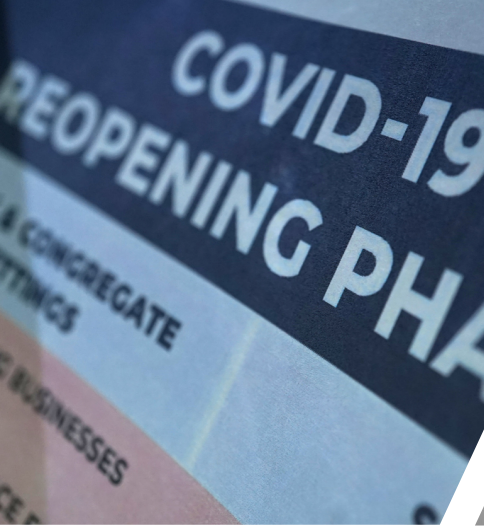

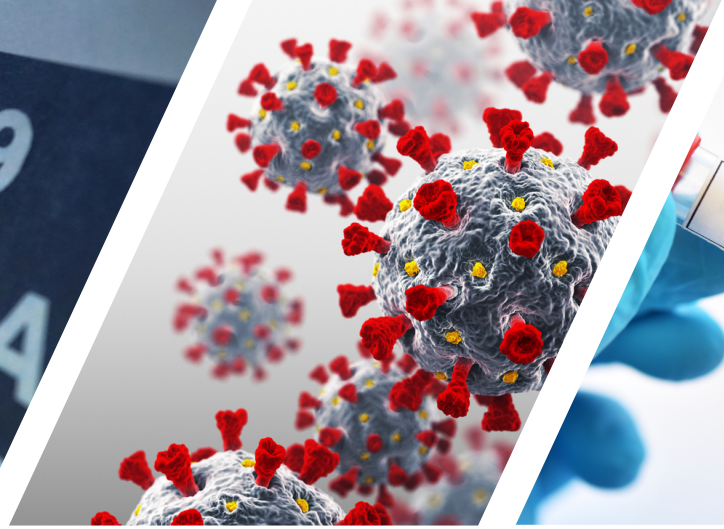

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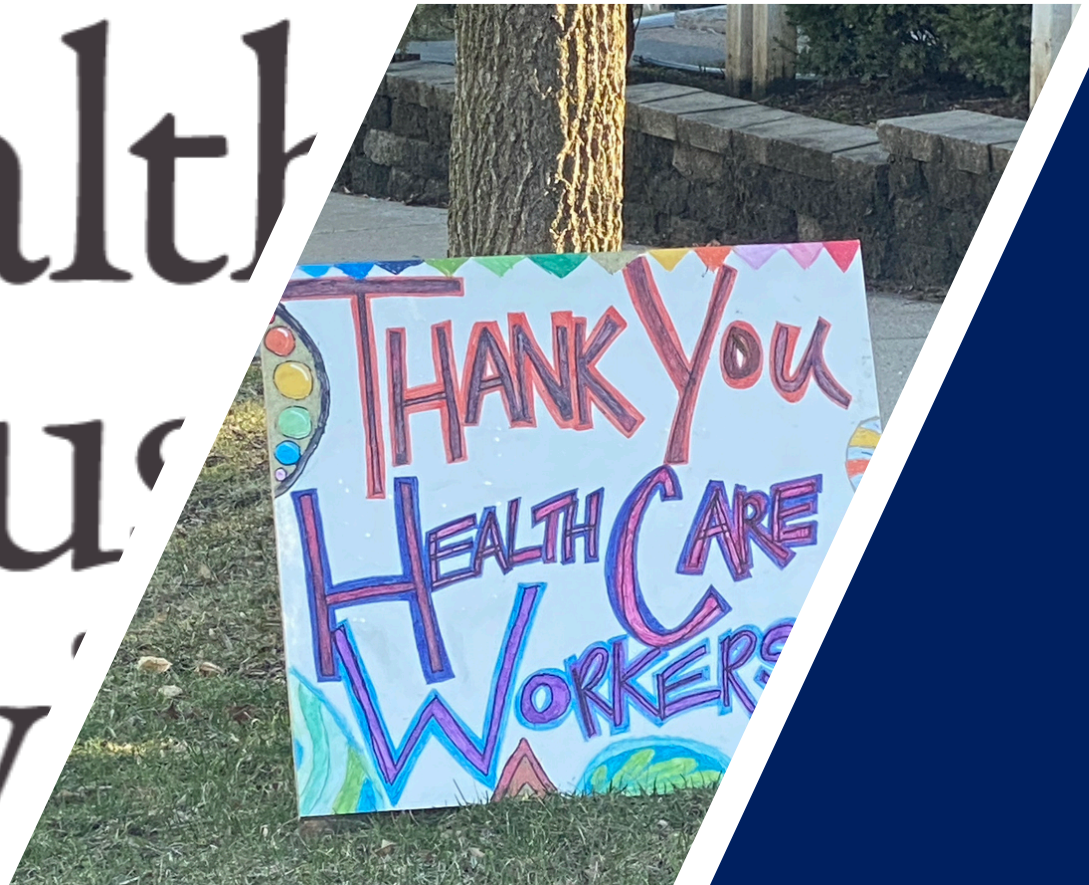


Issue # 201

Monday, November 2, 2020

COVID-19 Report

Highlights

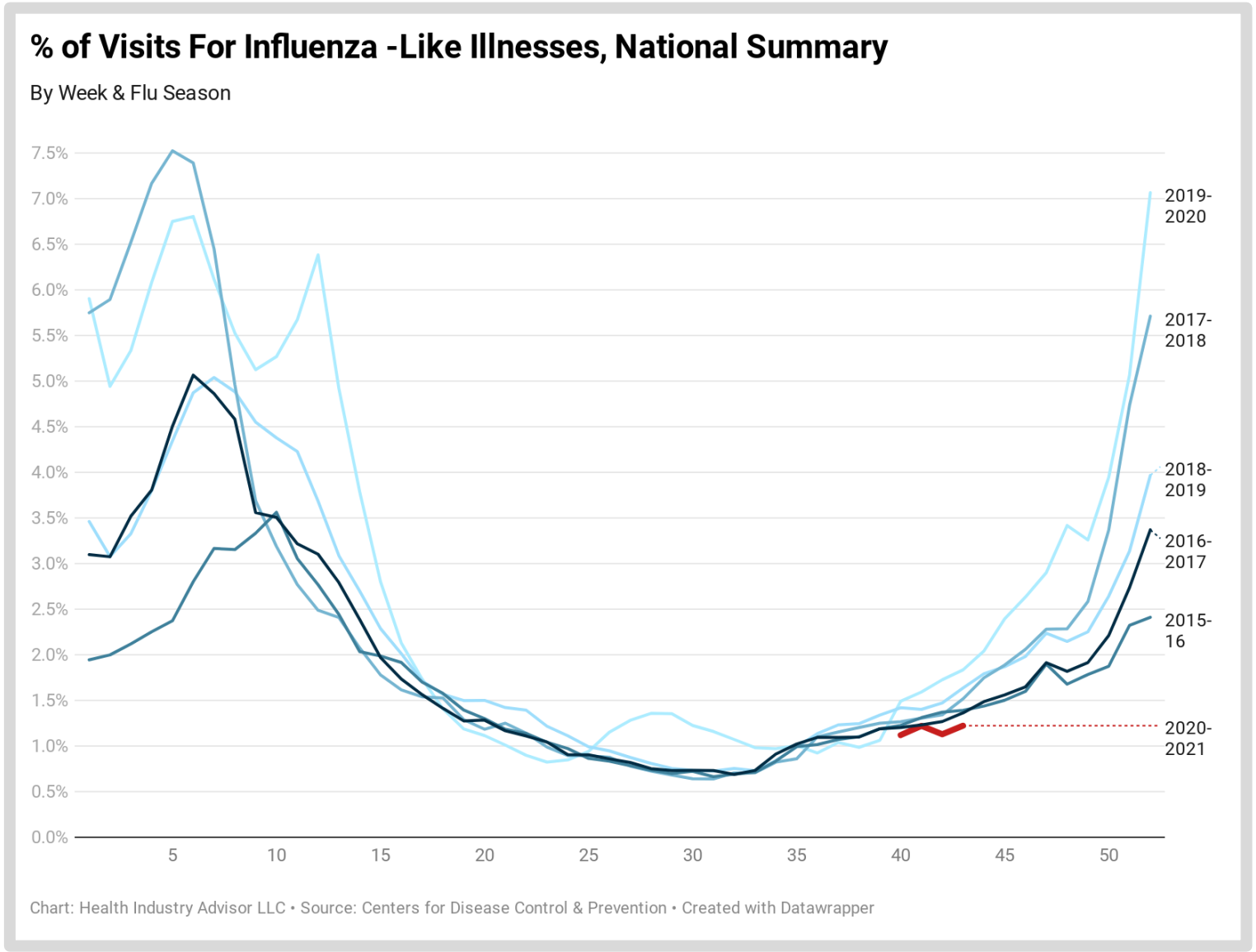
Trends Moving in a Positive Direction

- Four weeks into the official flu season, ER and outpatient visits for the flu are below comparable weeks in each of the past five years
- Oklahoma and North Carolina – two of the twenty-two states near peak Covid-19 census - experienced week-over-week declines in this census. The three states with the largest increase in Covid-19 census last week are significantly below their peak Covid-19 census
- Covid-19 census per 100 new cases has trended down since mid-September
- The rate of Covid-19 patients requiring ICU care has trended down since September 20
- The rate of Covid-19 patients requiring a mechanical ventilator has declined since May 12
- Test volume has trended up since mid-September
- The case fatality rate has remained below 2% since early October; this rate had been as much as 80% higher in June

Trends Moving in the Wrong Direction:

- Covid-19 related ER visits have trended up since early October; these, however, remain markedly lower than they were in July
- On a week-over-week basis, newly-detected cases have been increasing since mid-September; the rate of increase, however, has eased on three consecutive days
- Yesterday, the most new cases were detected for any Sunday since the pandemic began
- On a same-day, prior-week basis, Covid-19 census has increased every day since September 23
- The increase in Covid-19 census has largely been borne by senior citizens. Currently, 4-in-10 Covid-19 patients are 65 years old and older; in mid-June, this was 3-in-10. Younger persons, those 25-49 years old, are now just more than 1-in-4 patients; in June, they were 4-in-10
- Deaths reported per day have been averaging higher since mid-October than from early-September to early-October

Now four weeks into the 2020-21 flu season, flu visits are trending lower than each of the past five years - and, markedly lower (1/3) than last year



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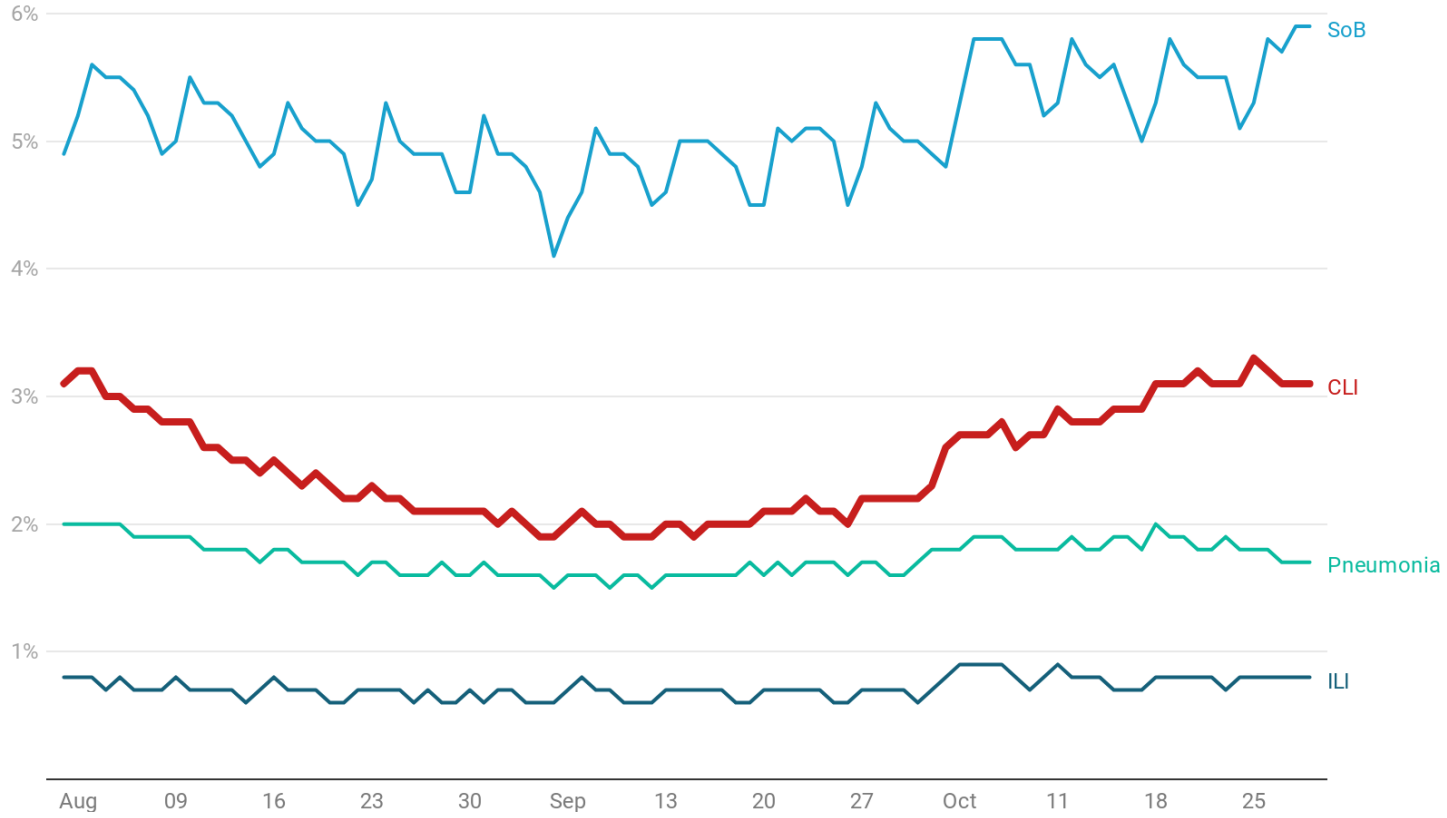
The % of ER visits for COVID-19-like illnesses (CLI) has increased throughout October

This rate, however, remains ¼ lower than it was in July

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

As of October 29



Health Industry Advisor LLC analysis

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

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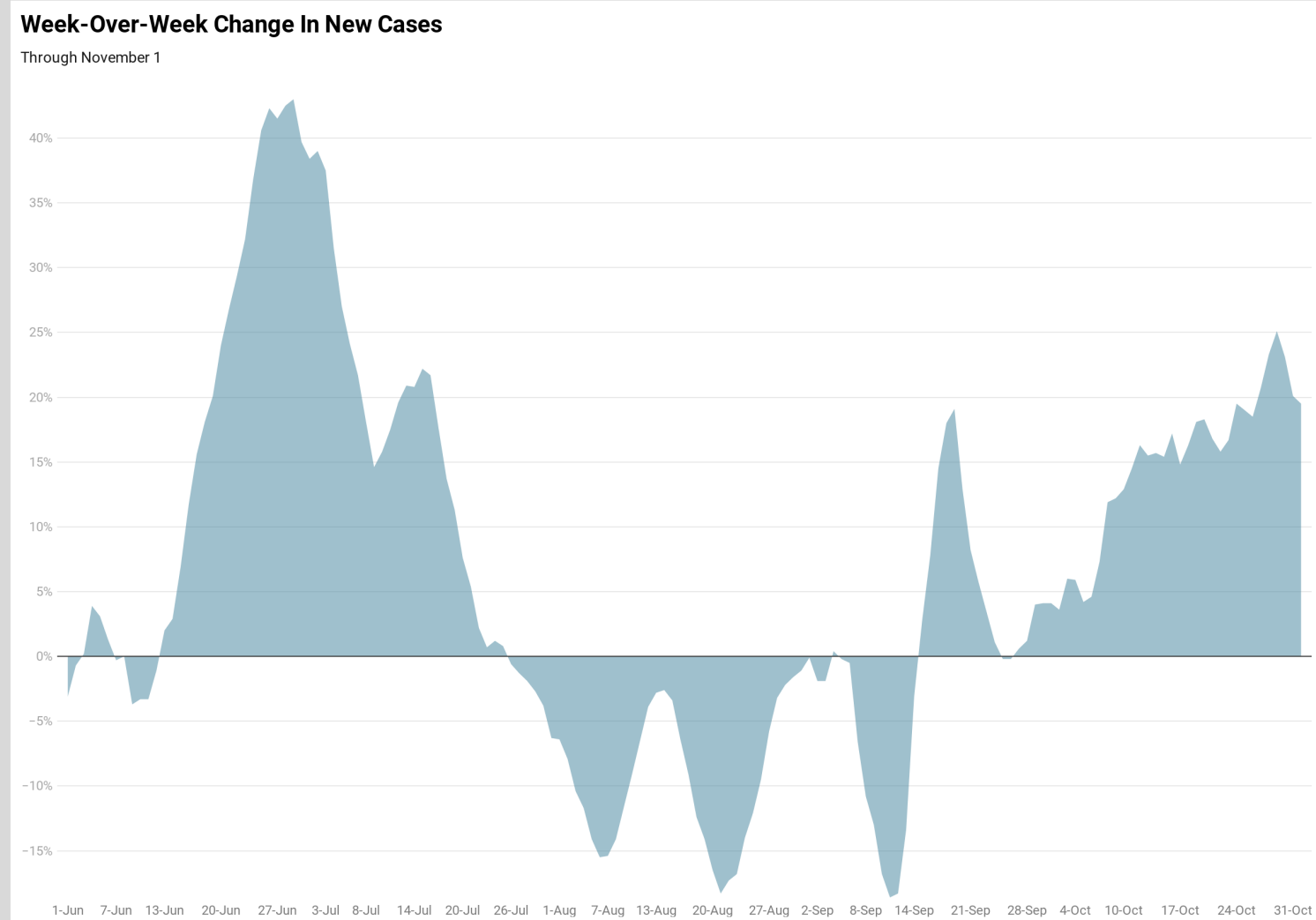
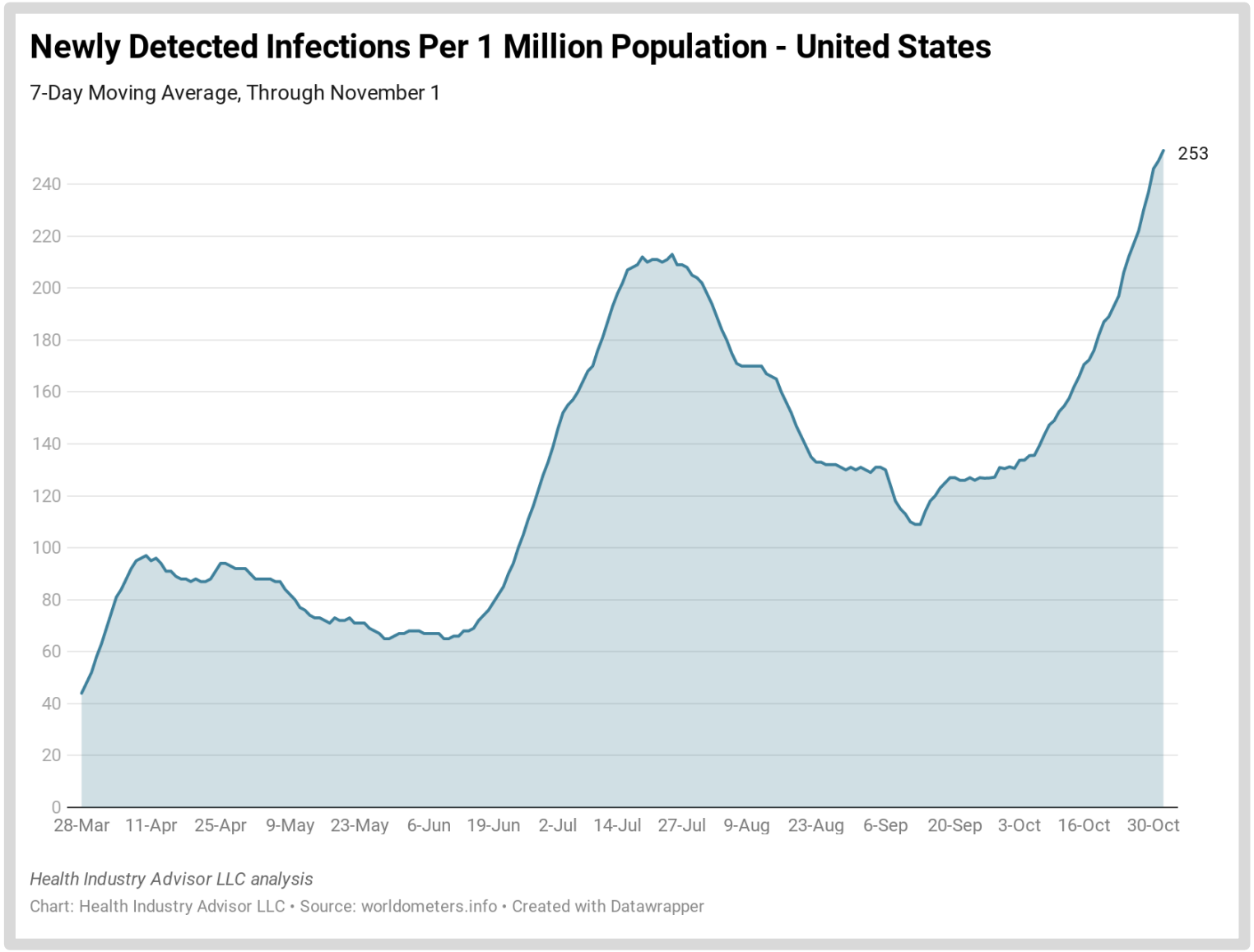
Newly-detected cases have been increasing week-over-week since mid-September

A early-sign of coming relief? This rate of week-over-week increase has declined on three consecutive days



The rate of new infections per capita* in the U.S. has risen every day since October 2

* - 7-day moving average basis



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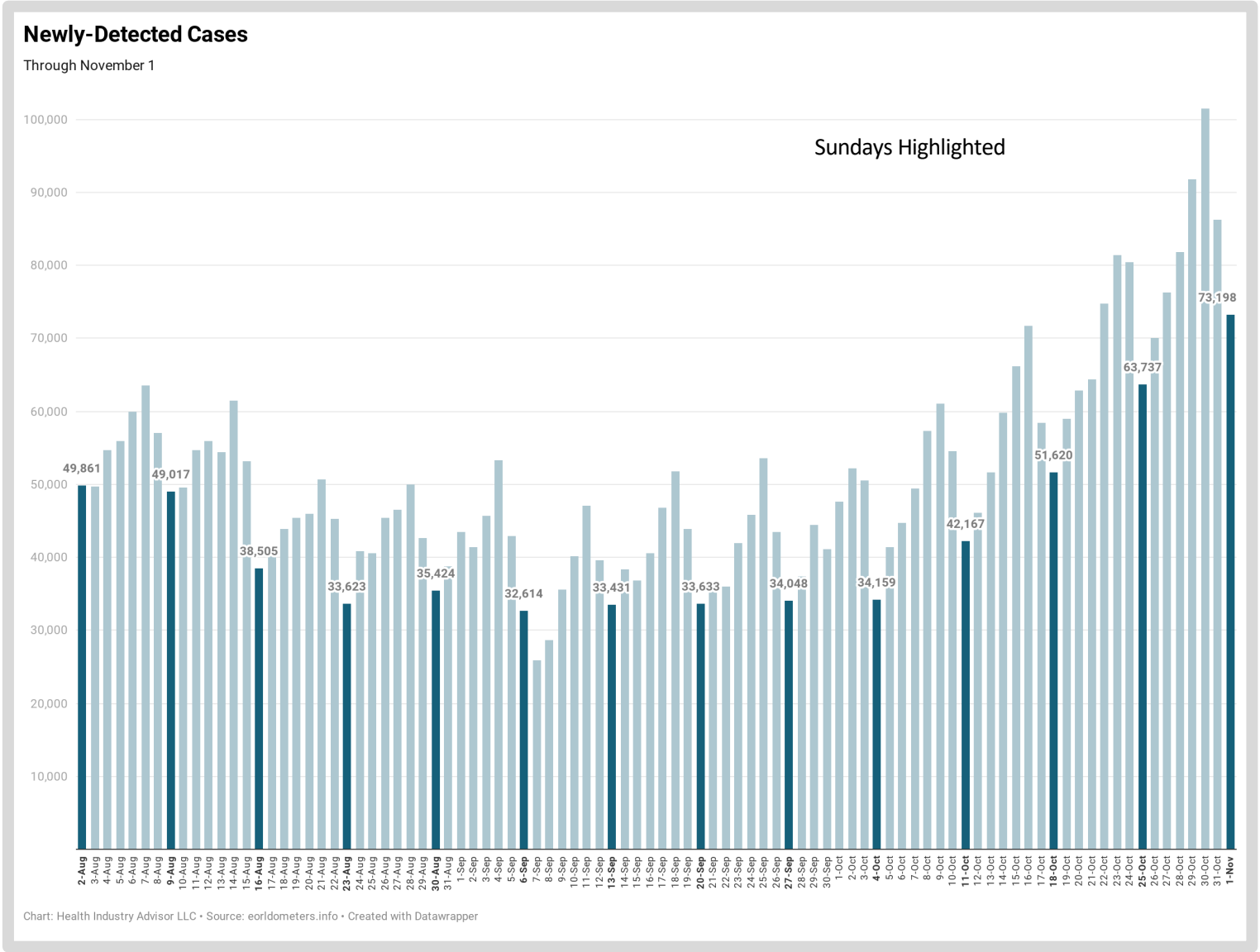
There were more newly-detected cases reported on Sunday than on any other Sunday since the pandemic began



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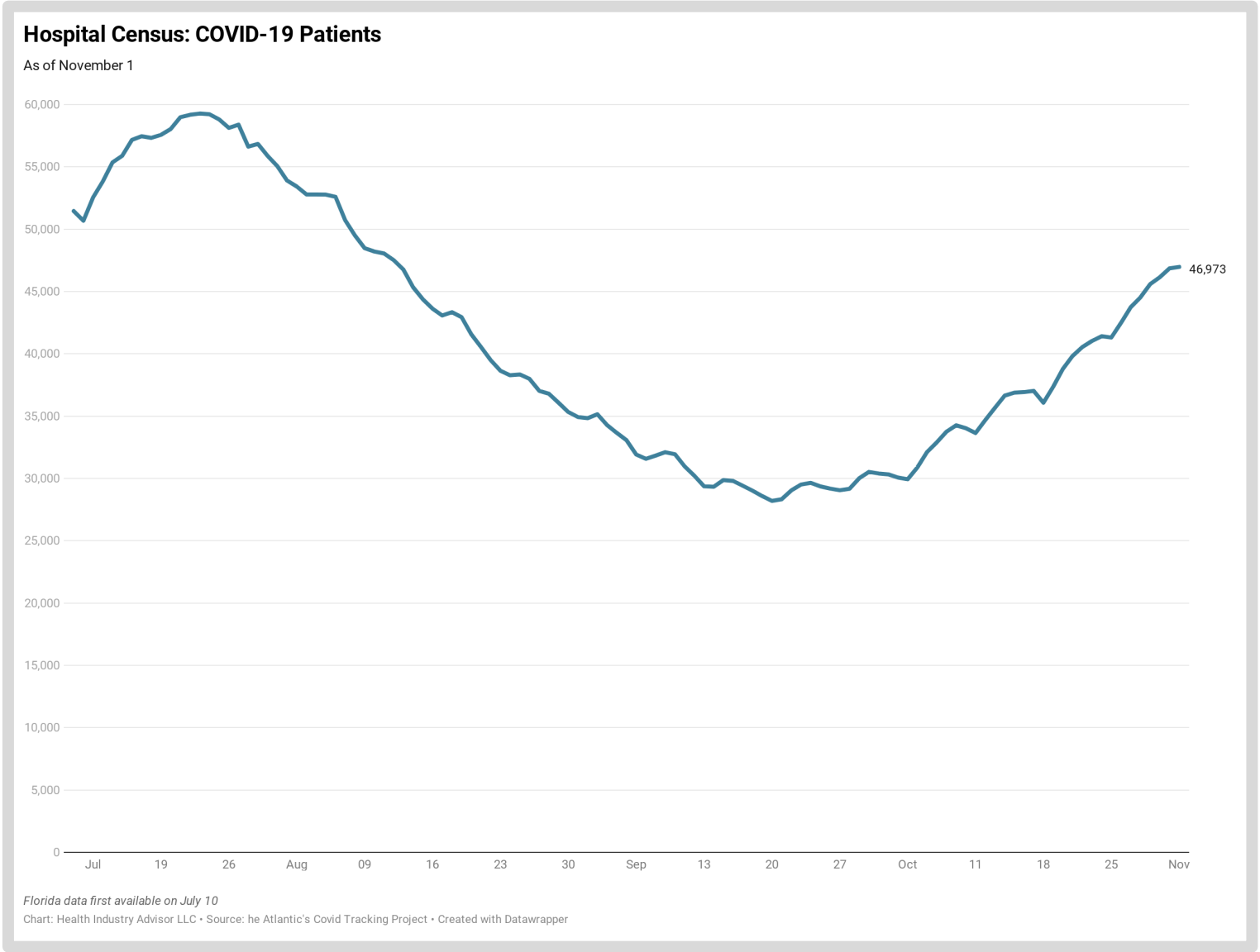
On a same-day, prior-week basis, inpatient Covid-19 census increased every day since September 23



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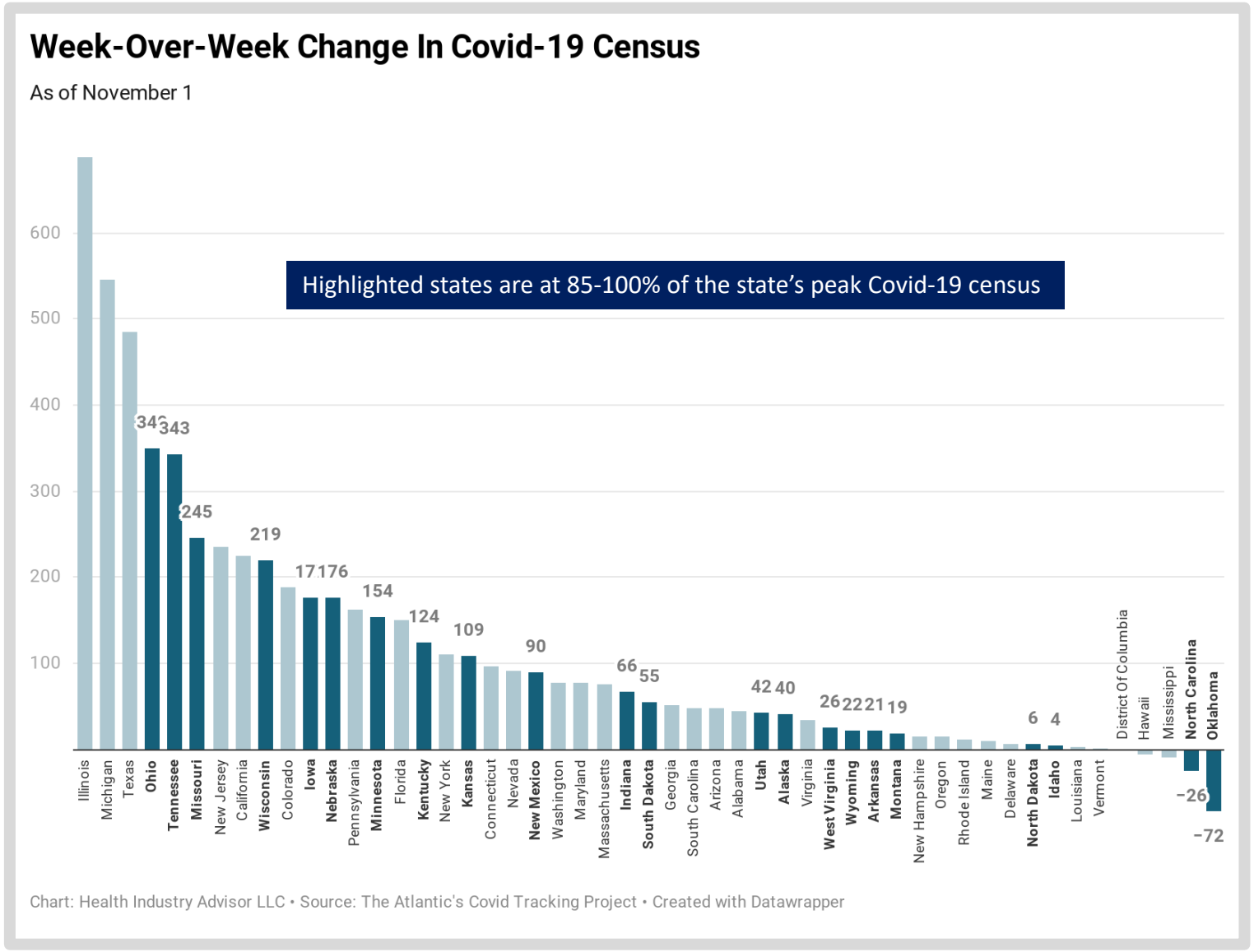
Illinois, Michigan and Texas experienced the largest week-over-week increase in Covid-19 census; Each of these states , however, are well below the peak census experienced during the pandemic

Twenty-two states are with 15% of the peak Covid-19 census the state has experienced during the pandemic

Of these, Ohio, Tennessee and Missouri experienced the largest week-over-week increase in Covid-19 census

Oklahoma and North Carolina recieved some relief in their strained beds, due to declines in week-over-week Covid-19 census



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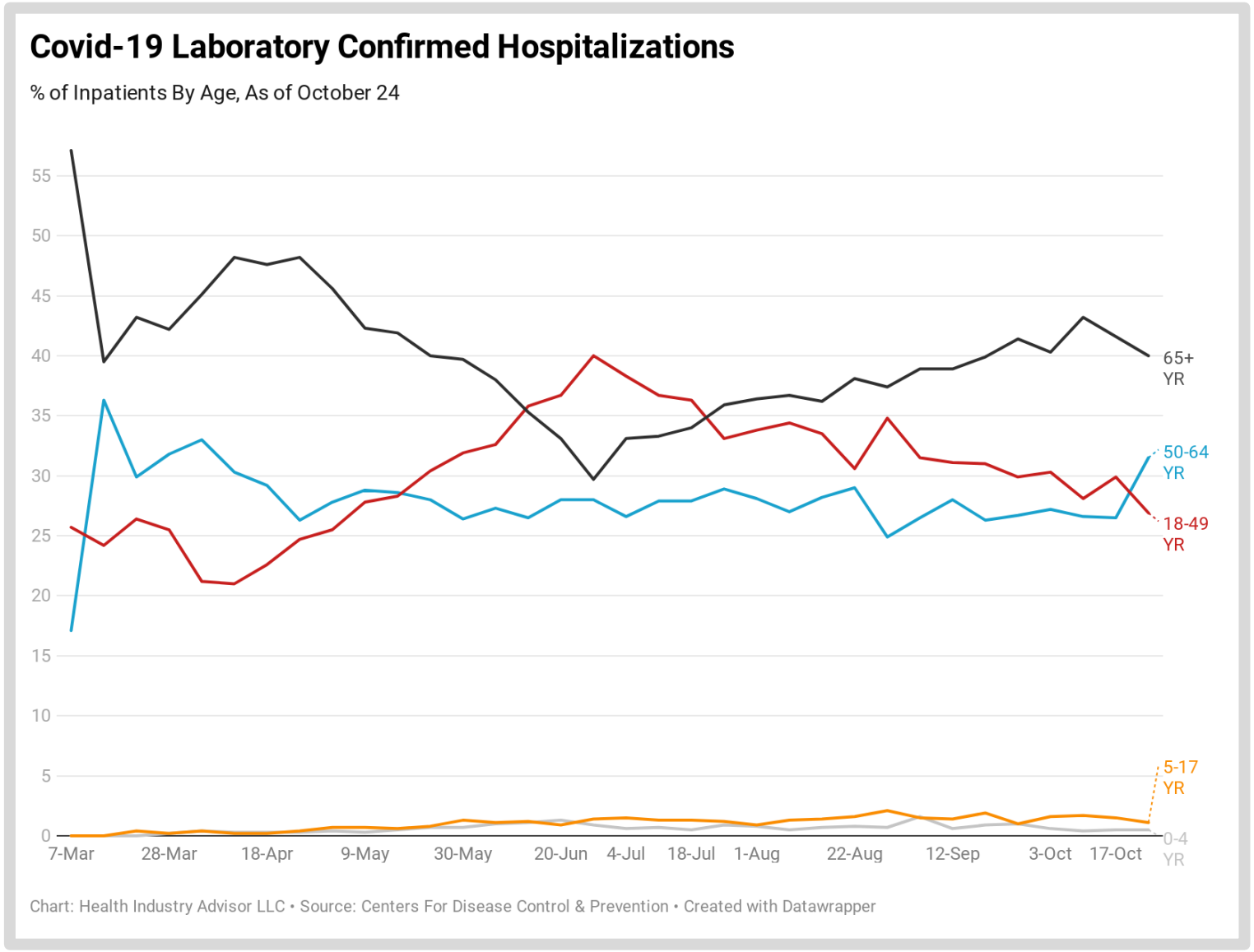
The recent rise in Covid-19 census appears to be driven by persons > 65 years old;

This age group now represents 4 of every 10 patients; in mid-June, this had dipped to 3-in-10

The 18-49 year old age group has seen a decline since mid-June. This age group now is < 3-in-10 inpatients; it was 4-in-10 in June



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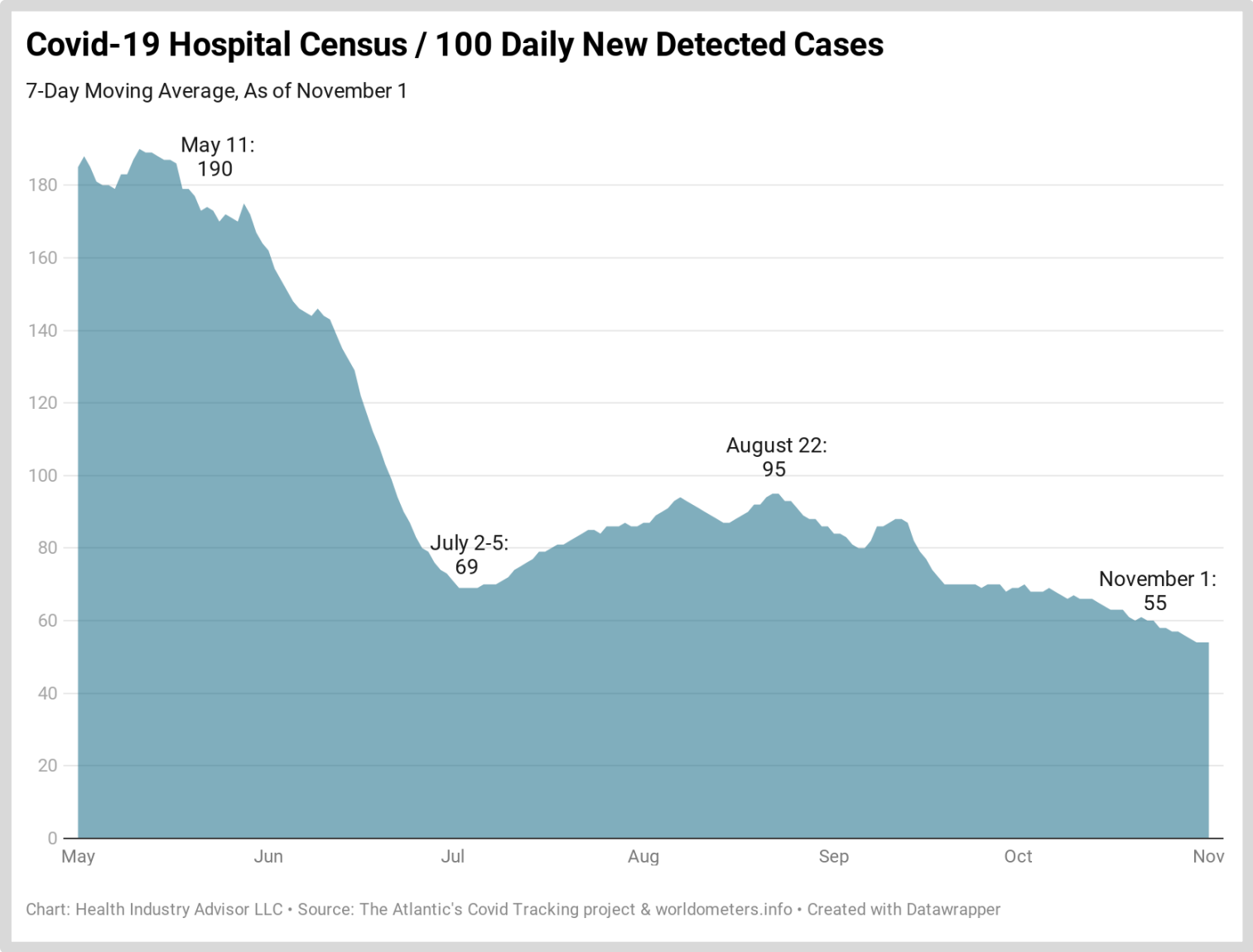
Covid-19 Hospitalizations, while increasing, have not kept pace with the increase in newly-detected cases

Indeed, the average Covid-19 census for the past week per 100 new cases is lower than it has been since at least April



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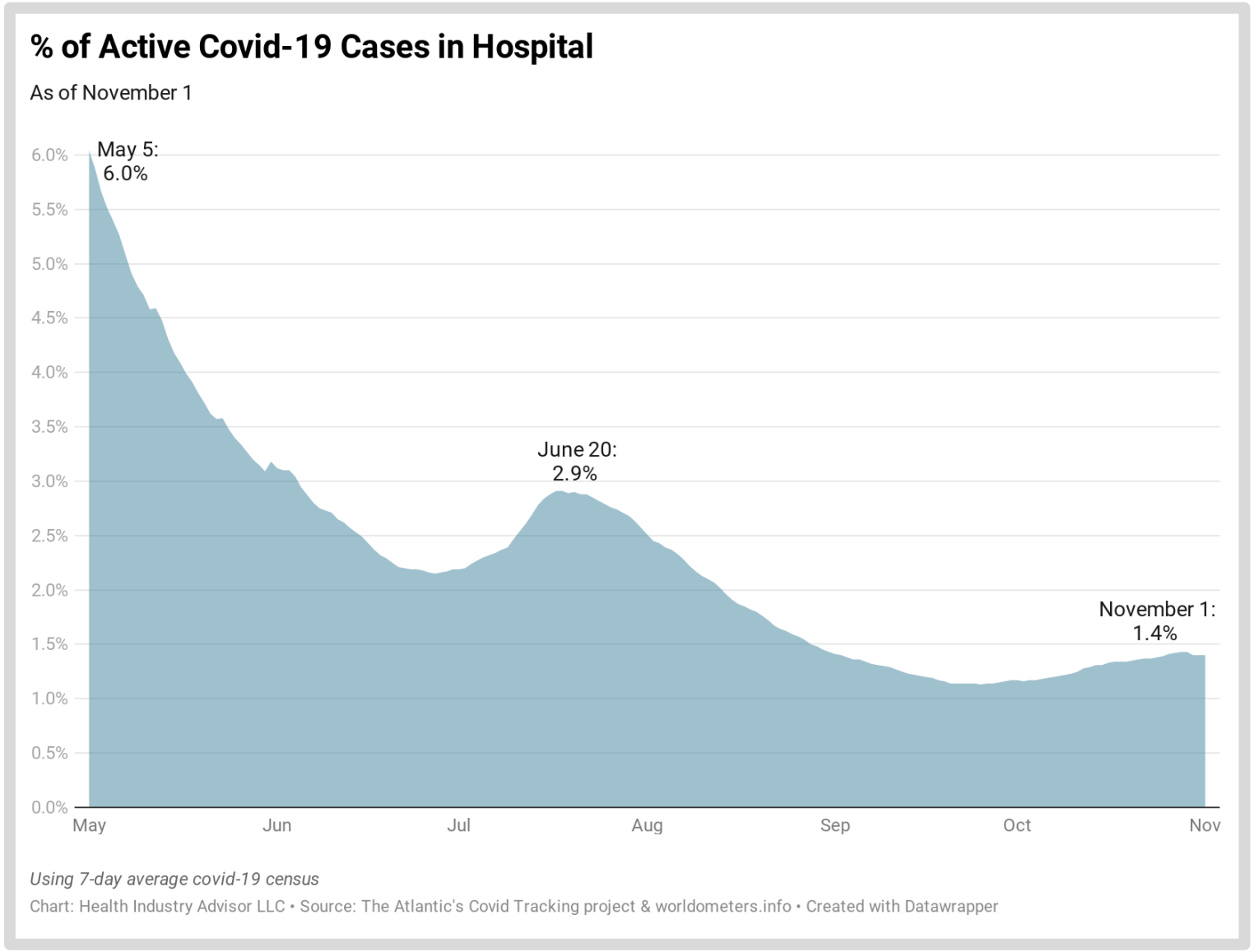
The likelihood that a person with an active Covid-19 infection would be hospitalized has increased somewhat during October

Still, it is ½ what it was during the July surge and 1/4 of what it was in May



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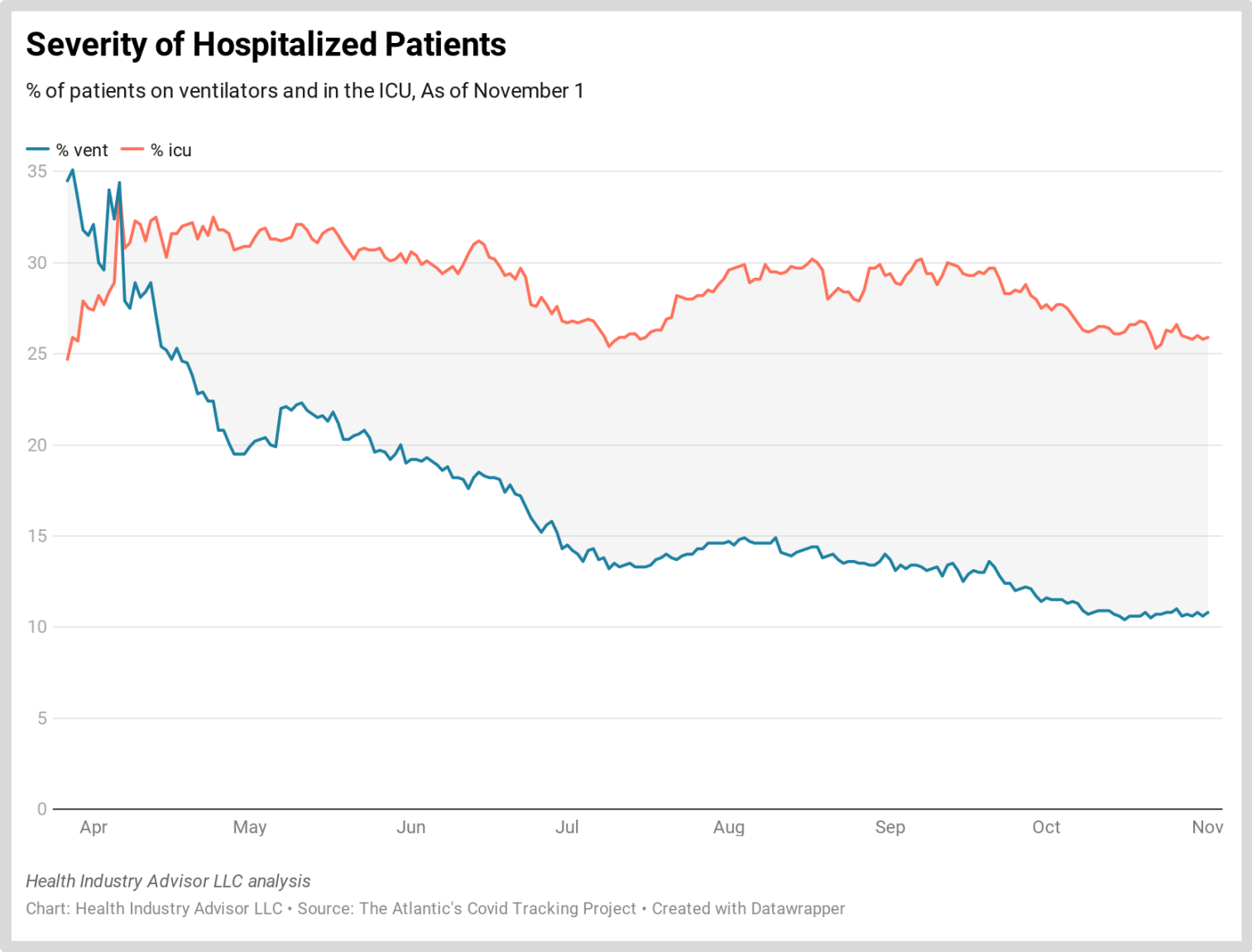
During the recent rise in Covid-19 inpatient census, the % of those inpatients requiring intensive care has declined

The % of Covid-19 inpatients requiring ventilator care has steadily declined since April



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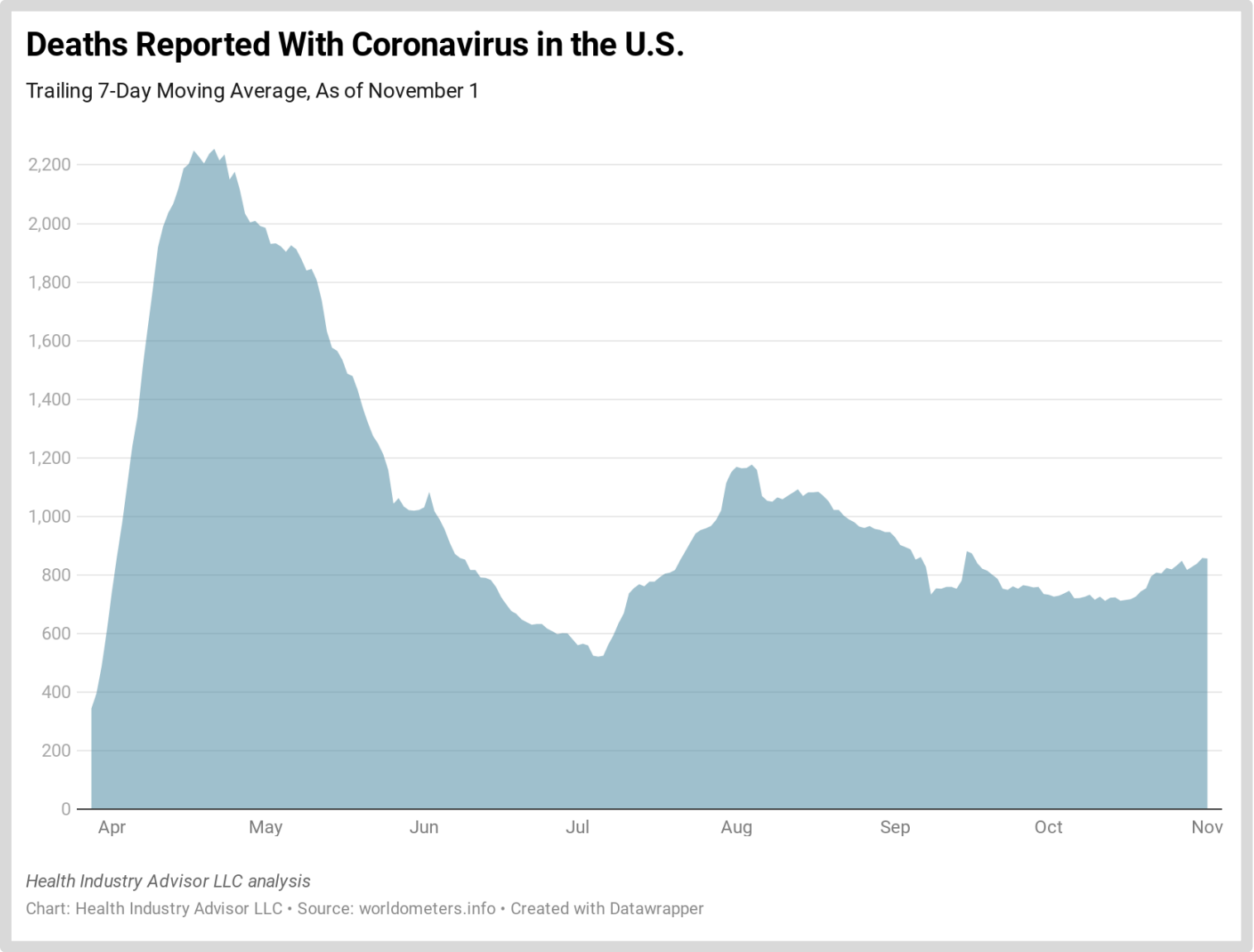
The recent uptick in newly-detected cases is beginning to effect deaths:

The 7-day average deaths per day has generally been higher from mid-October to now than from early-September through early October



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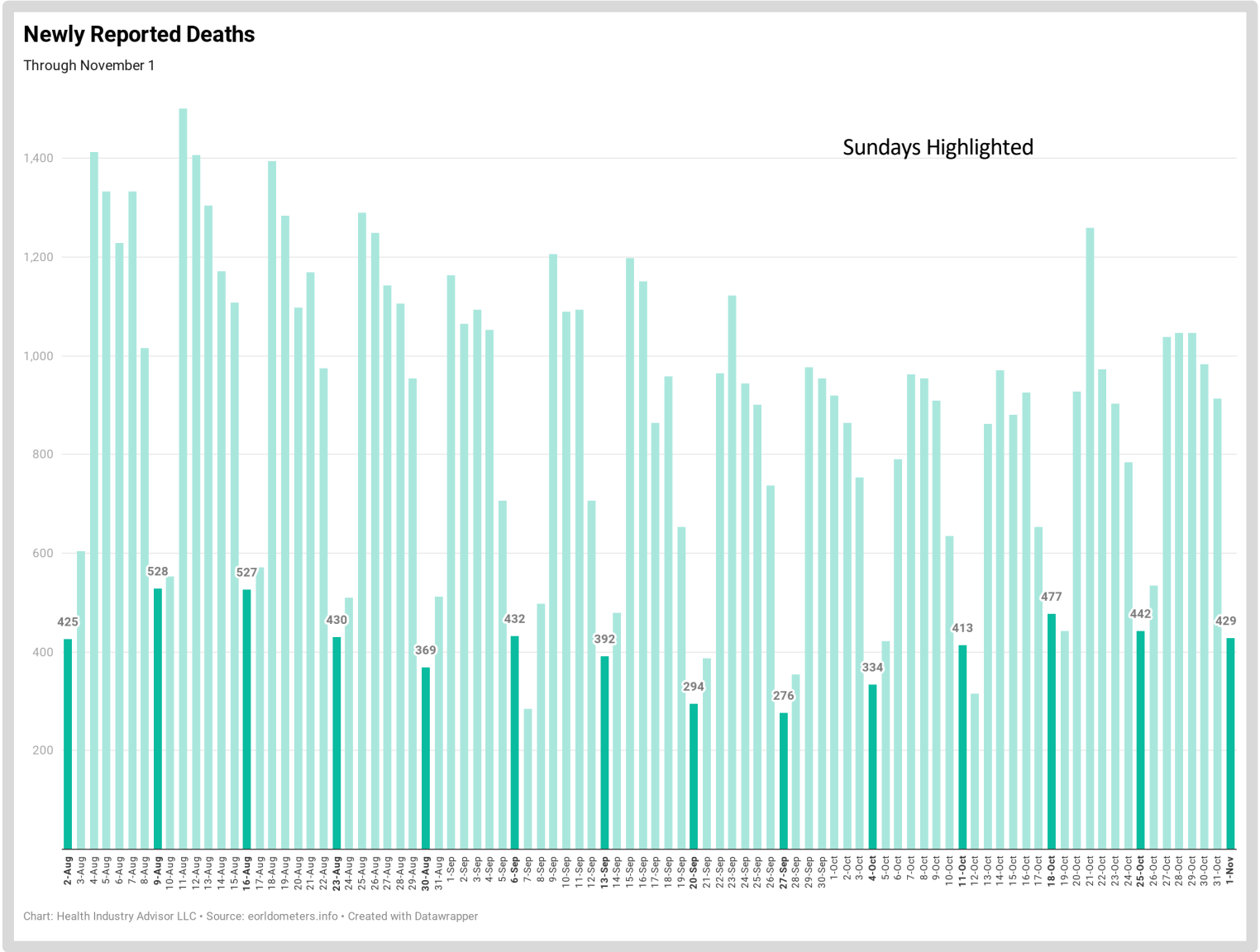
Fortunately, there were fewer deaths reported on Sunday than the past two Sundays



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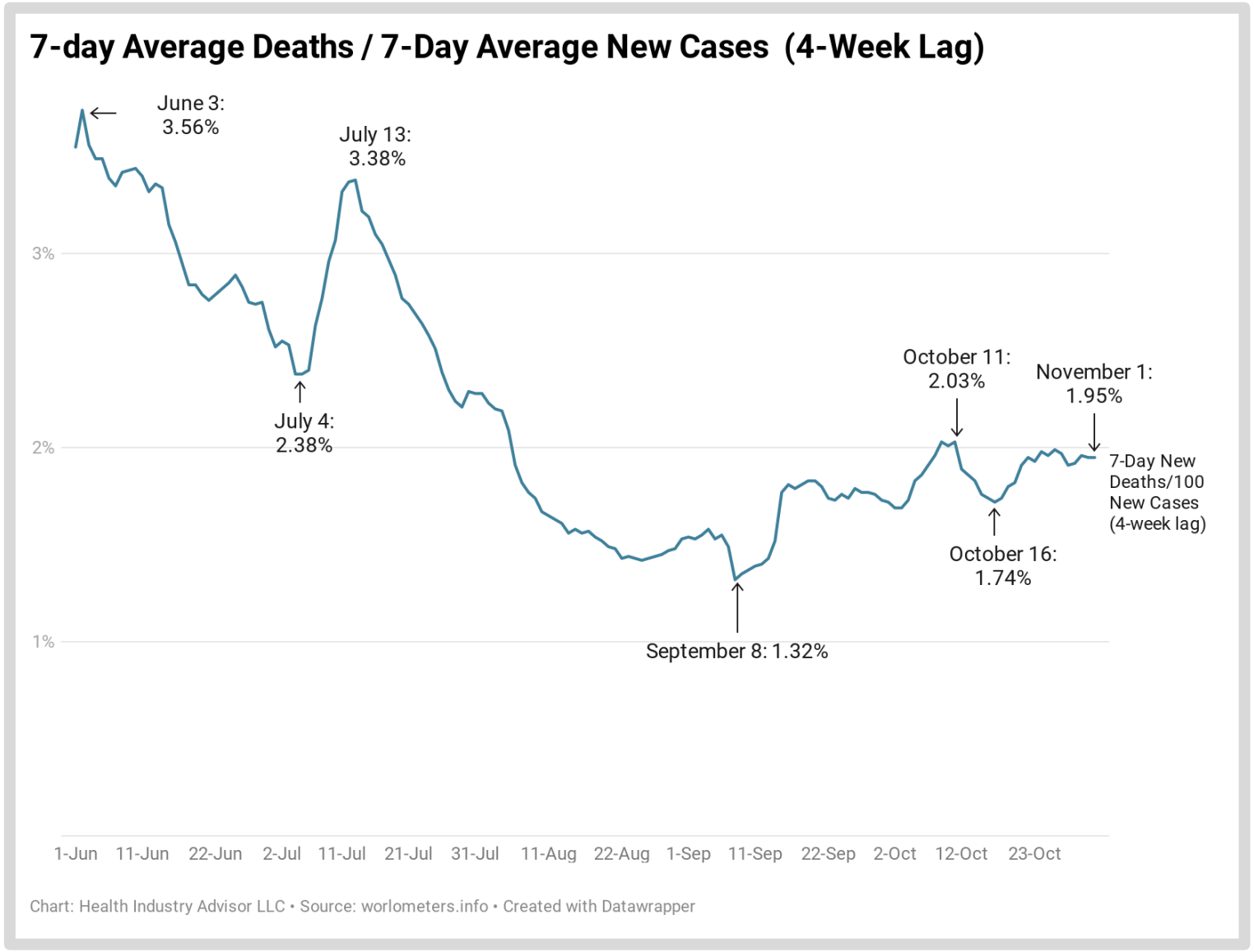
Deaths with coronavirus, relative to new cases (lagged 4 weeks) have moved within a narrow range for the past month

This rate declined rapidly in July and August



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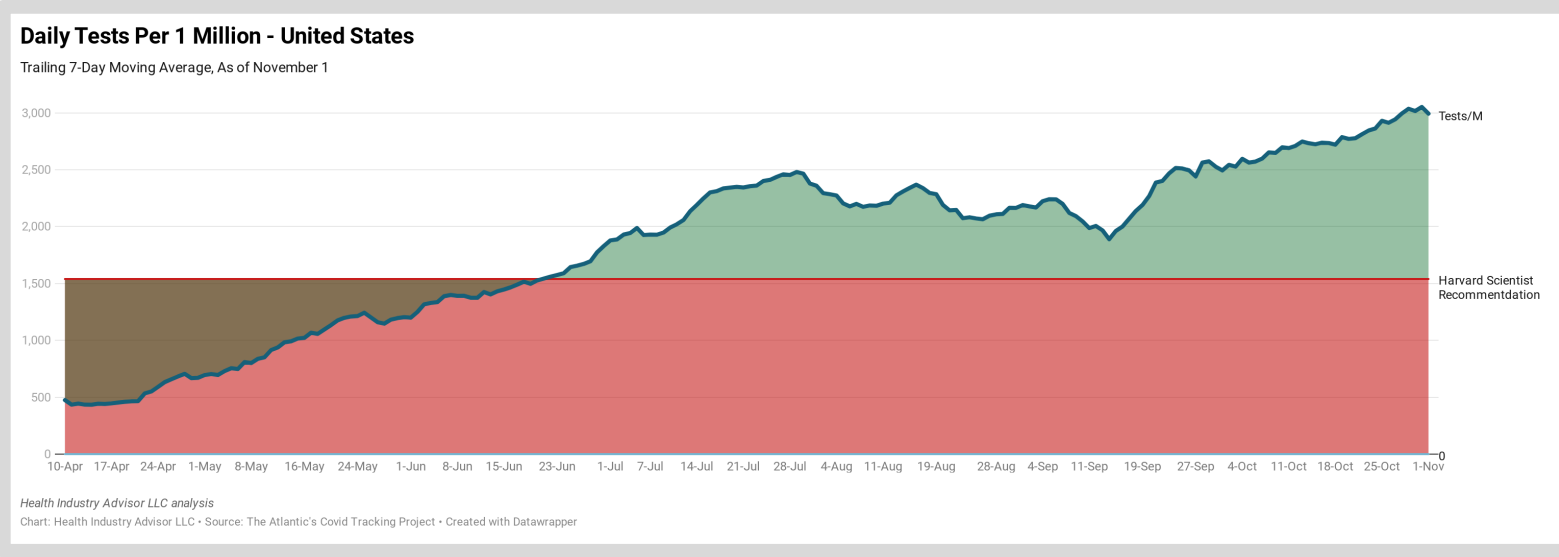
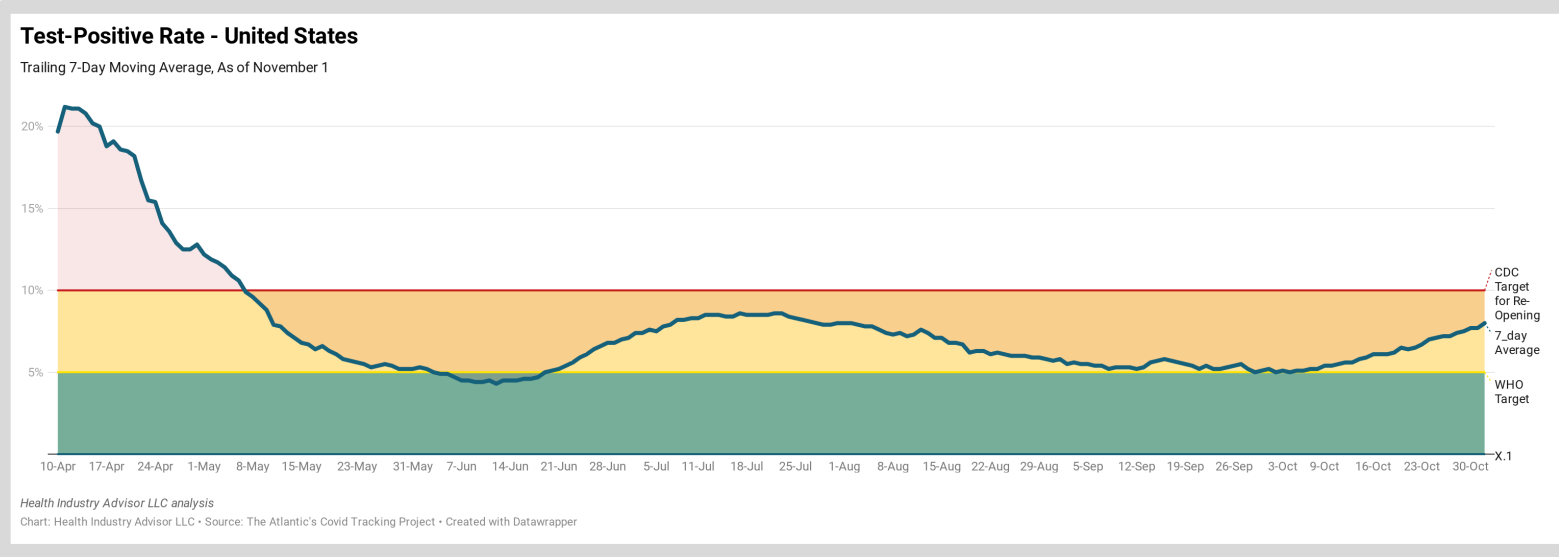
The 7-day average testing volume set a new high on Saturday, before declining slightly yesterday

The 7-day test-positive rate, however, has been trending upward since the beginning of October

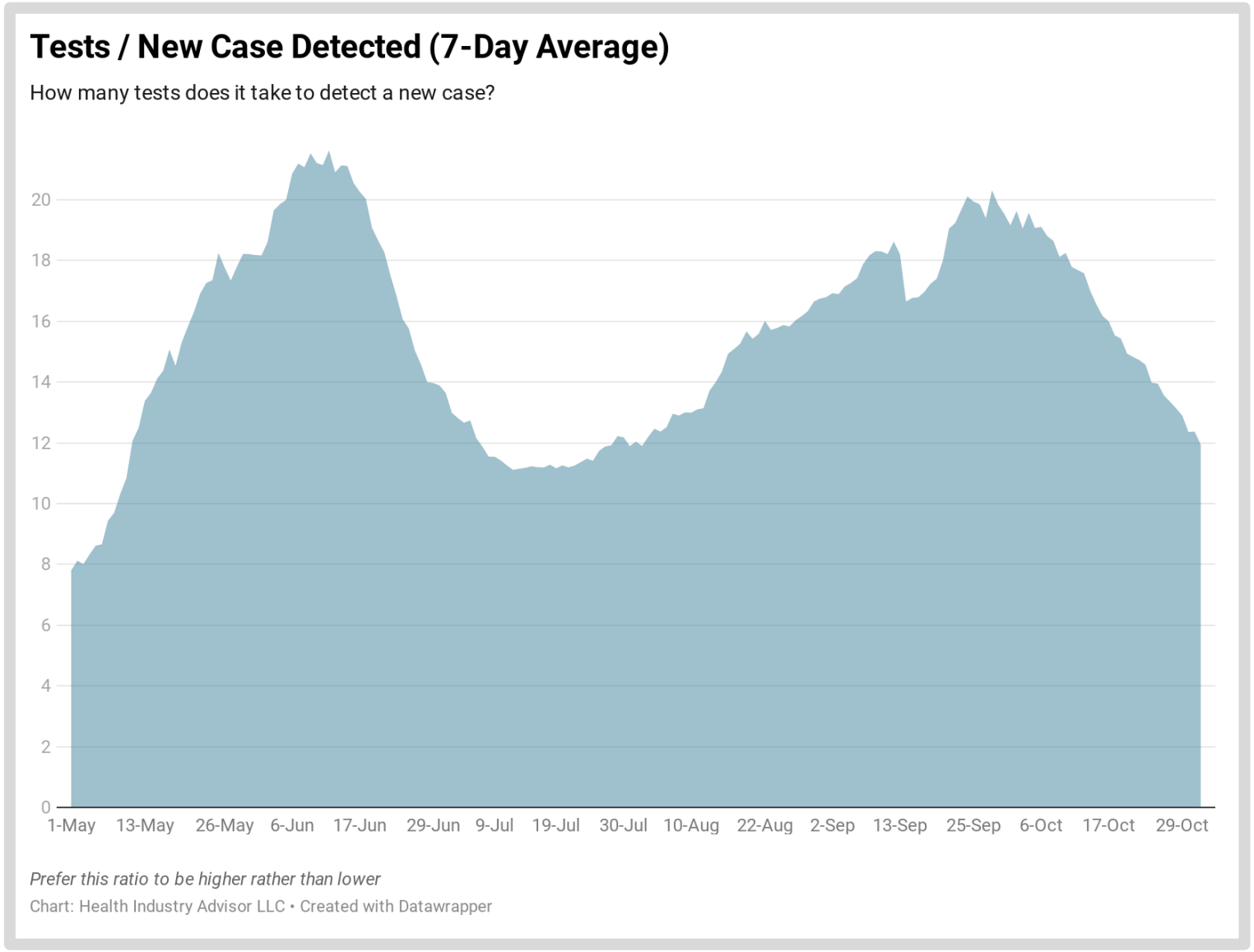




A measure of the effectiveness of testing is the ratio of tests performed to newly-detected cases

New cases are being detected every 12 tests performed; On September 28, it took > 20 tests to detect a new case

This rate is now lower than it has been at any time since August 2



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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