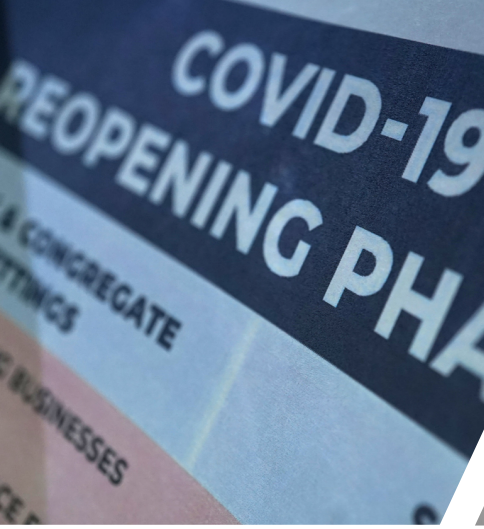
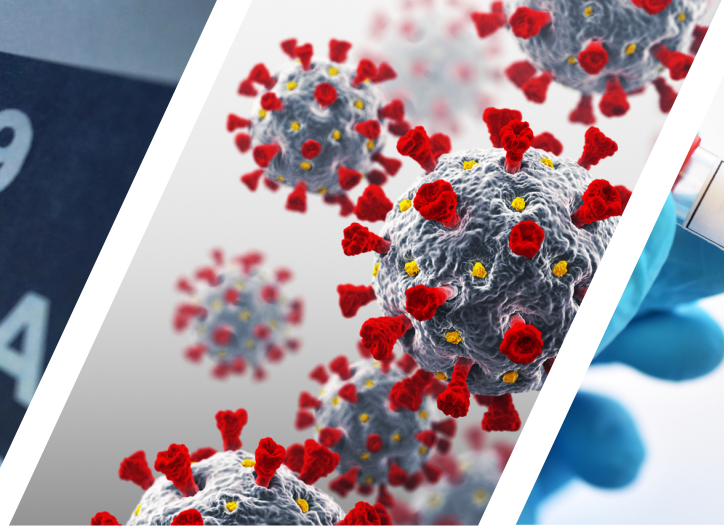
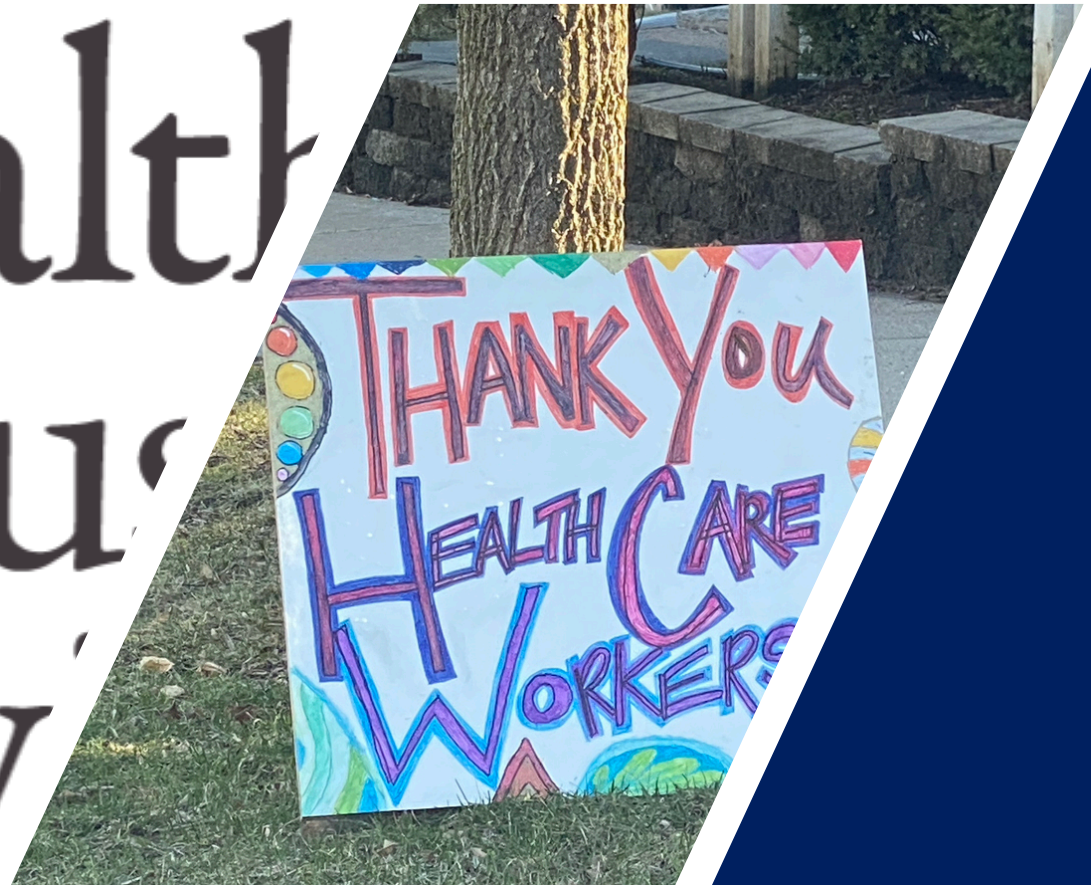




Health
Indus
Adv



Issue # 191

Wednesday, October 21, 2020

COVID-19 Report

Highlights

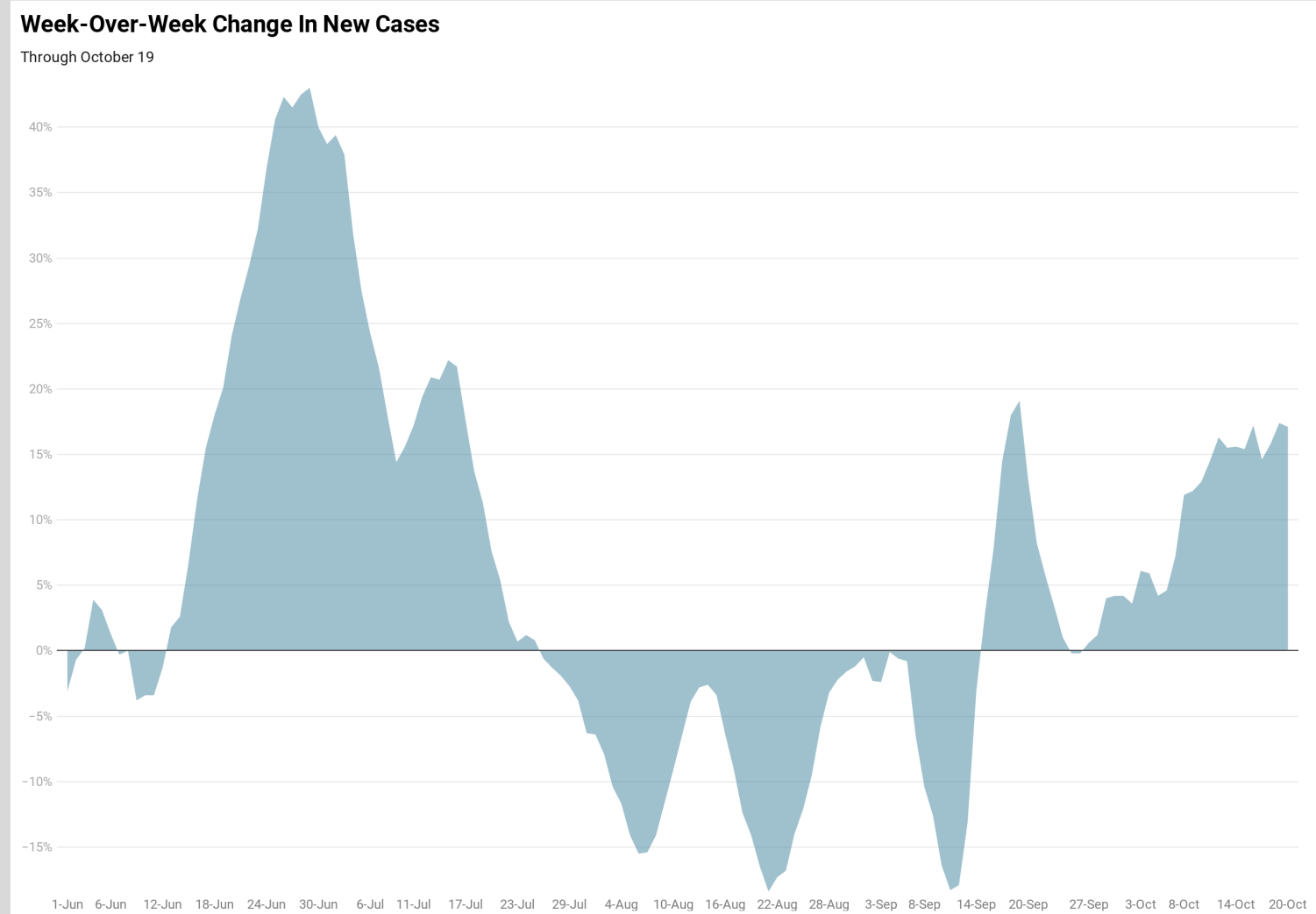
- Newly-detected cases continue rising in the U.S.
  - On a week-over-week basis, newly detected cases are up 17.1%
  - There were more newly-detected cases reported yesterday than on any other Tuesday since July 28
  - **As a result, the 7-day average rate of new infections per capita increased for the 18th consecutive day, and is as high as it has been since August 3**
- **These newly-detected cases are translating to increased healthcare resource use, but the impact has eased over time**
  - On a same-day, prior-week basis, Covid-19 hospital census has increased for 27 consecutive days; still, this census is only 65% of its mid-July peak
  - This recent surge in hospitalizations appears to be driven mostly among persons 65 years old and older
  - While Covid-19 census has risen with the increased newly-detected cases over the past month, it has not risen nearly as sharply
  - **Per CDC reporting, Covid-19 hospitalization rates per capita are as low as they have been since late-March**
  - **Further, the likelihood of an active Covid-19 case would be in the hospital has fallen by nearly 2/3 since early-June**

- **We may also be seeing the impact of surging cases on deaths, although this relationship has similarly eased over time**
  - Newly reported deaths were higher yesterday than each of the past two Tuesdays; at the same time, these were lower than every other Tuesday, except Labor Day week, since June 30
  - The 7-day average daily deaths has now increased on five consecutive days; this rate is the highest it has been all month
  - Still, this rate is lower than it was for most of September and is significantly lower than it was in April, May and the first 1/2 of June
  - Reflecting this improved mortality experience, **the Institute for Health Metrics and Evaluation (IHME) has revised its projected death totals downward:**
    - On September 7, IHME projected 255k Covid-19 deaths by November 1 in the U.S. and 410k by January 1
    - As of today, IHME's projections are for 228k deaths by November 1 and 317k by January 1
    - **The latter is a nearly 100k reduction in projected deaths between IHME's six-week old model and its latest projection**
  - Providing further support for this easing, **NPR published a report yesterday, "Studies Point To Big Drop In COVID-19 Death Rates", citing an 18 percentage point drop in the likelihood of hospitalized patients dying from the virus**

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

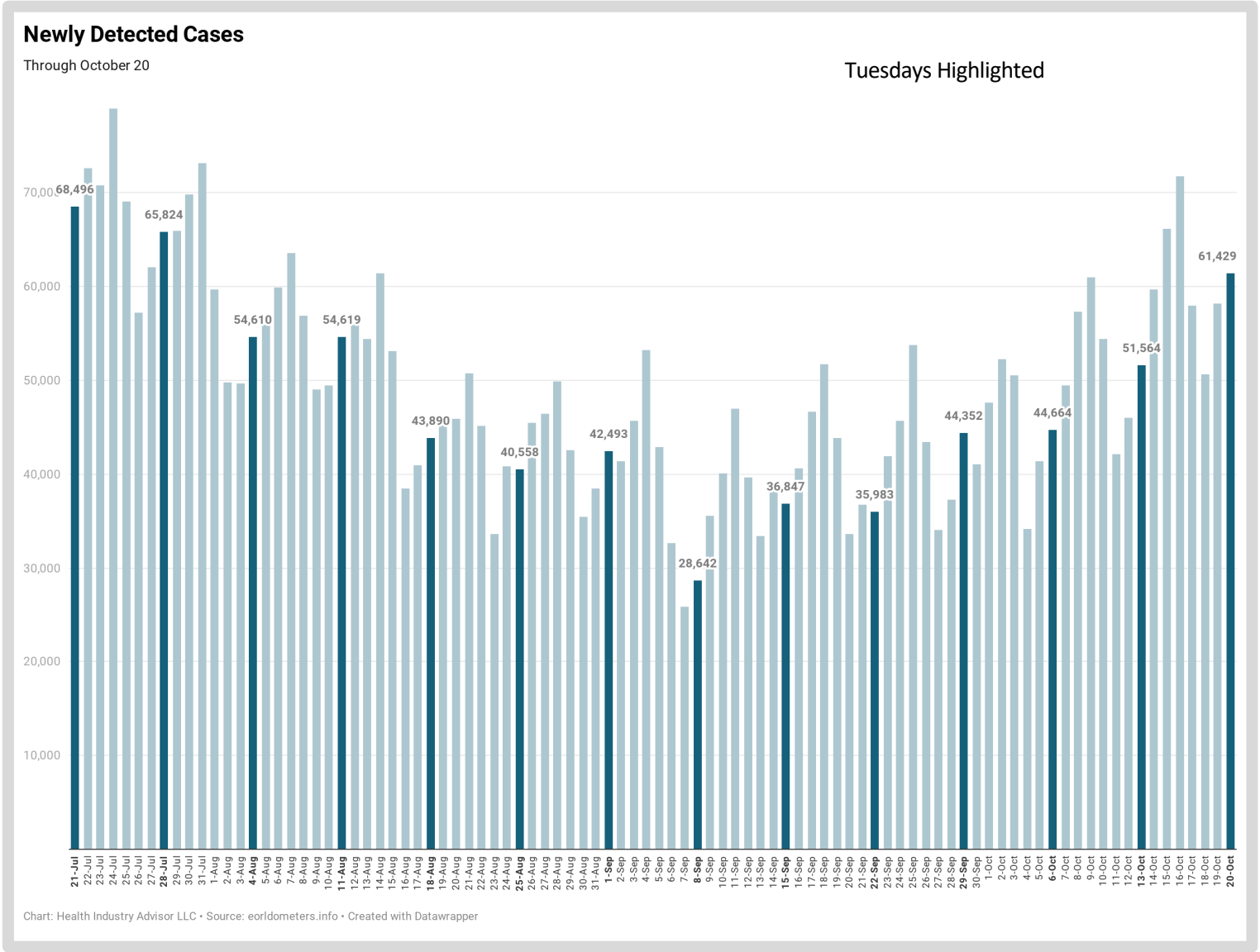
A pause or will the rate of cases growth begun to decline? Yesterday, this rate was up 17.1% on a week-over-week basis it has bounced between 15.2-17.2% for the past eight days)

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



Health Industry Advisor, llc

There were more newly detected cases reported yesterday than on any Tuesday since July 28

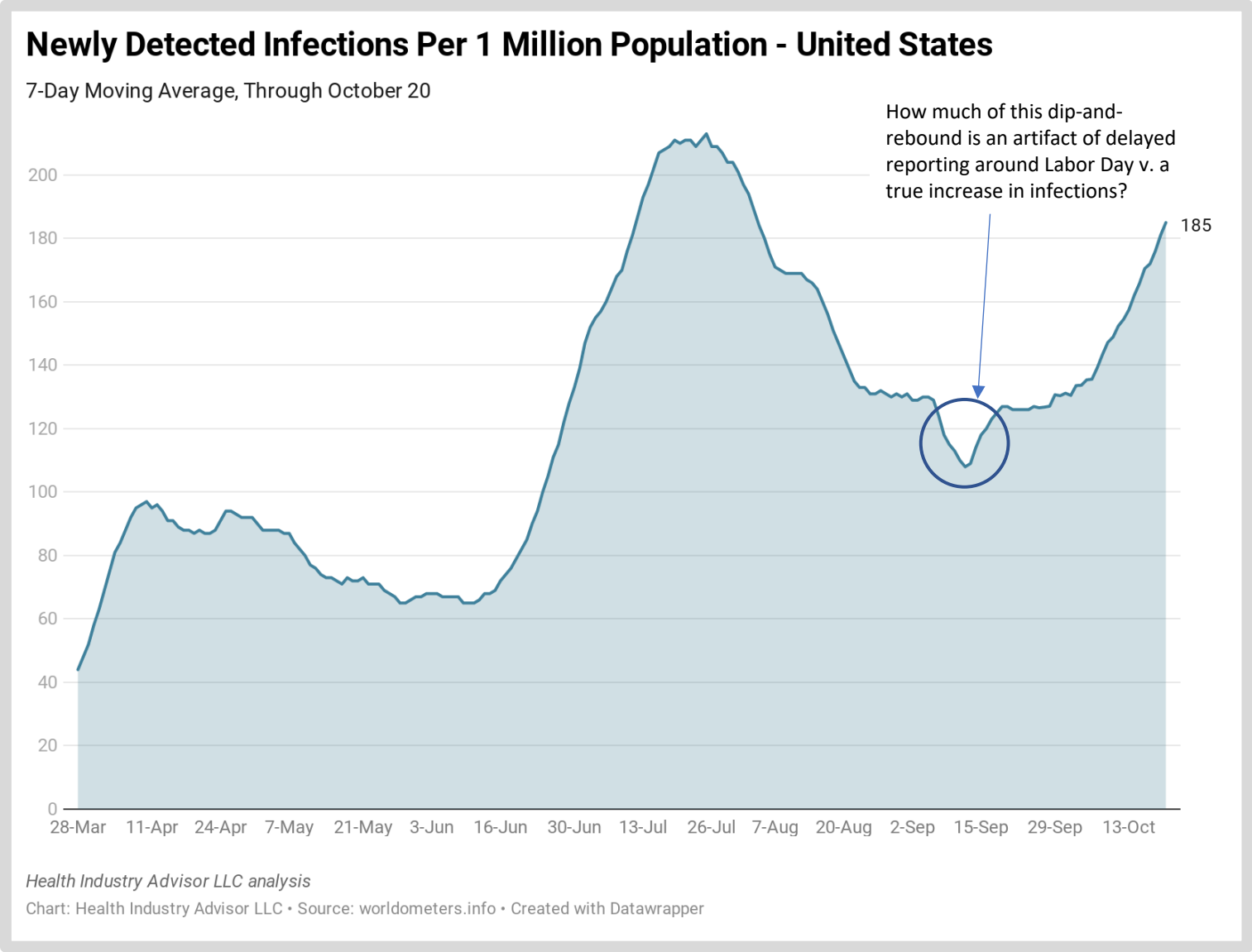


Health Industry Advisor, llc

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

This rate is the highest it has been since August 3

* - 7-day moving average basis



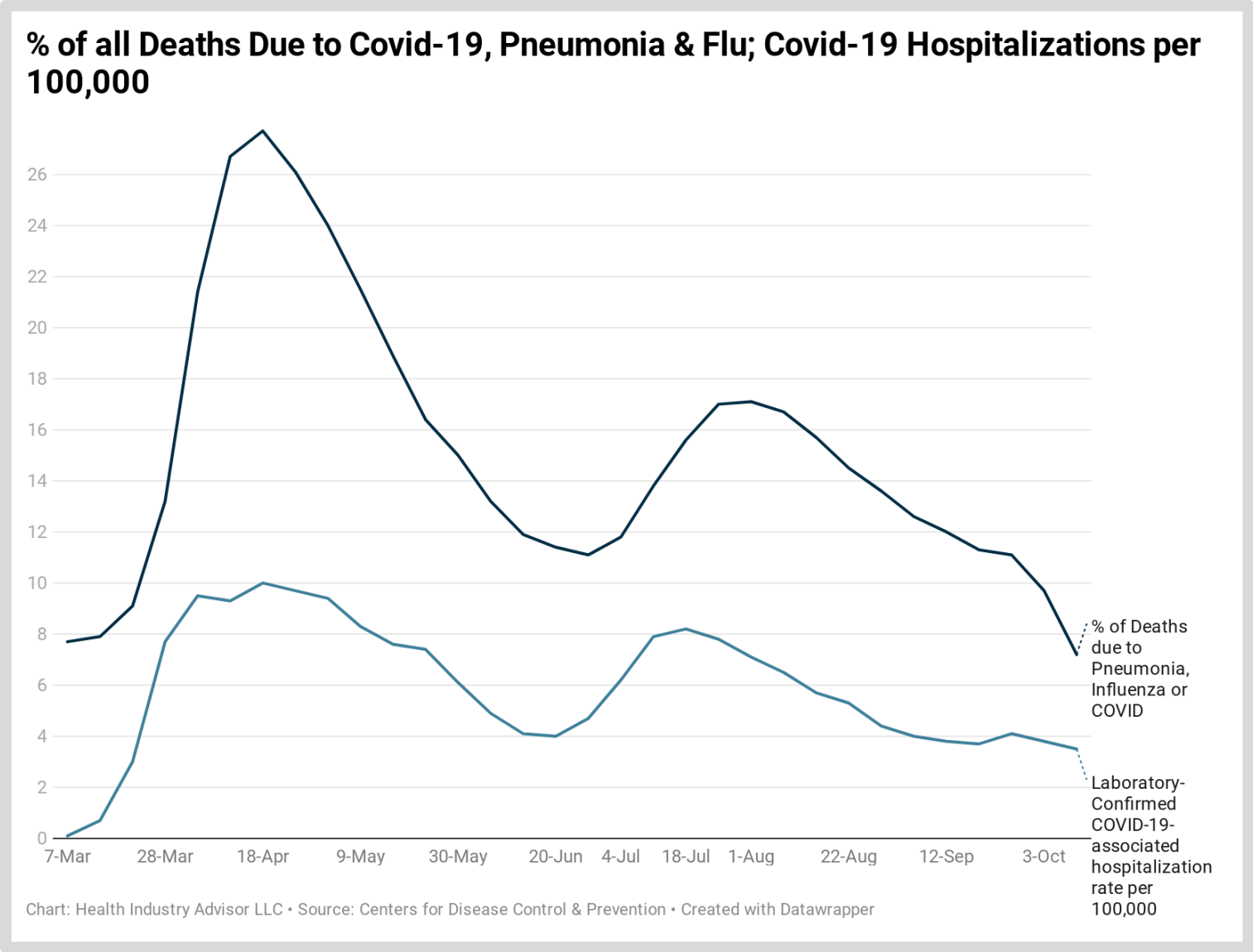
Health Industry Advisor, llc

Despite the resurgence in newly-detected cases, there are encouraging trends in hospitalization and deaths for Covid-19 infections

First, note that hospitalizations and deaths following similar patterns as newly-detected cases

Also note that Covid-19 hospitalizations and the % of deaths due to Covid-19 and other respiratory illness have generally trended downward over time

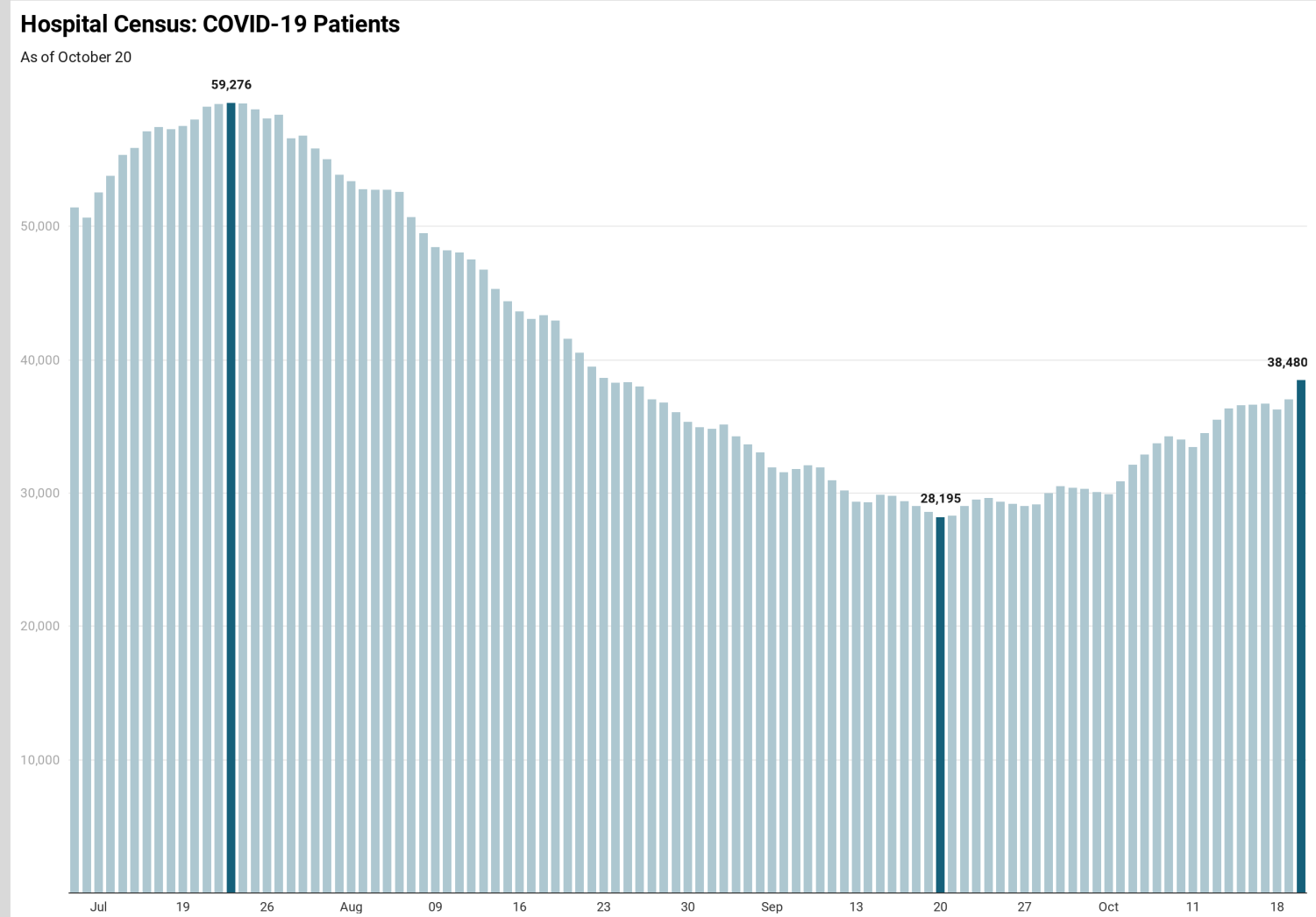
The % of deaths related to Covid-19 and respiratory illness is now as low as it has been since early March



Health Industry Advisor, llc

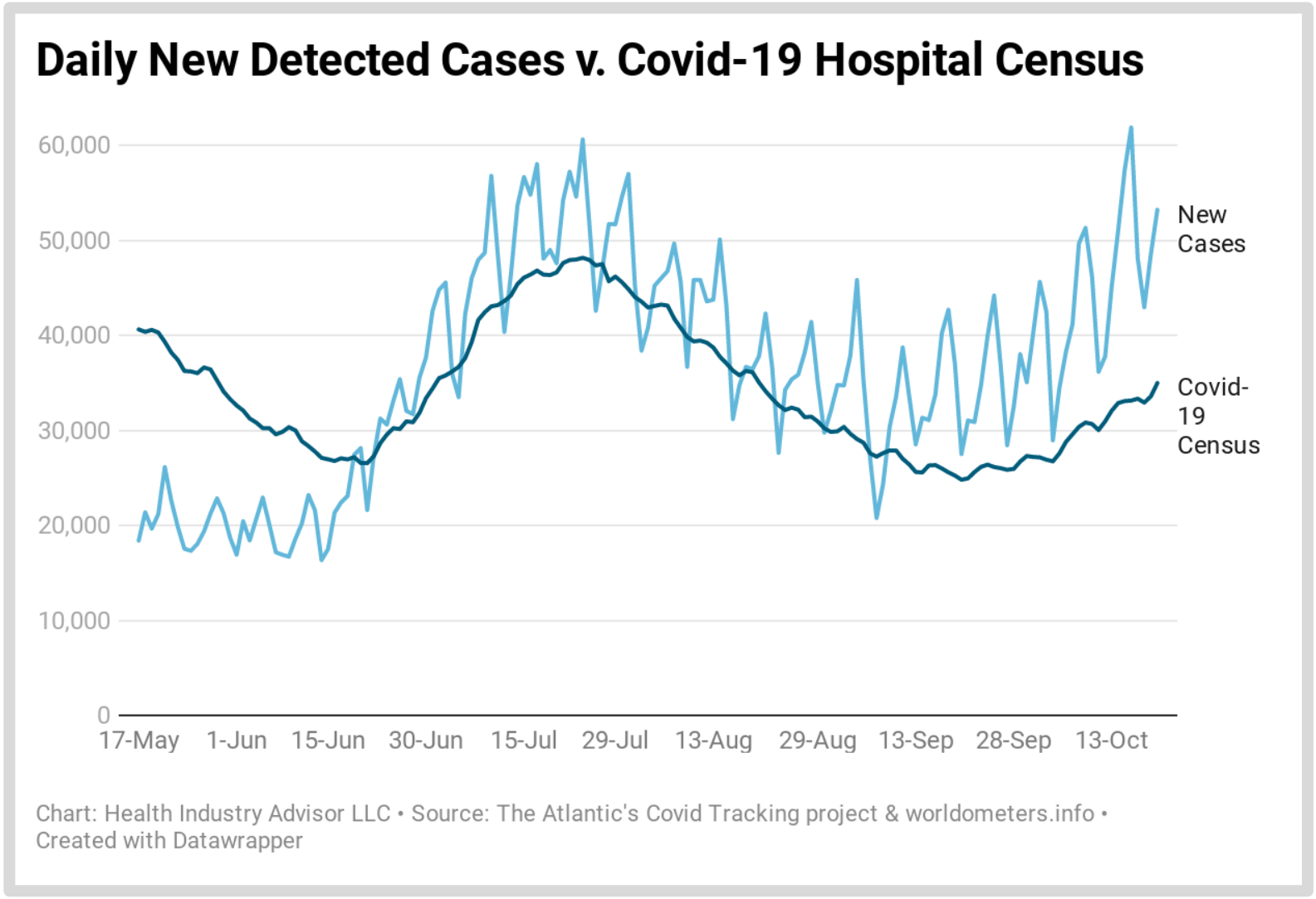
On a same-day, prior-week basis, inpatient Covid-19 census increased for the 27th consecutive day

This census is 65% of what it was at its peak in late-July yet, has re-gained 33% of the reduction in realized from late-July to September 20



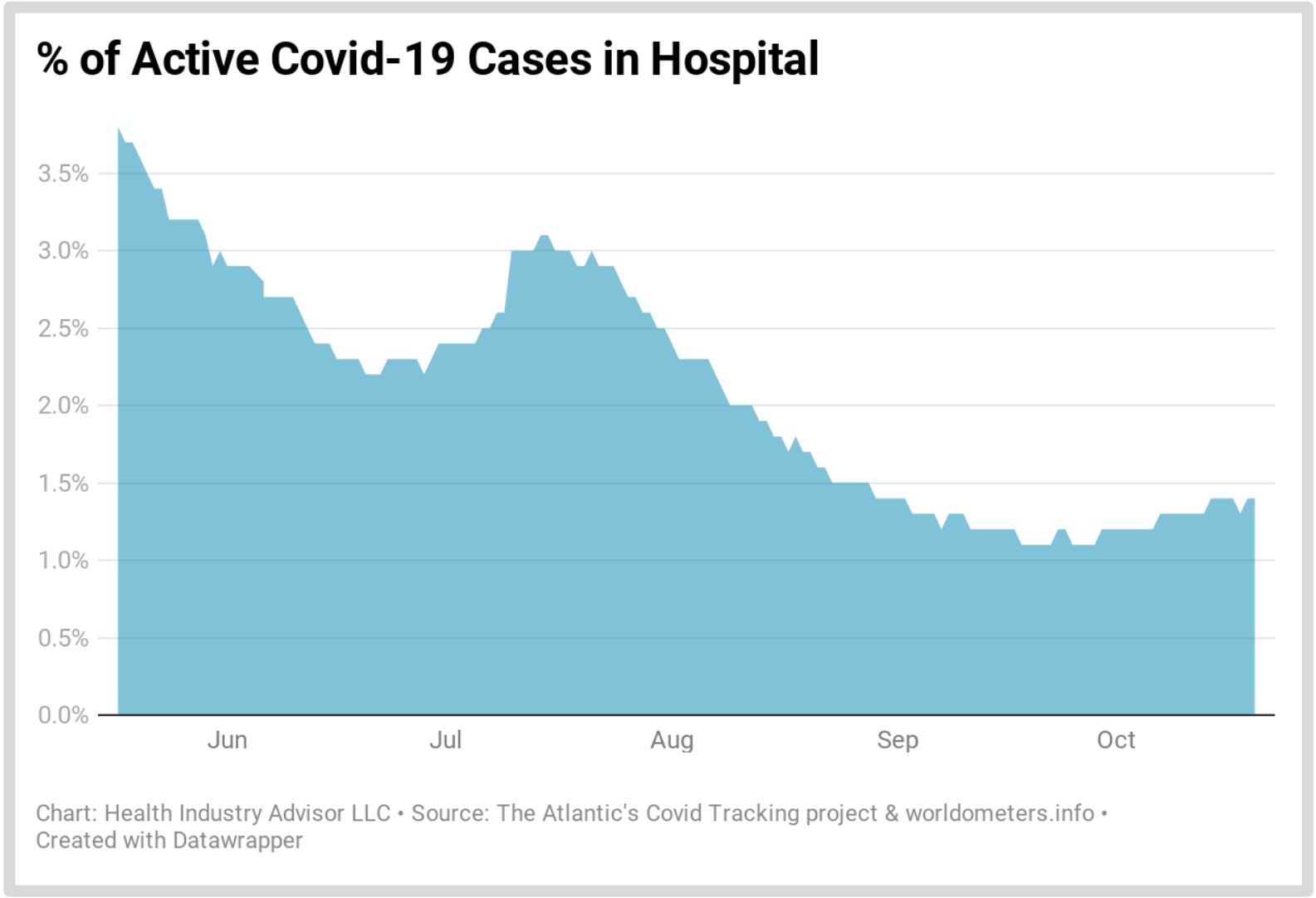
Health Industry Advisor, llc

Note that, while Covid-19 hospital census moves up-and-down with newly-detected cases, the impact of new cases on Covid-19 census has diminished over time



Health Industry Advisor, llc

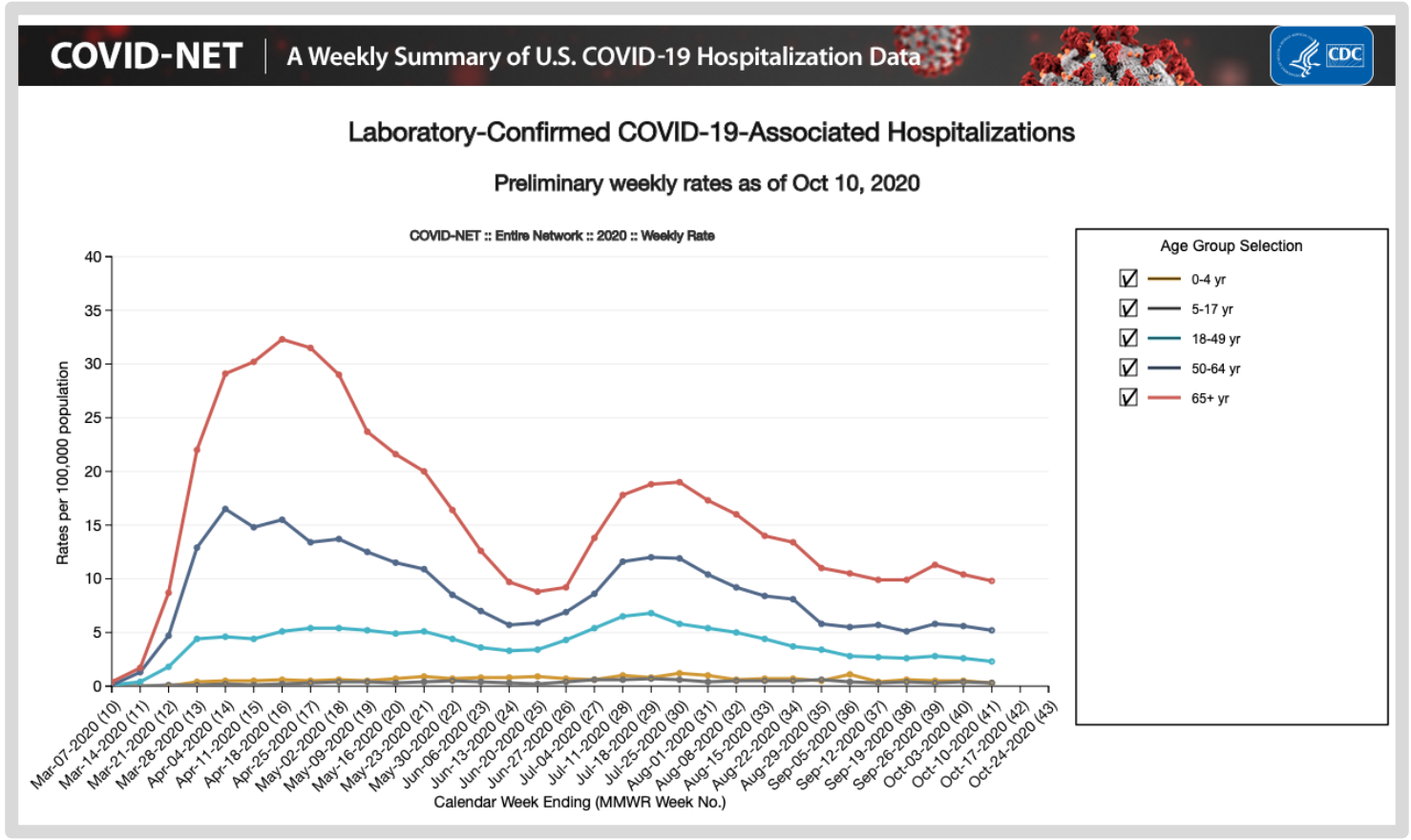
Further, over time, the likelihood that a person with an active Covid-19 infection would be hospitalized have declined by nearly 2/3



Health Industry Advisor, llc

This graphic from the CDC shows the rate of hospitalization per 100,000 over time for various age cohorts

Hospitalization rates have been consistently higher for older populations

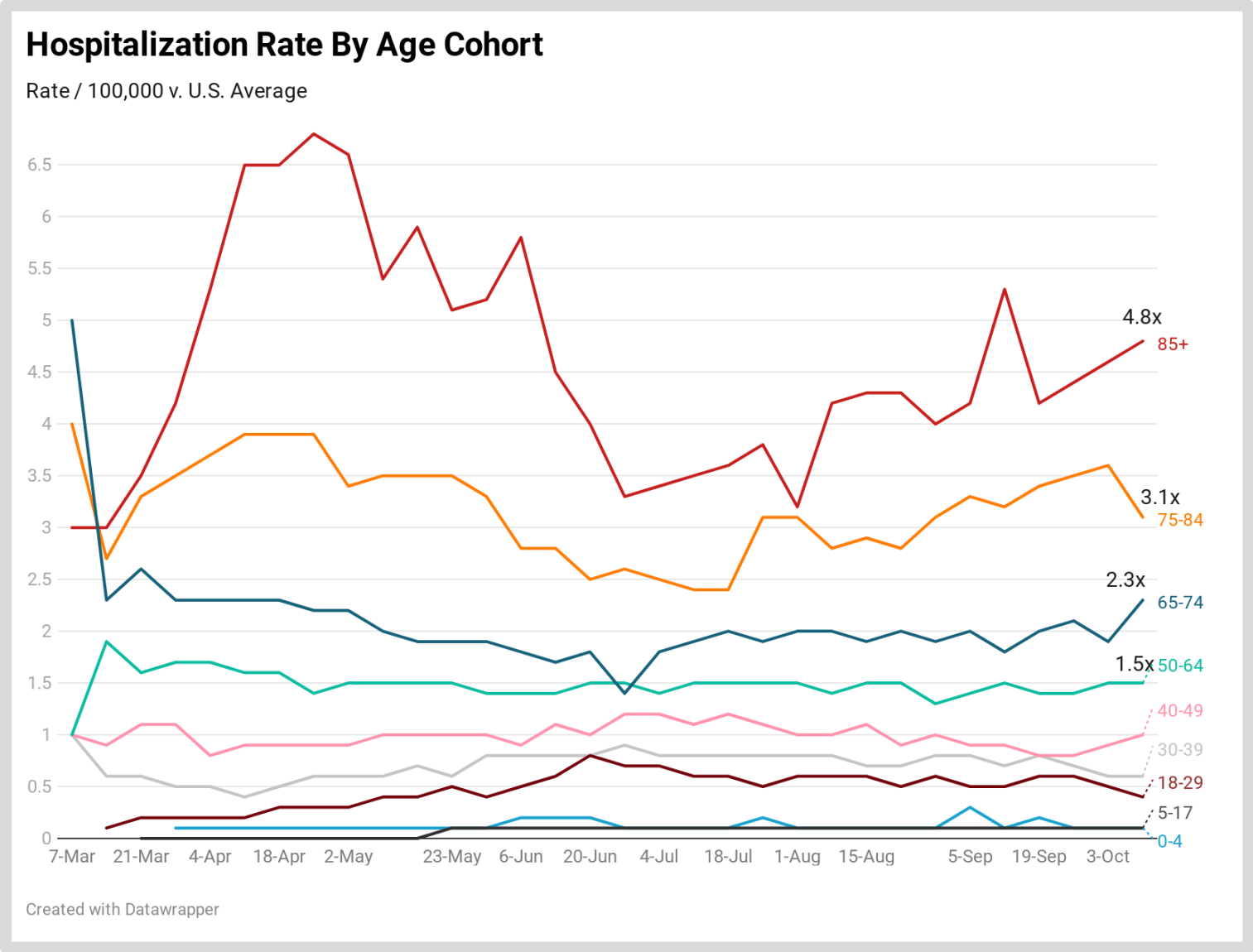


Health Industry Advisor, llc

From this graphic, an 85+ year old is 4.8x more likely to be hospitalized than the average person; a person aged 75-84 years, 3.1x the average

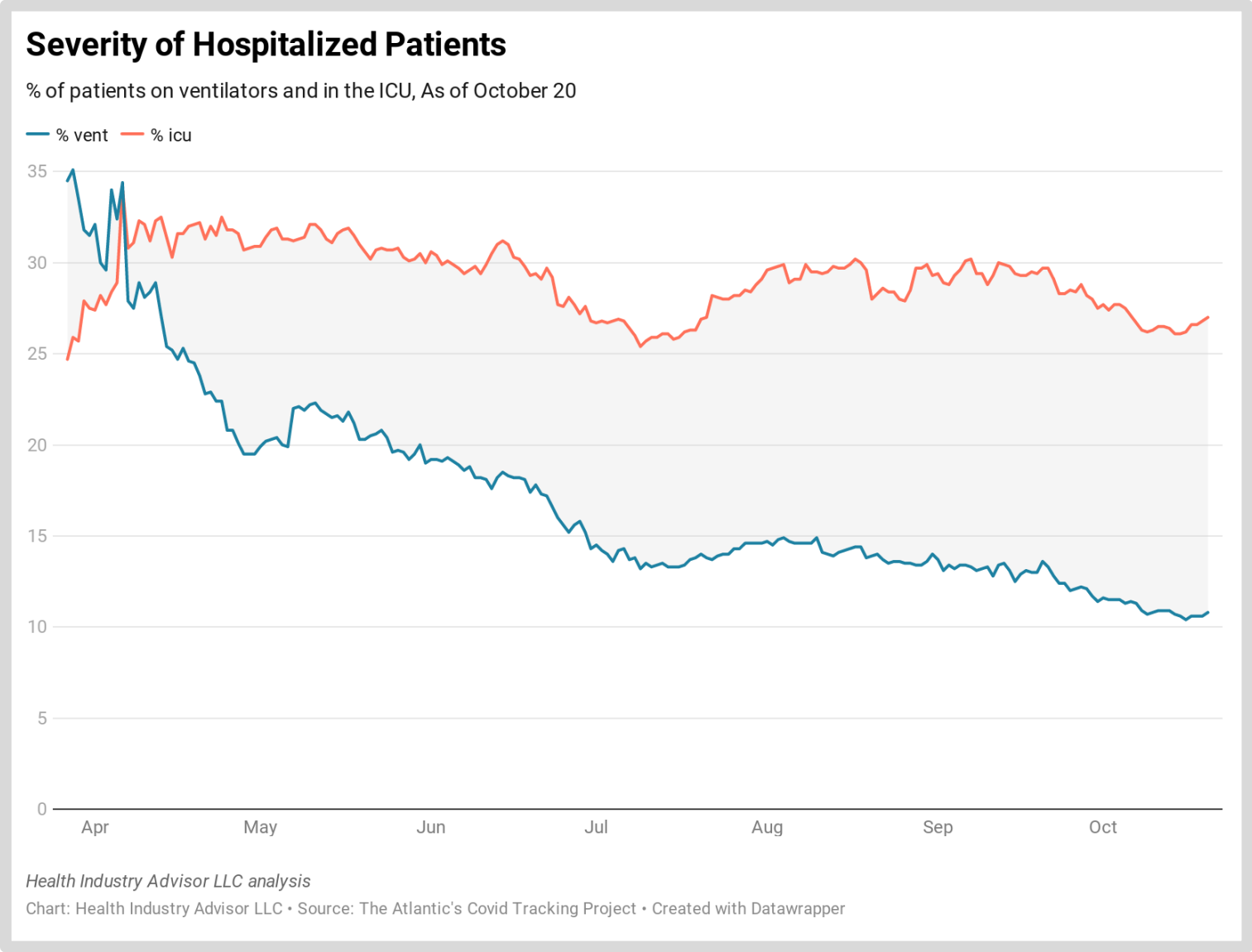
Of note form this graphic, it appears that the recent upswing in hospital census is being driven by persons 75 years old and older

Rates for persons under 64 years old have been generally stable over time



Health Industry Advisor, llc

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



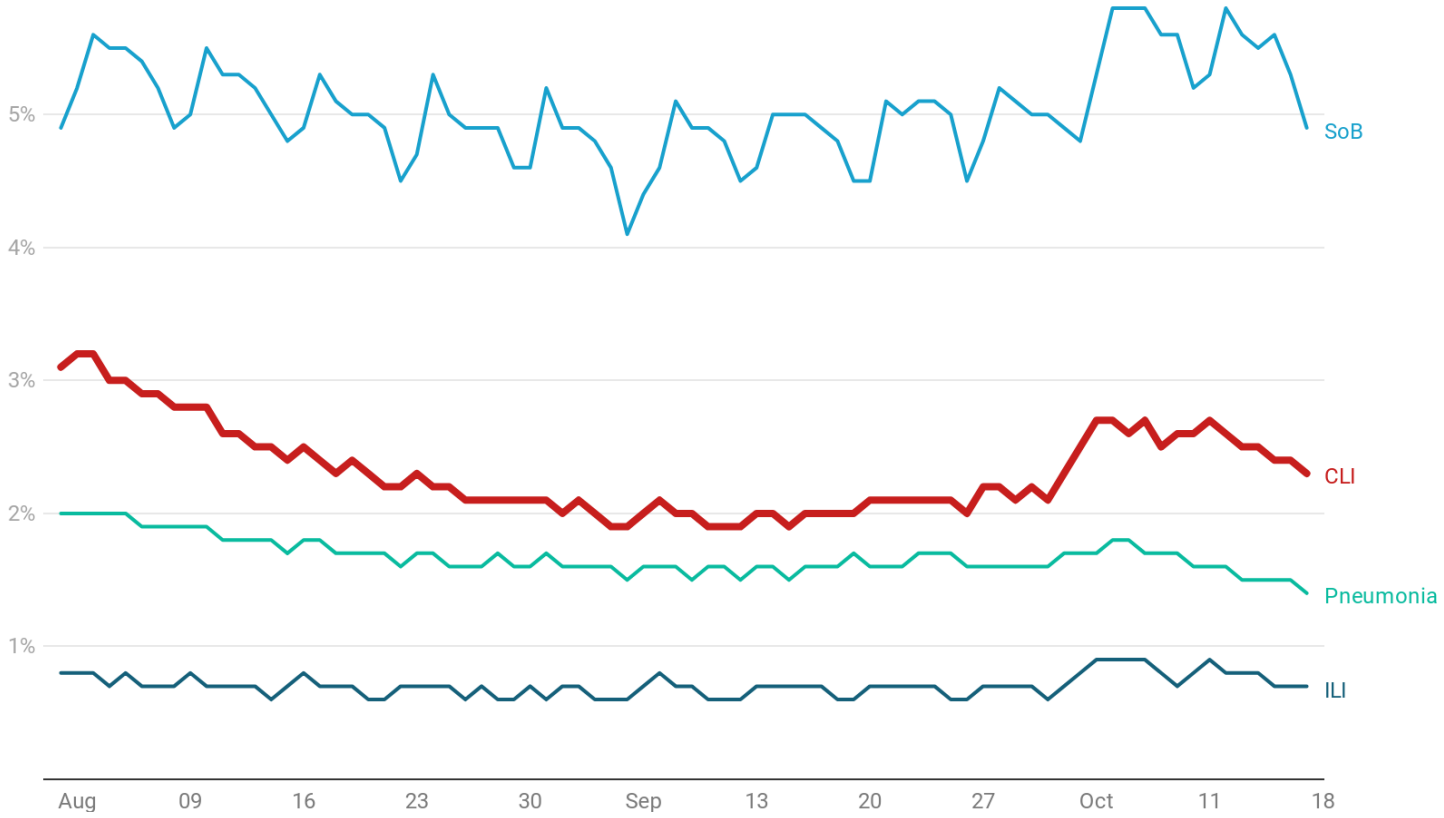
Health Industry Advisor, llc

The % of ER visits for COVID-19-like illnesses (CLI) has eased over the past six 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 17



Health Industry Advisor LLC analysis

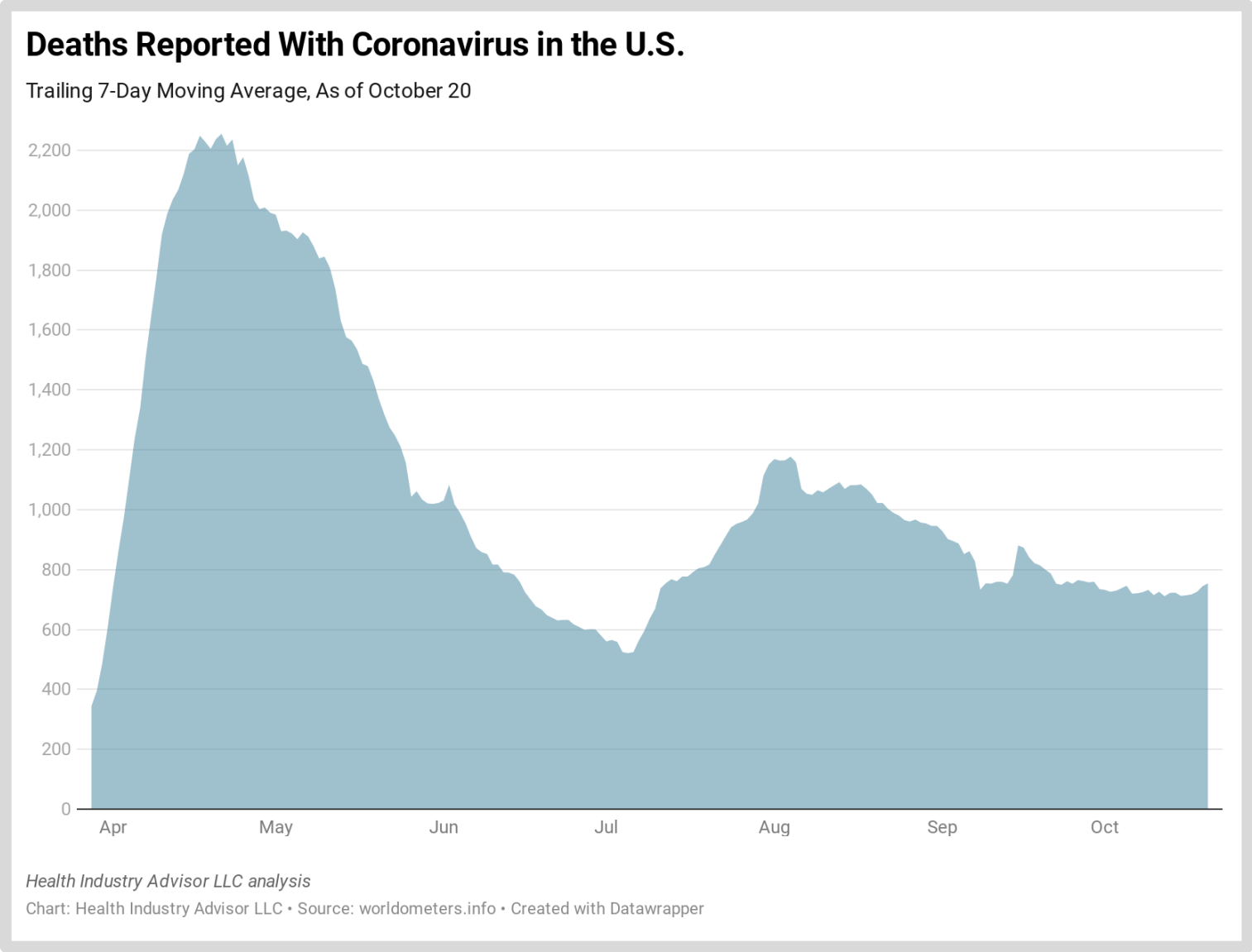
Chart: Health Industry Advisor LLC • Source: Centers for Disease Control • Created with Datawrapper

Health Industry Advisor, llc

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

The 7-day average deaths per day has increased on five consecutive days, and is the highest recorded for the month of October

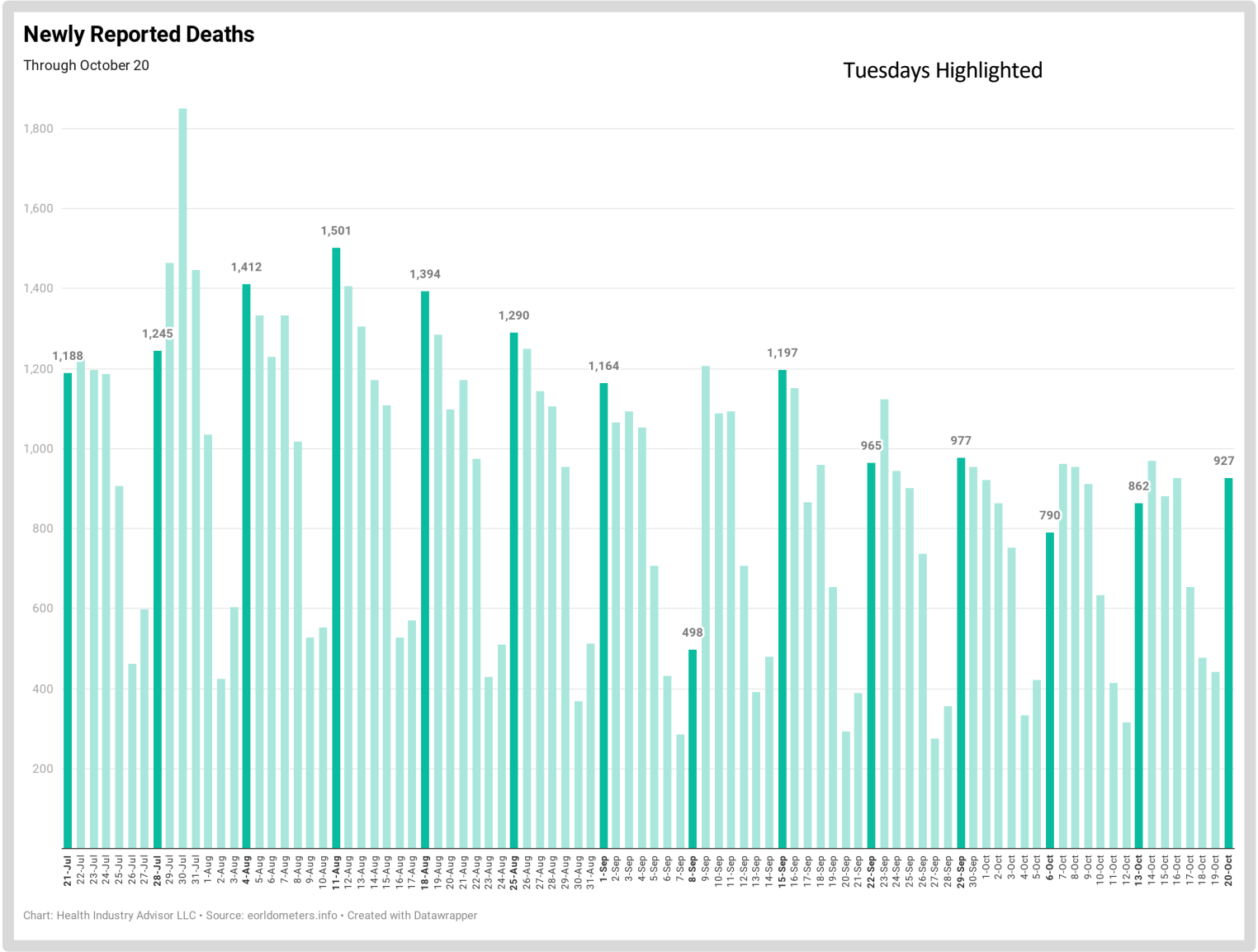
Still, it remains lower than it was for most of August and September, as well as significantly lower than it was in April, May and the first ½ of June



Health Industry Advisor, llc

There were more deaths reported yesterday than each of the past two Tuesdays

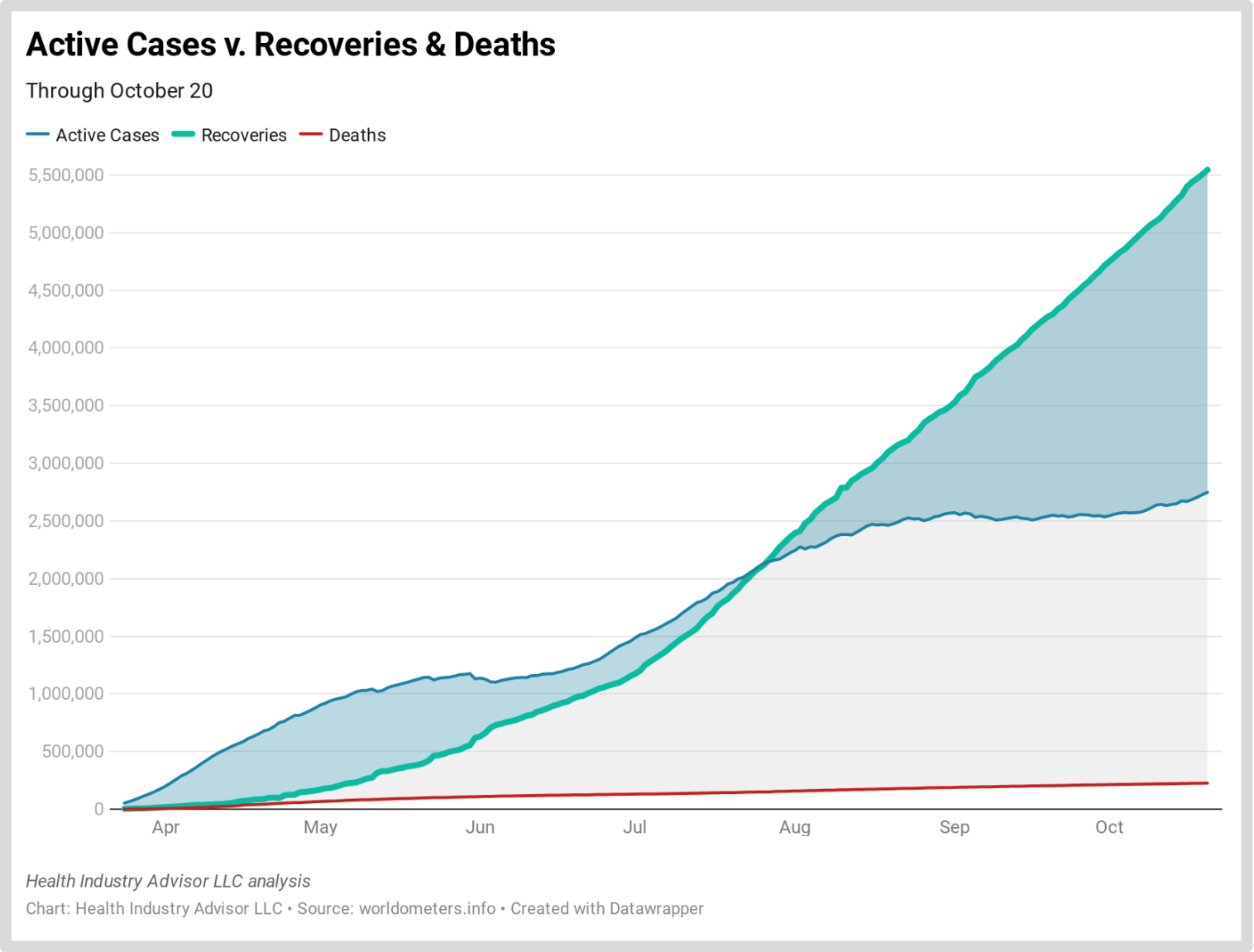
Still, other than Labor Day week, there were fewer deaths than on other Tuesday since June 30



Health Industry Advisor, llc

Recoveries from the virus continue to increase

Active cases have plateaued since mid-August



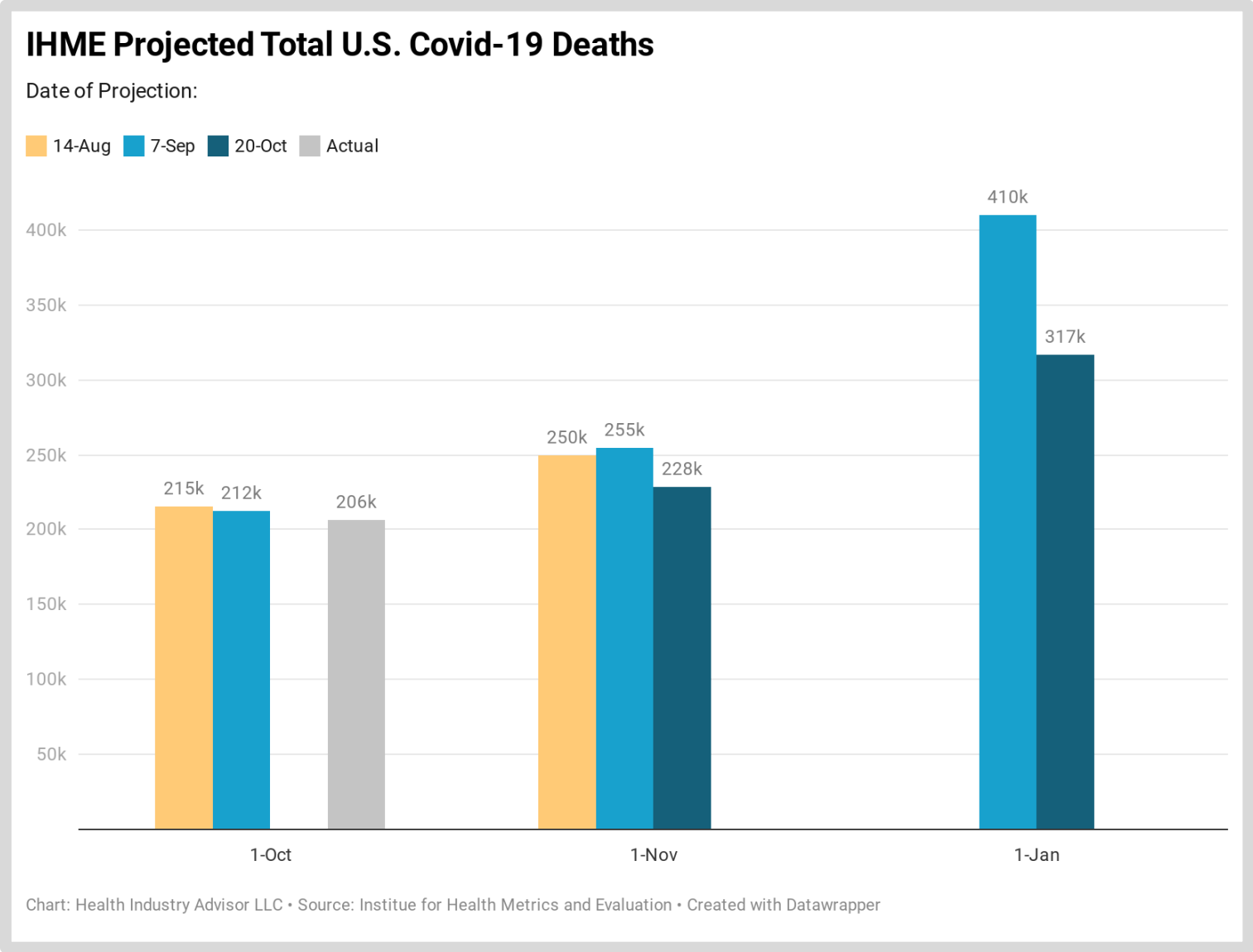
Health Industry Advisor, llc

The Institute for Health Metrics and Evaluation (IHME) publishes the most-widely-cited projections of Covid-19 deaths

U.S. deaths as of October 1 were slightly lower than IHME's projections for that date, as published on August 14 and on September 7

IHME subsequently lowered its death projections for November 1 and January 1: on September 7, IHME projected 410,000 deaths by January 1; on October 20, its projection is revised down to 317,000

Similar downward revisions were made for deaths as of November 1



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