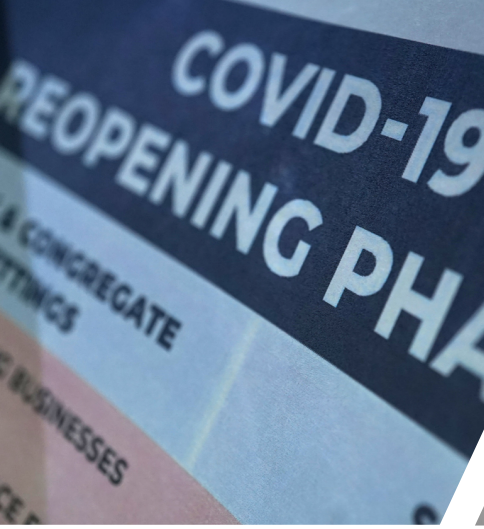


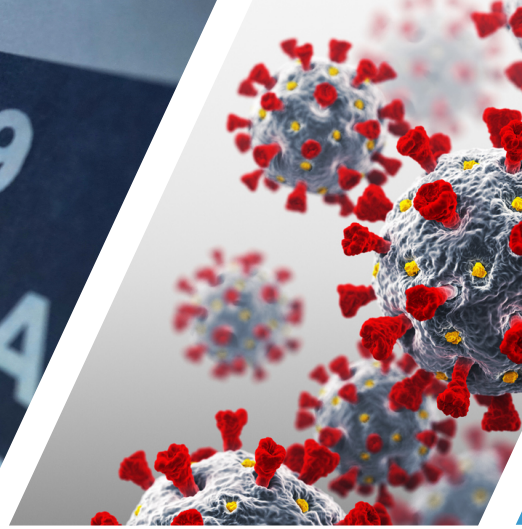


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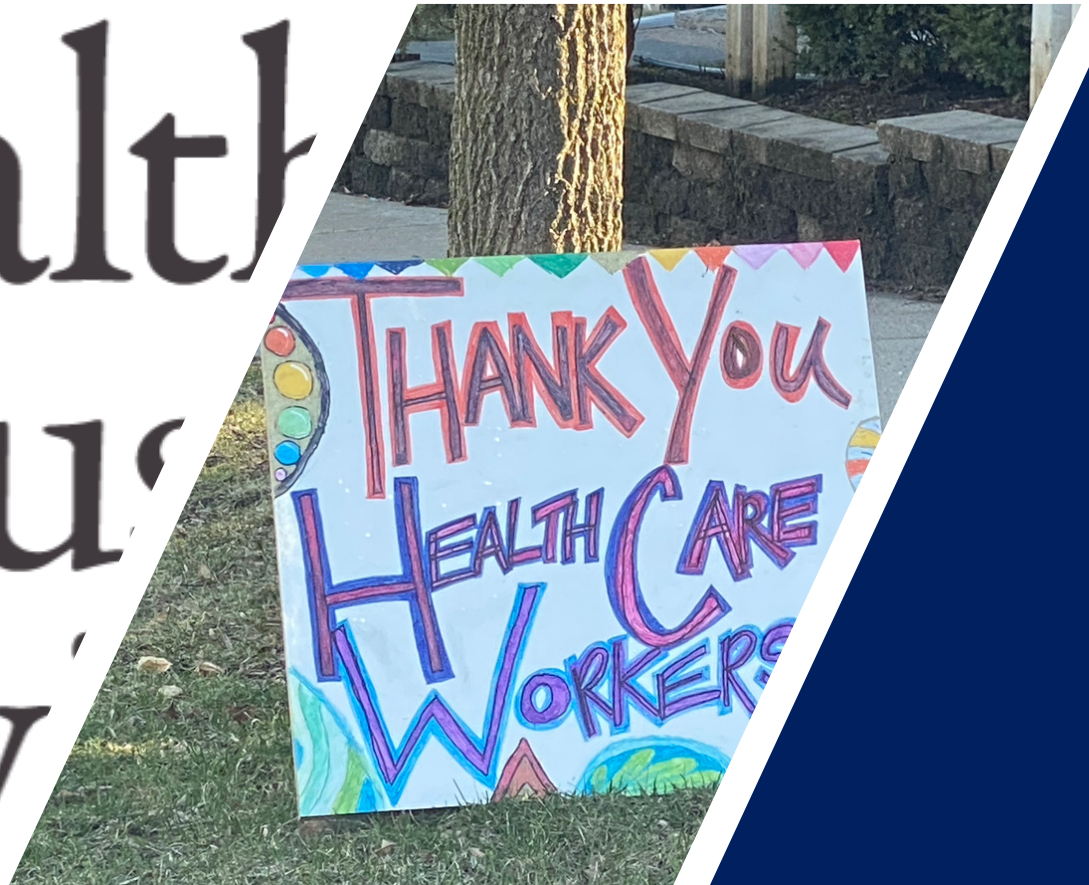


Issue # 188

Friday, October 16, 2020

# COVID-19 Report

# Highlights

- **Metro areas home to major universities continue to fare poorly, relative to the national average**
  - Lubbock, Texas – home to Texas Tech University – experienced both the highest rate of newly detected cases per capita and the largest week-over-week increase in this rate, among the thirty-three areas we are monitoring
  - St. Joseph, Indiana (Notre Dame) and Centre, Pennsylvania (Penn State) ranked 2nd and 3rd, respectively in newly detected cases per capita; Centre, however, showed the largest week-over-week decline in this rate
  - **Twenty-three of the thirty-three areas we are monitoring experienced newly detected cases per capita higher than the U.S. national average**
  - In addition to Lubbock, St. Joseph and Centre, counties, Montgomery, VA (Virginia Tech); Cleveland, OK (University of Oklahoma); Dane, WI (University of Wisconsin); Lancaster, NE (University of Nebraska); Boone, MO (University of Missouri) and Washington, AL (University of Alabama) experienced newly detected cases per million residents per day > 300 for the October 8-14 period
- Testing in the U.S. continues to be relatively strong, however, a few concerns are emerging
  - The 7-day average rate of tests per capita has been trending up throughout October and is well-above minimum suggested levels
  - The 7-day test-positive rate has been increasing for the past week; it remains above the WHO recommended level but, well-below the CDC- targeted level for Phase 3 reopening
  - **The ratio of tests performed to newly detected cases (7-day average) has been declining for the past month. Nonetheless, the current rate remains significantly higher than its low point, which occurred during the June/July case surge. (This measure reflects the adequacy of testing levels for keeping up with the pace of virus infections)**

- Newly detected cases continue to rise in the U.S.
  - There were more new cases reported yesterday than on any other Thursday since July 30. **This was the ninth consecutive day and the 12th time in the past two weeks that new cases increased on a same-day, prior-week basis**
  - **On a week-over-week basis, newly detected cases increased 15.6%**
    - Of note, this rate has risen and fallen throughout the pandemic, often pre-signaling when the new daily infection rate per capita would begin to rise or fall
    - **This rate has been flat for four days – is it simply a pause in the rate of growth or, the beginning of a downward turn?**
  - **The 7-day average new daily infections per capita rose for the ninth consecutive day. This rate is now at its highest level since August 13**
- We are getting mixed messages on healthcare resource demand from Covid-19:
  - **On a same-day, prior-week basis, inpatient census of Covid-19 infected persons increased for the 22nd consecutive day; Still this census has only re-gained 27% of the decline experienced from late-July to September 20**
  - While inpatient Covid-19 census has increased, **the likelihood of a Covid-19 patient would be in the ICU or on a ventilator has been steadily declining.** For ICU, this decline began in late-September; For ventilators, the decline goes back to April
  - Visits to the ER for Covid-19-like illnesses, as a % of all ER visits, have declined for five consecutive days. This rate is ½ what it was in July
  - **Although flu season is officially underway, we have yet to observe any increase in ER visit for influenza-like illnesses as a % of all ER visits**
- Deaths reported with coronavirus continue to trend downward
  - **The 7-day average daily deaths yesterday was as low as it has been since July 10**
  - Although there were seven more deaths reported yesterday than on September 17, the were fewer deaths reported yesterday than on any other Thursday since July 2

Metro Areas Home to Major Universities:

Of the 33 major areas in our sample, 23 are experiencing infection rates* higher the the national average

Lubbock, Texas, home to Texas Tech University had the highest infection rate last week, followed by St. Joseph, IN (Notre Dame) Centre, PA (Penn State) Montgomery, VA (Virginia Tech) and Cleveland, OK (University of Oklahoma)

Tompkins, NY home to Cornell and Albemarle, VA (University of Virginia) had the lowest

* 7-day average

## Metro Areas With Major Universities: New Daily Infections / 1M Population

7-Day Average, As of October 14

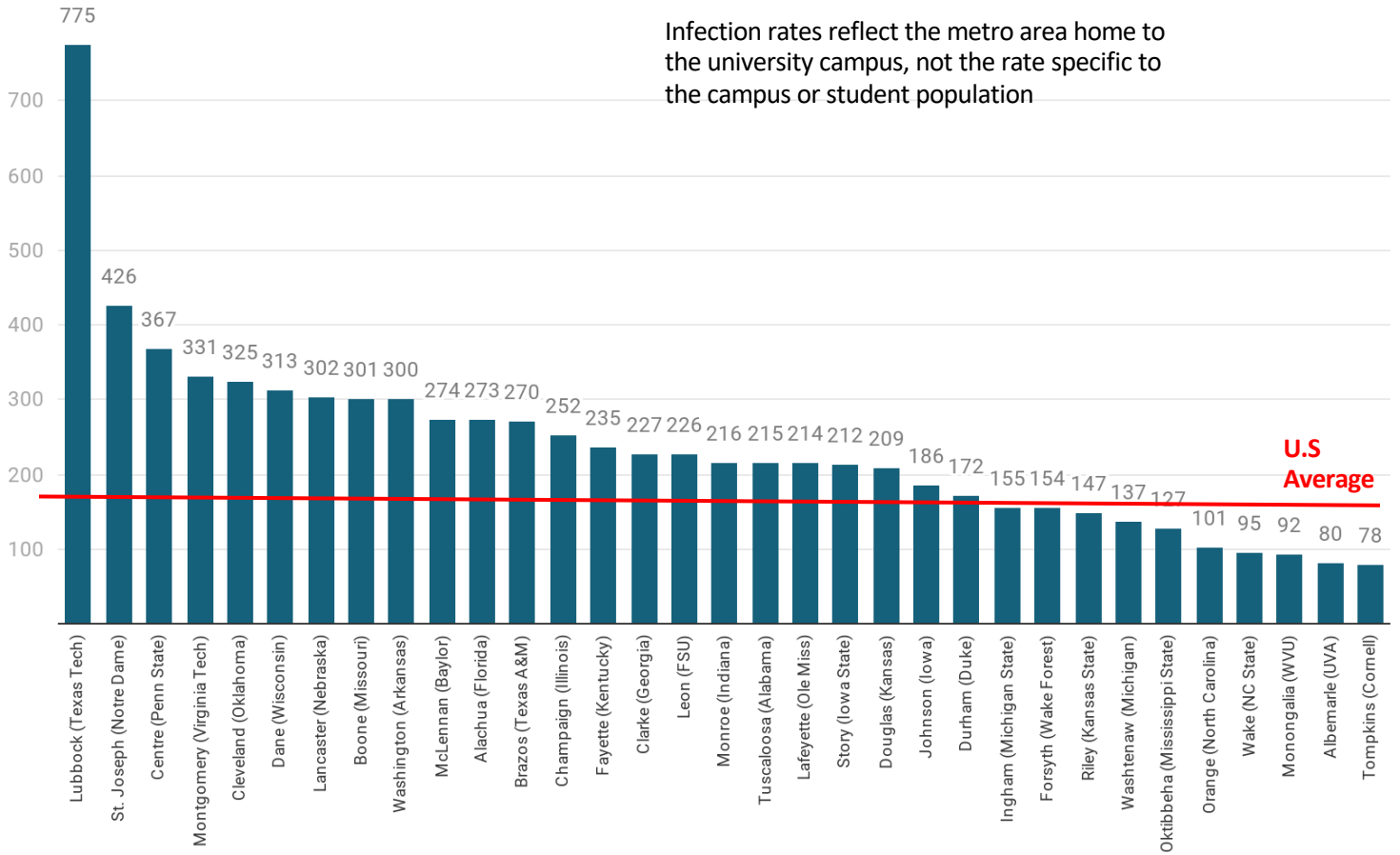


Chart: Health Industry Advisor LLC • Created with Datawrapper





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Metro Areas Home to Major Universities:

Lubbock, Texas home to Texas Tech University experienced a dramatic increase in 7-day new daily infections per capita compared to one week ago; Dane, Wisconsin (University of Wisconsin) was next highest

Centre, PA (Penn State) experienced the most significant decline in this rate

* 7-day average

## Metro Areas With Major Universities: Week-Over-Week Change In New Daily Infections / 1M Population

7-Day Average, October 14 v. October 7

Infection rates reflect the metro area home to the university campus, not the rate specific to the campus or student population

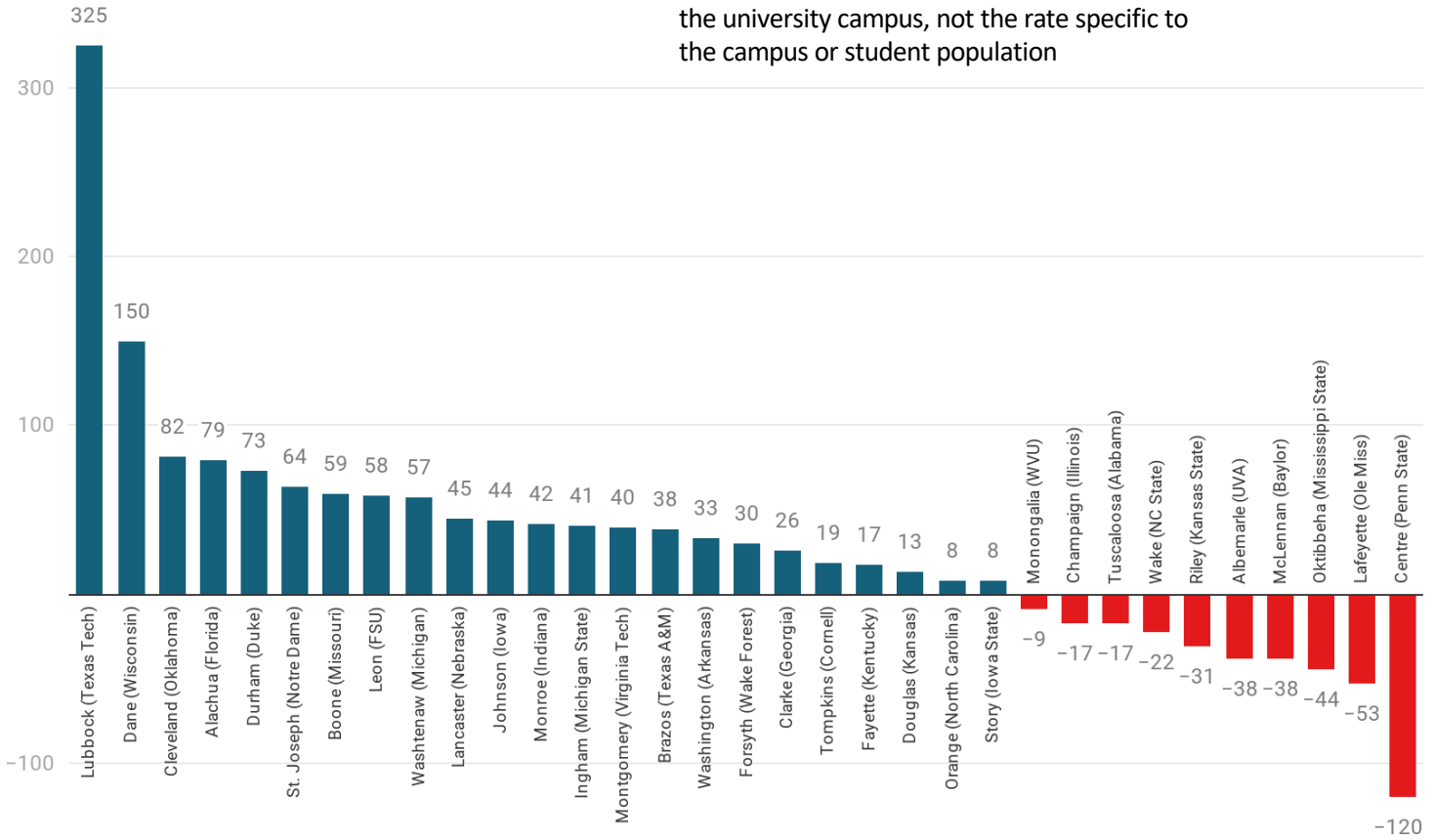


Chart: Health Industry Advisor LLC • Created with Datawrapper





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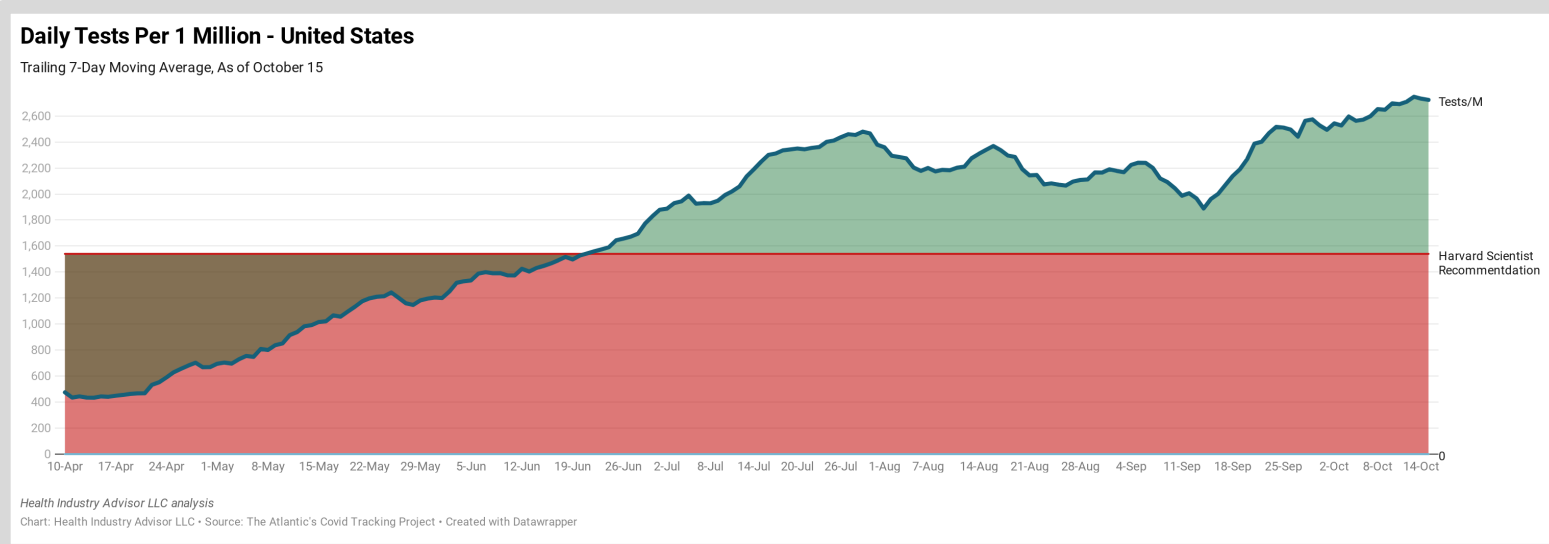
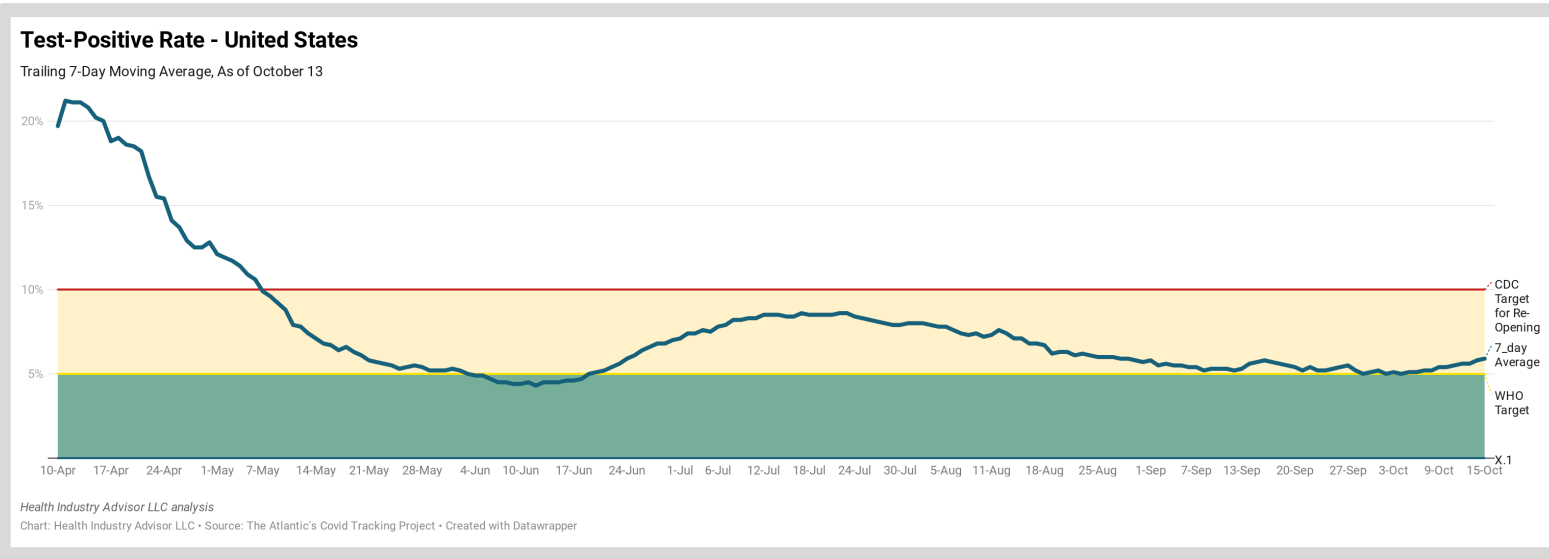
The 7-day average testing volume continues to be relatively strong

The 7-day test-positive rate, however, has been trending upward for the past week





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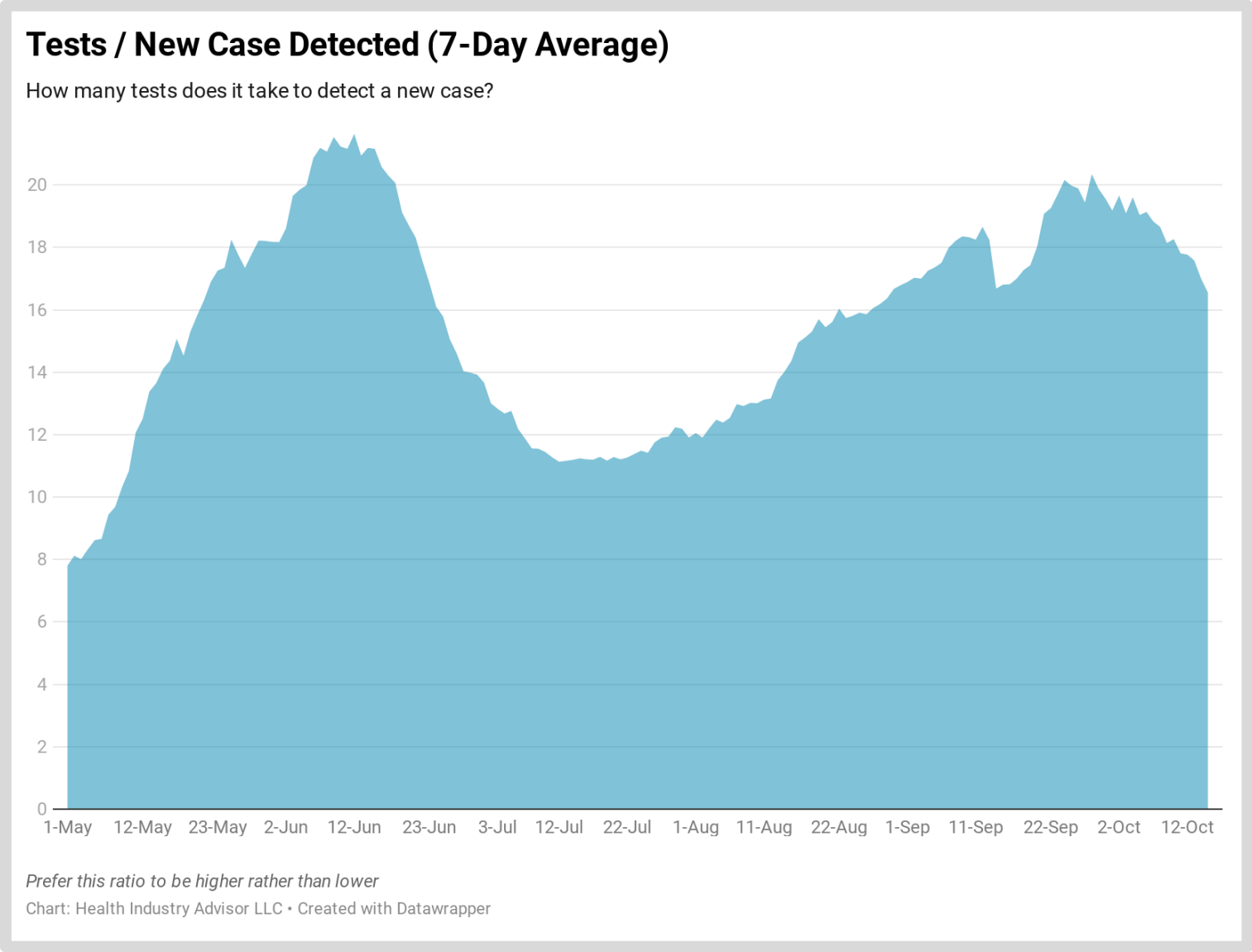
A measure of the effectiveness of testing is the ratio of tests performed to newly-detected cases

A low ratio indicates that testing may not be adequate to identify all new infections (i.e., may only be testing the most severe infections)

A high ratio indicates that testing may be sufficient to to capturing a high percentage of infections

This ratio has been declining for the past month – perhaps, testing is not keeping up with the surge in new infections





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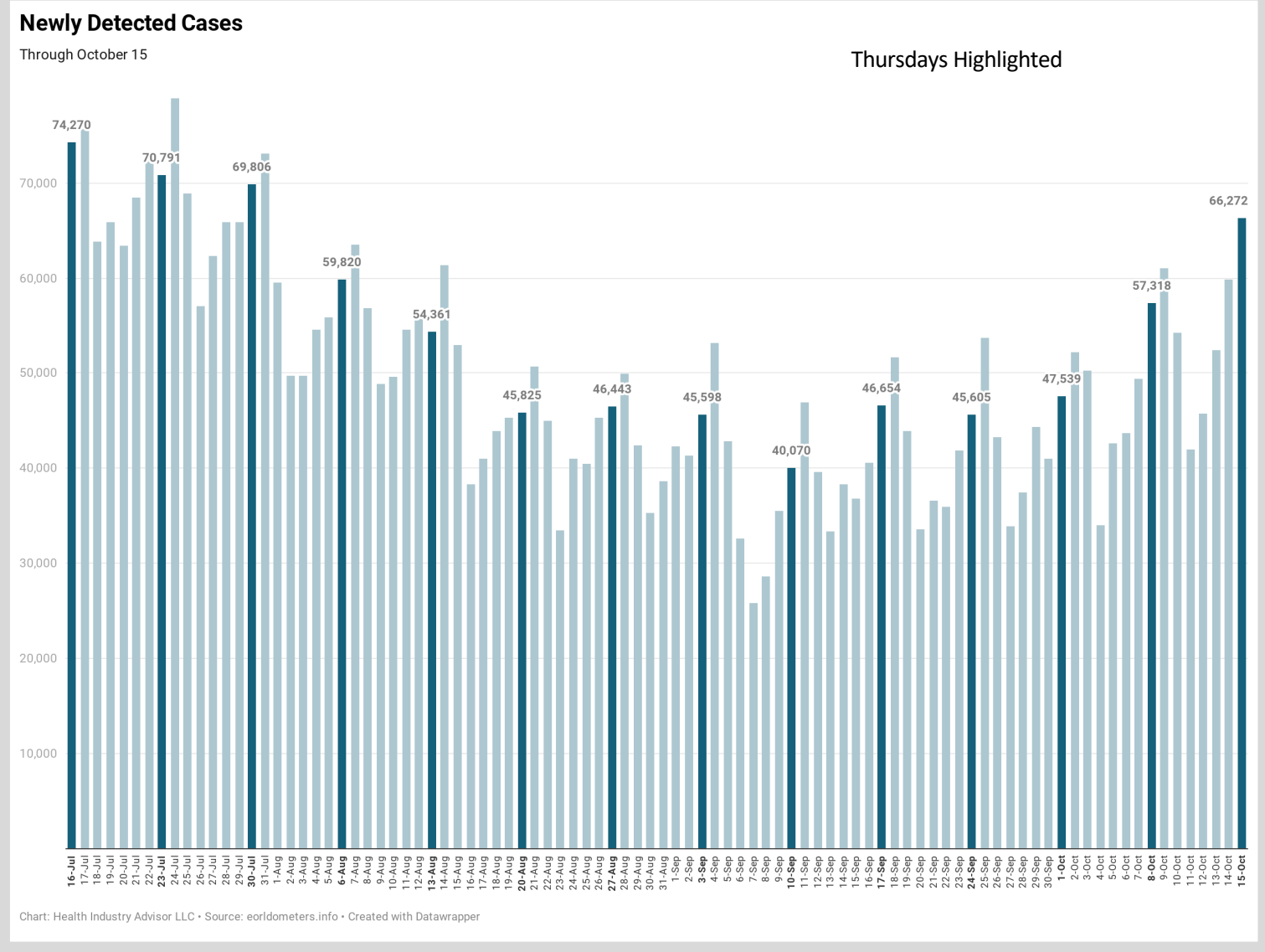
There were more newly detected cases reported yesterday than on any Thursday since July 30

On a same-day, prior-week basis, newly detected cases have increased on eight consecutive days and eleven of the past twelve days





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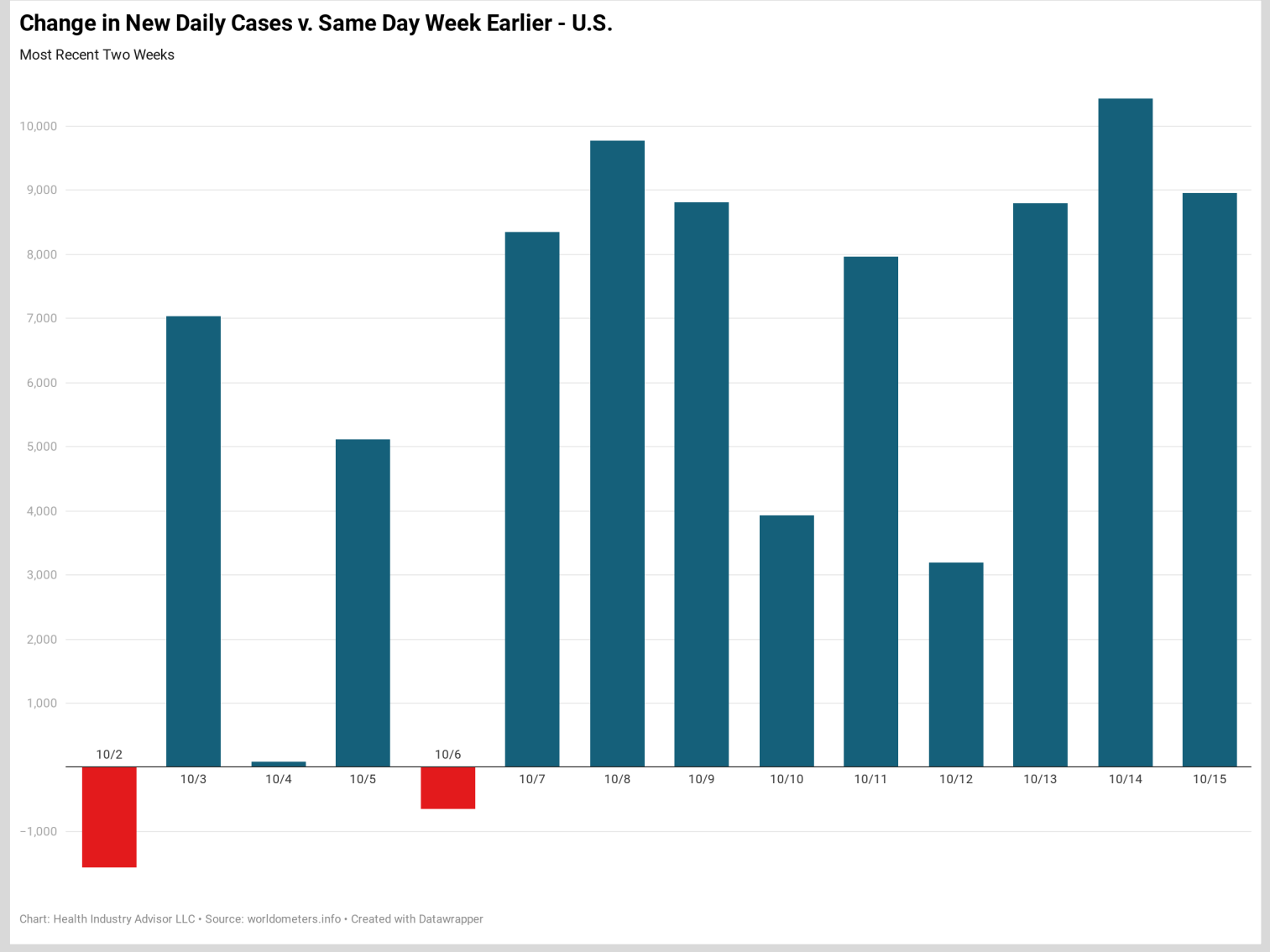
Yesterday was the ninth consecutive day, and the 12th time in the past two weeks, that newly detected cases increased on on same-day, prior-week basis





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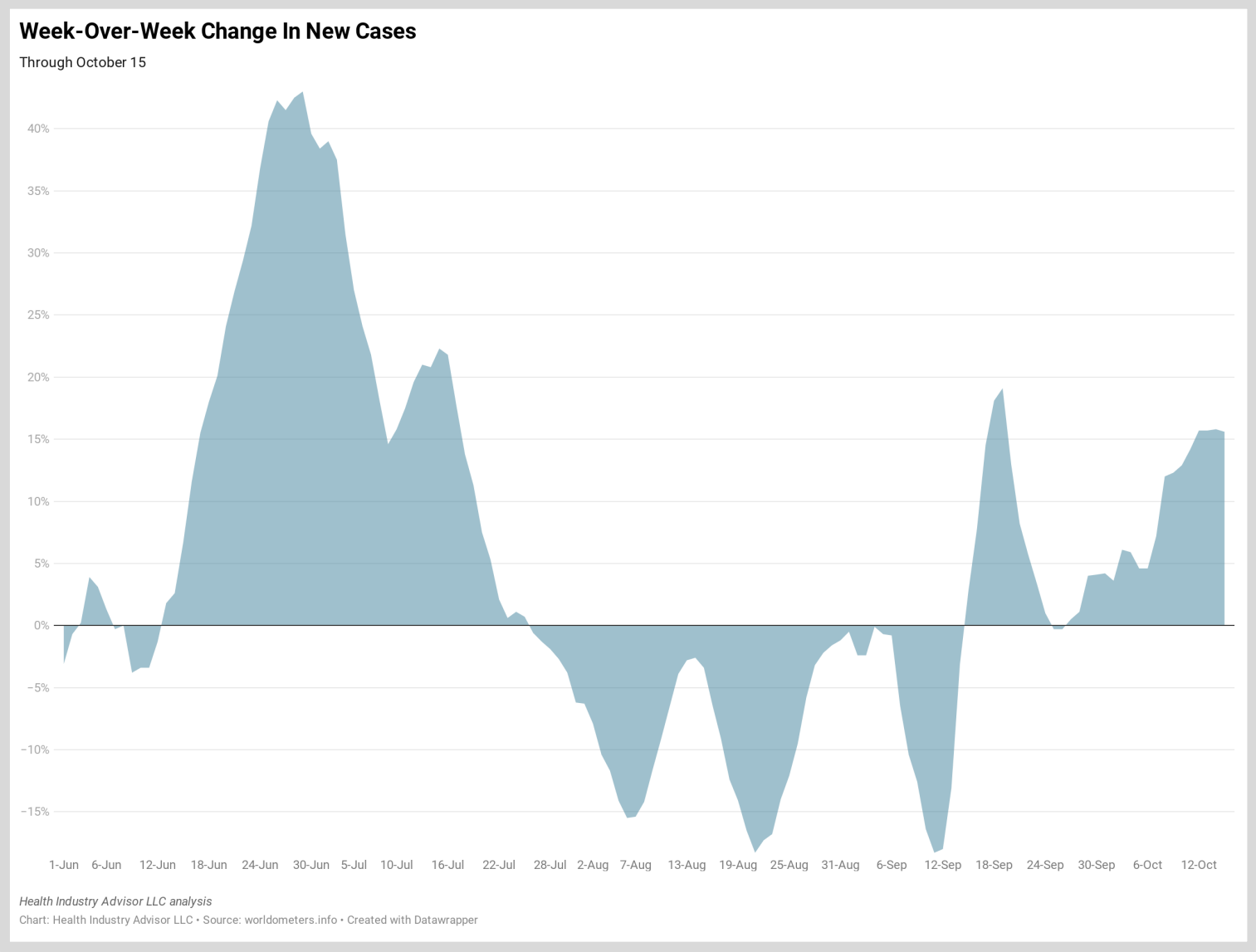
Following a seven-week period of decline, new cases began increasing on a week-over-week basis on September 15

A pause or will the rate of cases growth begun to decline? Yesterday, this rate was up 15.6% on a week-over-week basis (~same rate as past three days)

This rate had previously peaked at 19.1% on September 19 and 43% on June 29





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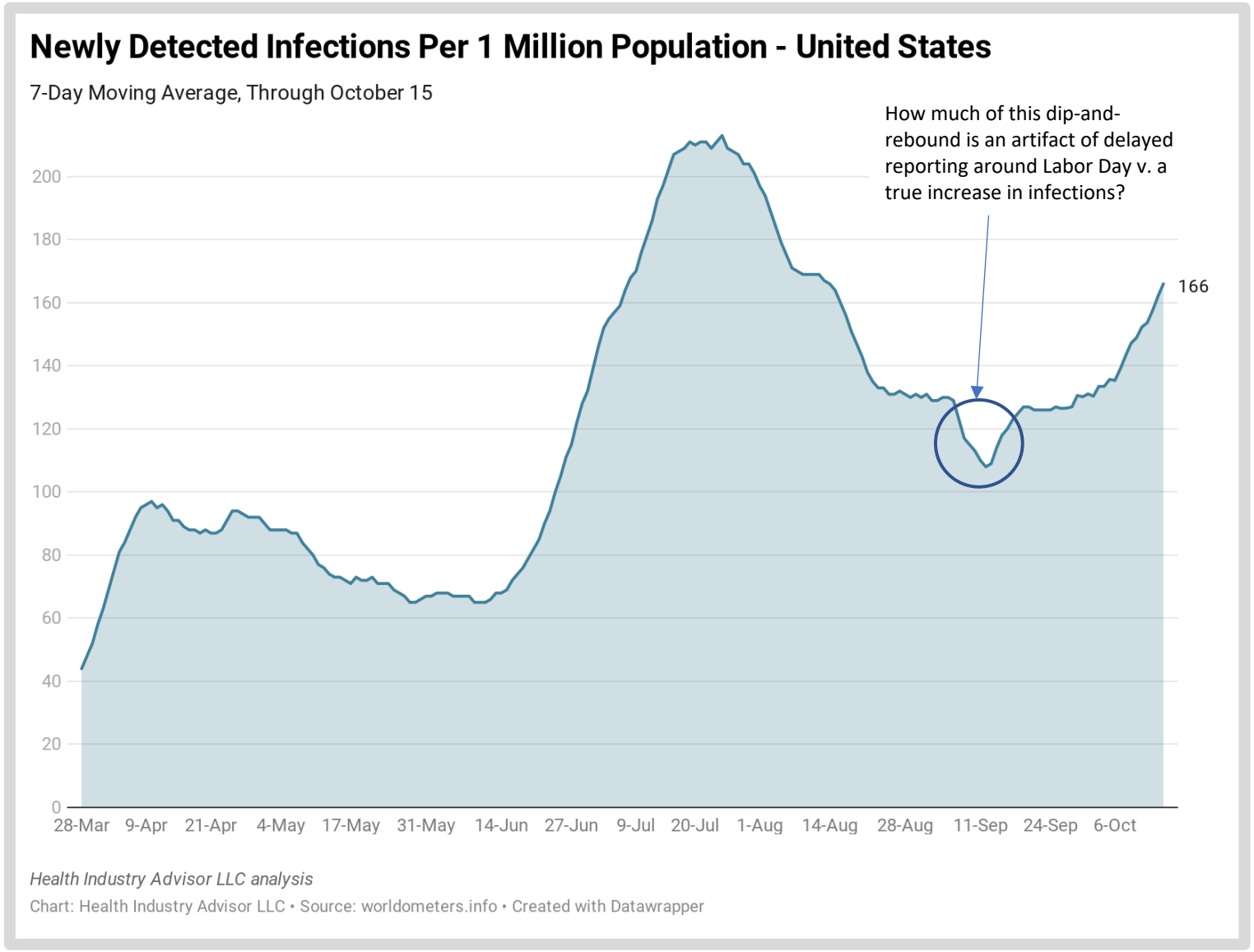
The rate of new infections per capita* in the U.S. rose for the ninth consecutive day

This rate is the highest it has been since August 13

* - 7-day moving average basis





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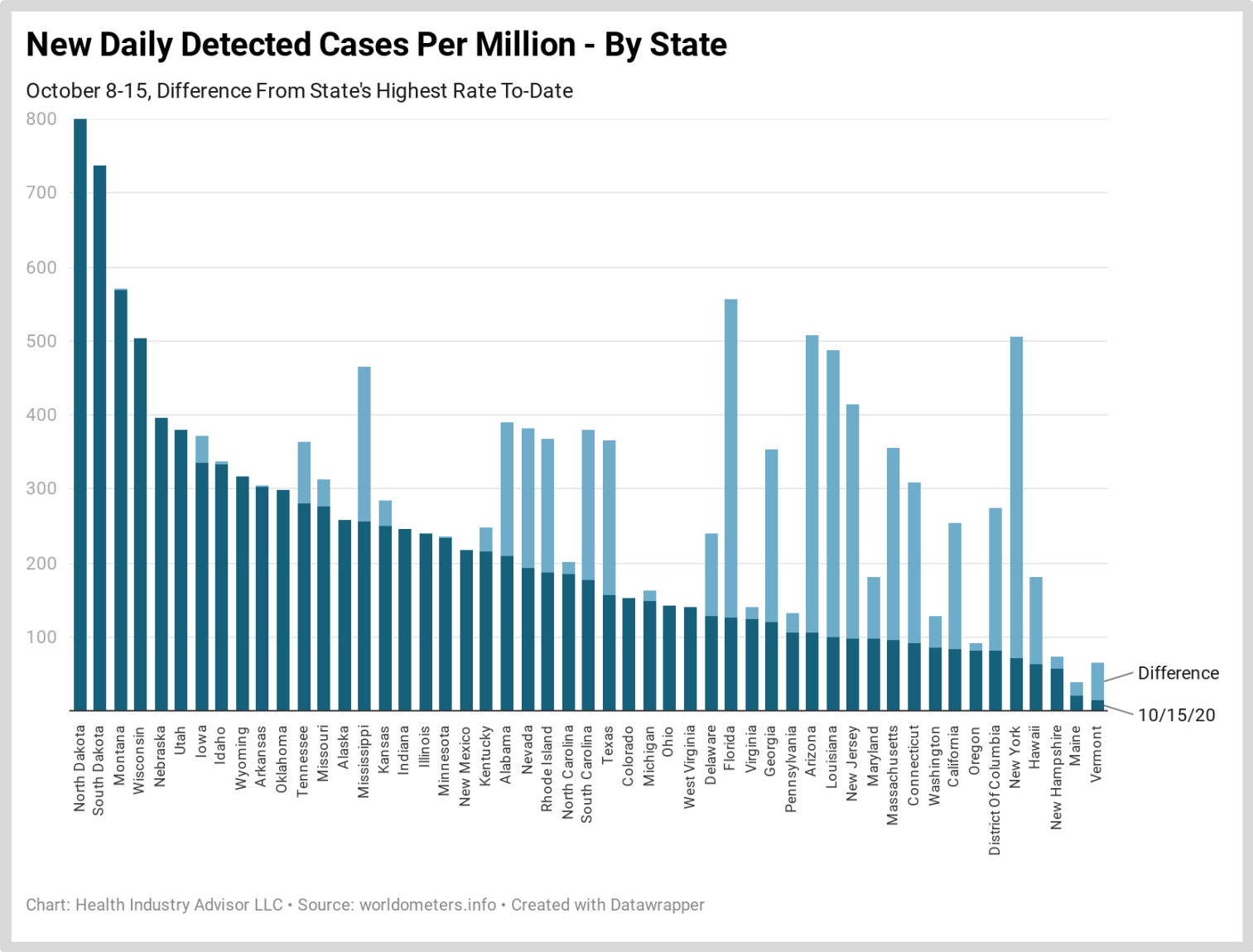
North and South Dakota have experienced the highest rates of newly-detected cases per capita over the past week; Also, these 7-day rates are higher than experienced by any state at any time during the pandemic

The fourteen states that experienced the highest rates of newly-detected cases per capita during the past seven days are at or near highs that each have experienced during the pandemic

Florida, Arizona, New York and Louisiana, which rank 4th-6th and 8th in peak levels of this rate, are now experiencing rates significantly below their peaks





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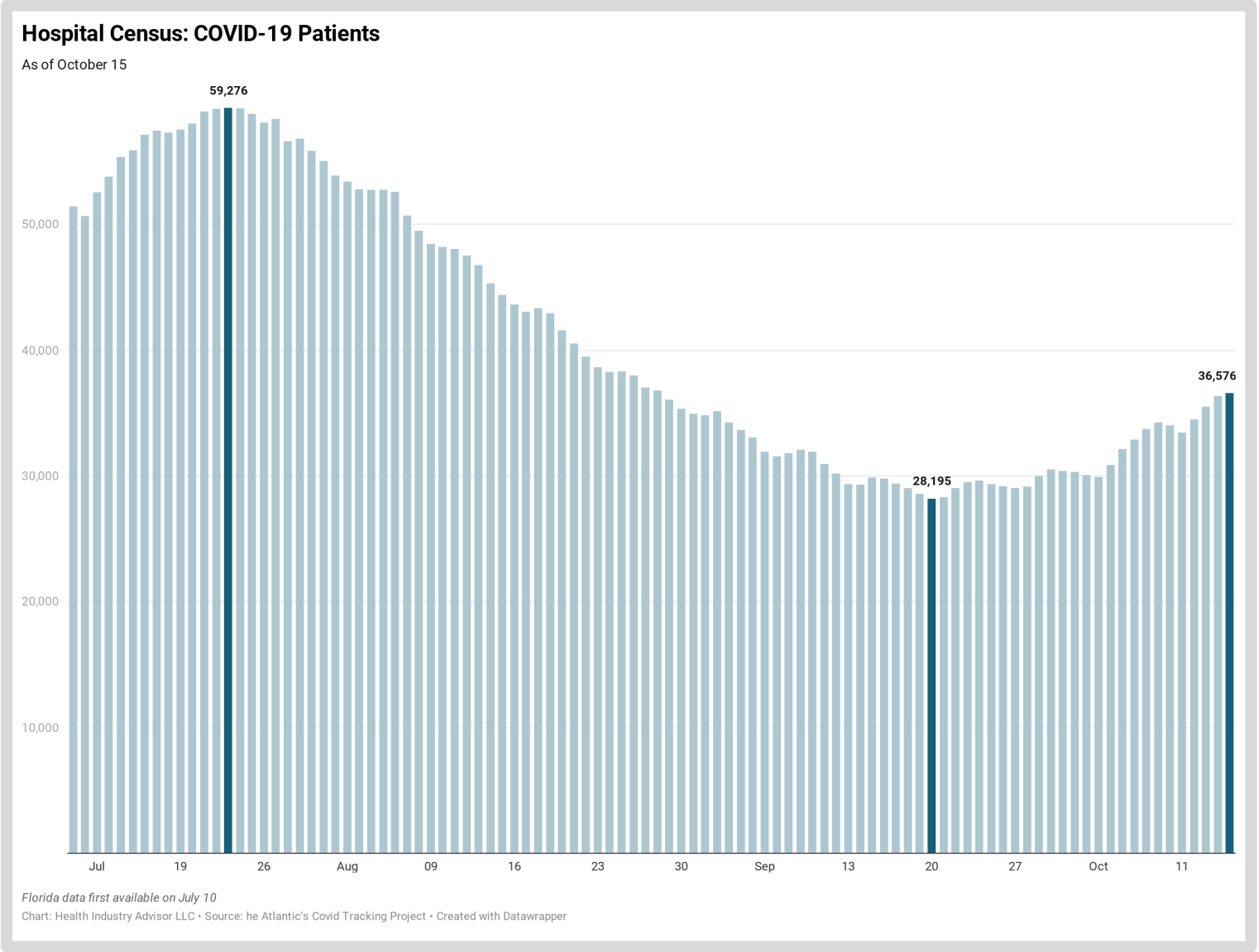
On a same-day, prior-week basis, inpatient Covid-19 census increased for the 22nd consecutive day

This census has re-gained 27% of the reduction in realized from late-July to September 20





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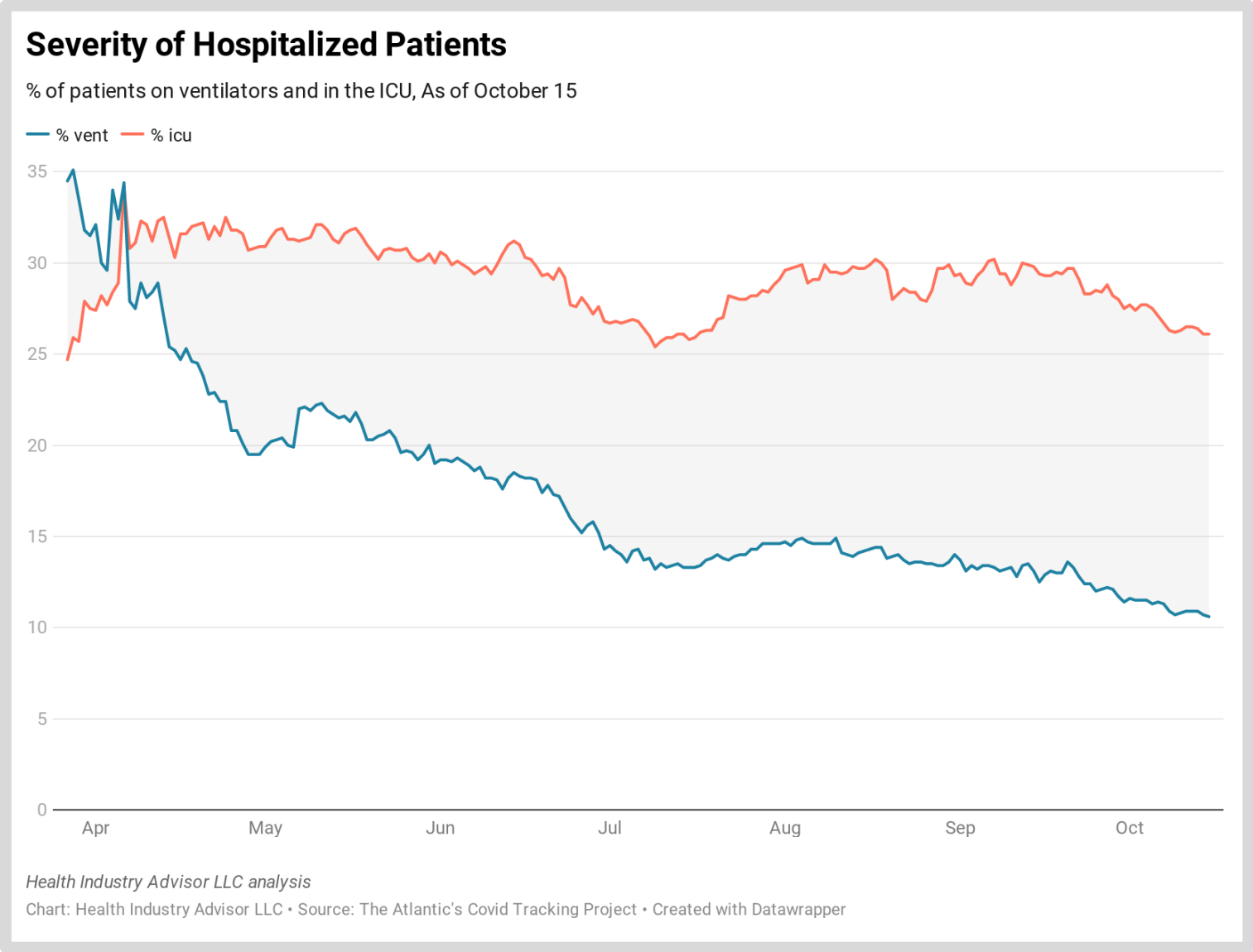
During the rise in inpatient Covid-19 census, the mix of both ICU and ventilator patients has declined for at least the past month





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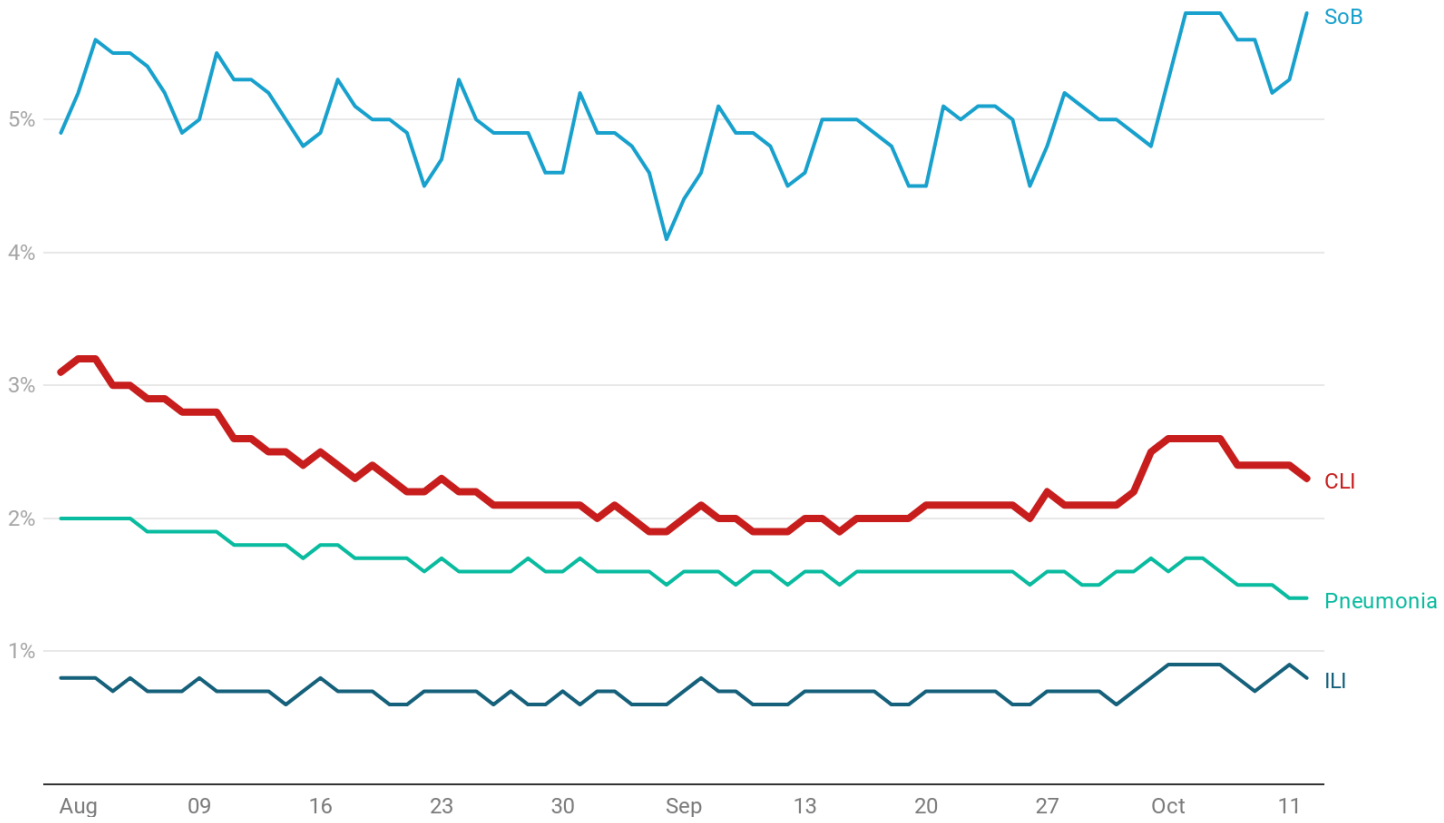
The % of ER visits for COVID-19-like illnesses (CLI) has eased over the past five days; this rate remains less than ½ of what it was in mid-July

Although the flu season has officially begun, we have yet to observe any impact on the rate of influenza-like illness (ILI) visits to the ER

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

As of October 12




*Health Industry Advisor LLC analysis*

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





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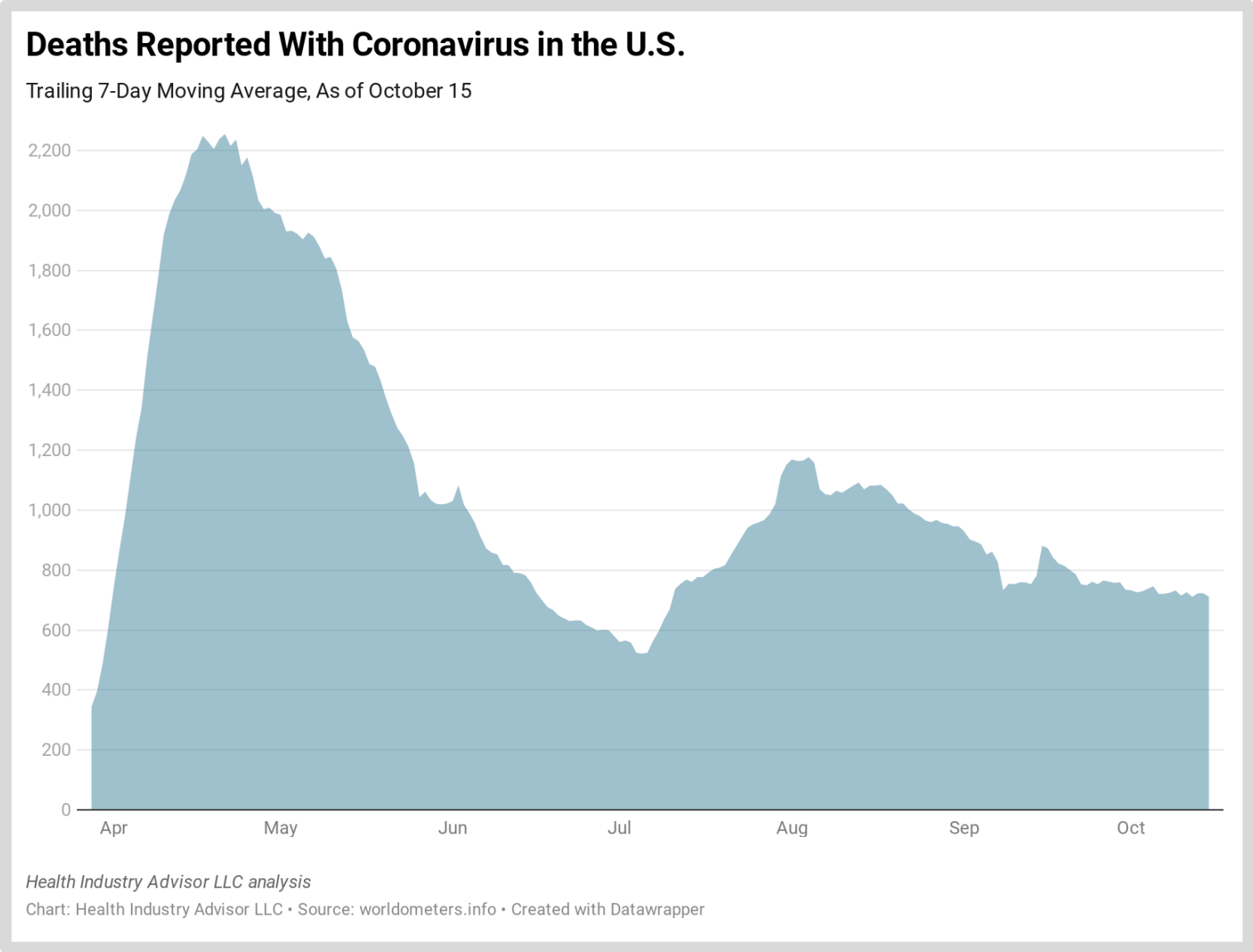
The 7-day average deaths per day declined yesterday

This rate is as low as it has been since July 10





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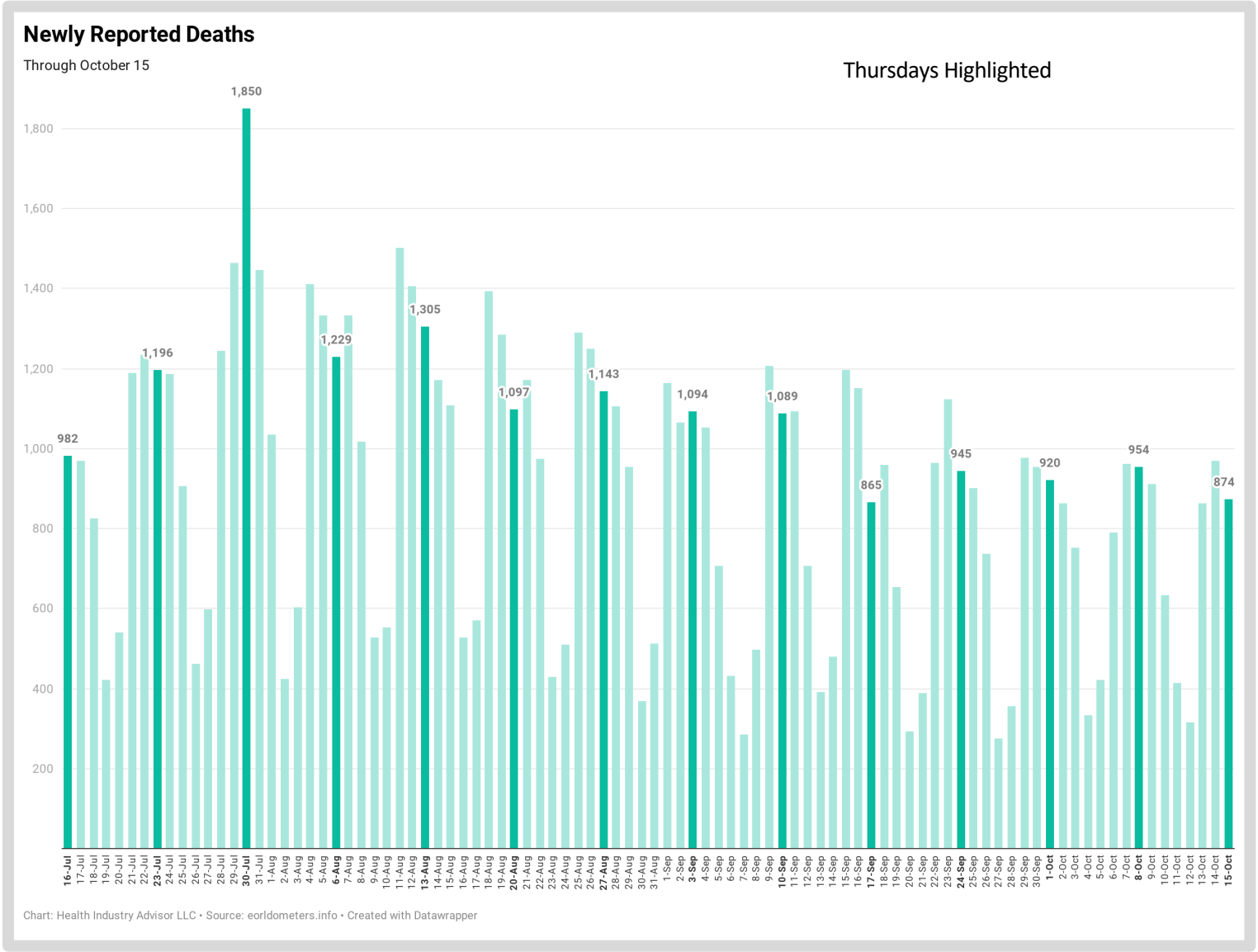
There were fewer deaths reported yesterday than all except one other Thursday since July 2 (there were seven fewer deaths reported on September 17 than there were yesterday)





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# 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