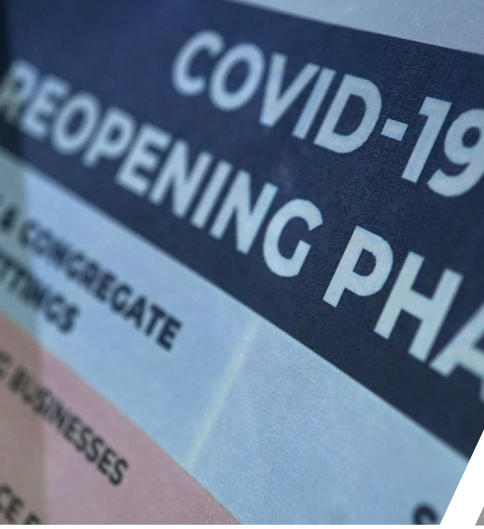

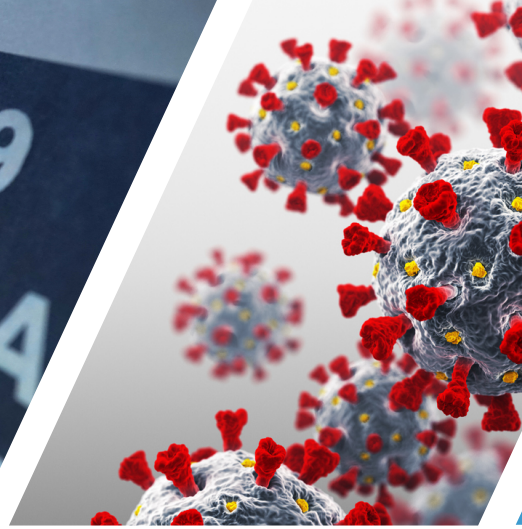

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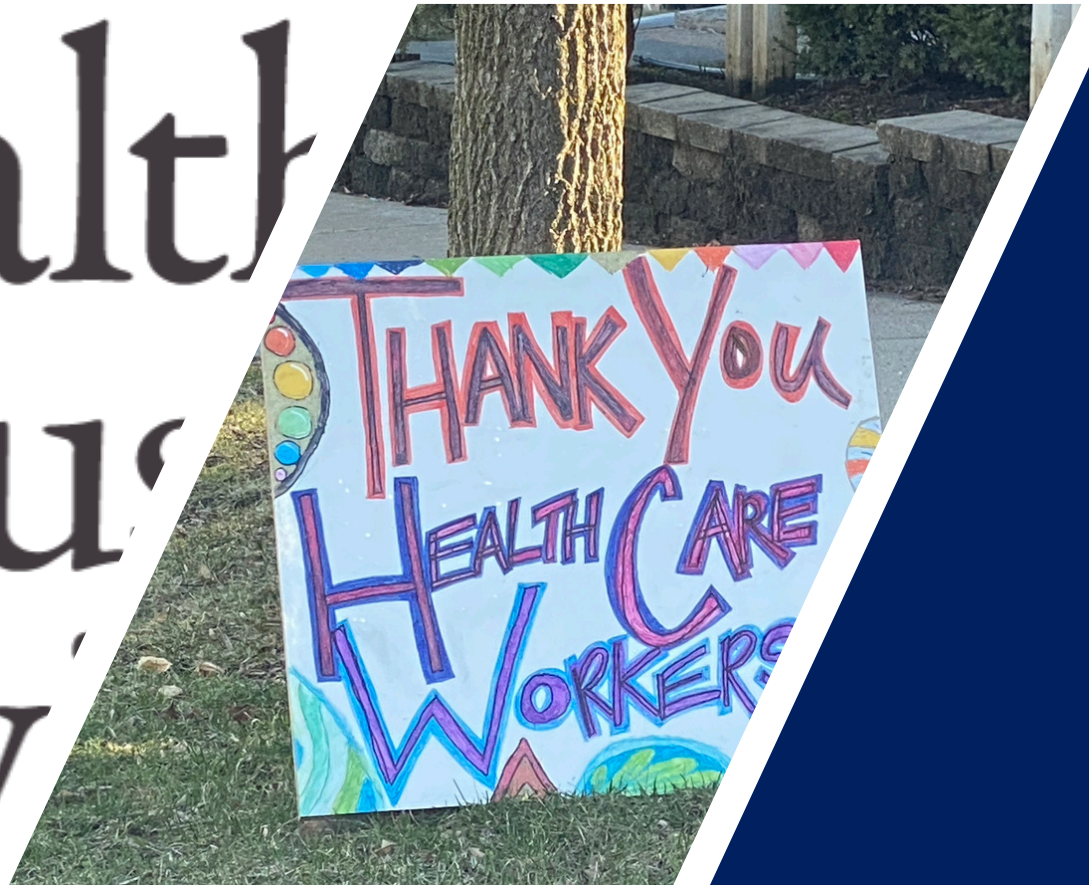


Issue # 200

Saturday, October 31, 2020

COVID-19 Report

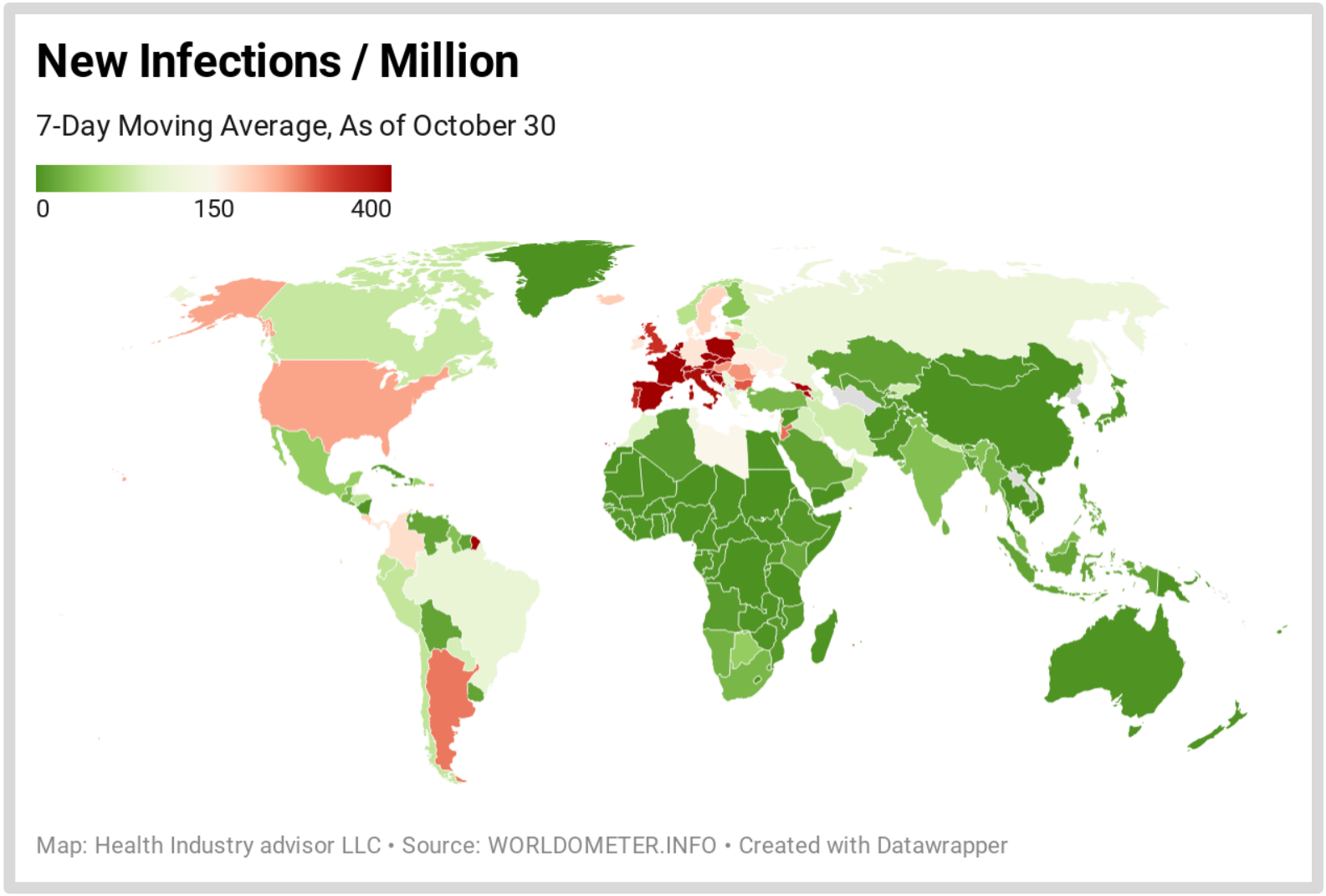
Highlights

- Much of Europe, Armenia and Georgia (the country) are "on-fire", to borrow the term that Dr. Osterholm of CIDRAP likes to use. Argentina, Jordan and the United States are approaching this level of new daily cases per capita
- Worldwide, new weekly cases increased at an average of 14.6% per week thus far in October, following a two-month period relatively low growth
- **Newly-detected cases in the U.S. have increased for seven consecutive weeks, growing by an average of more than 12% per week during this time**
- Testing volume in the U.S. increased for the seventh consecutive week; setting new highs on each of the last six weeks
- **The test-positive rate - which should decline with increased volume - has instead increased four consecutive weeks**; it currently stands about midway between the target levels set by the World Health Organization (WHO) and the Center for Disease Control and Prevention (CDC)
- **Covid-19 inpatient days increased for the fifth consecutive week - growing at an average of 8.4% per week during this time**; this remains, however, 25% lower than during the mid-July surge in new cases (despite more new cases)
- Despite this increase, **the rate of inpatient days per new case declined for the eighth consecutive week - declining 57% during this time**
- Covid-19 patients in the ICU and on ventilators each increased last week - ICU days for the fifth consecutive week, at an average of 8% per week; ventilator days for the fourth consecutive week, at an average of 11.3% per week
- Nevertheless, **the % of Covid-19 inpatients in the ICU is as low as it has been since at least mid-July; the % of Covid-19 inpatients on ventilators is 25% lower than it was in mid-July and 1/2 what it was in mid-May**
- Deaths reported with the coronavirus increased for the second consecutive week; the case fatality rate - deaths per case, with a 4-week lag - remained about the same level as it has been for six weeks
- **The % of all deaths in the U.S that are due to Covid-19, influenza or the flu fell sharply during the week ending October 24 (the latest available data); this rate is 1/2 what it was in late-July and 1/4 what it was in mid-April**

Much of Europe, Armenia and Georgia are "on-fire", with high current new infection rates per capita*

Argentina, Jordan and the United States are approaching that point

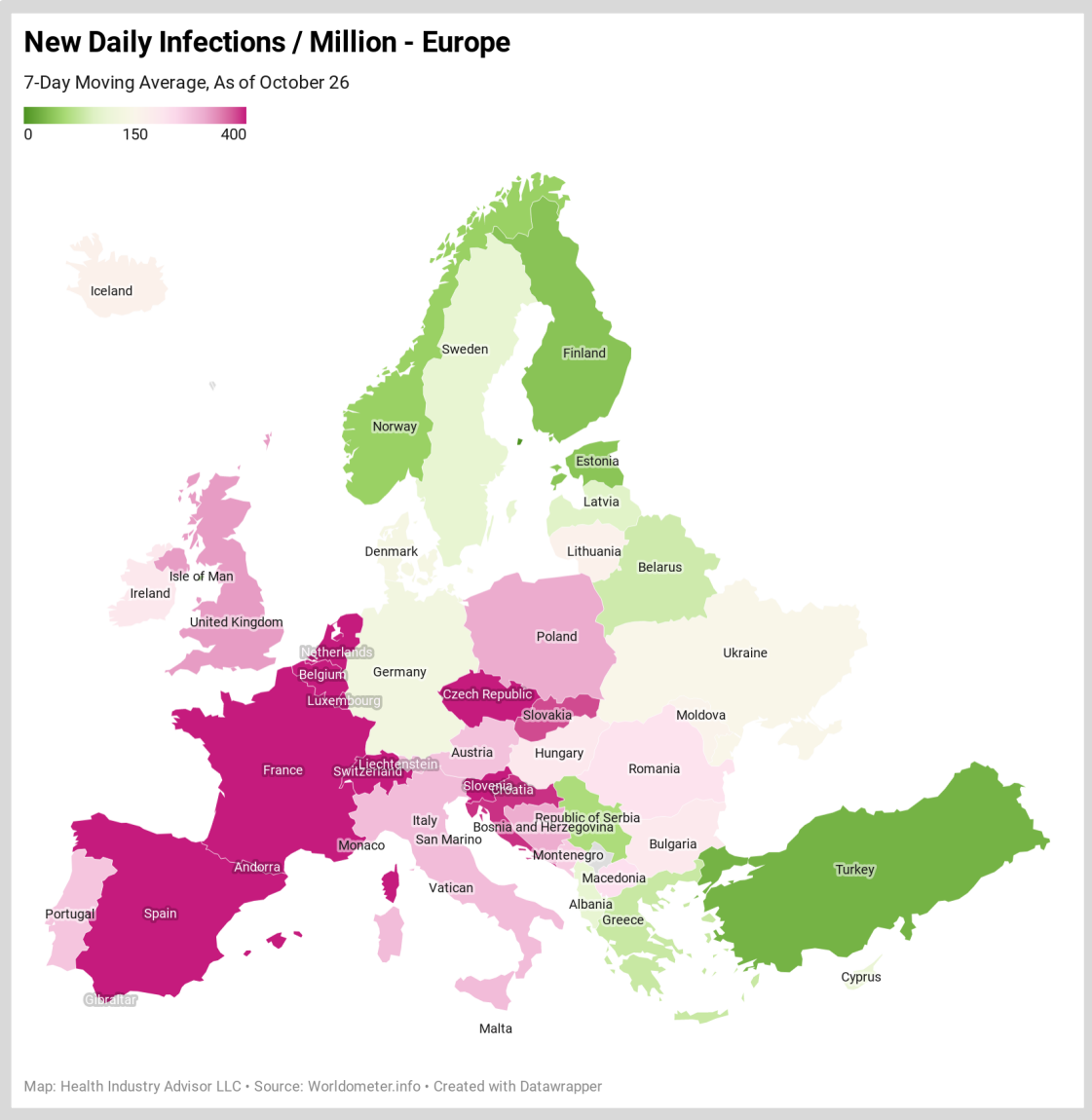
* - 7-day moving average basis



Health Industry Advisor, llc

High rates of new infections are being reported across Europe – with a few exceptions in the north and southeast parts of the continent

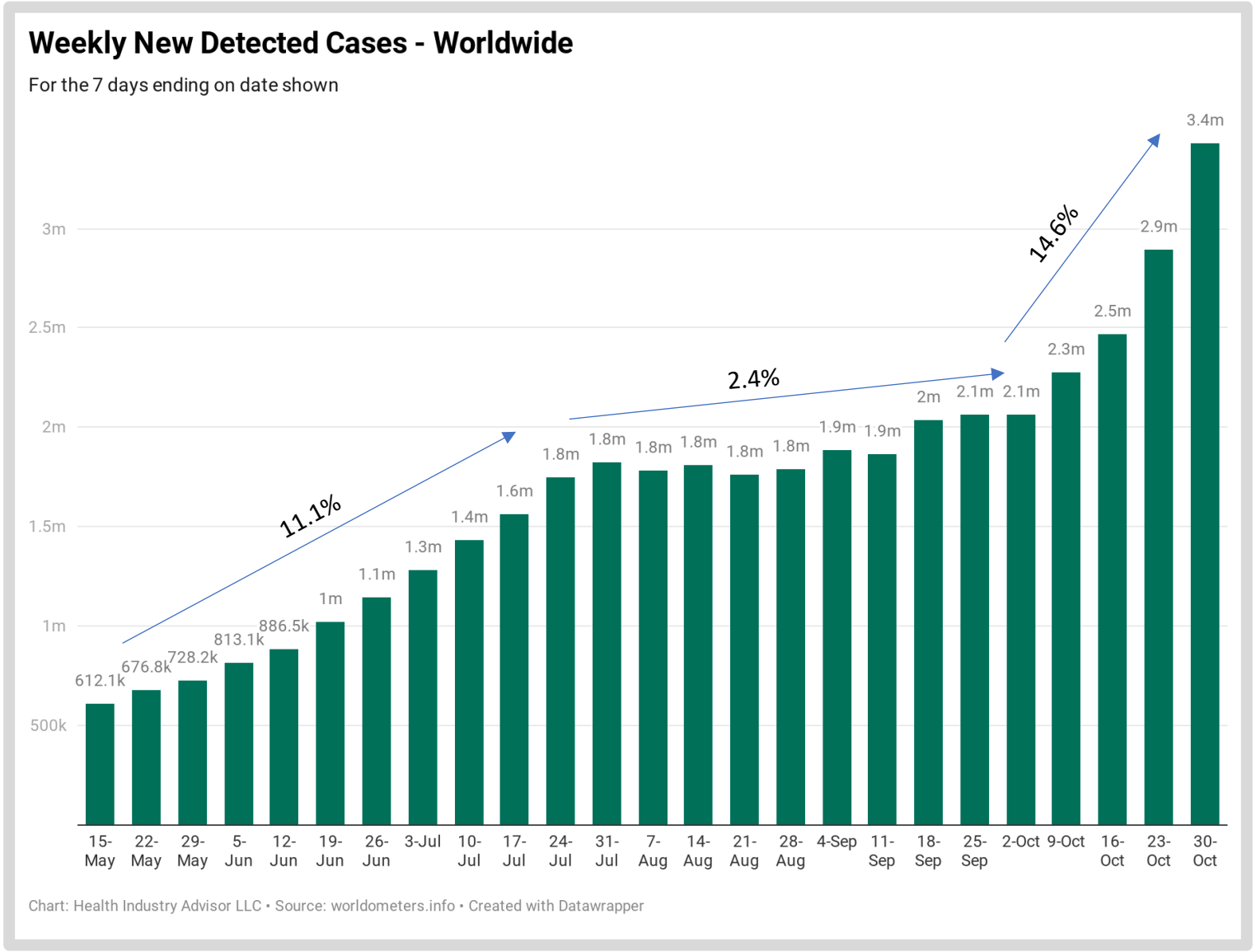
* - 7-day moving average basis



Health Industry Advisor, llc

~ 3.4 million newly detected cases worldwide last week

New weekly cases have been increasing rapidly throughout October, following more than two months of low growth

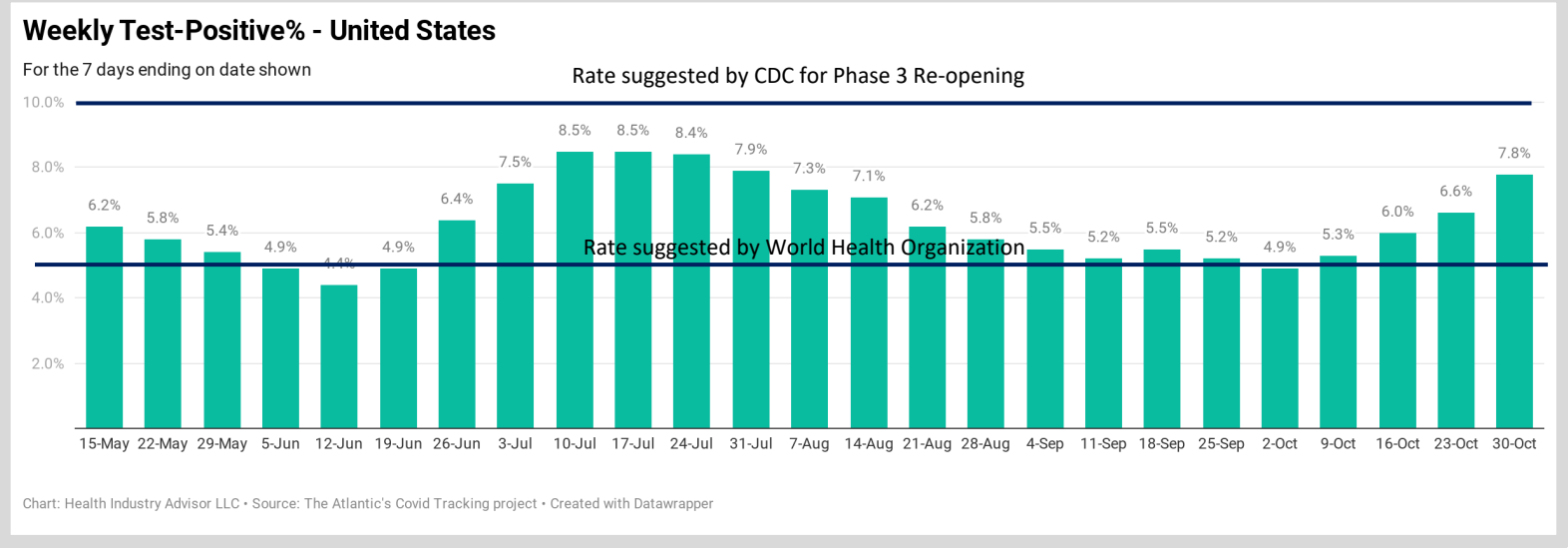


Health Industry Advisor, llc

Test volume set a record high for the sixth consecutive week; has increased seven consecutive weeks

Test-positive rate has increased four consecutive weeks; it is just above midway between the WHO target and well below the CDC target for Phase 3 re-openings

Compared to July case surge, test volume is 27% higher, test-positive% is 0.7 percentage points lower



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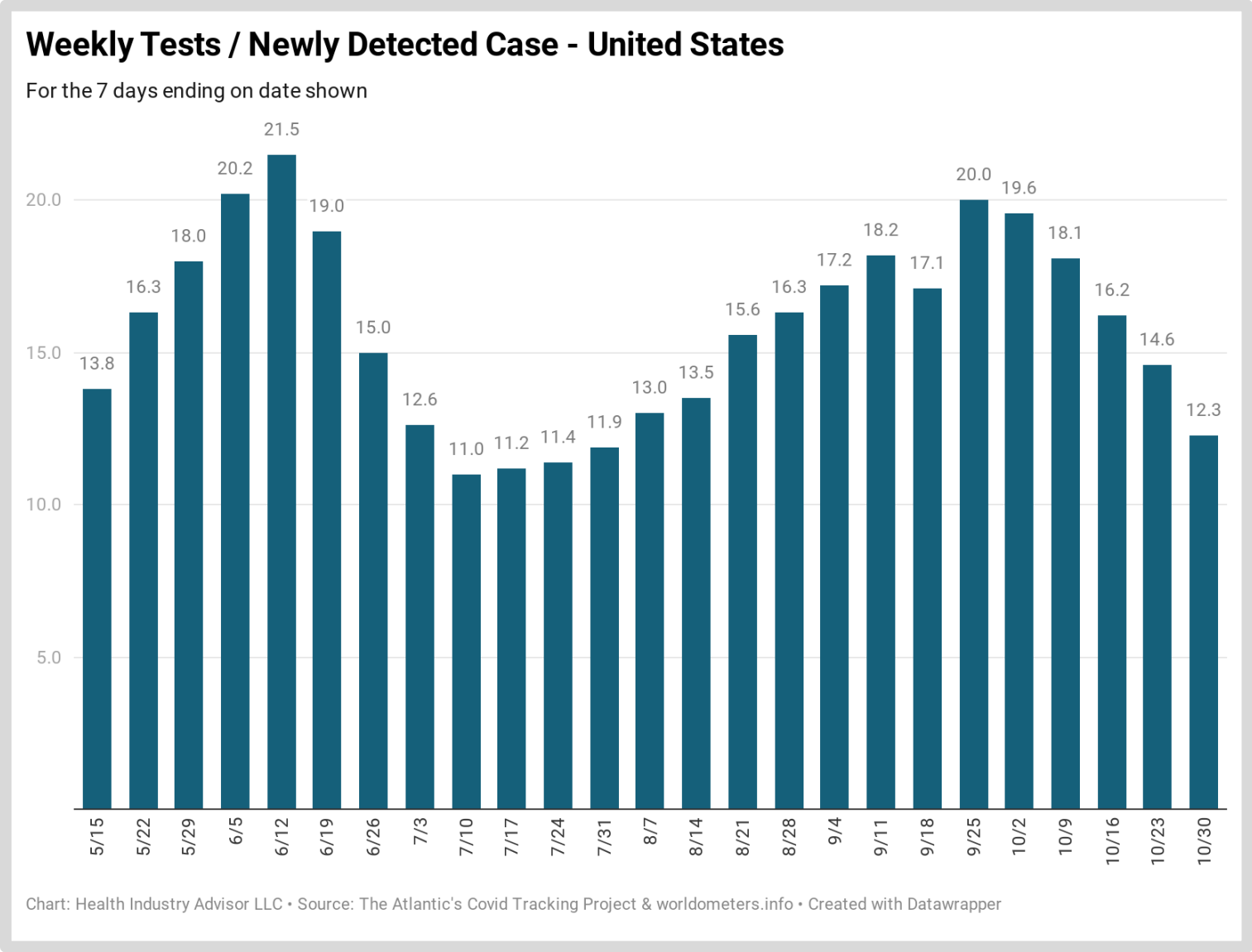
The ratio of tests performed to new cases detected has dropped five consecutive weeks

In the past week, a new case was detected for every 12 tests performed; in late September, it took 20 tests before a new case was detected

The higher this ratio, the more adequate testing is at identifying spread; a low measure suggests that testing isn't keeping pace



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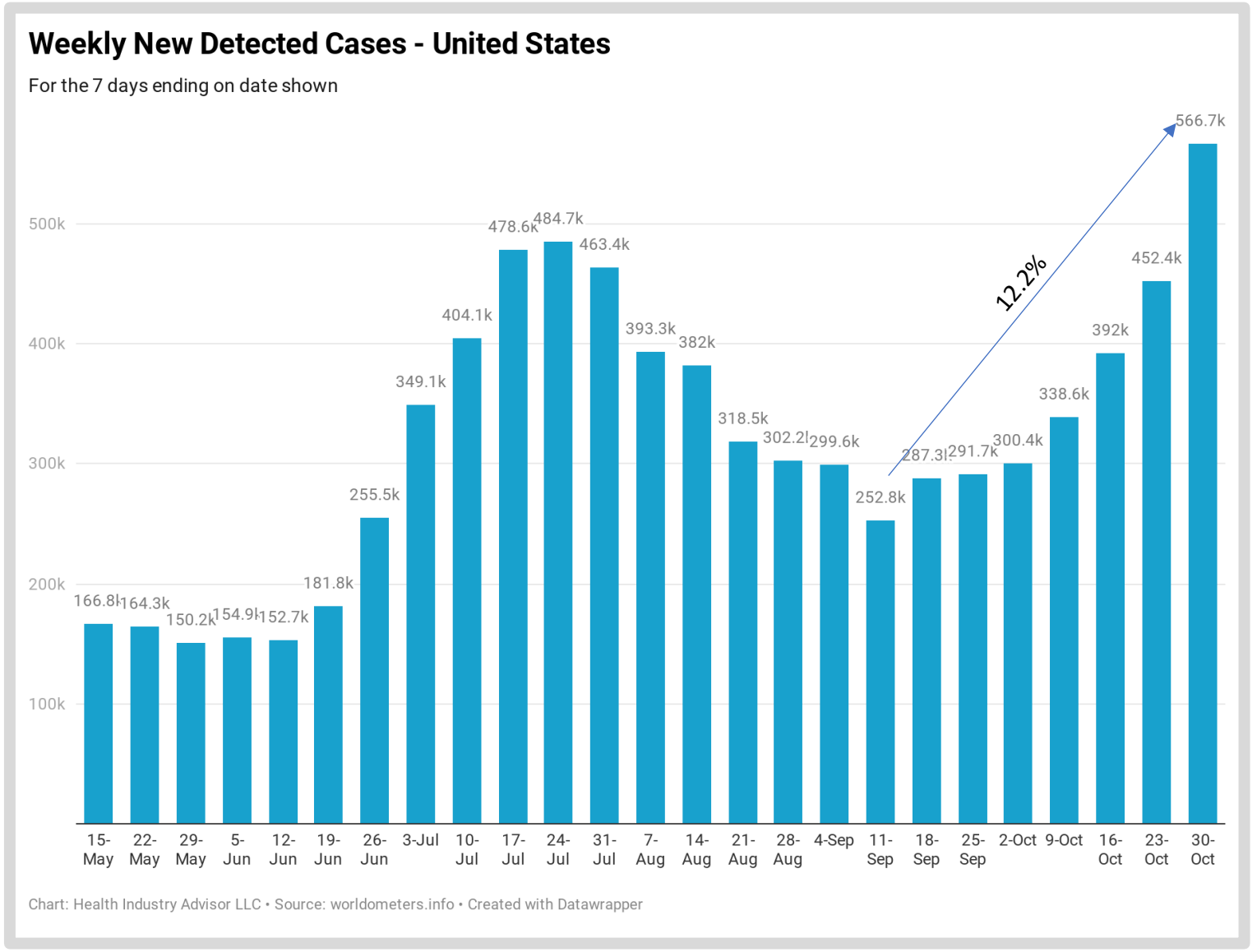
Newly detected cases* increased for the seventh consecutive week (Saturday – Friday) – increasing an average of 12.2% per week during this period

New cases were higher during this 7-day period than any comparable period since the pandemic began



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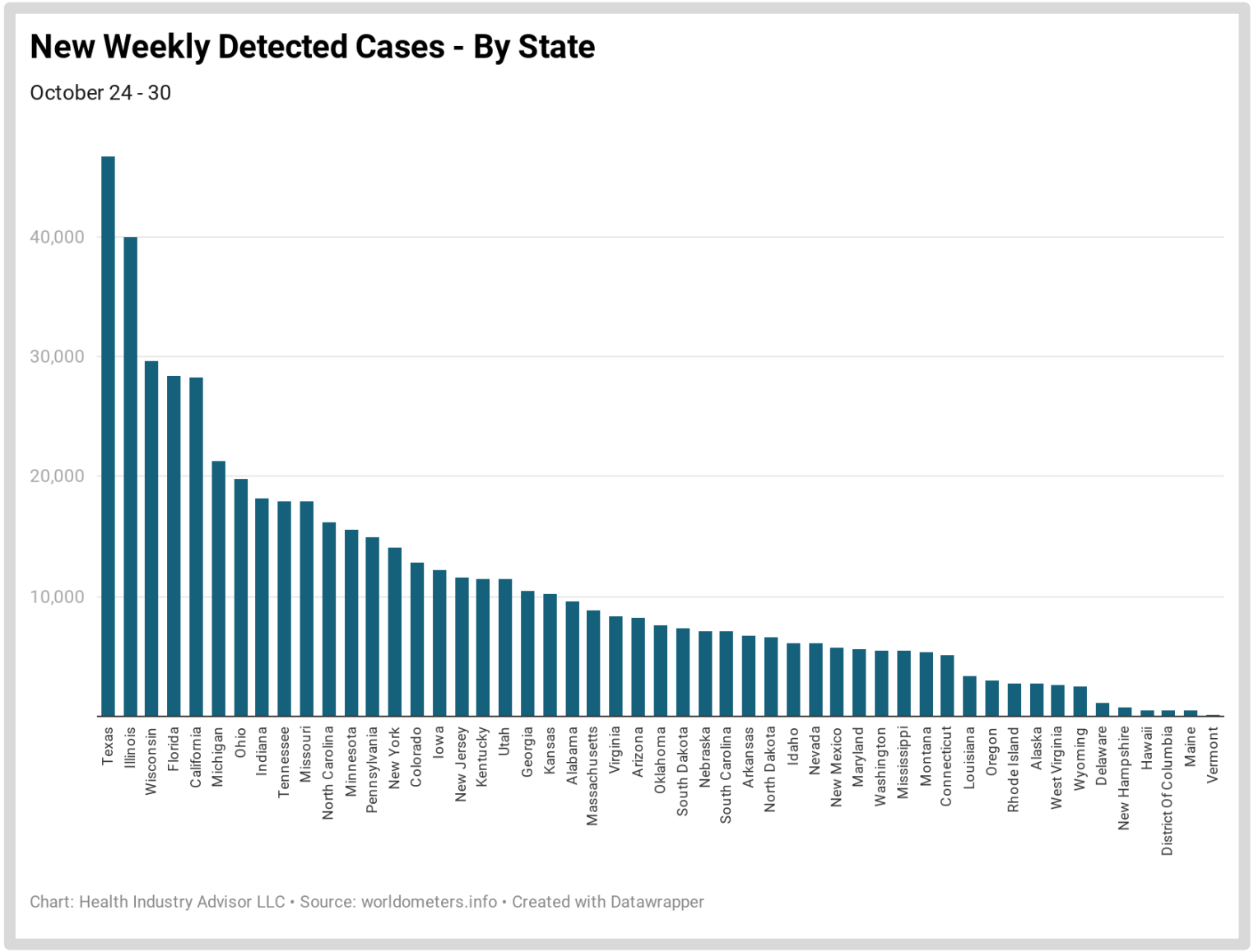
Texas, Illinois, California, Wisconsin, Florida and California, in order, recorded the highest number of newly detected cases over the past seven days (this order has been consistent for the past few weeks)



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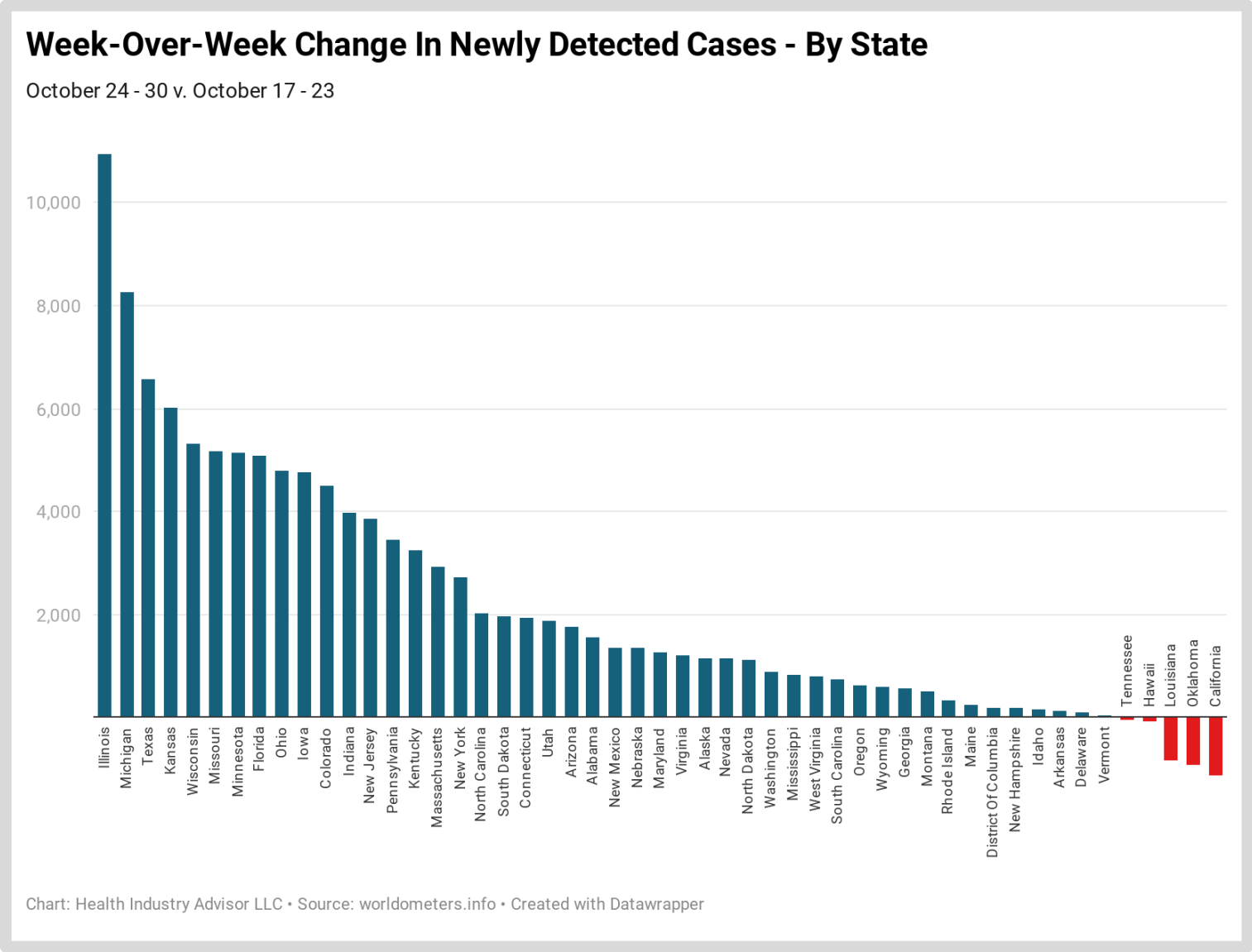
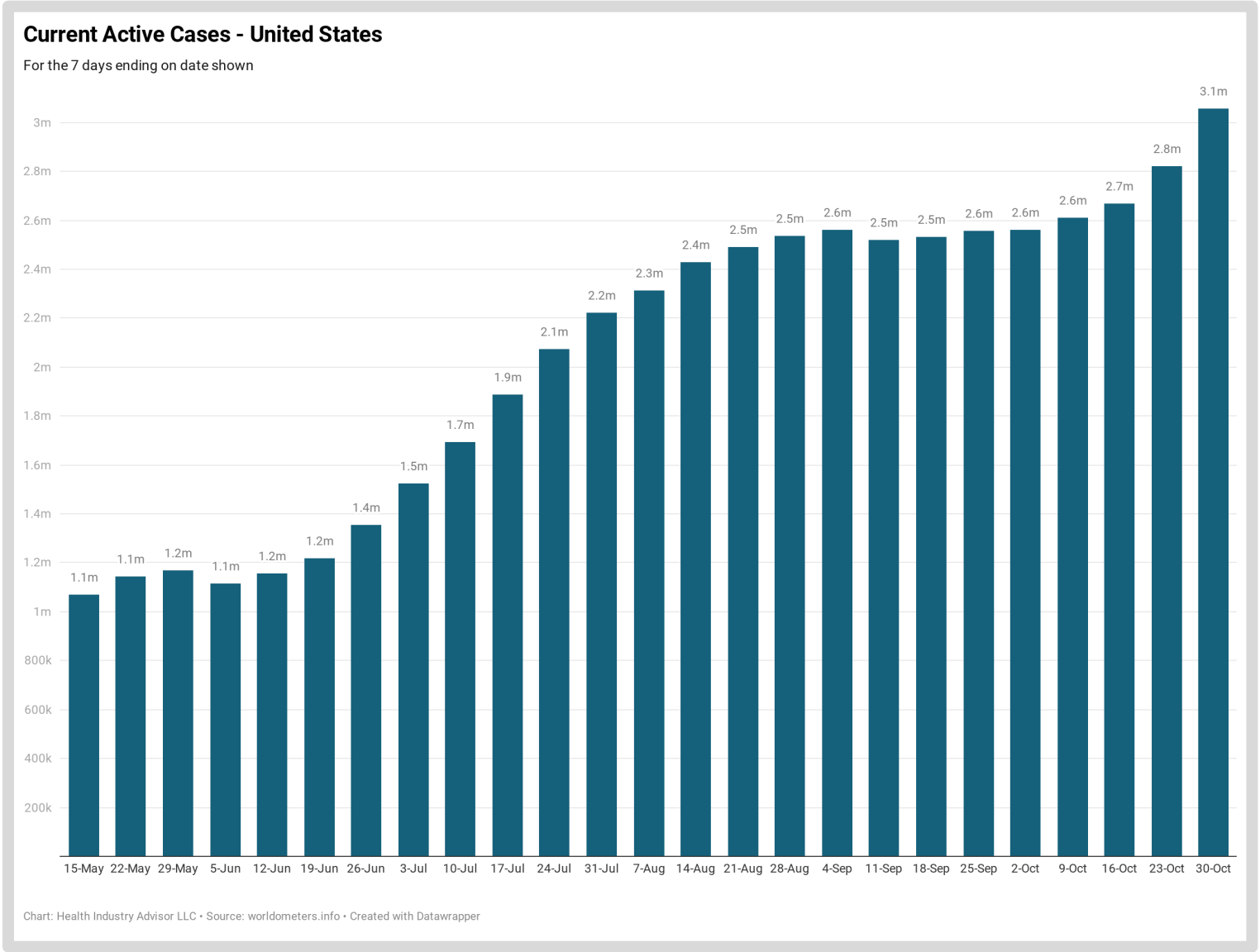
Illinois, Michigan, Texas and Kansas experienced the largest increases in new cases relative to the prior week

Only five states – California, Oklahoma, Louisiana, Hawaii and Tennessee – experienced fewer newly detected cases this past week v. the prior week



Health Industry Advisor, llc

The estimated number of active, detected cases in the U.S. increased for the 4th consecutive week, following six weeks of relative stability



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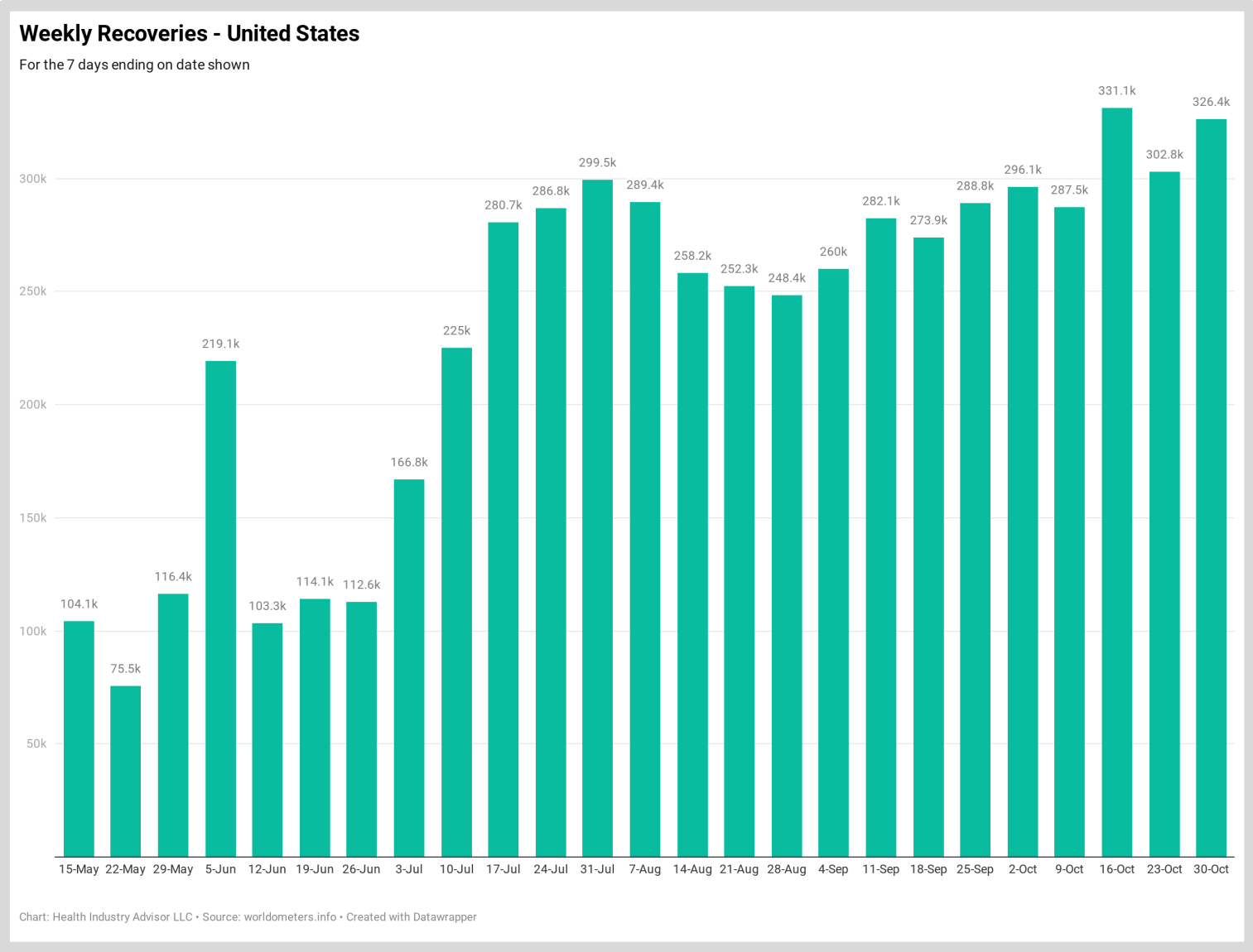
Recoveries from detected infections in the U.S. increased from the prior week

6M people in the U.S. have recovered from a detected SARS-CoV-2 infection

There are ~2x as many persons recovered from the virus as those that have an active infection



Health Industry Advisor, llc

Over time, more –and-more persons infected by the SARS-CoV-2 virus have successfully recovered

The number of active cases and deaths, as a % of all detected cases, have steadily declined

How has the status of cases changed over time?

As of the date shown

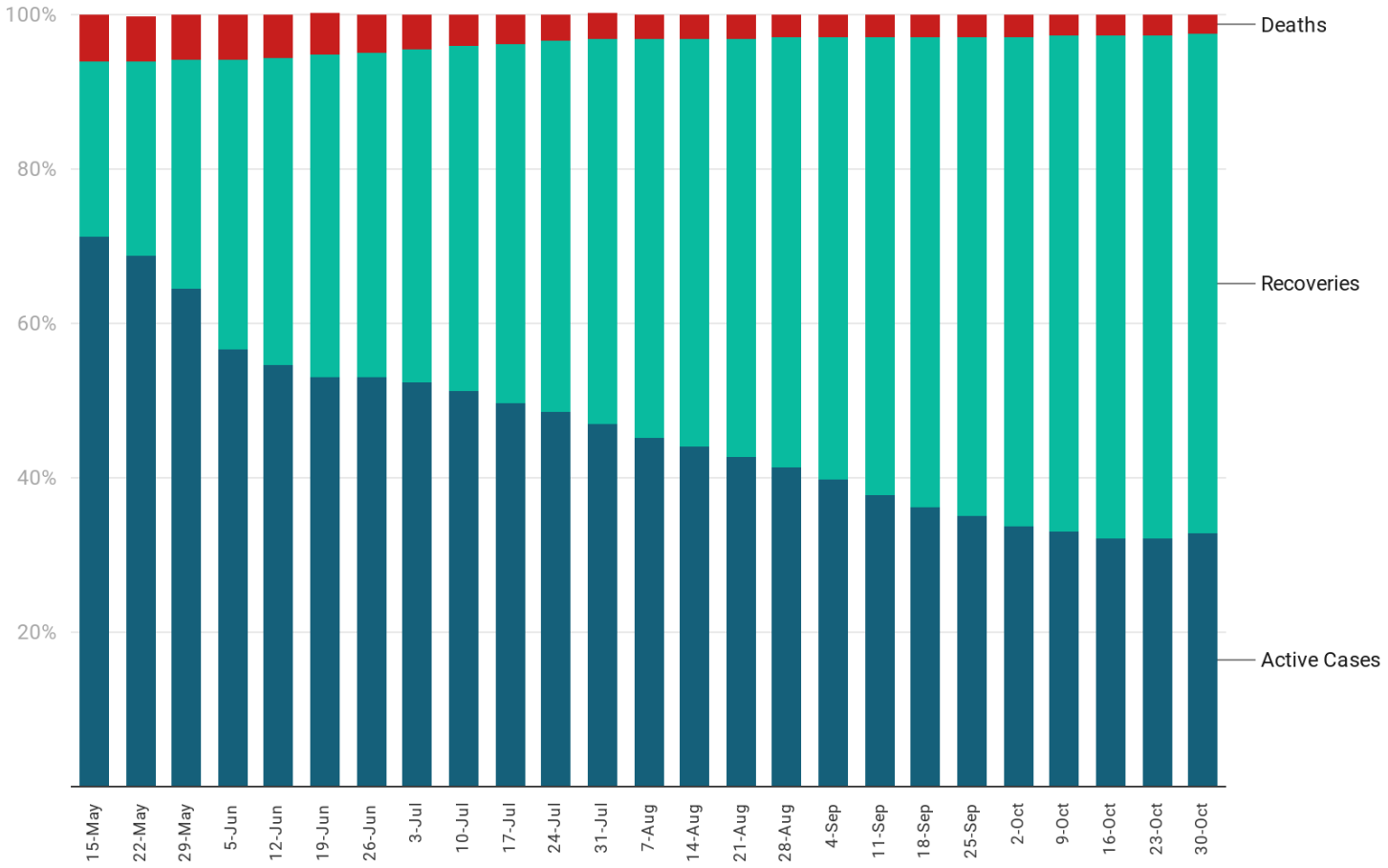
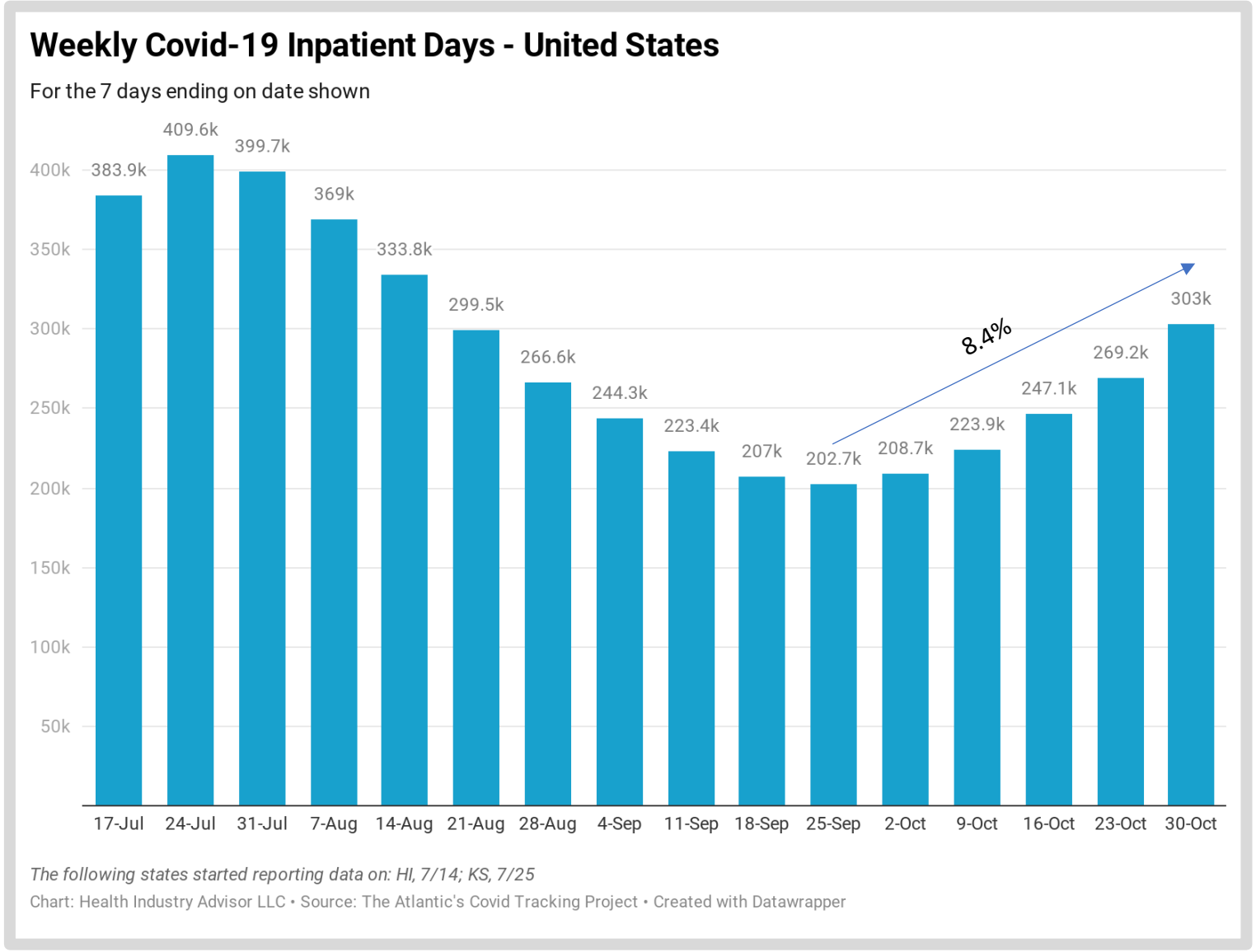


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Health Industry Advisor, llc

Inpatient COVID-19 census increased last week, for the fifth consecutive week; it has increased an average of 8.4% per week during this time

This census remains >1/4 lower than its July 18-24 level



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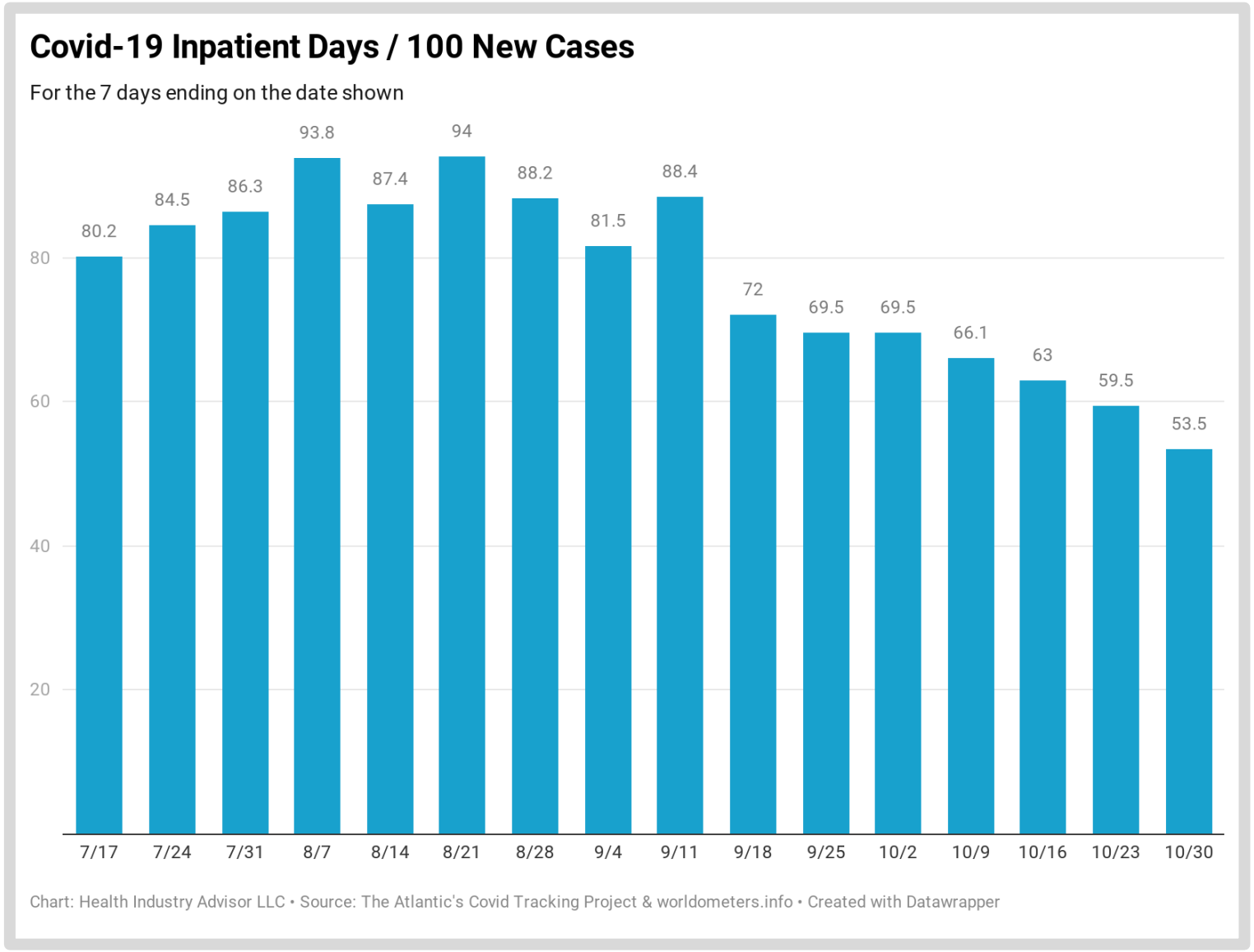
Covid-19 inpatient days per 100 new cases declined for the eighth consecutive week – declining 57% during that time



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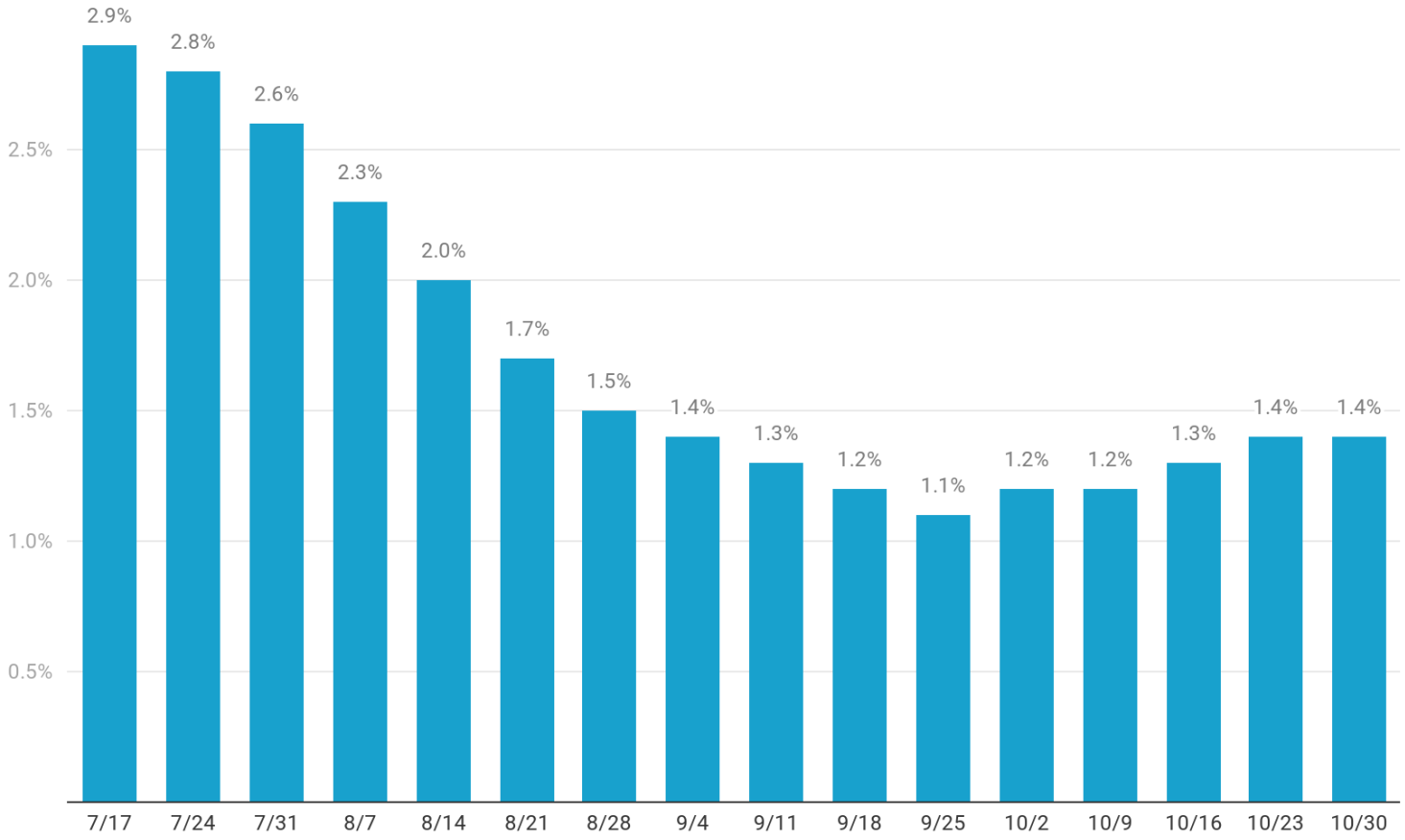
Only about 1.4% of actively-infected persons are in the hospital – consistent with last week

Despite the recent increase in Covid-19 inpatients, the likelihood of a detected & actively-infected person being in the hospital is less than 1/2 what it was in mid-July

Estimated % of Detected & Active Covid-19 Patients in the Hospital

For the 7 days ending on date shown



The following states started reporting data on: HI, 7/14; KS, 7/25

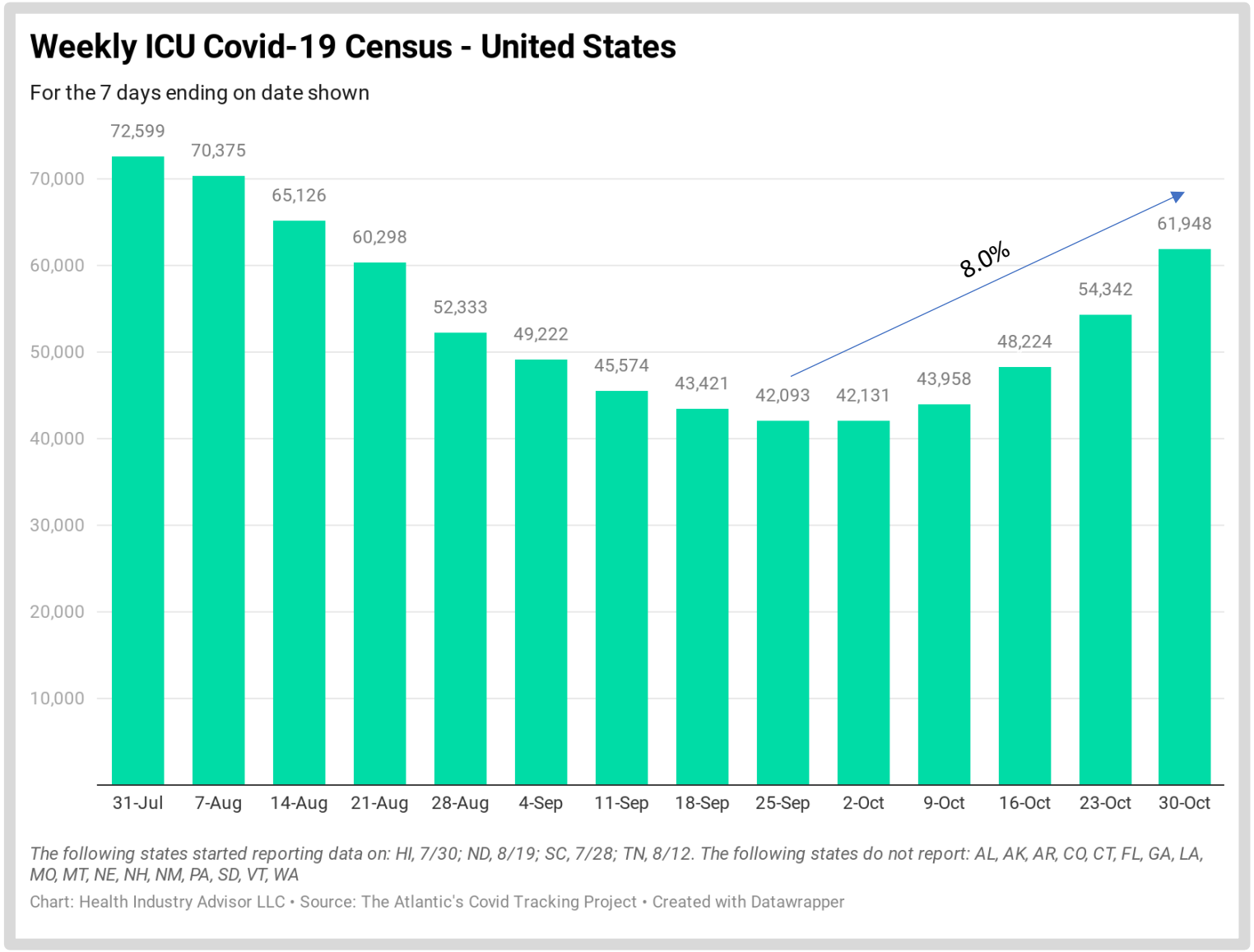
Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project & Worldometers.info • Created with Datawrapper

Health Industry Advisor, llc

ICU census of COVID-19 patients has increased five consecutive weeks – increasing an average of 8% per week during this time

This census has returned to mid-August levels

Still, this census is 15% lower than the week of July 25-31



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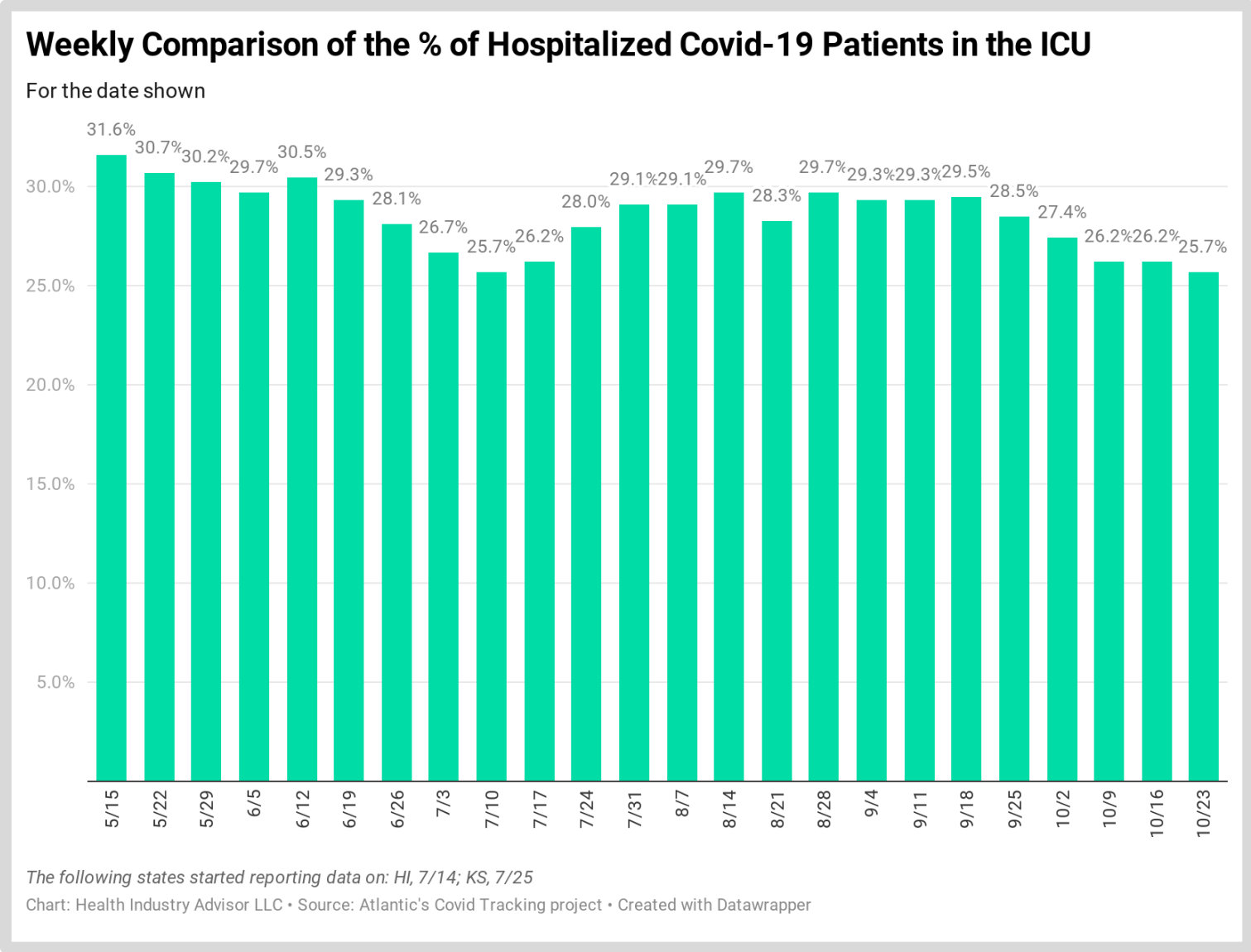
About a ¼ of Covid-19 inpatients were in the hospital last week, slightly lower than last week and as low as it has been since at least mid-May

This rate has declined five consecutive weeks



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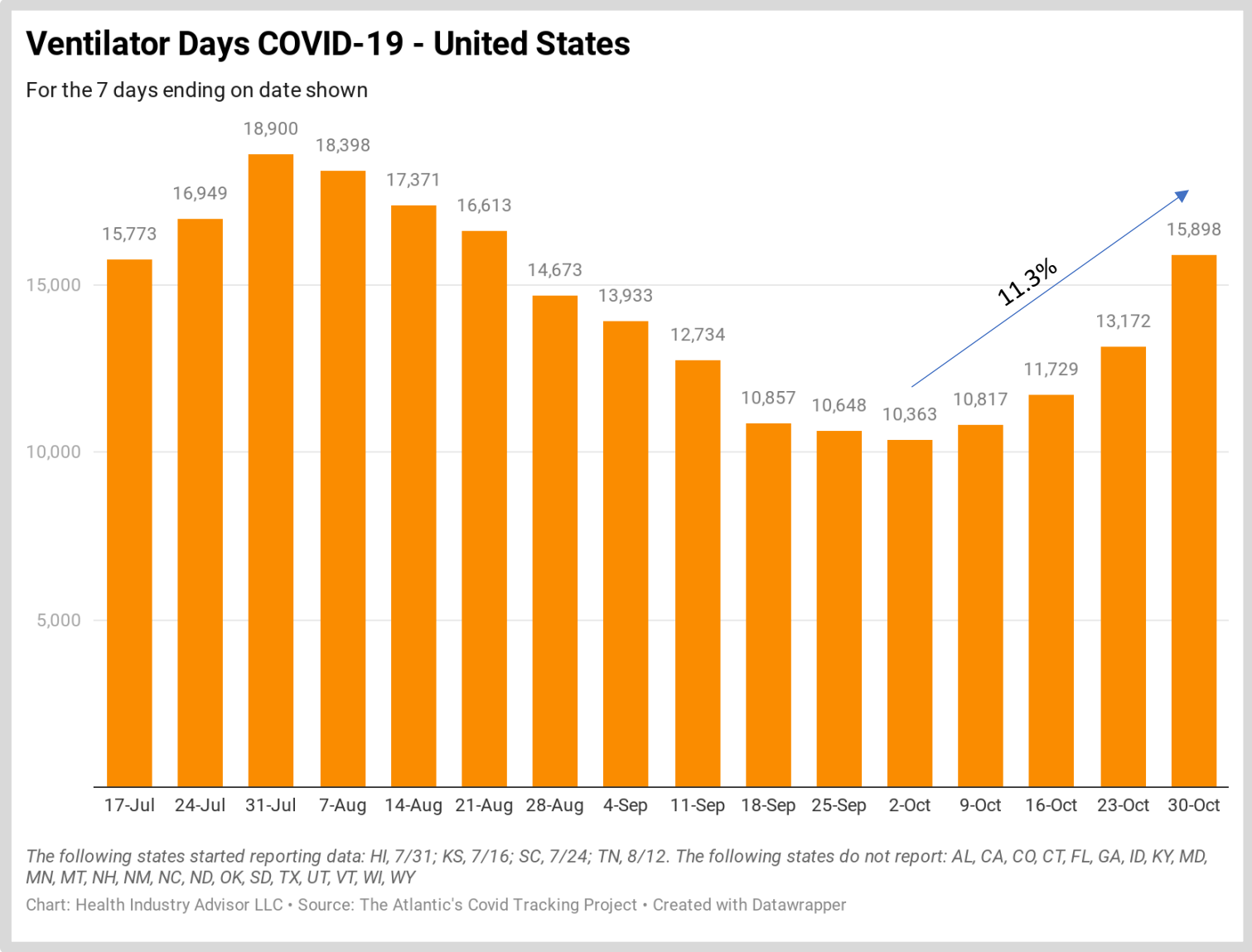
Census of COVID-19 patients on ventilators increased last week – the fourth consecutive week-over-week increase – it has increased an average of 11.3% per week during this time

This census had declined for the preceding nine weeks

This census is 30% lower than during it's late-July peak



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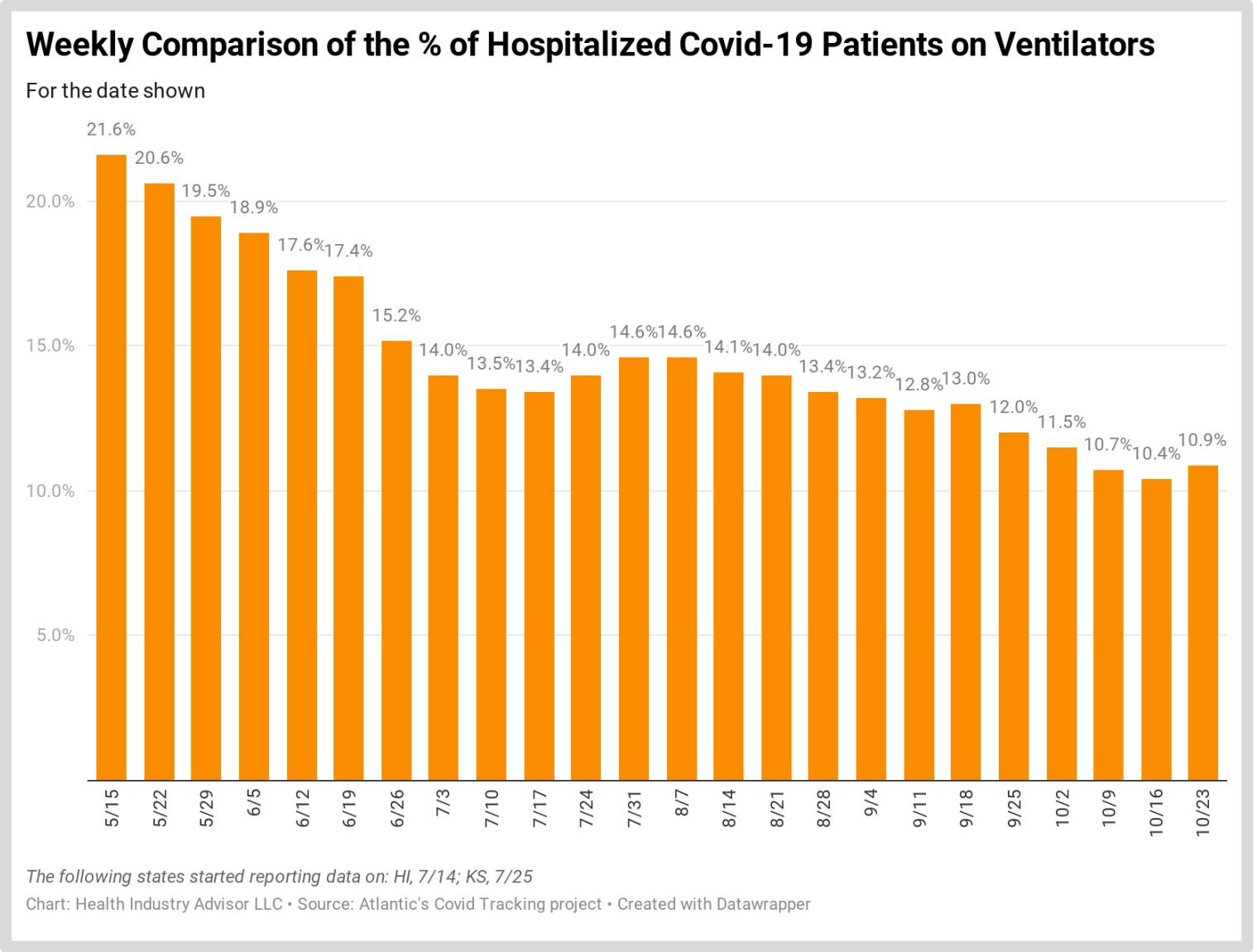
Despite the increase in ventilator patients last week, the likelihood of a hospitalized Covid-19 patient would be on a ventilator remained about the same as last week

About 10% of Covid-19 inpatients were on a ventilator last week

A reflection of changing treatment protocols, the likelihood of a person hospitalized with a SARS-CoV-2 infection has been cut by more than ½ since mid-May



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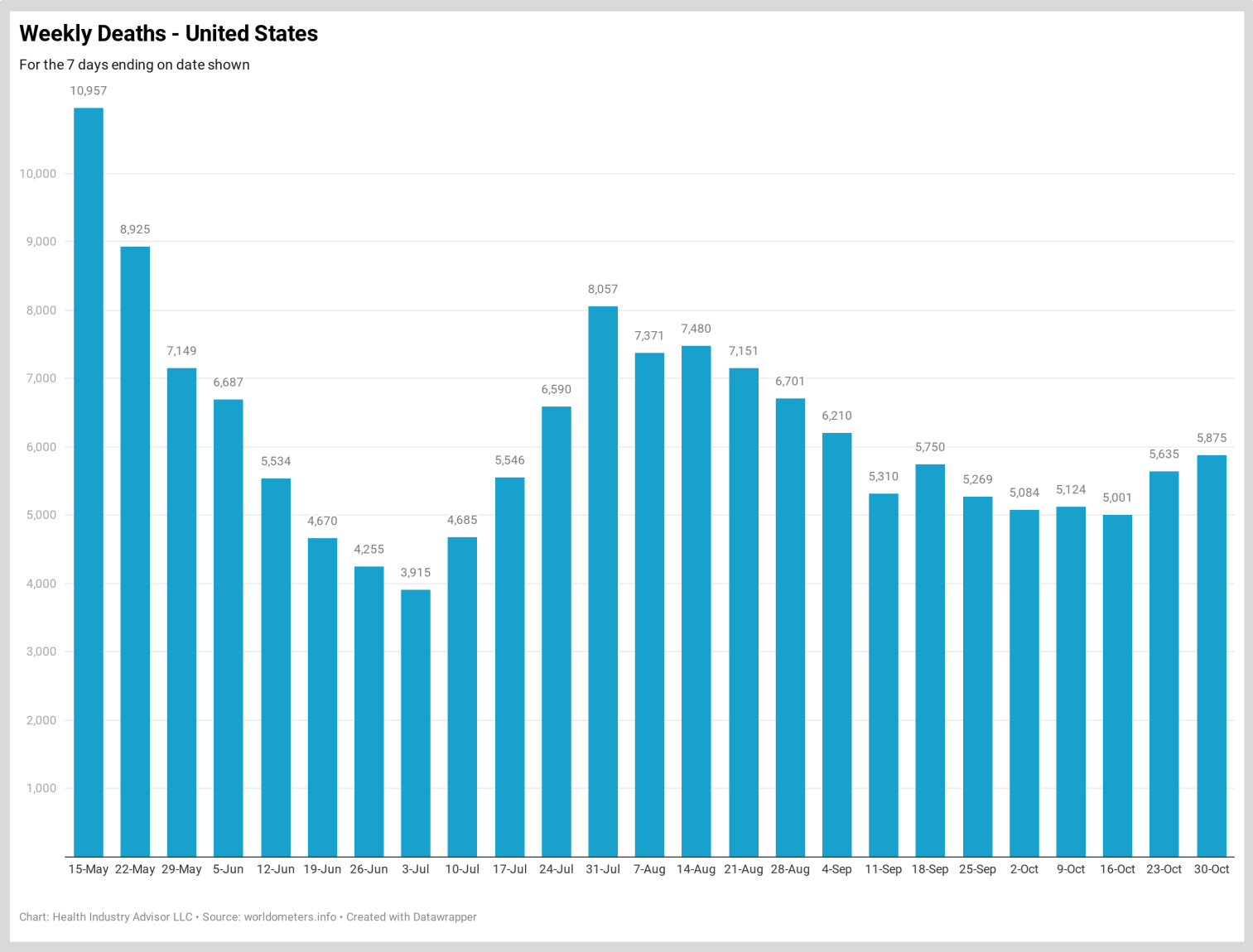
Deaths reported with the coronavirus in the U.S. increased on consecutive weeks– likely a result of the recent case surge

There were more deaths last week than any week since September 4

There were significantly fewer deaths, however, than were reported during the July surge in cases

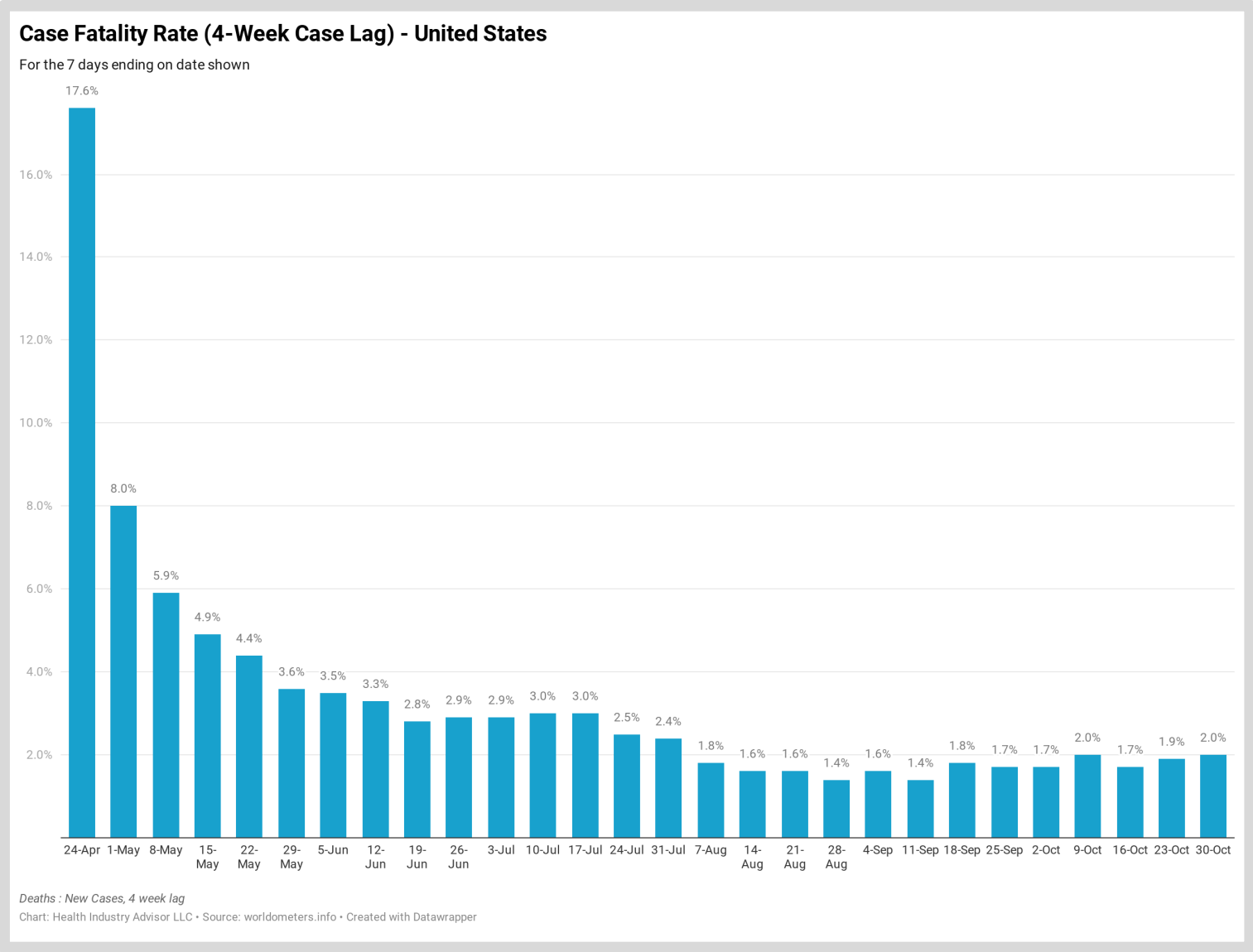


Health Industry Advisor, llc

The rate of deaths per new case (4-week lag) has been relatively stable for the past month

This rate is at least a full percentage point lower than it was for most of June and July

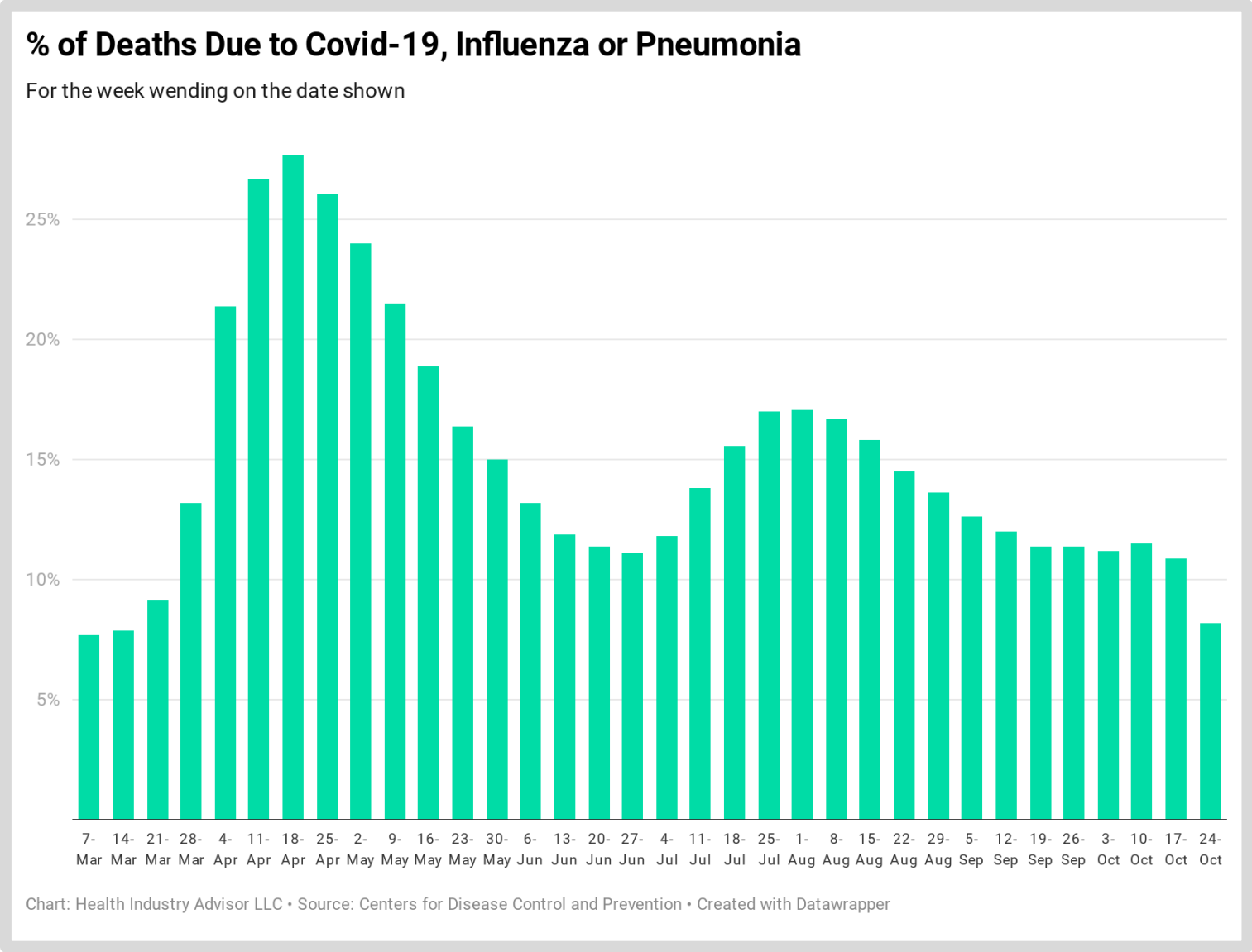
The high rate experienced in late-April is suggestive that our limited testing in March was only identifying the most severe cases



Health Industry Advisor, llc

The % of deaths due to Covi-19, influenza and pneumonia have declined on ten of the past twelve weeks (there were constant one week)

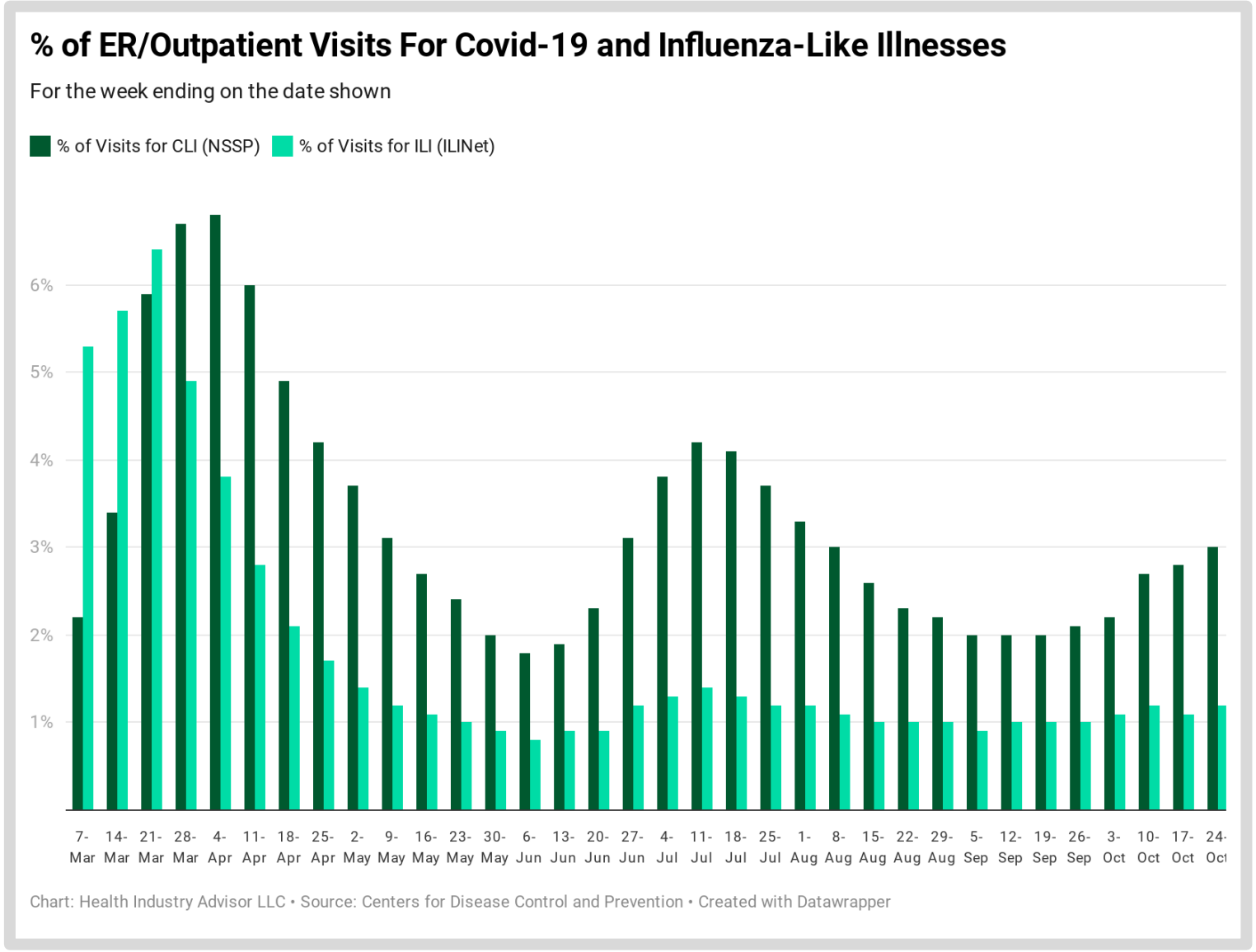
This ratio is as low as it has been since at least the first of March; is ½ what it was in late-July and ~1/4 what it was in mid-April



Health Industry Advisor, llc

Covid-19 visits have increased in recent week, following a similar pattern as cases and hospitalizations – these remain sharply lower than in during both the March/April and July surge in cases

Three weeks into the 2020-21 flu season, flu visits are trending lower than each of the past five years (but its still early)



Health Industry Advisor, llc

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