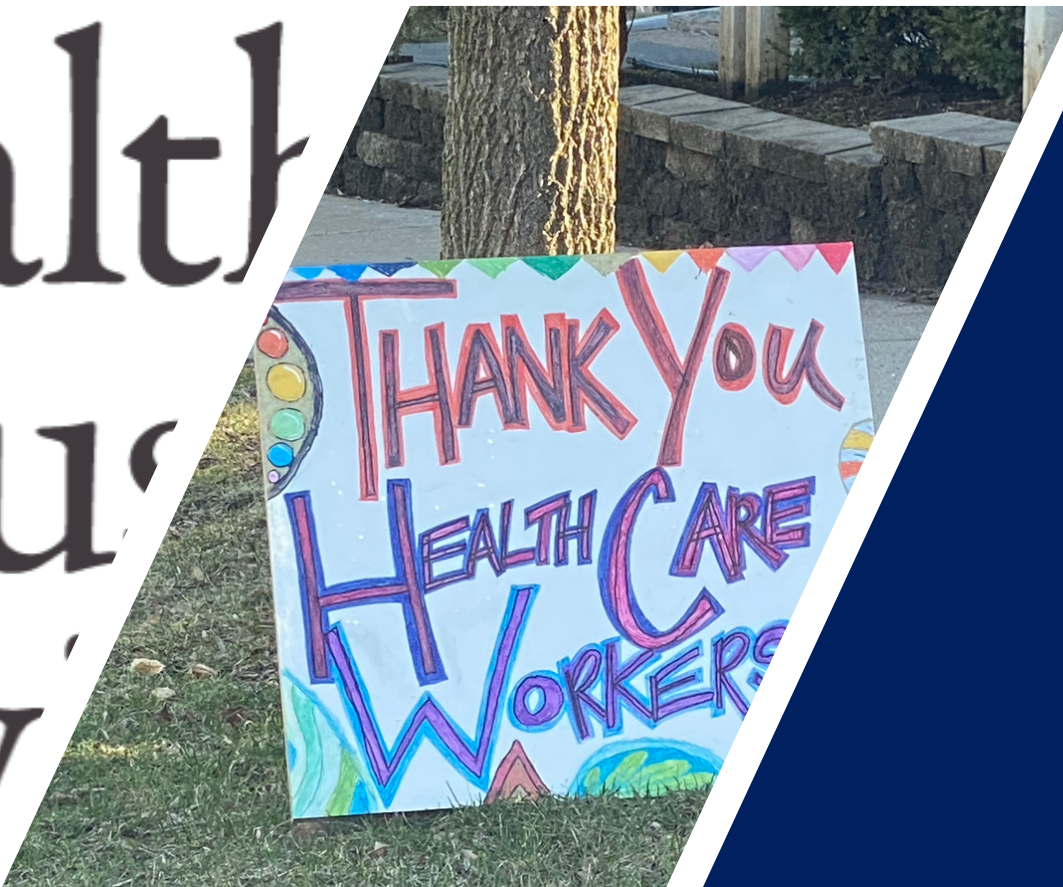




Health
Industry
Adv



Issue # 174
Wednesday, September 30, 2020

COVID-19 Report

Highlights

- **New daily infections per capita increased yesterday, following an eleven-day period during which the rate was flat**
- This increased rate resulted from a significant increase in new cases yesterday, compared to Tuesday last week; **This now makes three consecutive days that new cases were higher than the same day the prior week**
 - A three-day run like this begins to suggest a trend - **however, new cases week-to-week have been up four times and down three in the past week**
- Among Large Central and Large Fringe Metro Areas in the U.S., Sussex, VA experienced the highest new infection rate per capita over the past week - more than 2.5x the next highest, Mathews, VA
 - Monroe, NY had the lowest rate among Large Central areas
 - Six of the eight lowest rates among Large Central Metro Areas were in New Jersey or New York, including New York City
 - Sussex's rate was 51x that of Monroe, NY, and 12x the U.S. average
- **Over the past two weeks, infection rates have intensified in the Upper Midwest, while they eased in the South and West**
- **Worldwide, Israel, Bahrain, Argentina and Spain experienced the highest rate of new infections per capita among countries > 1 million population over the past week**
 - Israel's rate is 5x that of the U.S.
 - **Israel has experienced the sharpest increase in this rate compared to two weeks ago, by far**
 - The Netherlands, Belgium, Czechia and Lebanon also experienced significant increases in this rate over the past two weeks.
 - Bahrain has experienced a significant decline
- **Test volume in the U.S, on a 7-day average basis, set a record high for the second consecutive day**
- **The test-positive rate, both for the day yesterday and on a 7-day average basis, met the 5% WHO target.** This was the first time the 7-day average has been this low since June 19
- Hospital census of COVID-19 patients has fluctuated in a narrow range over the past 16 days; This census had significantly declined from late-July to mid-September
- **The percentage of COVID-19 inpatients on ventilators continued to decline; this rate is ~ 1/3 what it was in April**
- **The % of ER visits for COVID-19-like illnesses fell sharply, continuing a trend that began in July**
- **The 7-day average deaths reported per day has been stable for the past eight days**

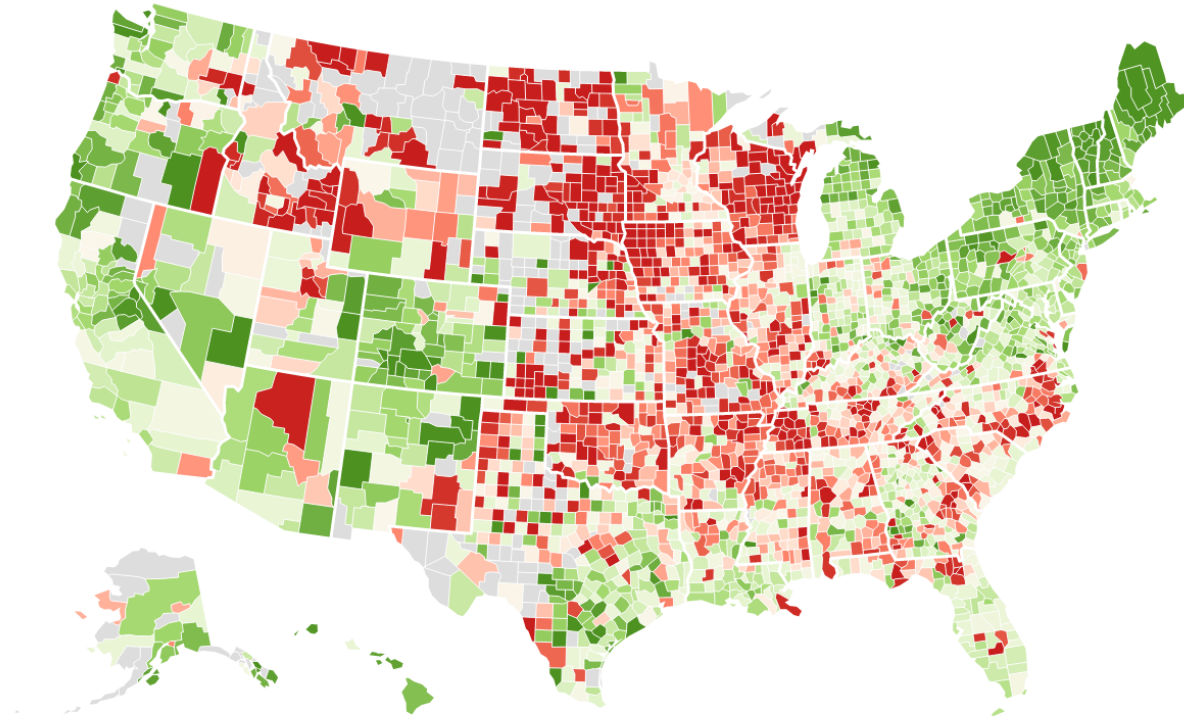
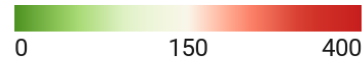
Highest rates of new daily infections* are concentrated in metro areas in the center of the country

There are other concentrations in parts of the Southeast and Mountain States

* 7-day average

New Daily Infections / Million

7-Day Moving Average, As of September 29

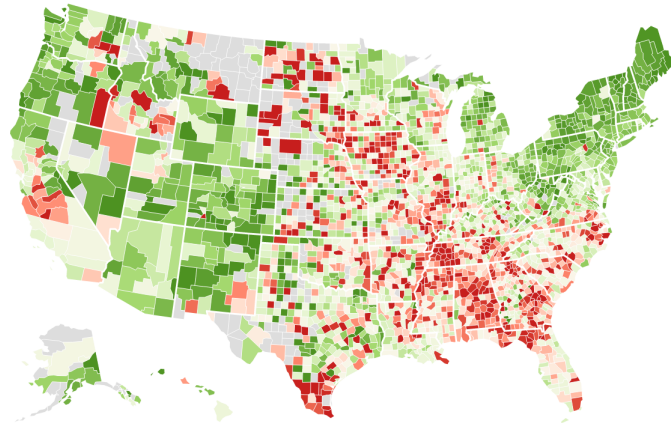
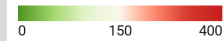


Map: Health Industry Advisor LLC • Created with Datawrapper

Comparing infection rates on September 1 to September 29 illustrates how the infection spread has intensified in the Upper Midwest

New Daily Infections / Million

7-Day Moving Average, As of September 1



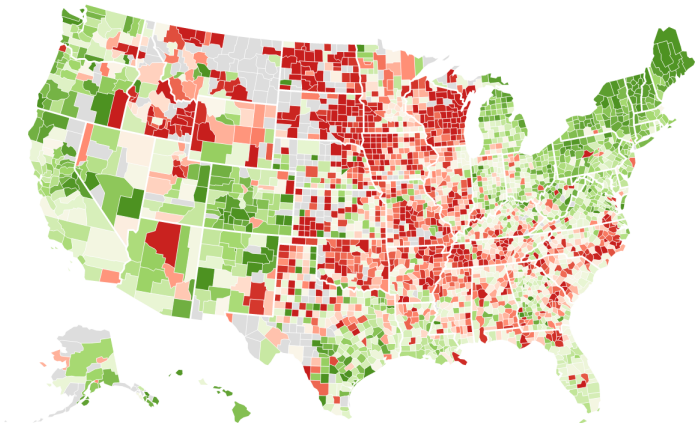
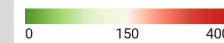
Map: Health Industry Advisor LLC • Created with Datawrapper

September 1
v.
September 29



New Daily Infections / Million

7-Day Moving Average, As of September 29



Map: Health Industry Advisor LLC • Created with Datawrapper

Large Central & Large Fringe Metro Areas in U.S.

Two metro areas in Virginia experienced the highest rates of new infections* over the past week: Sussex and Mathews

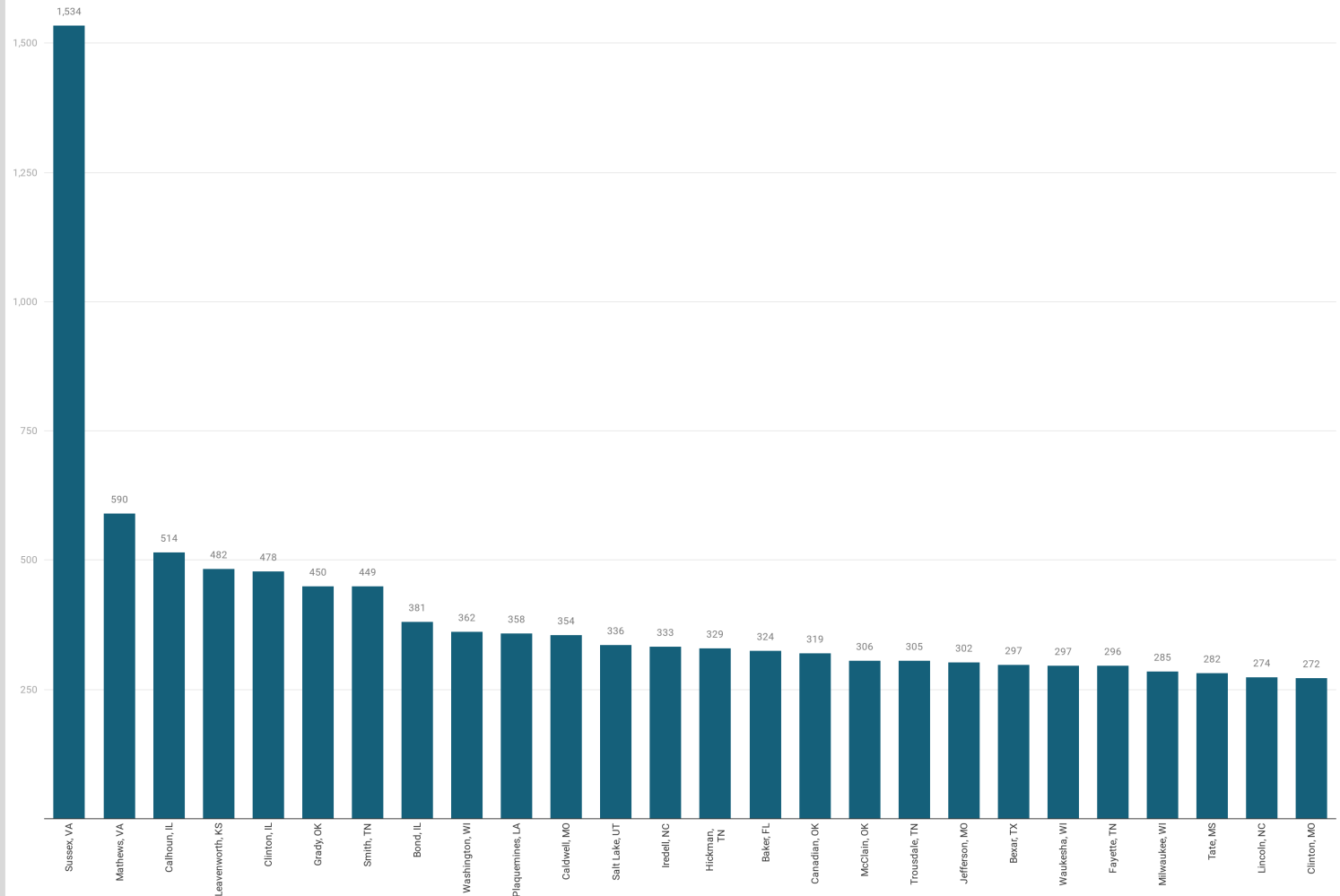
Others with very high rates: Calhoun (IL), Leavenworth (KS), Clinton (IL), Grady (OK) and Smith (TN)

Twenty-six of these metro areas experienced rates > 270 per million per day

* 7-day average

Large Central & Large Fringe Metro Areas With Most New Infections / 1 Million Population

7-Day Moving Average, As of September 29



Health Industry Advisor LLC analysis

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

Large Central & Large Fringe Metro Areas in U.S.

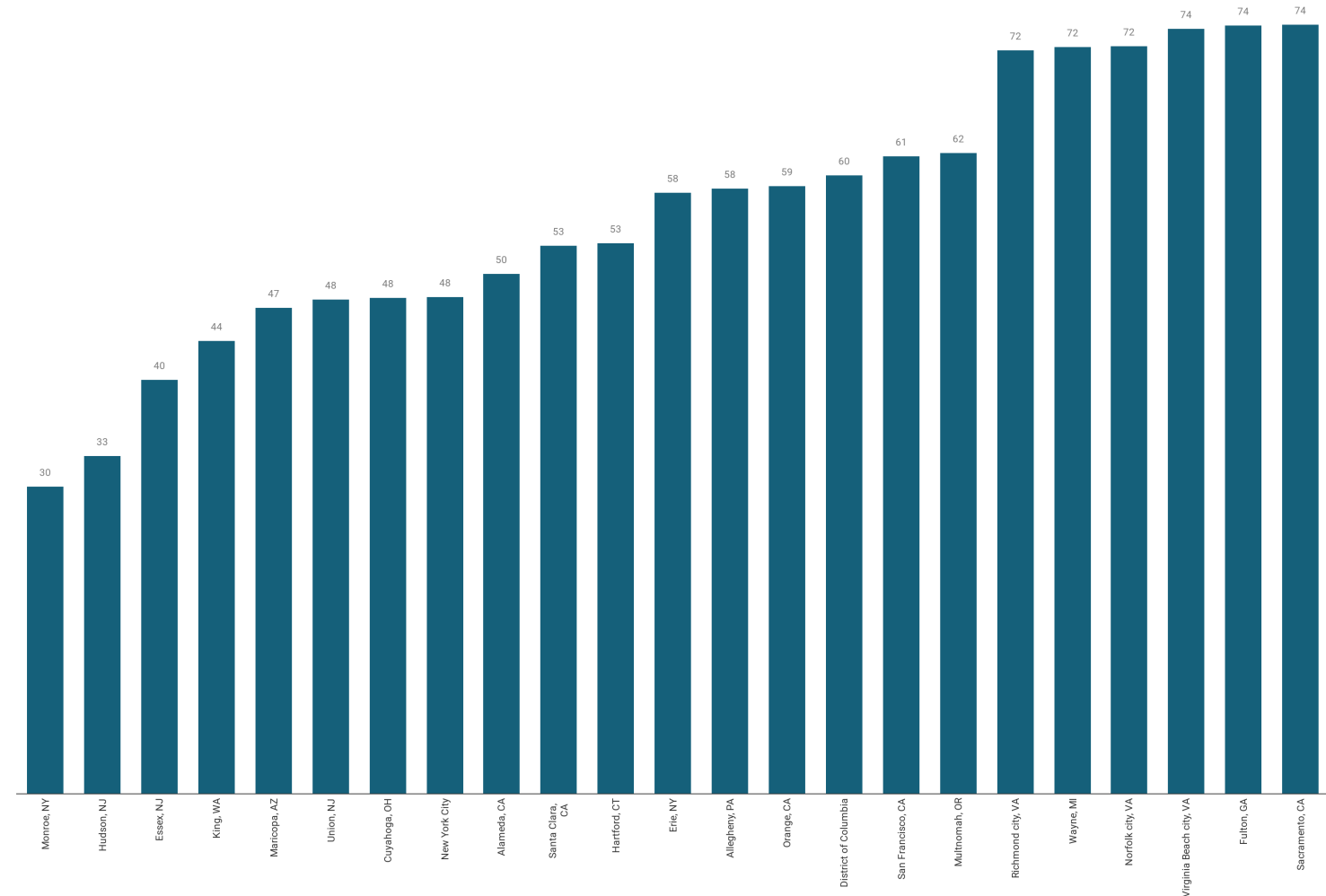
By comparison, twenty-three large central metro areas experienced infection rates* < 75 during the past week

Six of the eight areas with the lowest rates are in New York or New Jersey, including New York City

* 7-day average

Large Central Metro Areas With Fewest New Infections / 1 Million Population

7-Day Moving Average, As of September 29



Health Industry Advisor LLC analysis

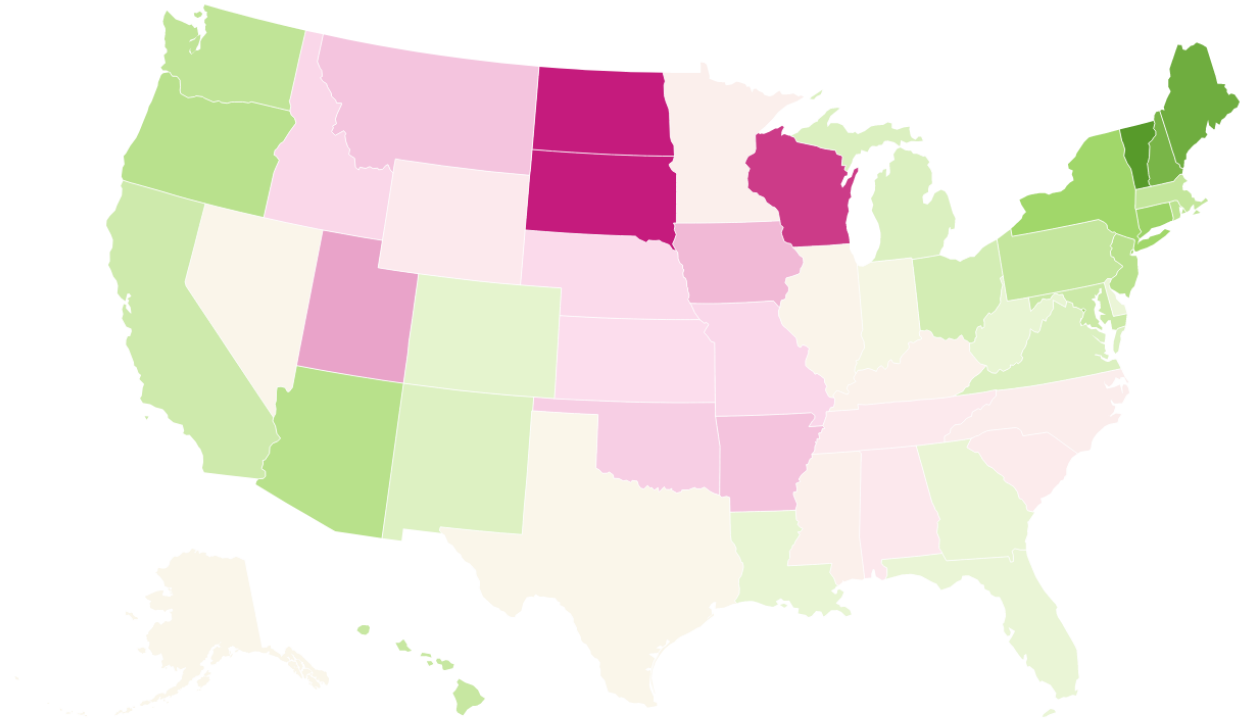
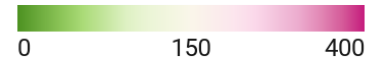
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

North and South Dakota
and Wisconsin continue
to experience the
highest rate of new
infections per capita

* - 7-day moving average basis

New Infections / Million

7-Day Moving Average, As of September 29



Map: Health Industry Advisor LLC • Created with Datawrapper

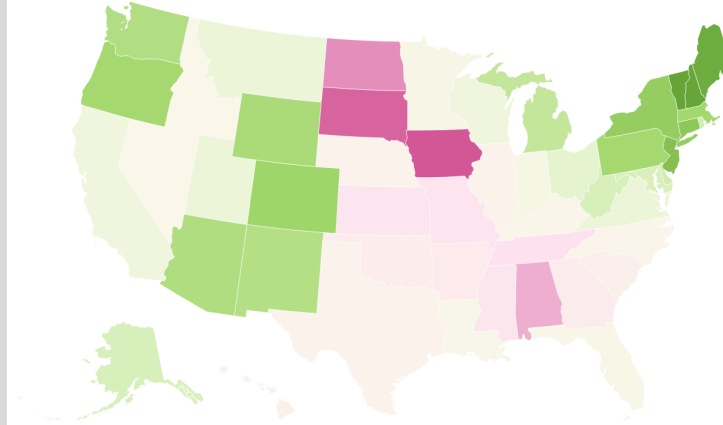
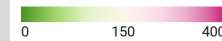
Comparing infection rates on September 1 to September 29 illustrates how the infection spread has intensified throughout the middle of the country

At the same time, these rates have eased in the Southeast and West

* - 7-day moving average basis

New Infections / Million

7-Day Moving Average, As of September 1



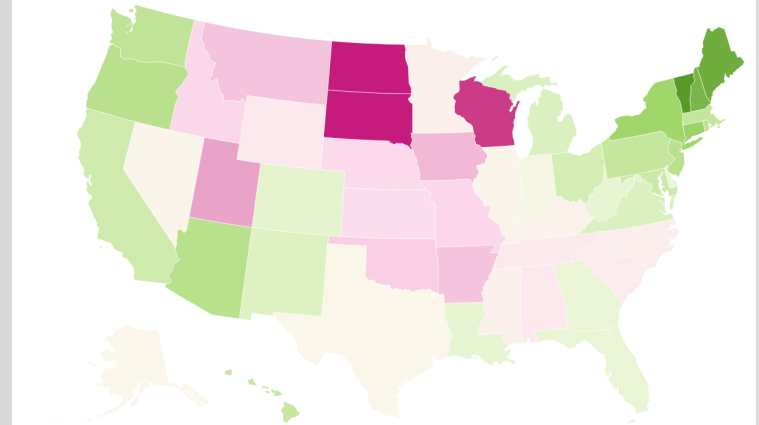
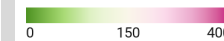
Map: Health Industry Advisor LLC • Created with Datawrapper

← September 1
v.
September 29



New Infections / Million

7-Day Moving Average, As of September 29



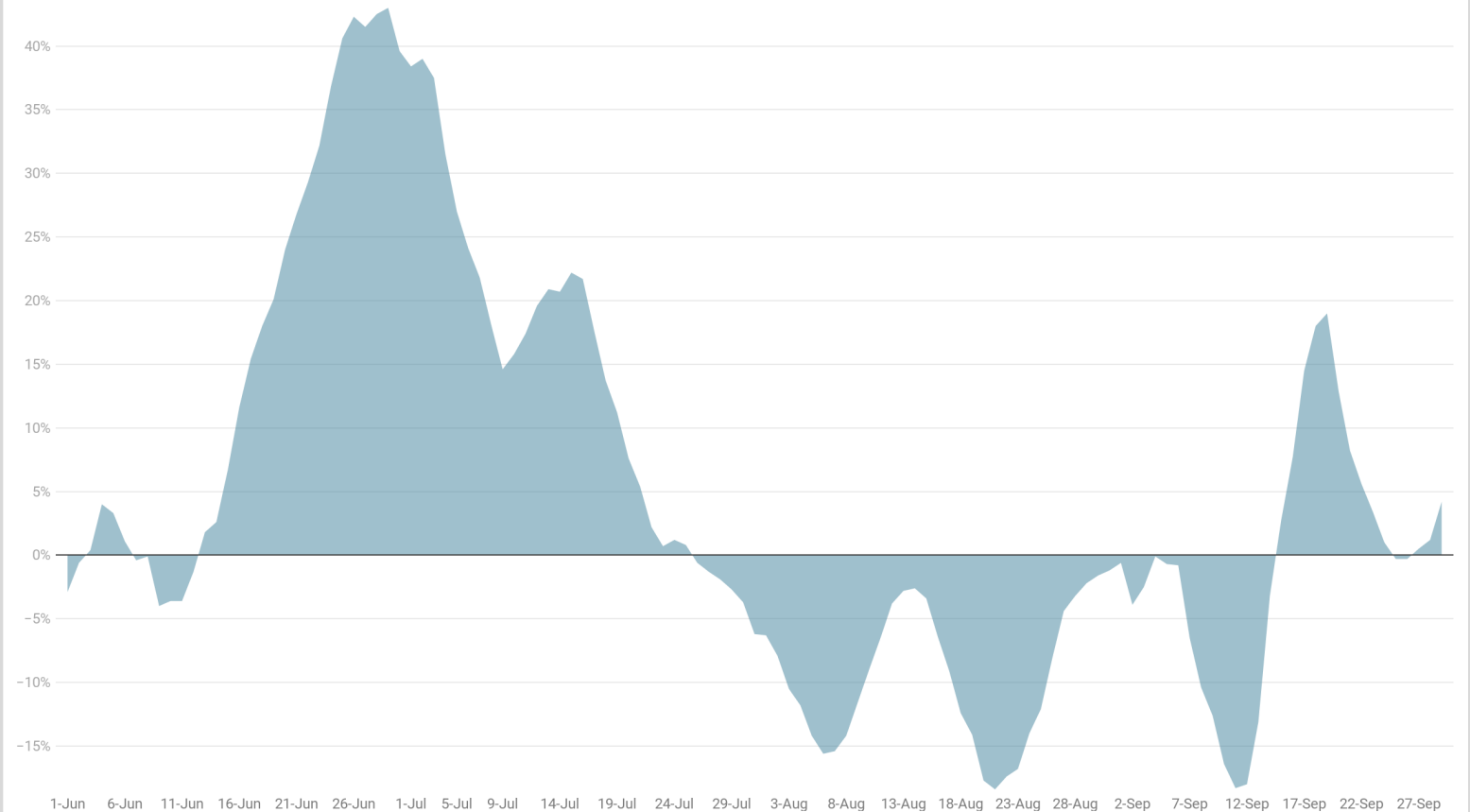
Map: Health Industry Advisor LLC • Created with Datawrapper

Following a seven-week period of decline, new cases began increasing on a week-over-week basis on September 15

Yesterday, this rate was up 4.2% on a week-over-week basis

Week-Over-Week Change In New Cases

Through September 29



Health Industry Advisor LLC analysis

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

New cases reported on Tuesday were sharply higher than the same day last week

These were the most new cases on a Tuesday in seven weeks

Tuesday also represented the third consecutive day for which new cases were higher than the same day the prior week, and the fifth time this has occurred in the past week

Newly Daily Cases

Through September 29

Tuesdays Highlighted

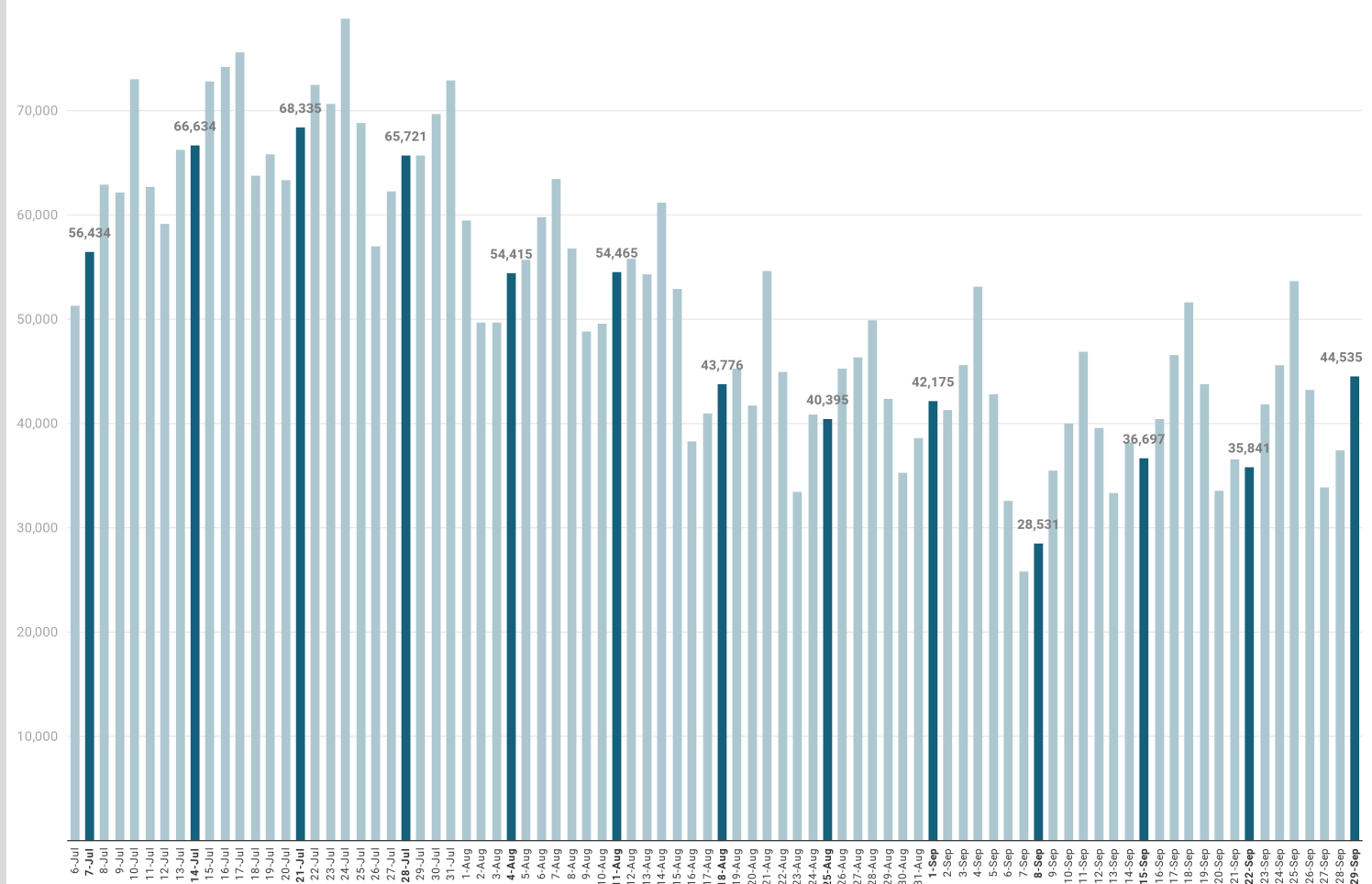


Chart: Health Industry Advisor LLC • Source: eorlometers.info • Created with Datawrapper

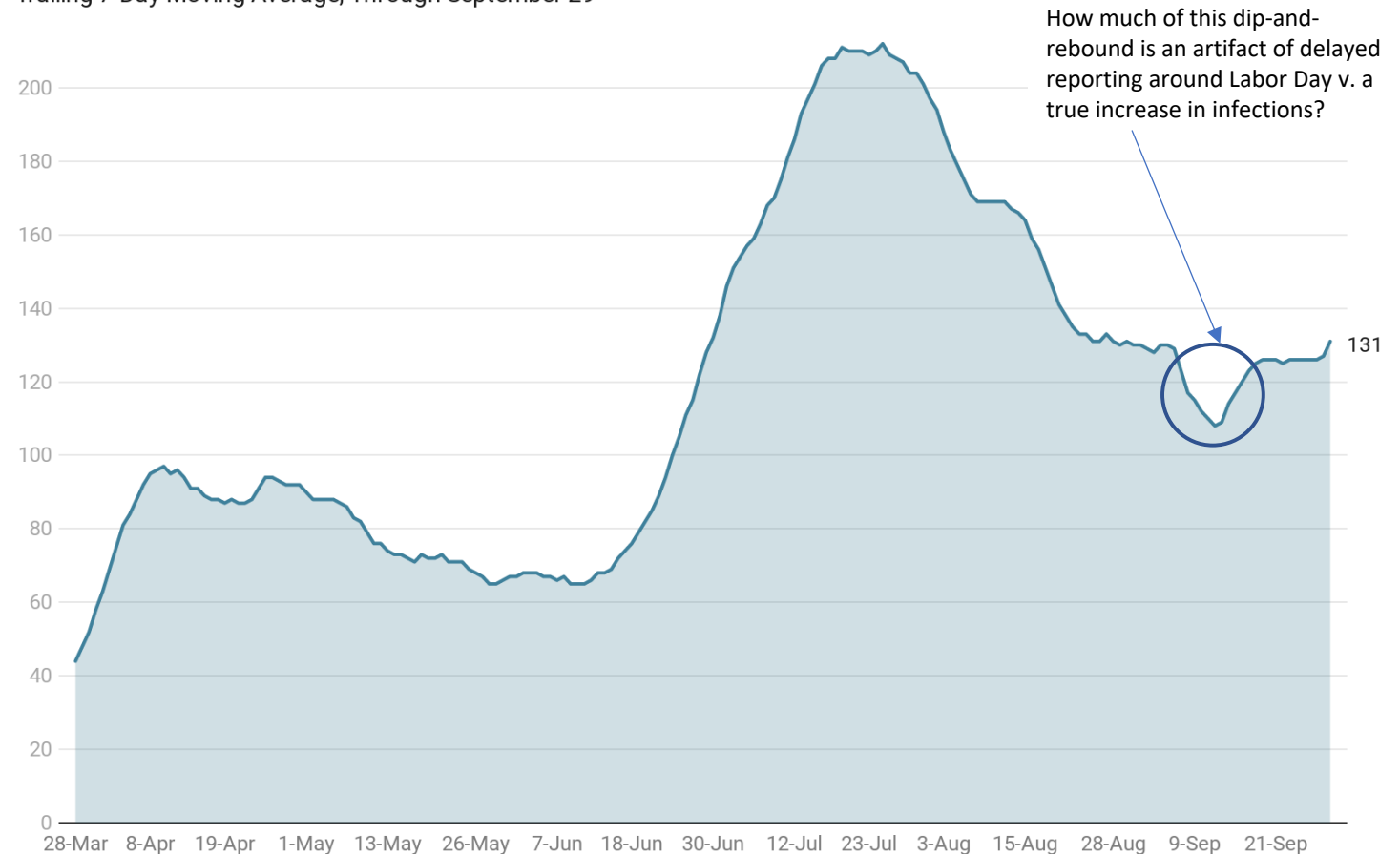
New infections per capita in the U.S.*
bottomed-out on September 12 – this is likely due to the impact of Labor Day reporting issues

Also, the rate had relatively stable for eleven days . . . Until increasing yesterday

* - 7-day moving average basis

New Infections Per 1 Million Population - United States

Trailing 7-Day Moving Average, Through September 29



Health Industry Advisor LLC analysis

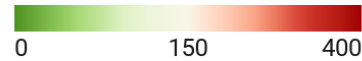
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

While many countries are experiencing relatively low infection rates*, Israel, Bahrain, Argentina, and Spain experienced the highest rates among large countries during the past week

* - 7-day moving average basis

New Infections / Million

7-Day Moving Average, As of September 29



Map: Health Industry advisor LLC • Created with Datawrapper

Countries > 1 million population:

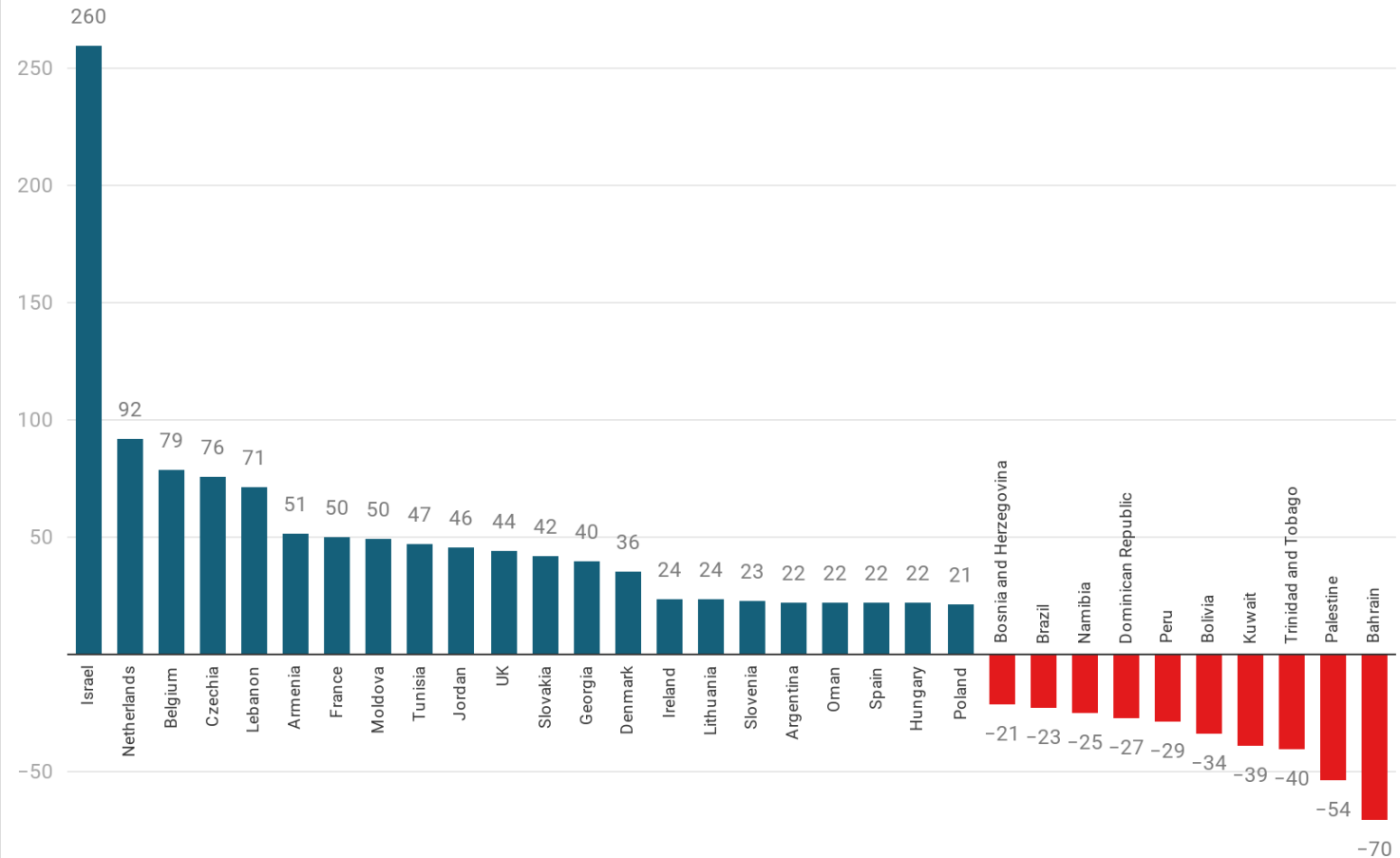
Over the past two weeks, Israel's new daily infection rate has soared

Netherlands, Belgium, Czechia and Lebanon also have experienced large increases in this rate

Bahrain and Palestine experienced the largest declines in rates

Largest Increases & Declines in New Daily Infections / Million

7- Day Moving Average, September 22-28 v. September 8-14



Created with Datawrapper

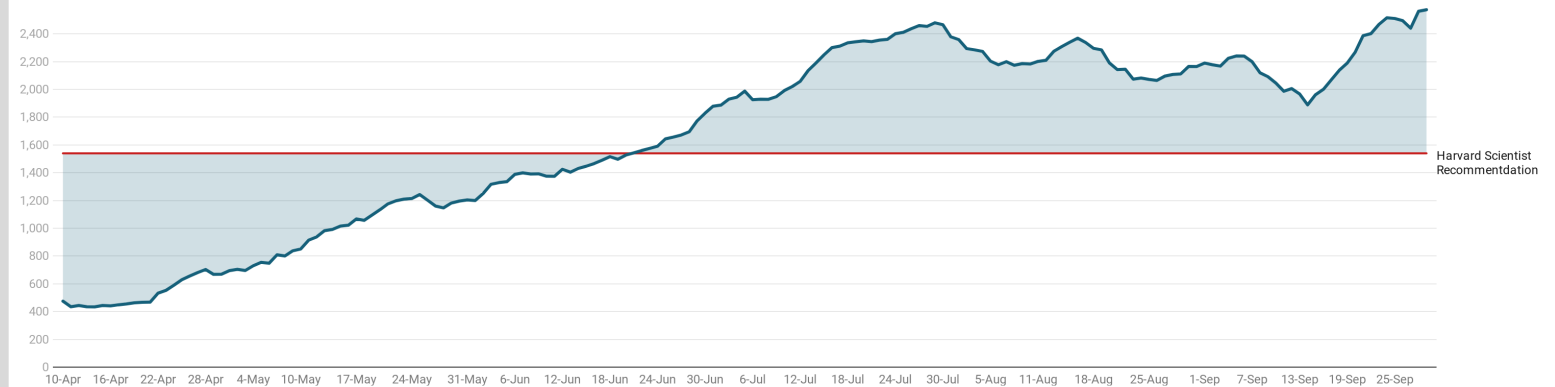
The 7-day average testing volume set a new record high for the second consecutive day

Yesterday's test-positive rate, as well as the 7-day average rate met the WHO guideline of 5%

The 7-day rate had not reached this low level since June 19

Daily Tests Per 1 Million - United States

Trailing 7-Day Moving Average, As of September 29

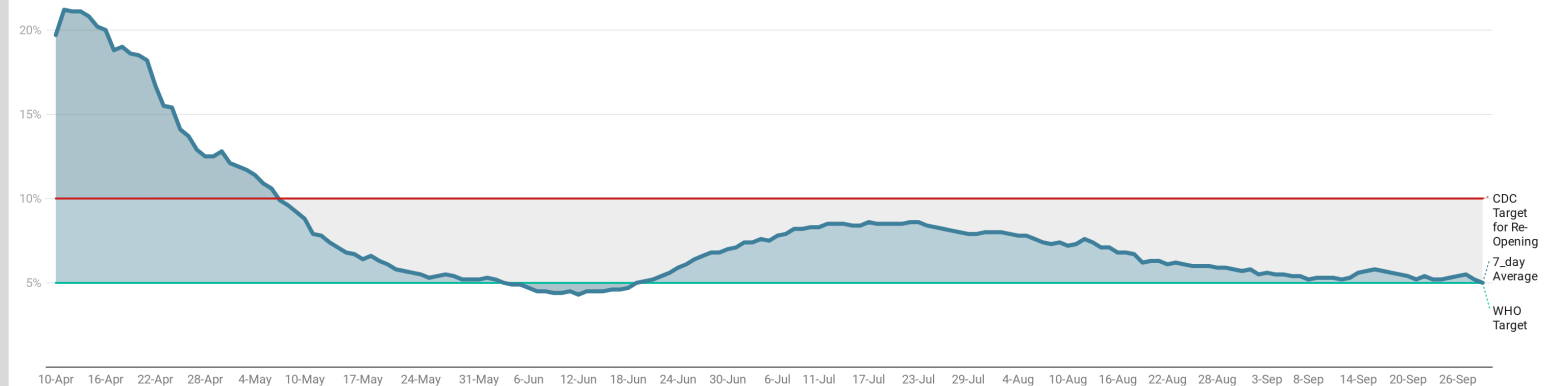


Health Industry Advisor LLC analysis

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 29



Health Industry Advisor LLC analysis

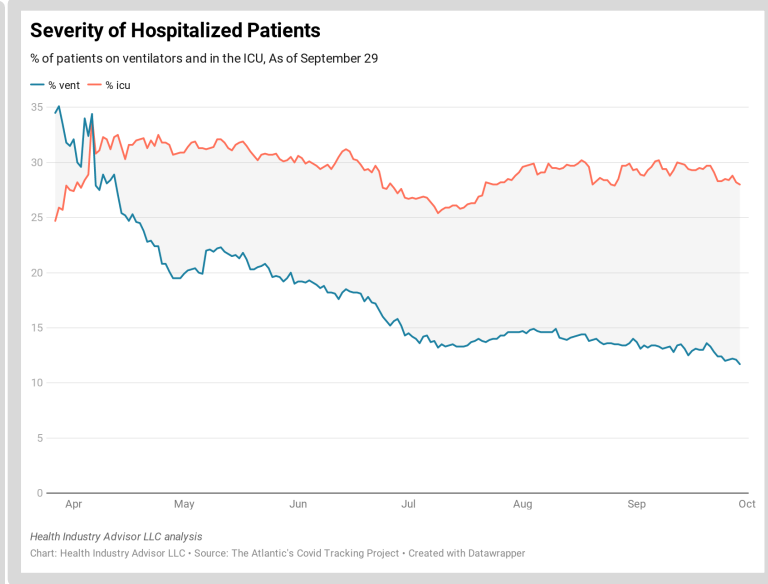
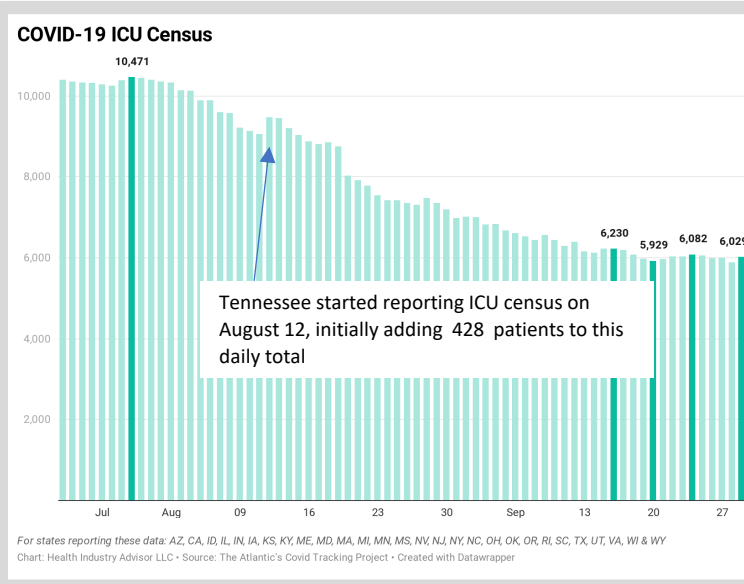
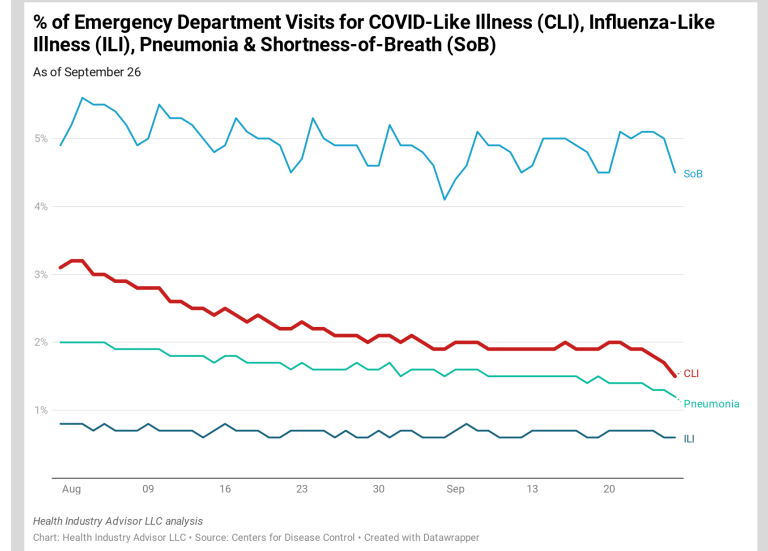
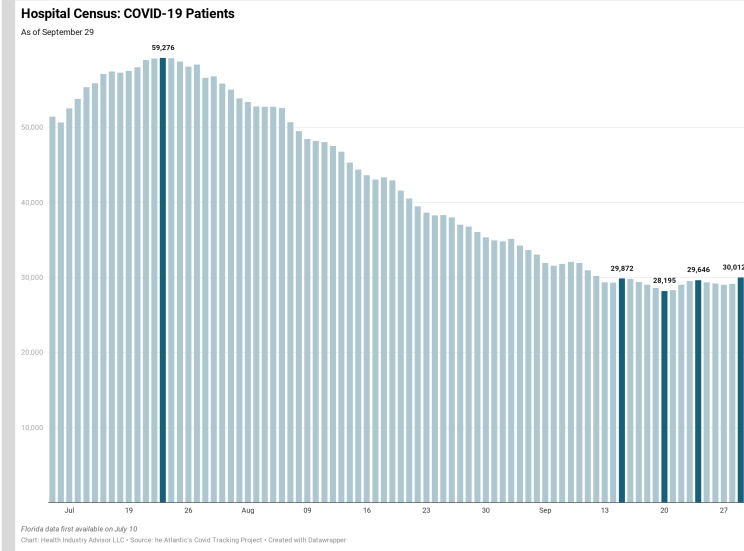
Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

Inpatient COVID-19 census has fluctuated in a narrow range over the past sixteen days – after dropping significantly from late-July to mid-September

ICU days and ventilator use declined as a % of patients; ventilator use is ~1/3 the rate it was in April

ER visits for COVID-19-like illness as a % of all ER visits continued to drop sharply; this rate has declined significantly since early July

No discernable start yet to the impact of flu season



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>