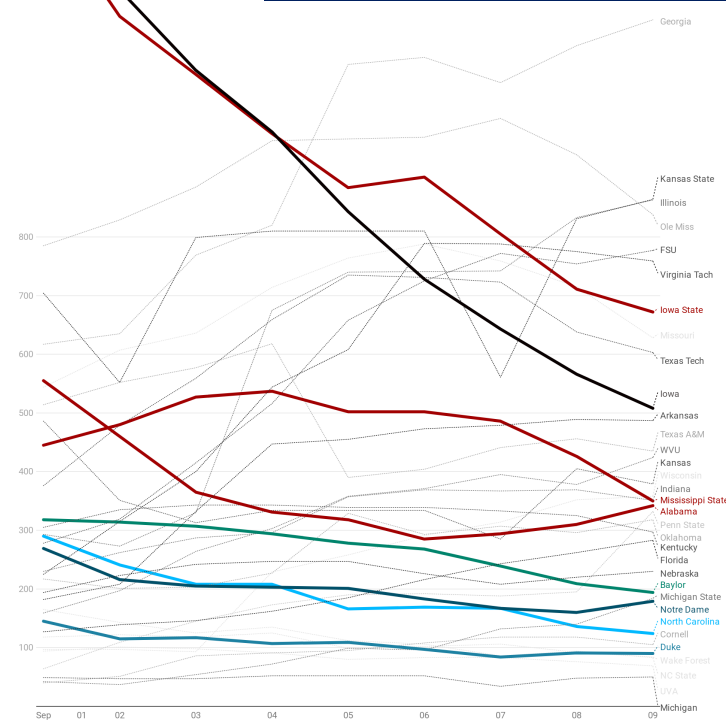
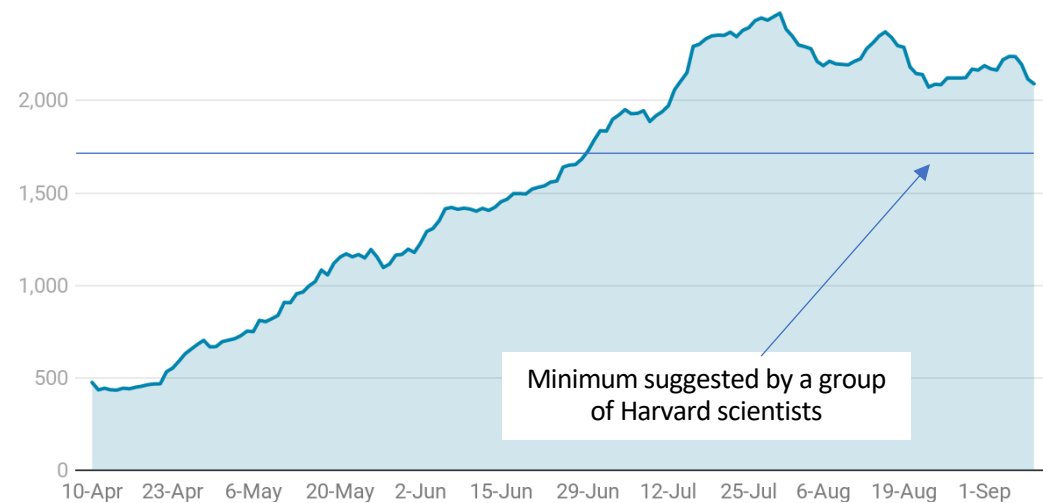


Chart: Health Industry Advisor LLC • Created with Datawrapper

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 9

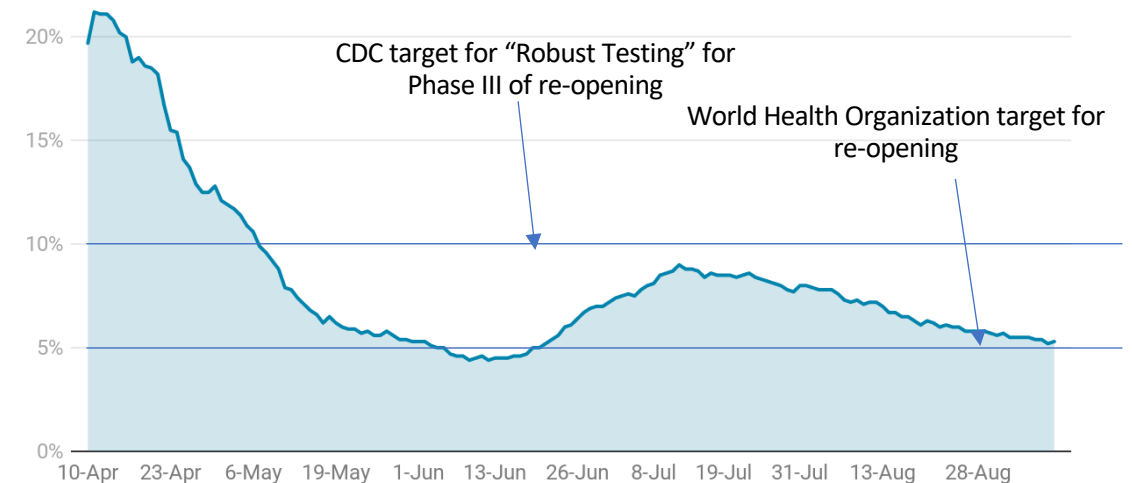


Health Industry Advisor LLC analysis

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 9



Health Industry Advisor LLC analysis

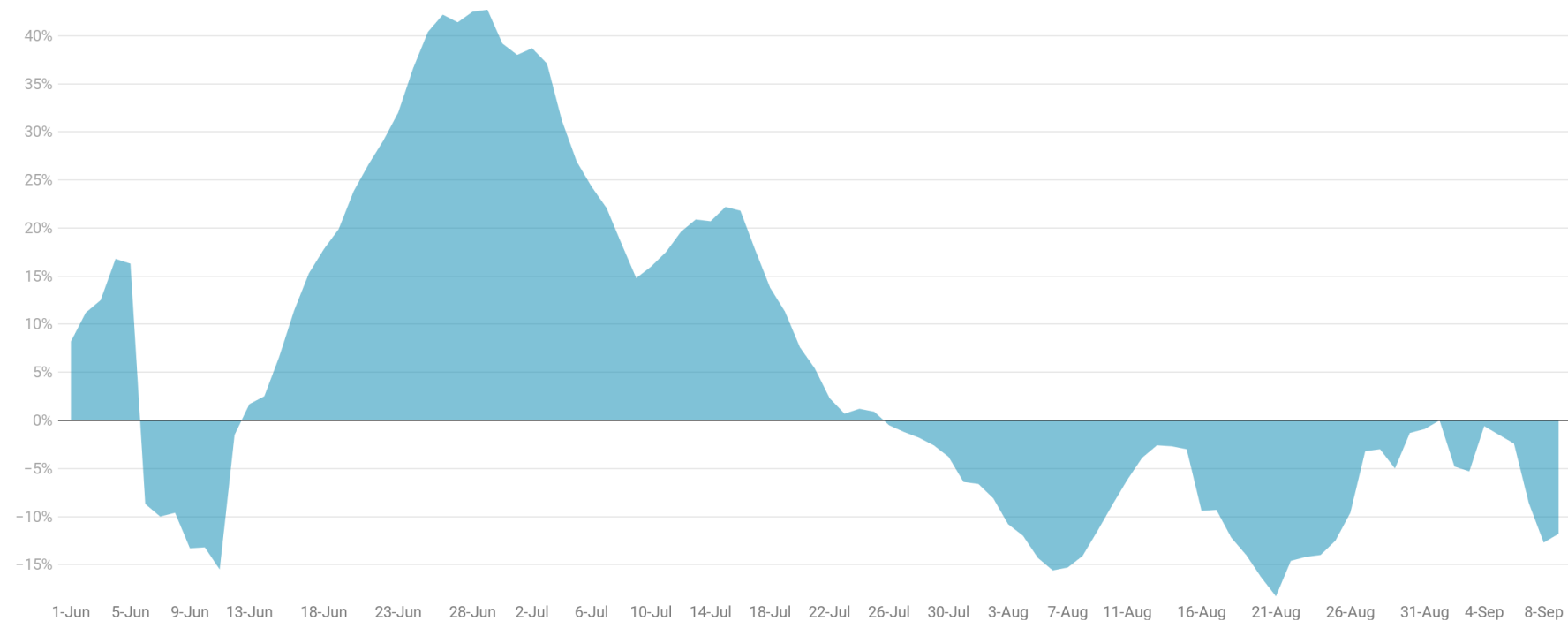
Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

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 9

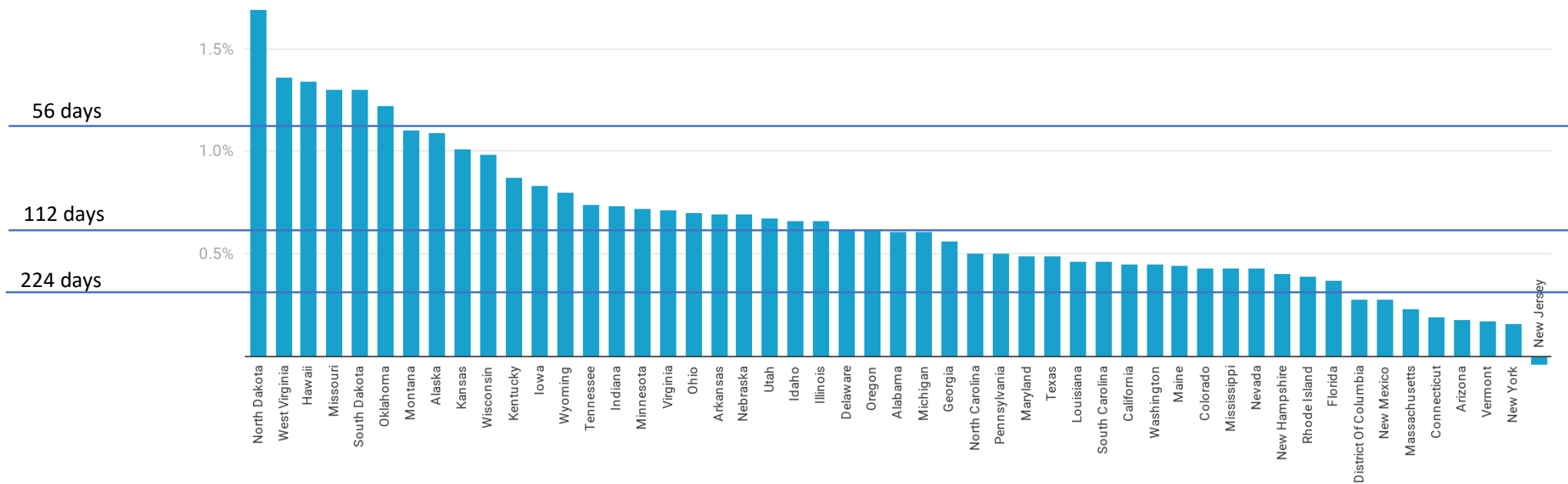


Health Industry Advisor LLC analysis

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

Growth Rate in Total Cases

Trailing 5-Day Moving Average, Through September 9



Health Industry Advisor LLC analysis

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

Wednesday's Experience— New Cases

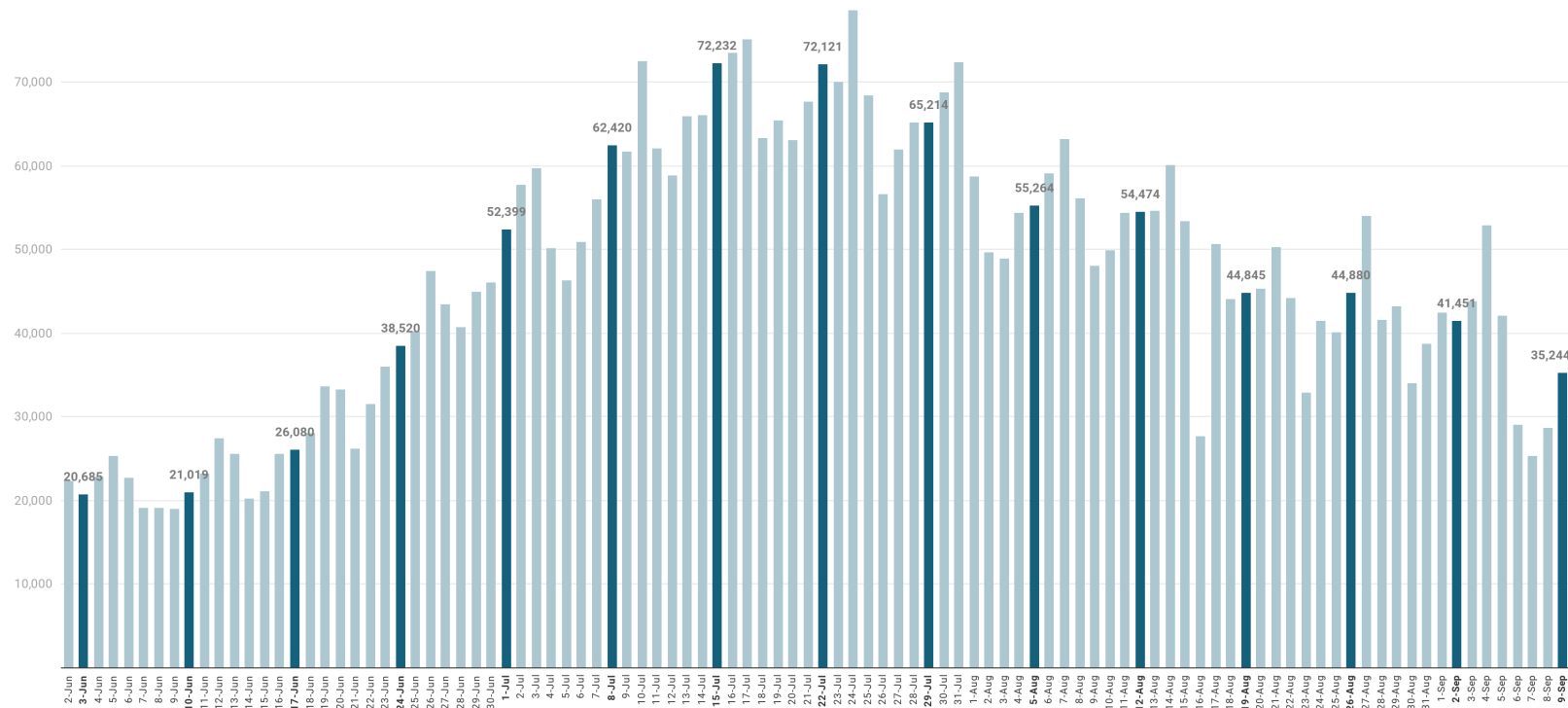
New cases on Wednesday were lowest on a Wednesday in 12 weeks

New cases were less than ½ peak July levels

New Daily Cases

Through September 9

Wednesdays Highlighted



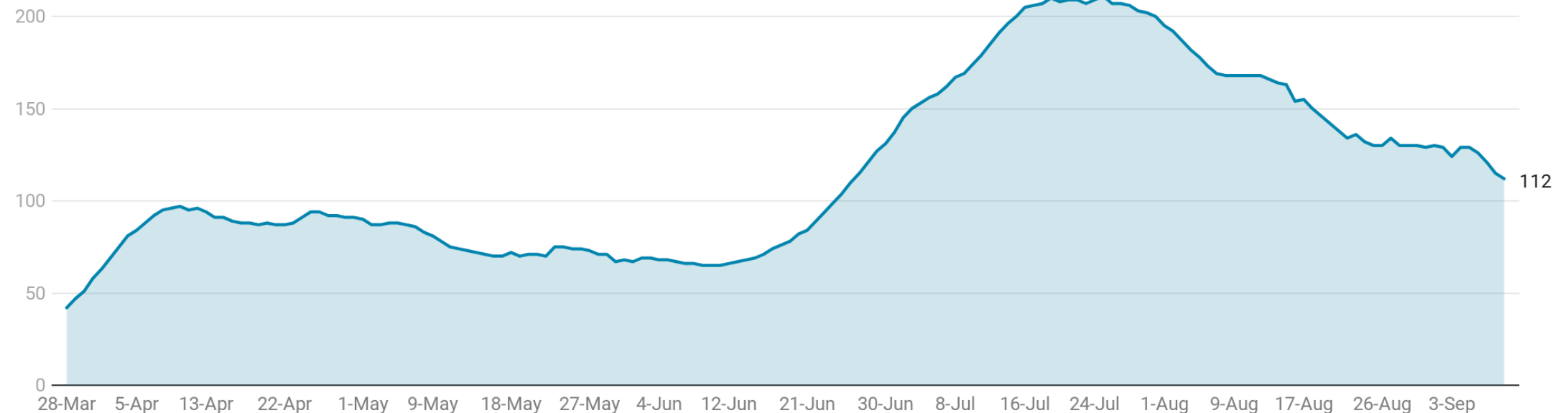
Note the daily pattern: new cases are typically low on Sunday, then increase each day through the week. While we have been noting this for the past few weeks, researchers from MIT, Boston University and Harvard Medical School confirmed this in [a report published by CIDRAP on August 17](#)

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

Rate has dropped 46% since July 22

New Infections Per 1 Million Population - United States

Trailing 7-Day Moving Average, Through September 9



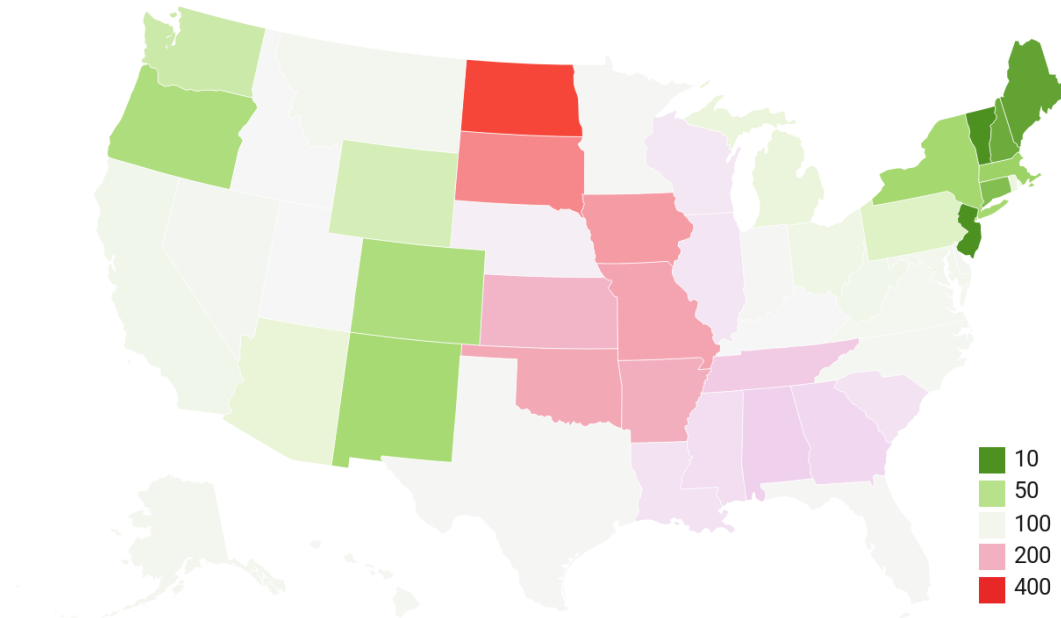
Health Industry Advisor LLC analysis

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

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

New Daily Infections Per 1 Million Population

Trailing 7-Day Moving Average, As of September 9



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, September 9 v. September 2

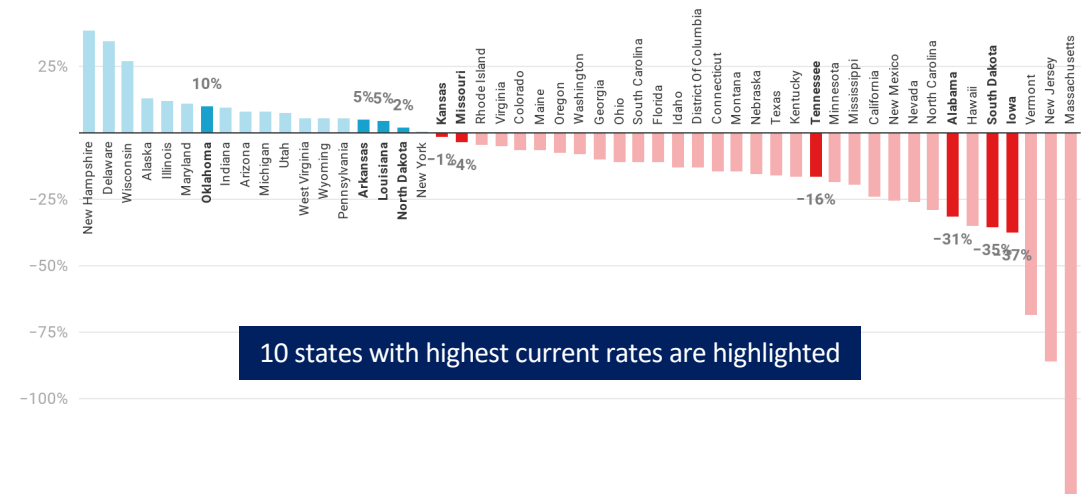


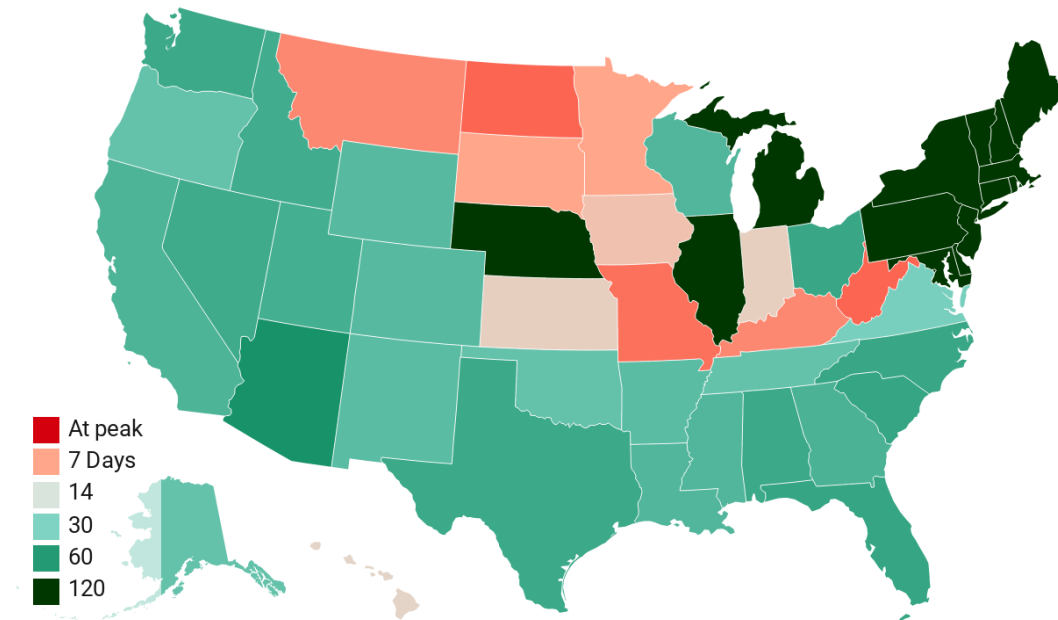
Chart: Health Industry Advisor LLC • Created with Datawrapper

Eleven states experienced their peak infection rate in the past 4 weeks; No state did so in the past 2 days

Fourteen states are within 25% of their peak rate; Fourteen states are at less than 33% of their peak rate

Days Since Peak New Infections Per Capita

Trailing 7-Day Moving Average, As of September 9



Health Industry Advisor LLC analysis

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

New Daily Infections / Million - Current Rate as % of Peak

Trailing 7-Day Moving Average, As of September 9

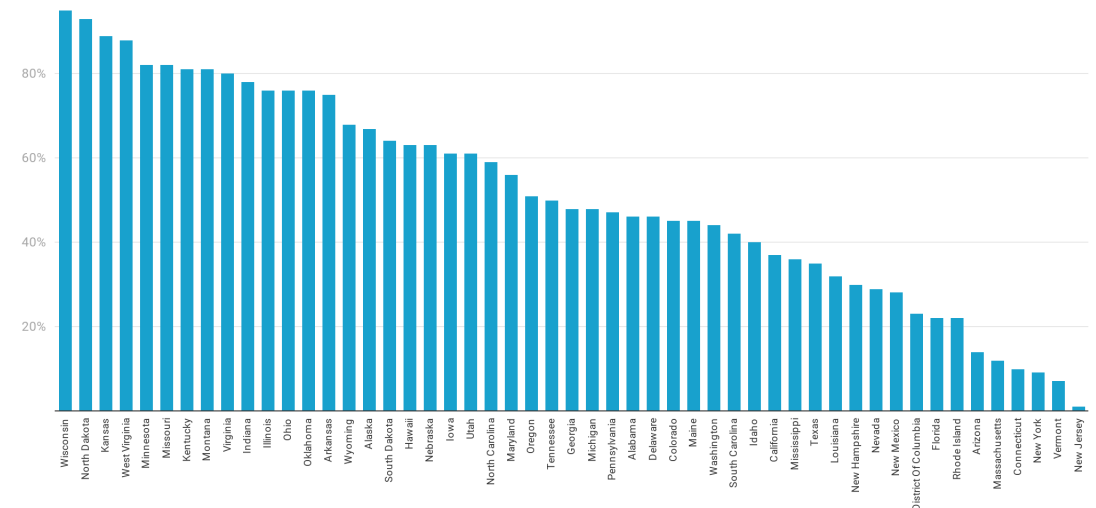


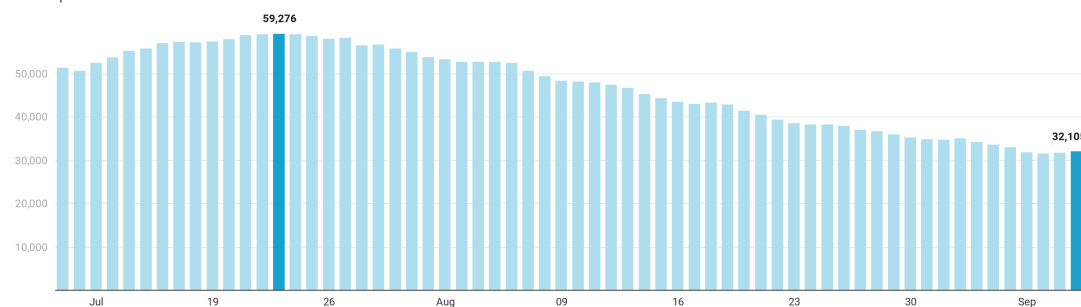
Chart: Health Industry Advisor LLC • Created with Datawrapper

Healthcare Resource Use – COVID-19

Stress placed on the U.S. healthcare system by COVID-19 has eased since mid-July. However, inpatient days increased (slightly) Tuesday & Wednesday; ICU days increased (slightly) on Wednesday; % of ER visits for CLI, ILI & other respiratory illnesses picked up on Sunday.

Hospital Census: COVID-19 Patients

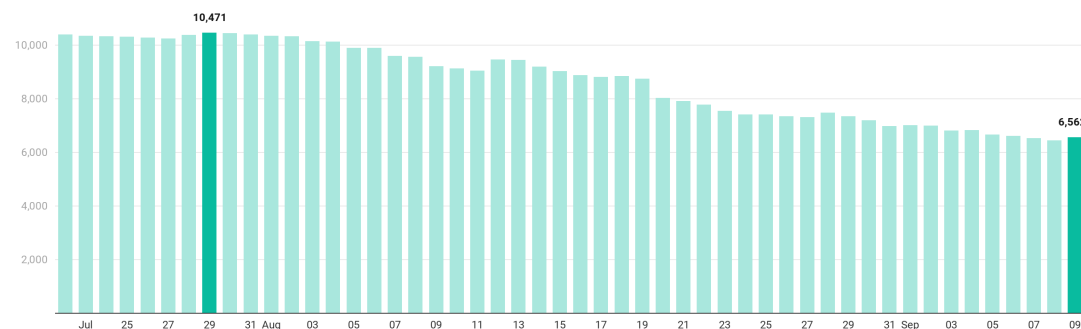
As of September 9



Florida data first available on July 10

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

COVID-19 ICU Census

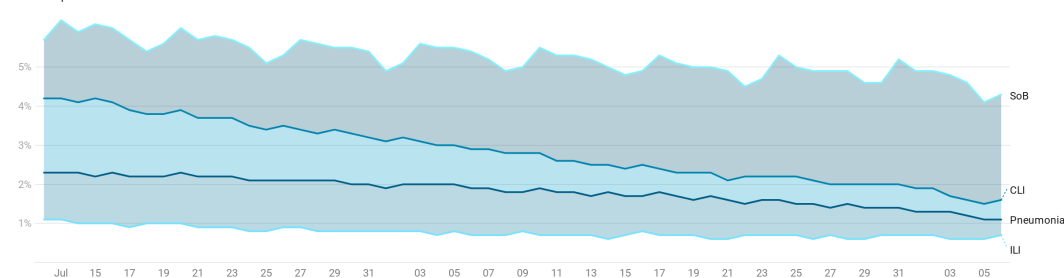


For states reporting these data: AZ, CA, ID, IL, IN, IA, KS, KY, ME, MD, MA, MI, MN, MS, NV, NJ, NY, NC, OH, OK, OR, RI, SC, TX, UT, VA, WI & WY

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

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

As of September 5

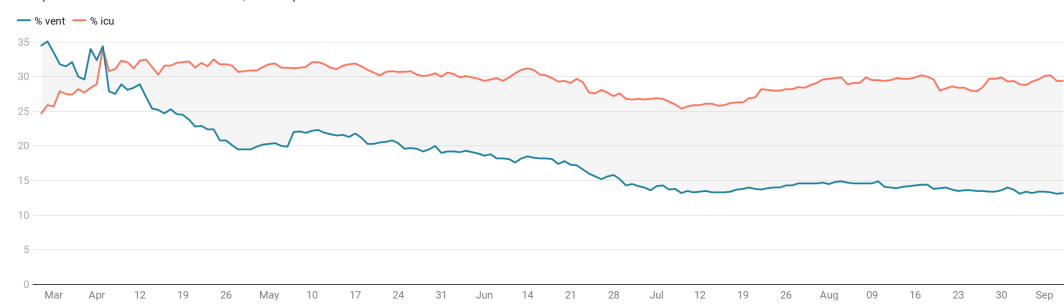


Health Industry Advisor LLC analysis

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

Severity of Hospitalized Patients

% of patients on ventilators and in the ICU, As of September 9



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 sharply higher than Tuesday and higher than last Wednesday; Still, they were the 2nd fewest on a Wednesday in 8 weeks

Newly Reported Deaths

Through September 9

Wednesdays Highlighted

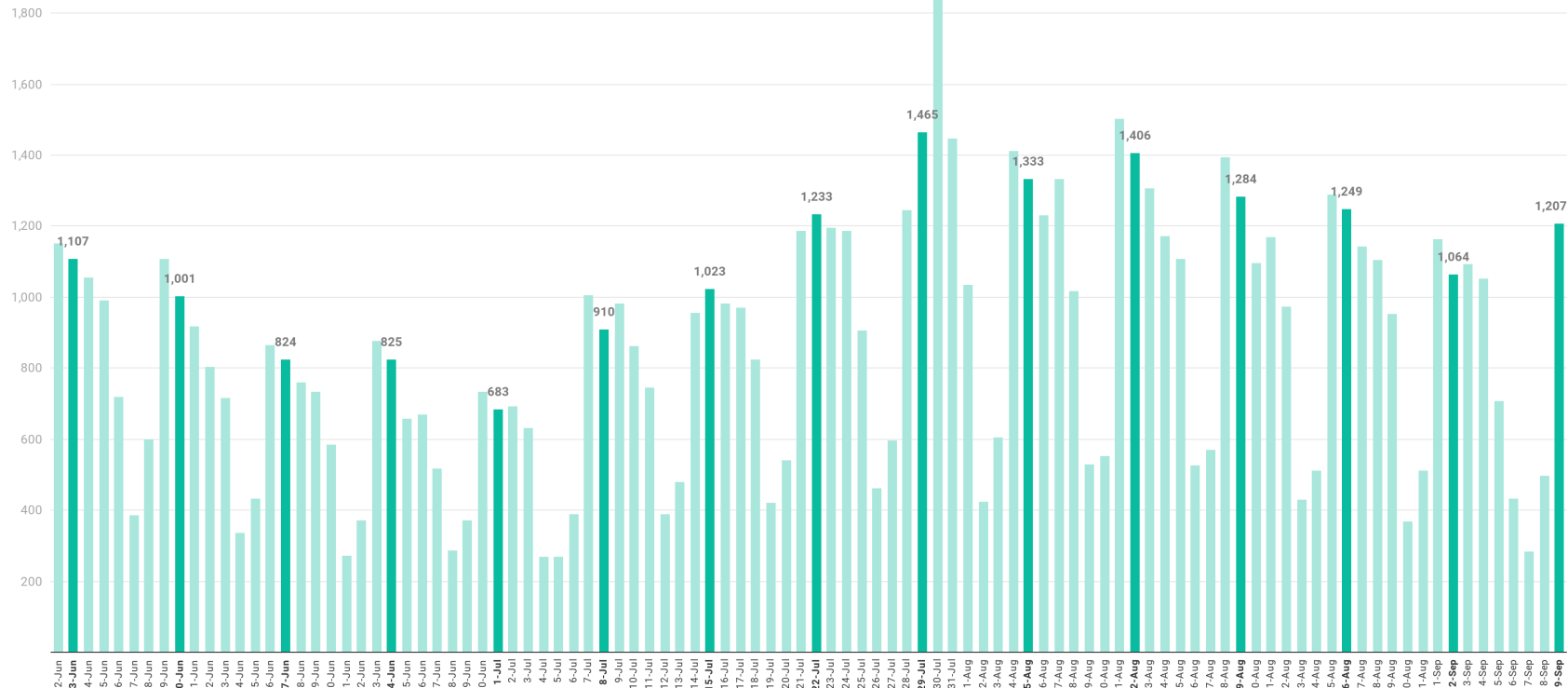
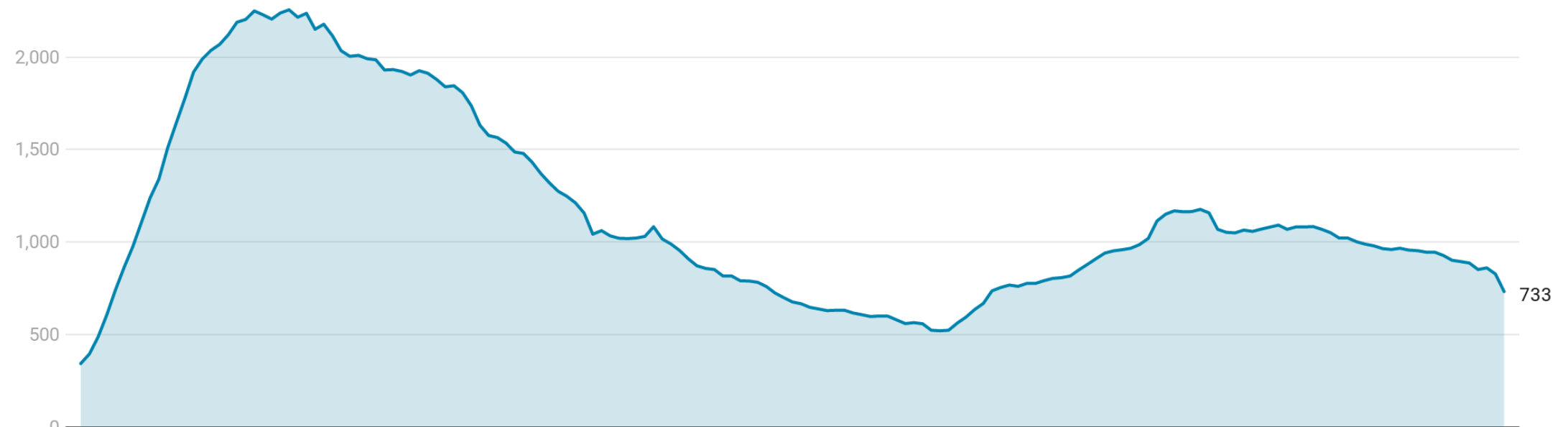


Chart: Health Industry Advisor LLC • Source: eoridometers.info • Created with Datawrapper

Deaths Reported With Coronavirus in the U.S.

Trailing 7-Day Moving Average, As of September 9



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>

University Areas – Tracking infections as students return to campus

Big 12: Baylor, Iowa State, Oklahoma and Texas Tech pose greatest concern

SEC: Rates* are high near most campuses (Arkansas and Texas A&M are exceptions);

Alabama, Georgia, Mississippi State and Missouri of greatest concern

* - refers to the metro area that encompasses the University

New Daily Infections / Million: Select Big 12 University Areas

Trailing 7-Day Moving Average

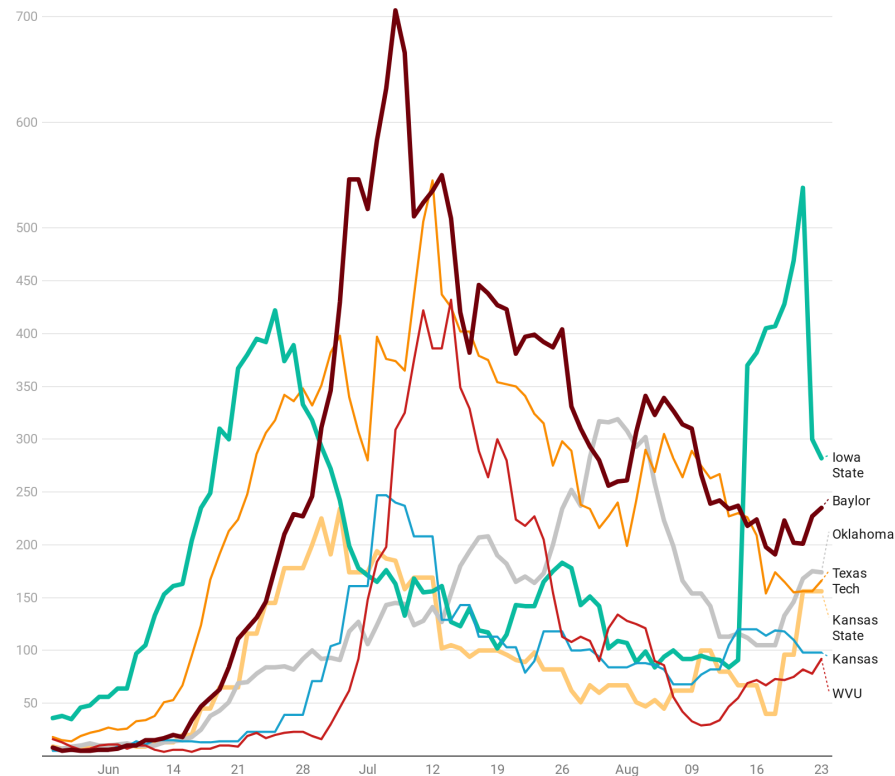


Chart: Health Industry Advisor LLC • Created with Datawrapper

New Daily Infections / Million: Select SEC University Areas

Trailing 7-Day Moving Average

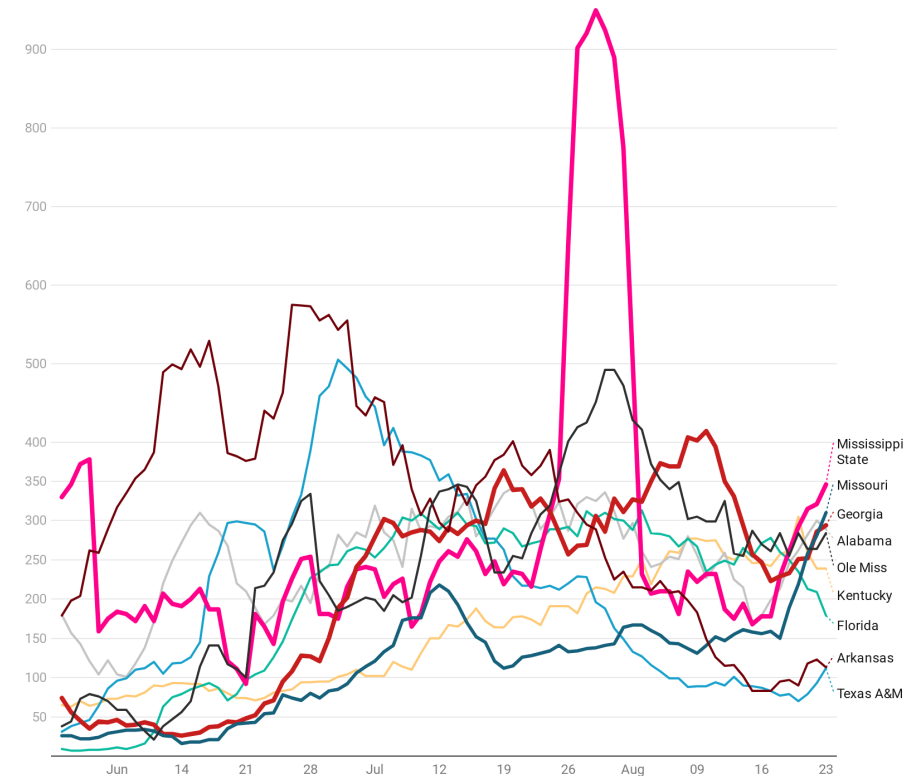


Chart: Health Industry Advisor LLC • Created with Datawrapper