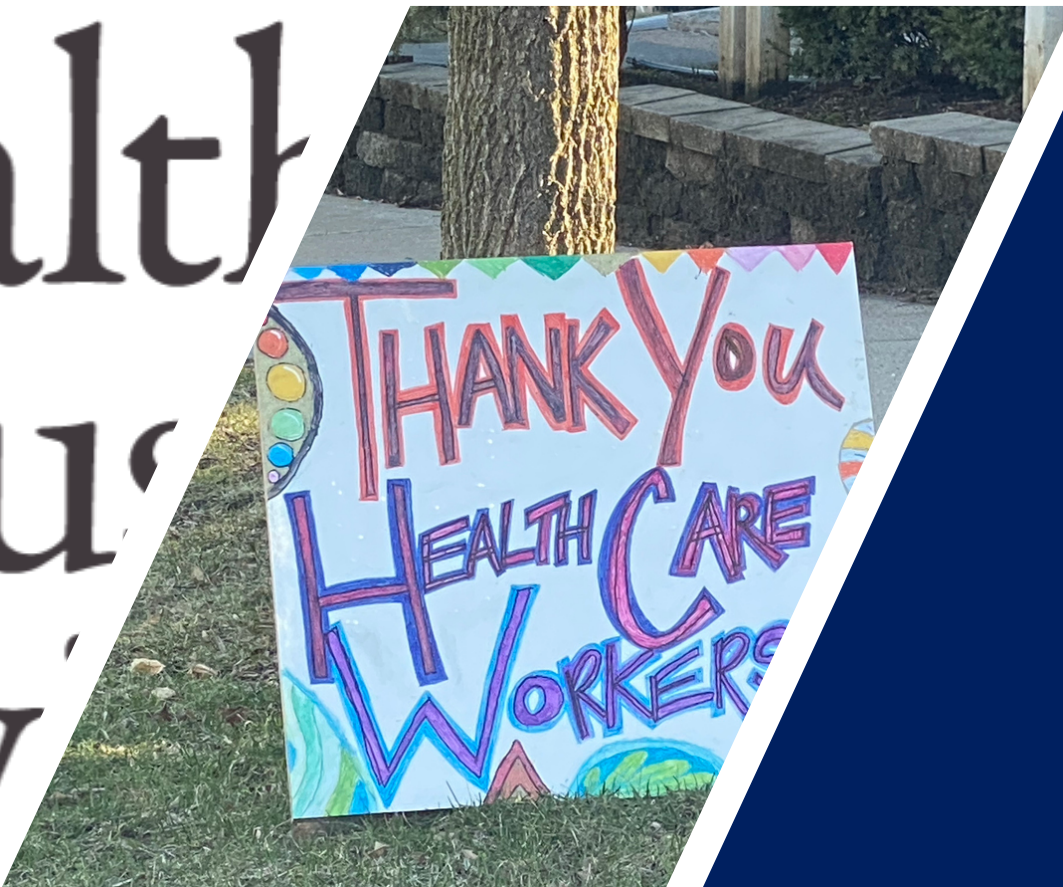




Health
Industry
Adv



Issue # 163
Wednesday, September 16, 2020

COVID-19 Report

Highlights

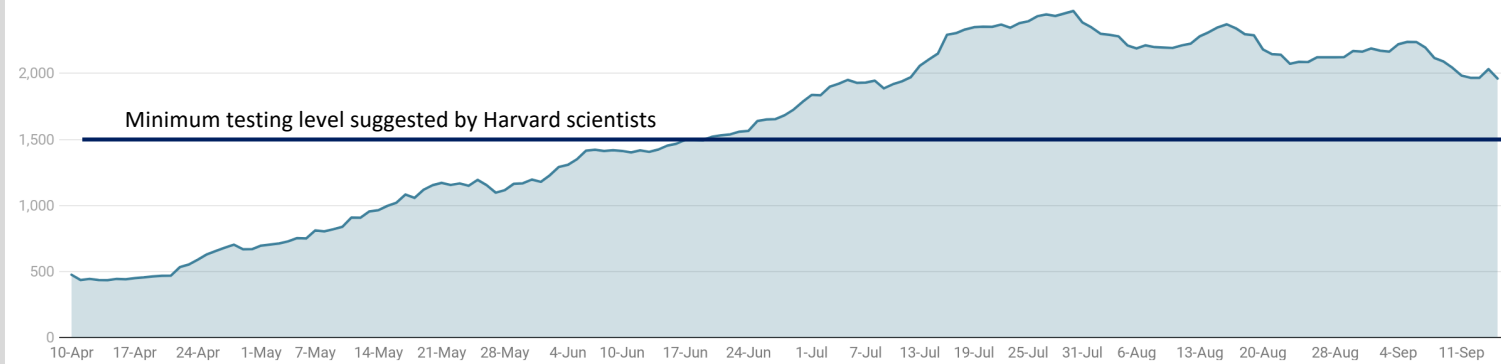
- **We are beginning to observe the impact of the Labor Day holiday on cases and reported deaths; we just cannot determine yet if this impact is the result of holiday-induced delays in reporting or, if we are beginning to experience an uptick in cases due to the holiday (or, school re-opening)**
 - Buttrressing the idea that it is more a reporting issue than an infection spike, **the test-positive rate remains low by recent experience; we have yet to observe a return to the high test-positive rates experienced during either the March/April or June/July infection surges**
 - For the first time in seven weeks, new cases increased on a week-over-week basis, by 2.7%. New cases reported on Labor Day and the following day, however, were remarkably low compared to recent experience. To the degree that case reporting was delayed due to the holiday, it would have over-stated new cases for the most recent week and under-stated those for the prior week
 - Reinforcing this perspective, **new cases yesterday were lower than for any Tuesday since June 23 - except last Tuesday**
- Appreciation of where the virus is currently hitting the hardest can be seen in the state-by-state maps of new infection rates, and of the time since this rate peaked in each state:
 - **North and South Dakota, followed by Arkansas, Missouri, Oklahoma and Wisconsin report the highest rate of new infections per capita over the past 7 days**
 - **Nine states, mostly in the Heartland and Upper Midwest, have experienced their highest rate of new infections in September; conversely, fifteen states, mostly in the Northeast plus Illinois and Michigan, experienced their peak rate prior to June**
 - Fourteen states are within 25% of their highest infection rate; ten are at 25% or less of their peak rate
 - Inpatient and ICU census of COVID-19 patients each increased slightly yesterday. These remain 40-50% lower than peak levels posted in June
 - **ER visits for COVID-19, influenza, pneumonia and shortness of breath continue to decline as a % of total ER visits**

Testing remains above minimum level suggested by Harvard scientists . . . Yet, is ~6% lower than last week

Test-positive rate turned up the past two days, largely influenced by low test volume on Monday. The rate for Tuesday was back down to recent low levels

Daily Tests Per 1 Million - United States

Trailing 7-Day Moving Average, As of September 15

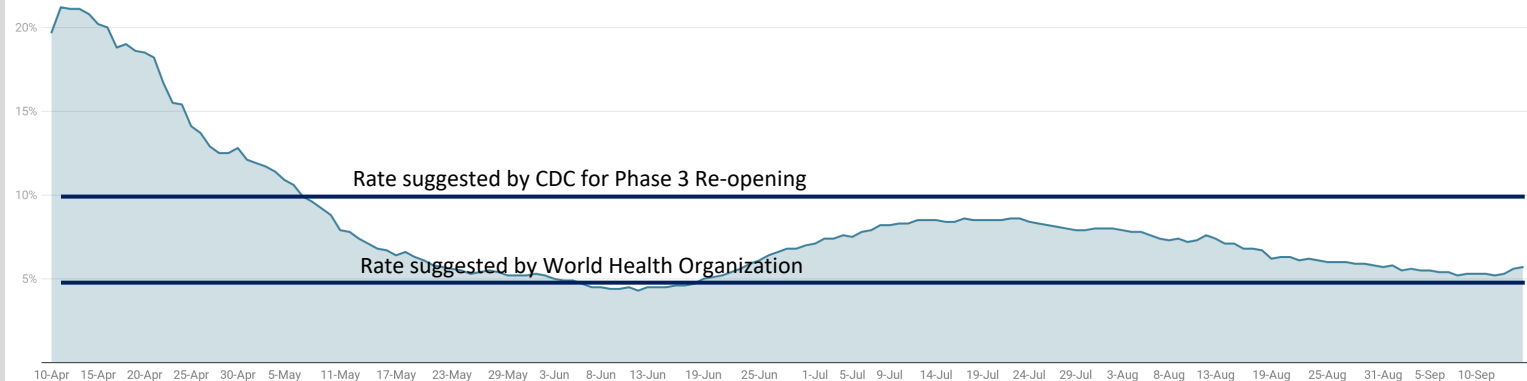


Health Industry Advisor LLC analysis

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 September 15



Health Industry Advisor LLC analysis

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

Twelve states reported test-positive rates for the past 7 days higher than the CDC-target for Phase 3 re-openings

Another fourteen states reported rates above the stricter WHO-target

On 9/14, Texas “revised its method for reporting Total Tests”, resulting in a reduction of ~300,000 tests – the are excluded from this analysis until the historical data can be adjusted

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Test-Positive Rate

Trailing 7-Day Moving Average, As of September 15

The map displays the Test-Positive Rate across the United States. The color scale indicates the following ranges:

- 1% (Dark Green)
- 5% (Medium Green)
- 10% (Light Green)
- 15% (Light Orange)
- 20% (Red)
- 25% (Dark Red)

States with rates of 25% or higher include North Dakota. States with rates of 20% or higher include South Dakota, North Carolina, and Mississippi. States with rates of 15% or higher include Oregon, Idaho, Utah, Colorado, Kansas, Oklahoma, Missouri, Arkansas, Louisiana, Alabama, Georgia, South Carolina, Florida, and Texas. States with rates of 10% or higher include Nevada, Arizona, New Mexico, Wyoming, Nebraska, Iowa, Wisconsin, Illinois, Indiana, Ohio, Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia, Alabama, Mississippi, and Louisiana. States with rates of 5% or higher include Washington, Montana, Wyoming, Colorado, New Mexico, Texas, Oklahoma, Kansas, Missouri, Arkansas, Louisiana, Mississippi, Alabama, Georgia, South Carolina, Florida, and Texas. States with rates of 1% or higher include Washington, Oregon, California, Nevada, Arizona, New Mexico, Texas, Oklahoma, Kansas, Missouri, Arkansas, Louisiana, Mississippi, Alabama, Georgia, South Carolina, Florida, and Texas.

Health Industry Advisor LLC analysis

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

Test-Positive Rate

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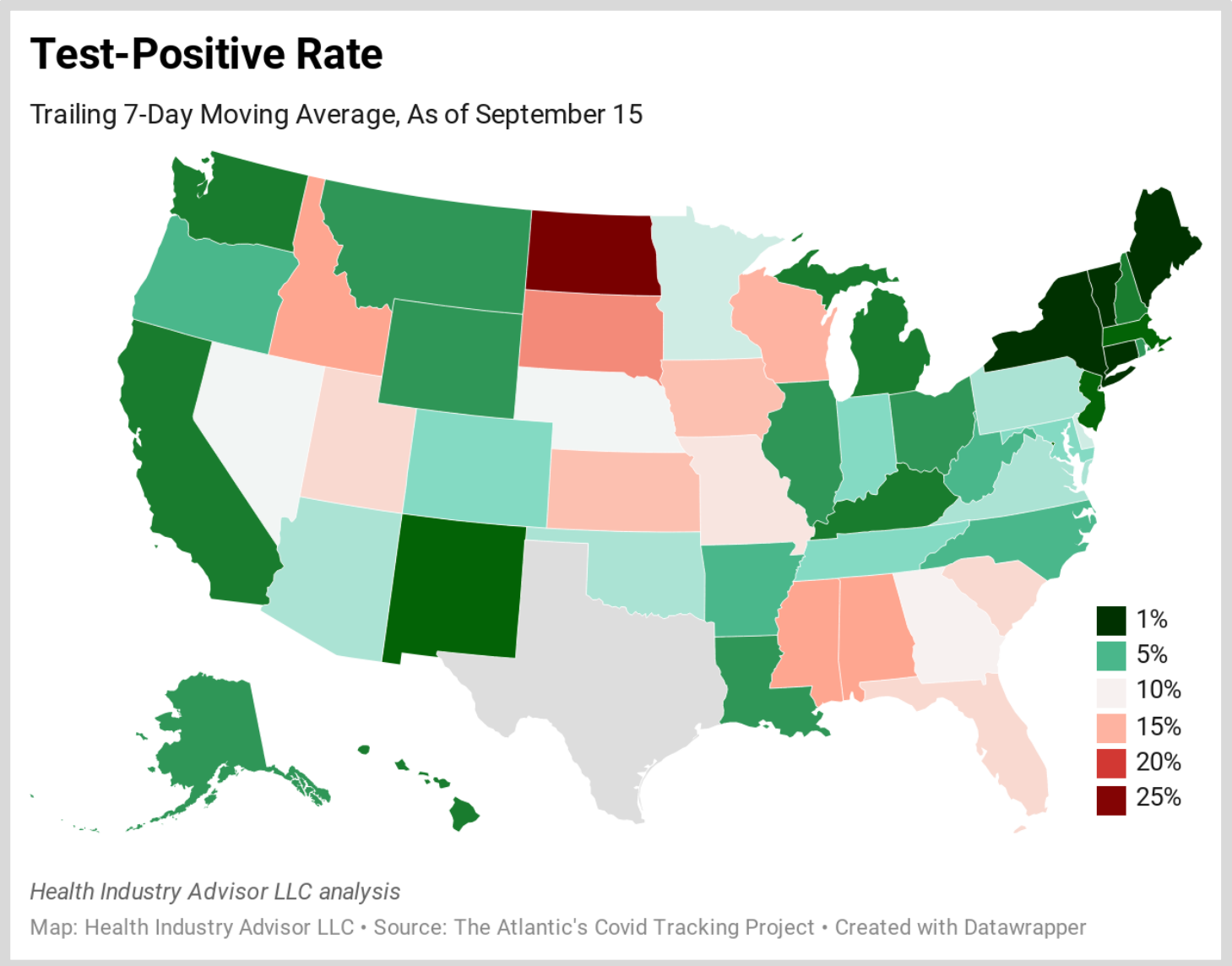
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Health Industry Advisor LLC analysis

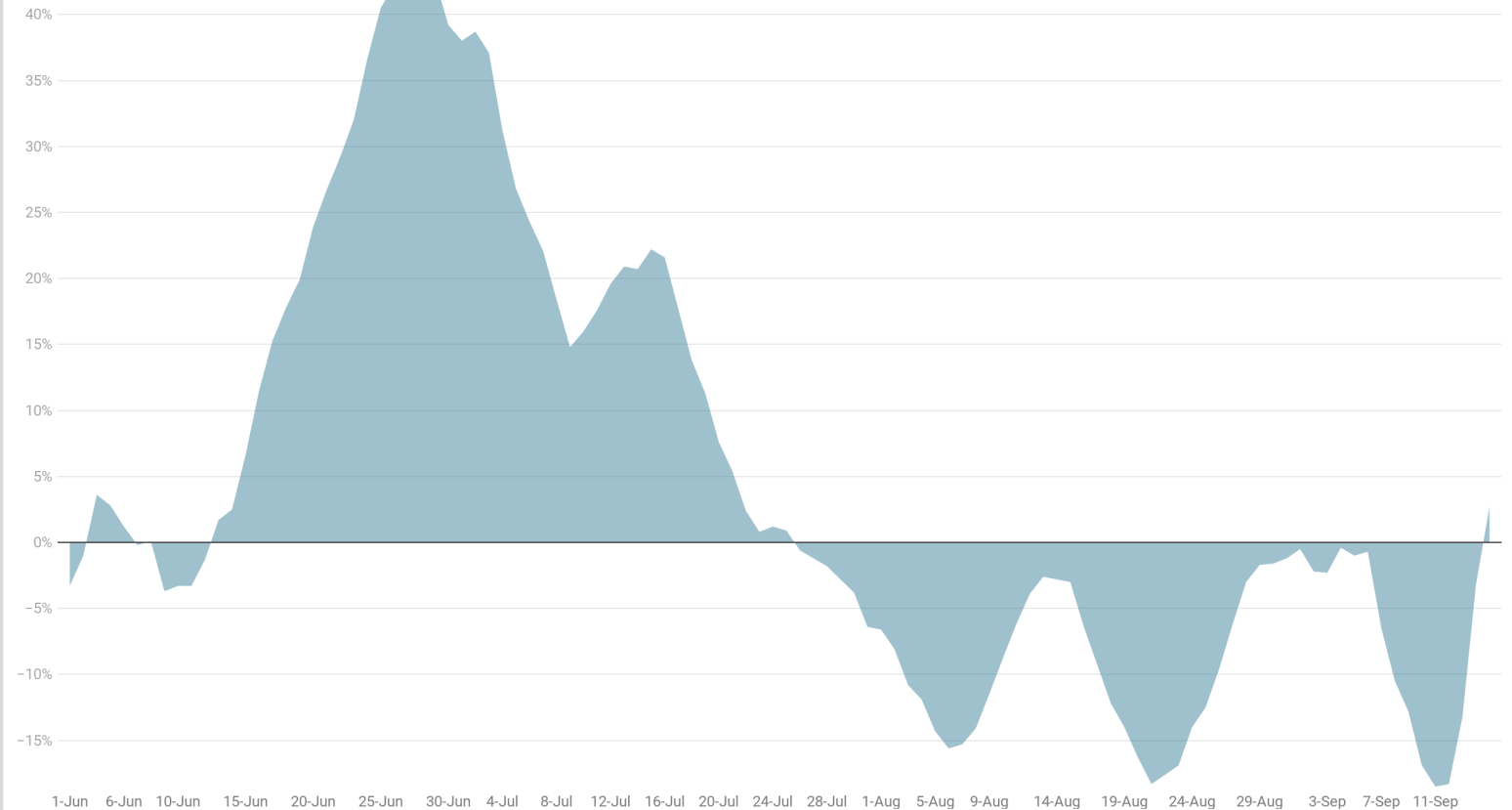
Map: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

For the first time in seven weeks, new cases increased on a week-over-week-basis (an increase of 2.7%)

Bearing in mind that the week-to-week comparison includes Labor Day, it is not yet clear if the increase is due to timing issues of reporting cases during the holiday or, if the holiday has resulted in a new rise in cases

Week-Over-Week Change In New Cases

Through September 15



Health Industry Advisor LLC analysis

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

Case growth:

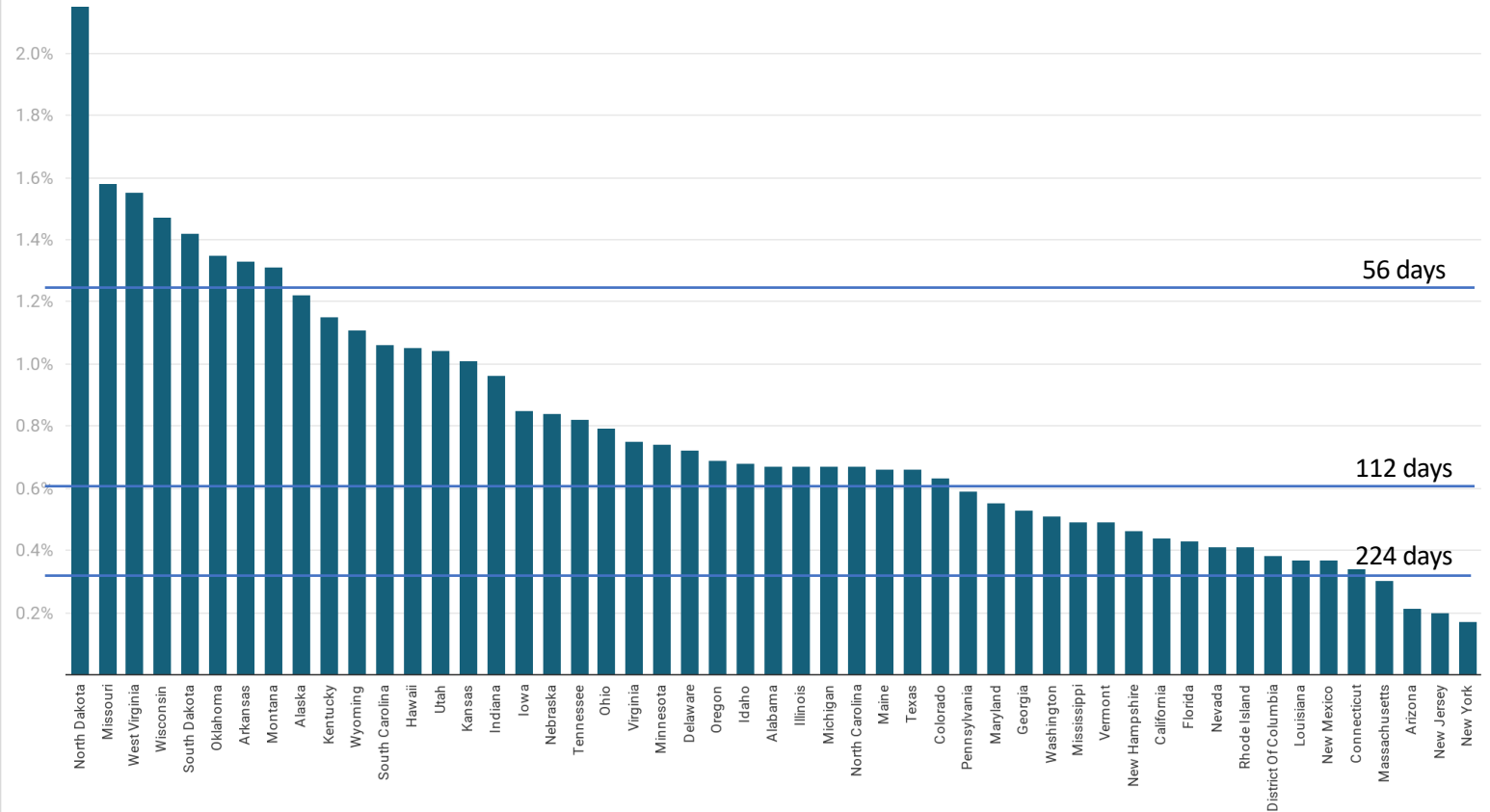
At current rates, cases are doubling every 33 days in North Dakota

Every 398-9 days in New York

Every 120 days for the United States overall

Growth Rate in Total Cases

Trailing 5-Day Moving Average, Through September 15



Health Industry Advisor LLC analysis

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

Other than the day-
after-Labor Day, there
were fewer new daily
cases on Tuesday than
any other Tuesday since June 23

New Daily Cases

Through September 15

Tuesdays Highlighted

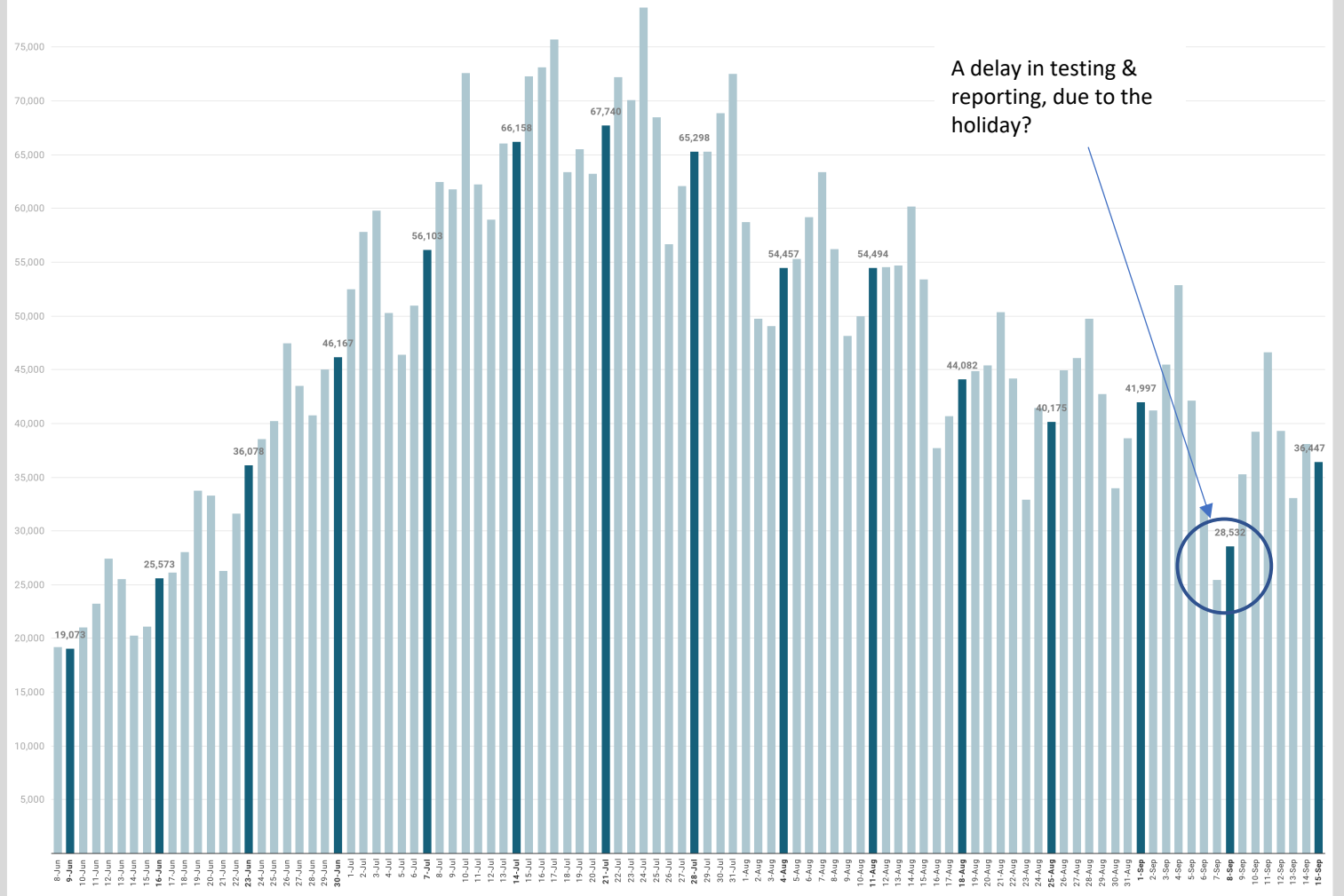


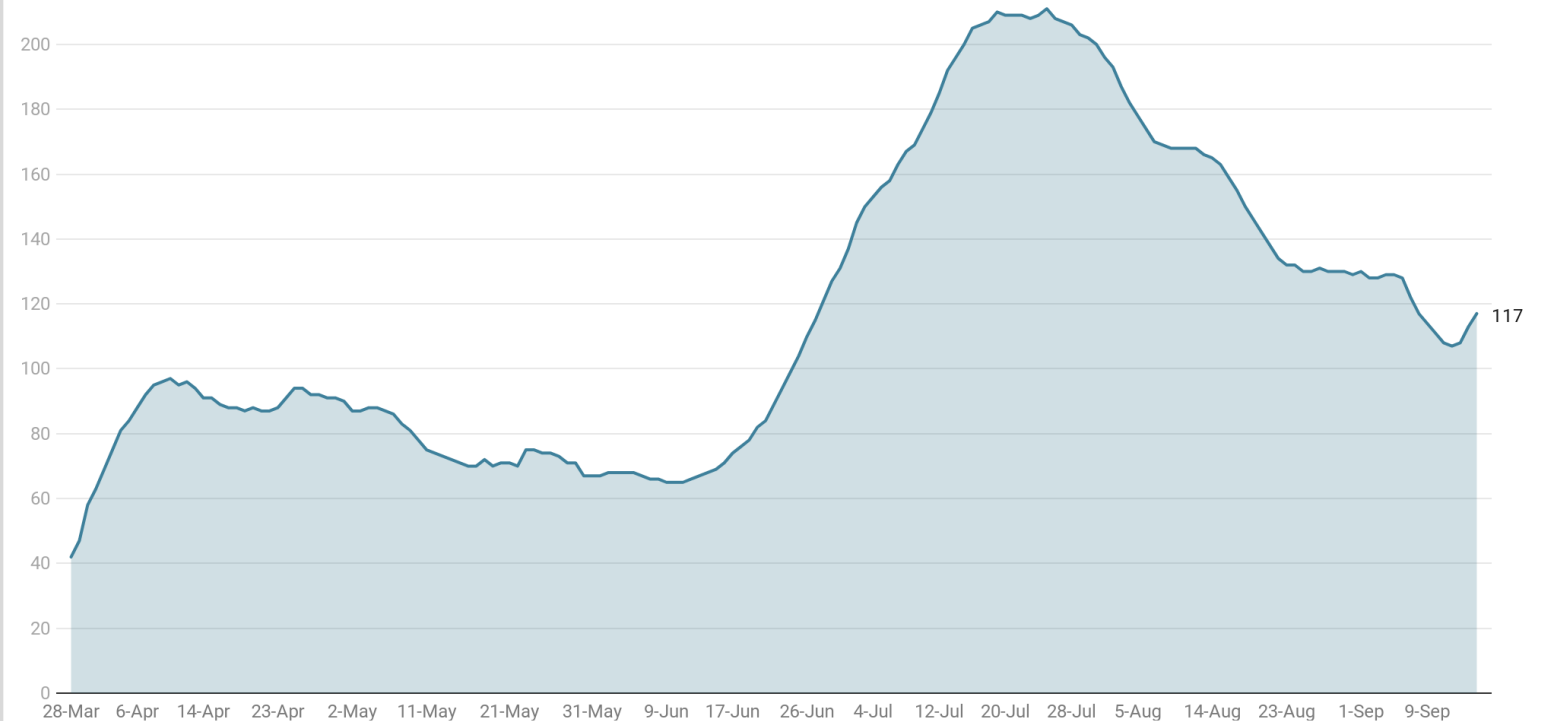
Chart: Health Industry Advisor LLC - Source: eoridometers.info - Created with Datawrapper

New infections per capita in the U.S.* increased since last week

Likely a Labor Day impact due to: timeliness of reporting, surge in new cases, or both?

New Infections Per 1 Million Population - United States

Trailing 7-Day Moving Average, Through September 15



Health Industry Advisor LLC analysis

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

* - 7-day moving average basis

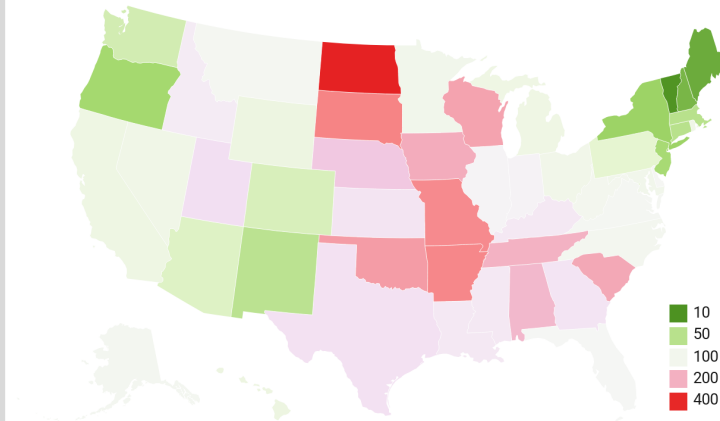
North and South Dakota reported the highest rates of new infections per capita* over the past 7 days, followed by Arkansas, Missouri, Oklahoma and Wisconsin

Nine states experienced their peak new infection rate in September; fifteen states experienced their peak infection rate prior to June

Fourteen states are within 25% of their peak new infection rate; ten states are at 25% or less of their peak rate

New Daily Infections Per 1 Million Population

Trailing 7-Day Moving Average, As of September 15

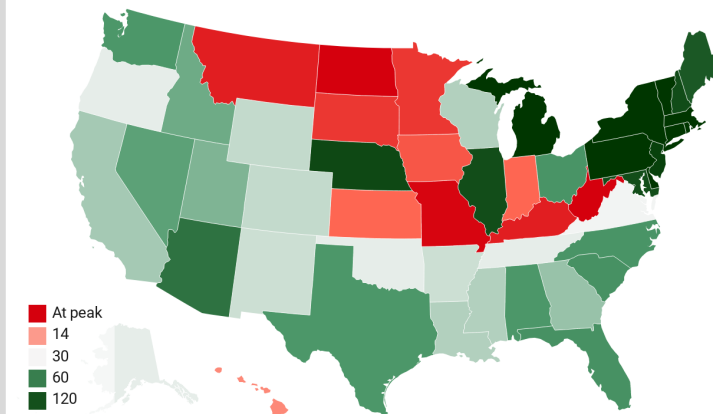


Map: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

* - 7-day moving average basis

Days Since Peak New Infections Per Capita

Trailing 7-Day Moving Average, As of September 15



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 15

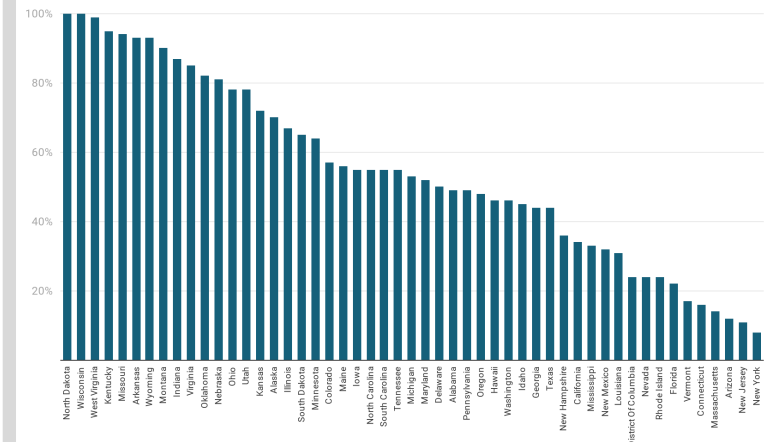


Chart: Health Industry Advisor LLC • Created with Datawrapper

COVID-19's demand on healthcare resources has been easing for months:

Inpatient COVID-19 census increased yesterday, for only the 7th time in the past 53 days; it remains ~ ½ its July 25 level

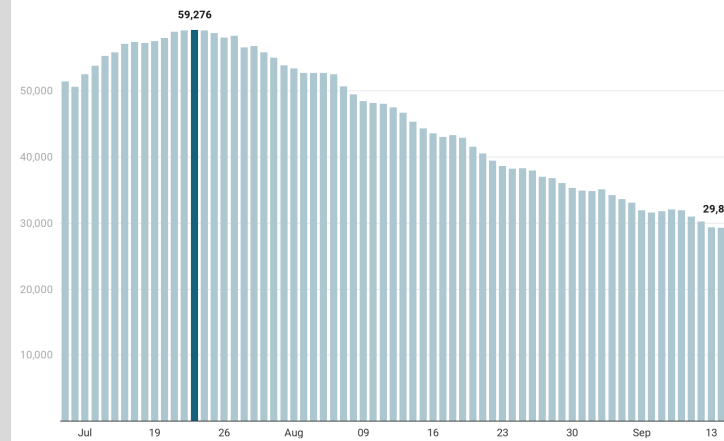
ICU COVID-19 census also increased yesterday yet, is down 40% since late-June

Ventilator use among hospitalized patients is ½ its level from the Spring

ER visits for COVID-19- like illness are ½ their July rate; flu visits have not yet picked up

Hospital Census: COVID-19 Patients

As of September 15

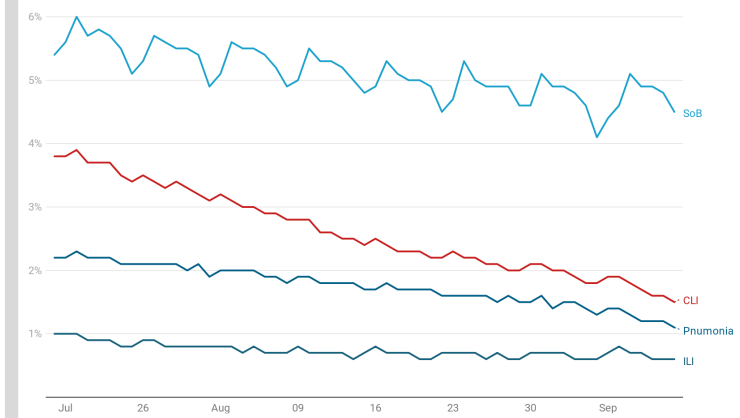


Florida data first available on July 10

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 (SoB)

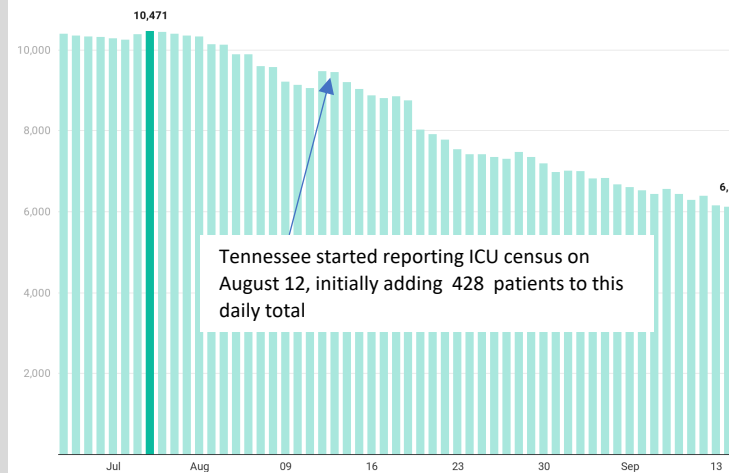
As of September 12



Health Industry Advisor LLC analysis

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

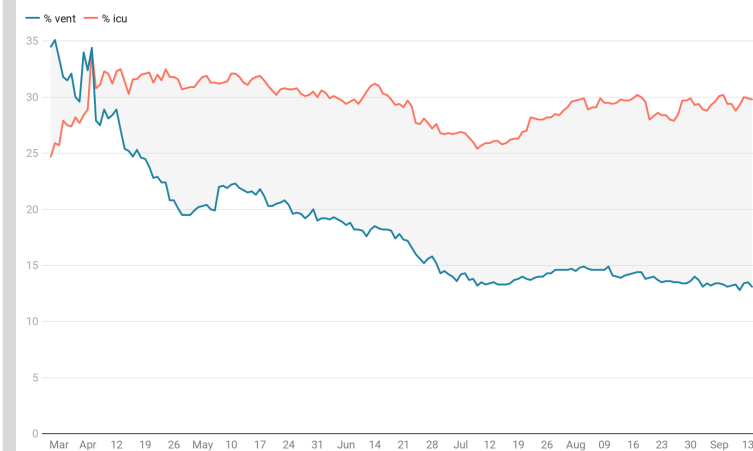
COVID-19 ICU Census



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 15



Health Industry Advisor LLC analysis

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

Labor Day effect - as with cases, reported deaths were low by recent experience last Monday and Tuesday. Is this a result of delays in reporting? Any delay would overstate reported deaths the past 7 days and understate deaths the prior week

Other than last Tuesday, deaths reported yesterday were on par or lower than other Tuesdays since July 21

Active cases tapering off, while recoveries are increasing steadily

Deaths Reported With Coronavirus in the U.S.

Trailing 7-Day Moving Average, As of September 15



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

Newly Reported Deaths

Through September 15

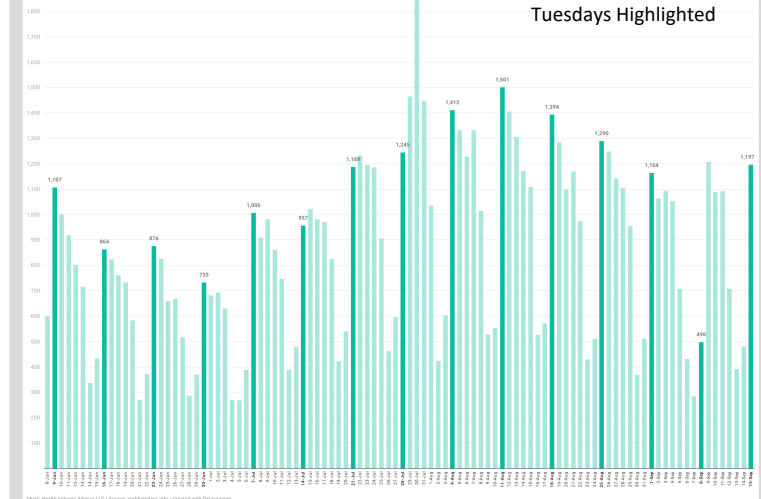
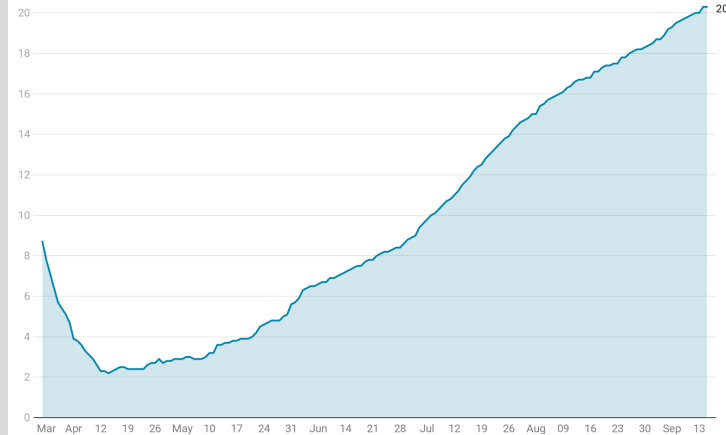


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Recoveries: Deaths - United States

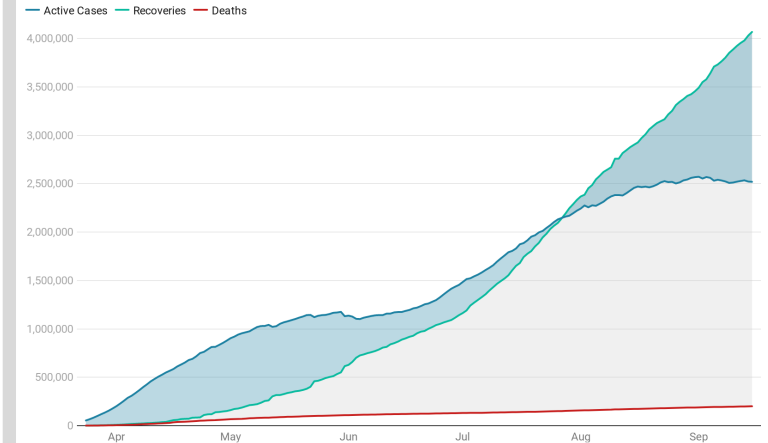
As of September 15



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

Active Cases v. Recoveries & Deaths

Through September 15



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

Data Sources

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>