

Issue # 212

Saturday, November 14, 2020

COVID-19 Report

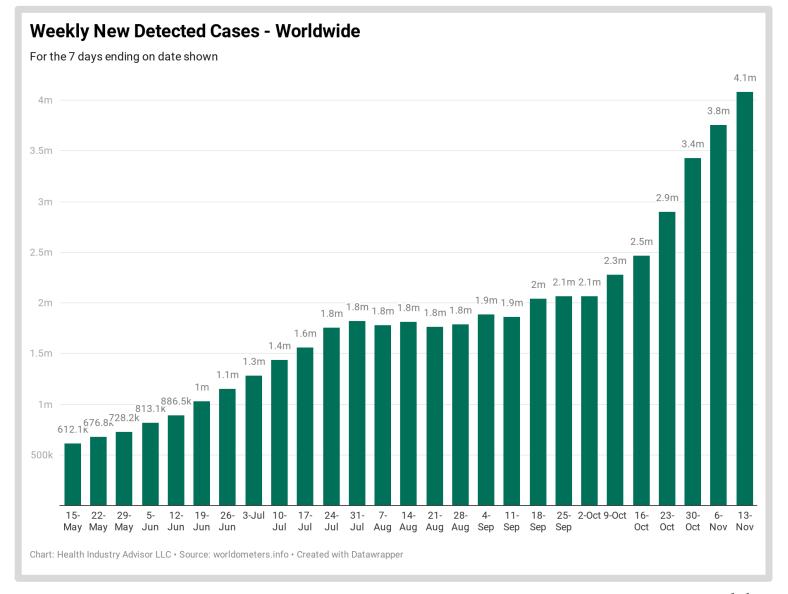
Highlights

- More then 1M new cases were detected in the United States this week, and more than 4M worldwide
 - For the second consecutive week, Illinois and Texas reported the highest number of new cases among the states
 - Also for the second consecutive week, Illinois reported the largest increase in new cases over the prior week
 - Midwest states dominated the list of states with the highest number of new cases this week
- More than 8M Covid-19 active-detection tests were performed in the U.S - the eighth consecutive week that a new record high volume was achieved
 - The test-positive rate on these tests continued to climb
 as it has now done for six consecutive weeks
 - The test-positive rate for the week exceeded the CDCtarget for Phase 3 re-openings
- Covid-19 inpatient census increased sharply last week, reaching the highest level of any point during the pandemic
 - Currently, 22% of all inpatient beds in the U.S. are occupied by Covid-19 patients; last week, this was 18%
 - Covid-19 patients in the ICU and on ventilators also increased this week, and both exceed previous peaks
- The healthcare situation would be even more dire, if not for lowered case severity
 - From mid-July to mid-September, every 100 new cases would result in 80-90+ inpatient days; last week, this rate fell to its lowest level ever - 43
 - Even Covid-19 inpatients aren't as severe as they have been - the %'s of Covid-19 inpatients in the ICU or on ventilators continued their steady declines last week, and are at their lowest levels since the pandemic began

- Deaths with the coronavirus increased again last week this for the fourth consecutive week
 - This pattern follows the upward trend in new cases that began in mid-September (tragically, this suggests that deaths will continue to increase for at least the next month)
 - The case fatality rate deaths from new cases detected four weeks earlier - has been stable for the past two months; this rate had been markedly higher from the onset of the pandemic through mid-summer
 - The % of all deaths that are due to Covid-19, pneumonia and the flu have remained lower during this recent case surge than in the aftermath of the June/July case surge and dramatically lower than in the aftermath of the March/April case surge
 - During the March/April surge, more the 1-in-4 deaths were due to one of these causes; over the past several weeks, this rate has been closer to 1-in-8
- The other potential risk to the healthcare system is flu season; to-date, it has been mild
 - Influenza is typically a major driver of hospital use in the Fall and Winter
 - Now in the fifth week of the 2020-2021 flu season, this season has been milder than each of the past eight seasons
 - Flu visits this season are running 60-80% lower than the comparable weeks during the 2019-2020 flu season



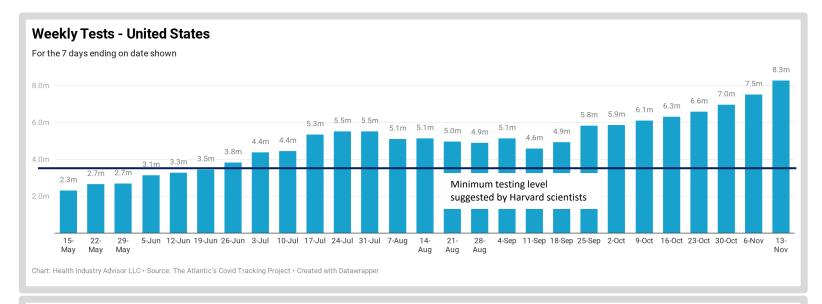
There were 4.1 million newly detected cases worldwide last week

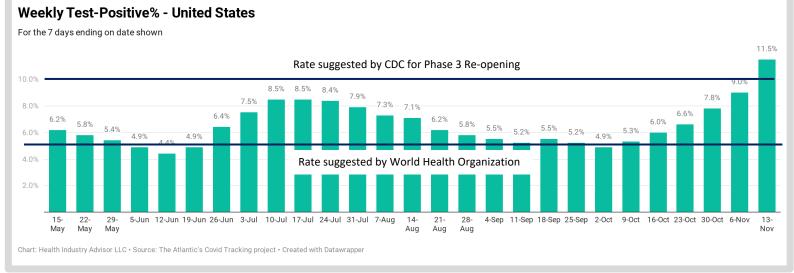




Test volume set a record high for the eighth consecutive week

Test-positive rate has increased six consecutive weeks . . . and now exceeds the target set by the CDC for Phase 3 re-openings

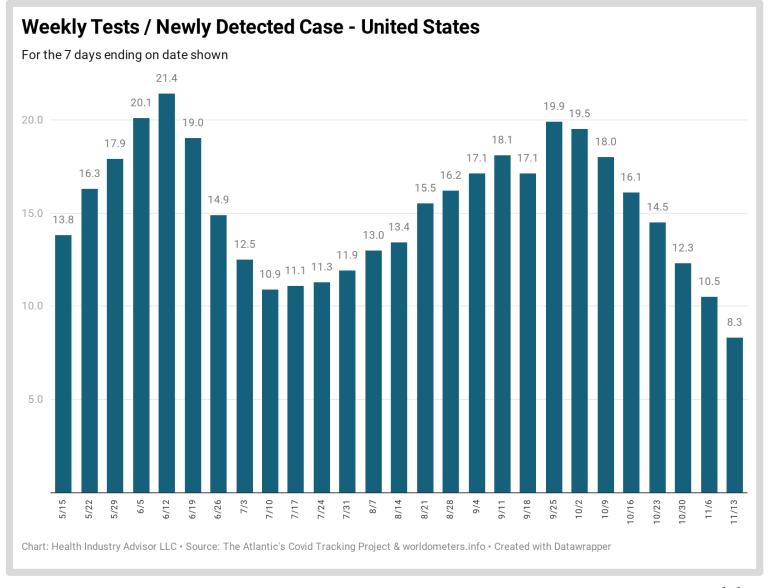






The ratio of tests performed to new cases detected has dropped seven consecutive weeks - despite increasing test volume

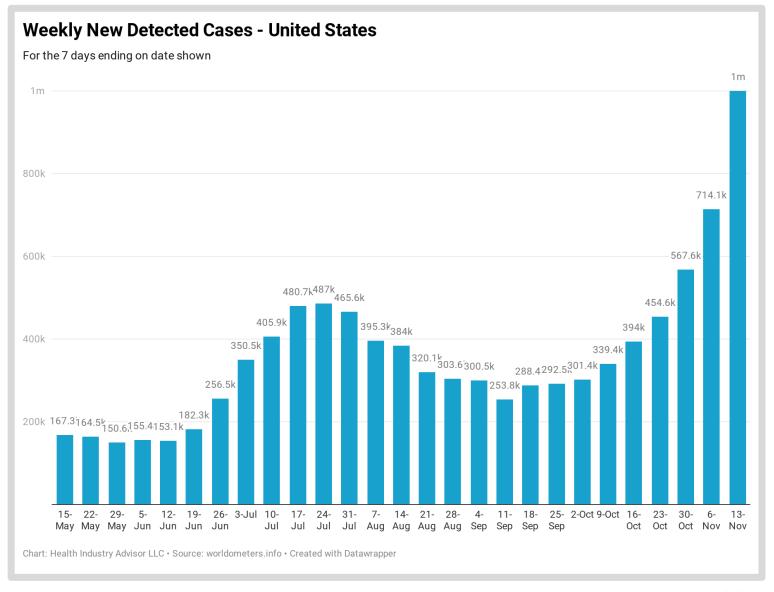
The higher this ratio, the more adequate testing is at identifying spread; a low measure suggests that testing isn't keeping pace





Newly detected cases increased for the ninth consecutive week

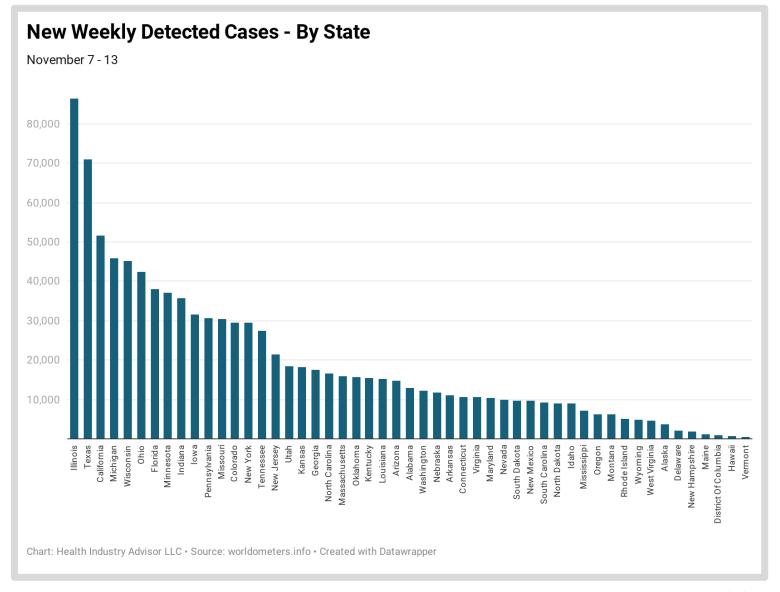
More than 1M new cases in the past seven days





Illinois and Texas recorded the highest number of newly detected cases over the past seven days – by a significant margin

Several Midwestern states were among those with the most new cases last week

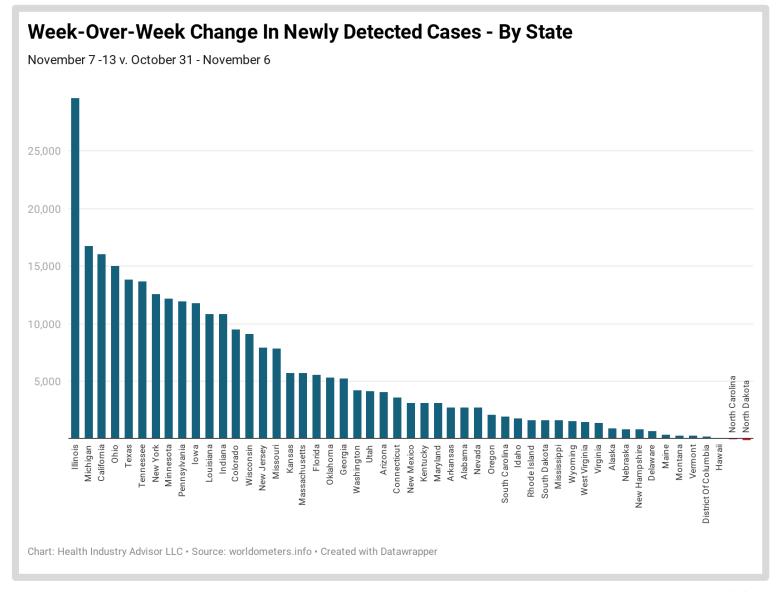




For the second consecutive week, Illinois experienced the largest increase in new cases relative to the prior week

Michigan and California also experienced > 15,000 more new cases than the prior week

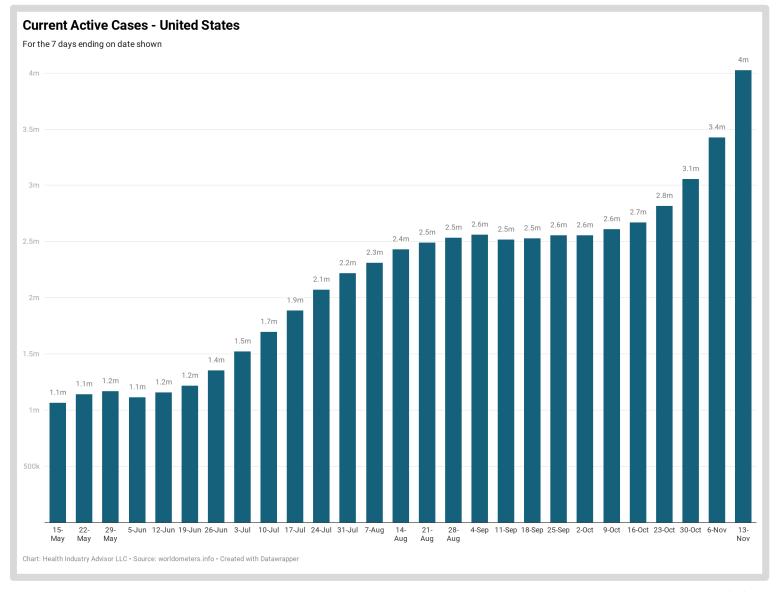
Only two states –North Carolina and North Dakota– experienced fewer newly detected cases this past week v. the prior week





There are 4 million people in the U.S. currently recovering from Covid-19

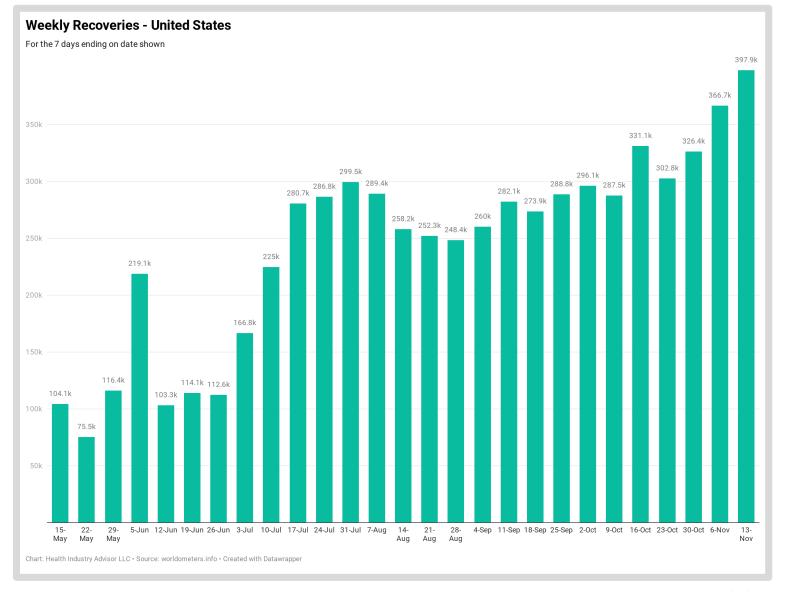
The estimated number of active, detected cases in the U.S. increased for the 6th consecutive week, following six weeks of relative stability





Recoveries from detected infections in the U.S. increased each of the past three weeks

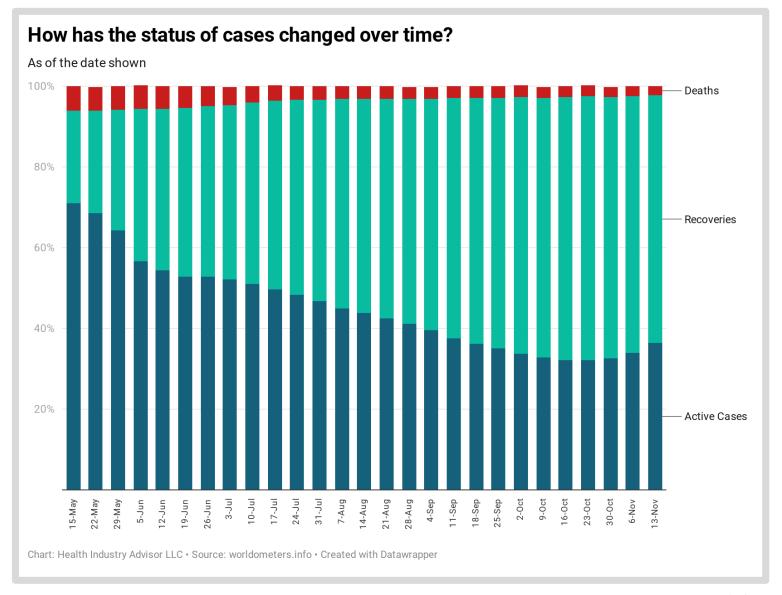
6.8M people in the U.S. have recovered from a detected SARS-CoV-2 infection . . . Nearly 400k last week





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

The number of active cases, as a % of all detected cases, have recently increased

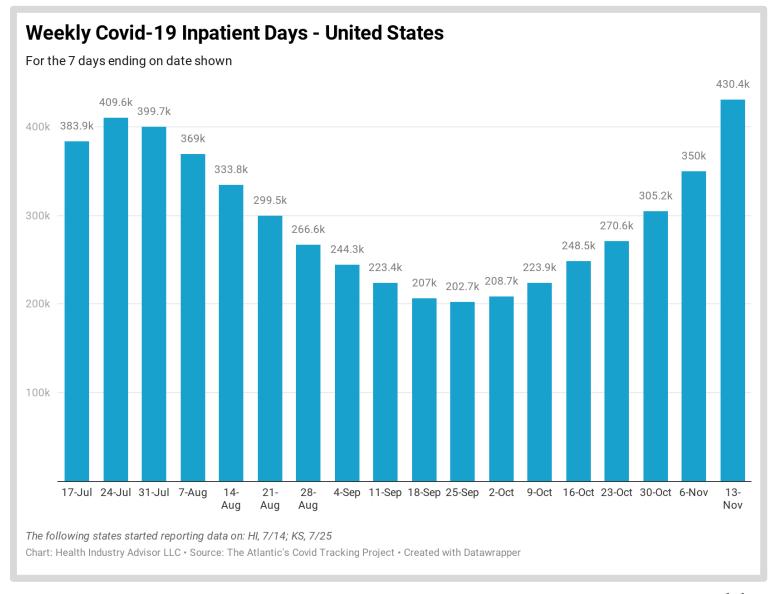




Inpatient COVID-19 census increased last week, for the seventh consecutive week

This census now exceeds its July 18-24 level

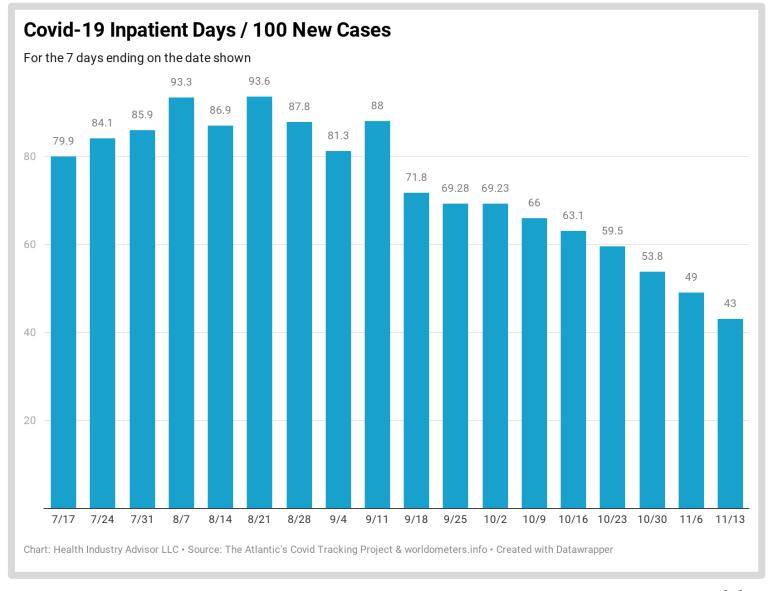
Nationwide, Covid-19 patients occupy 22% of available inpatient beds – up from 18% a week ago





Covid-19 inpatient days per 100 new cases declined for the ninth consecutive week

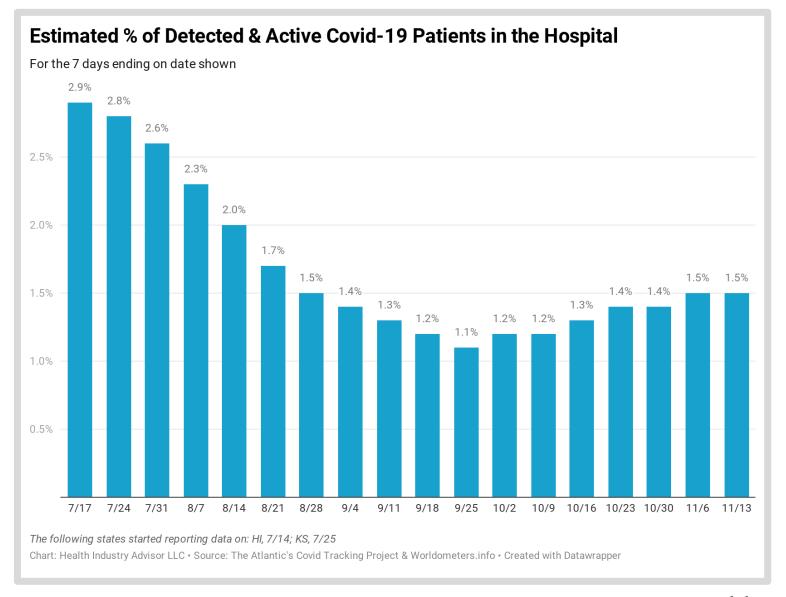
This rate is been halved in the past two months





Only about 1.5% of activelyinfected persons are in the hospital – consistent with the several weeks

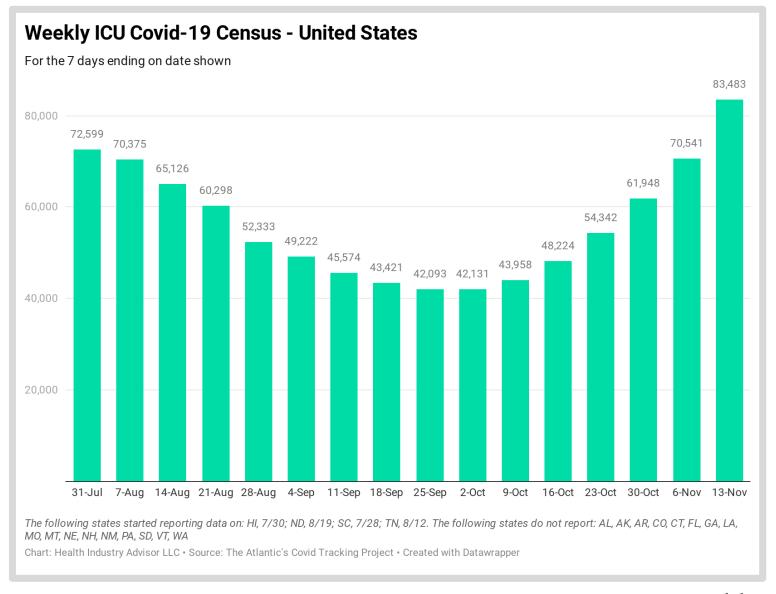
Despite the recent increase in Covid-19 inpatients, the likelihood of a detected & actively-infected person being in the hospital is ~1/2 what it was in mid-July





ICU census of COVID-19 patients increased significantly last week

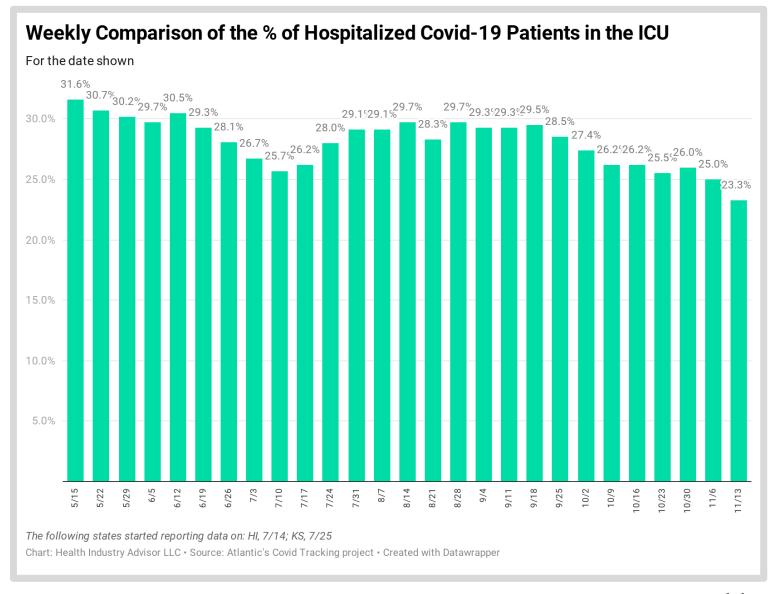
This census has now increased seven consecutive weeks





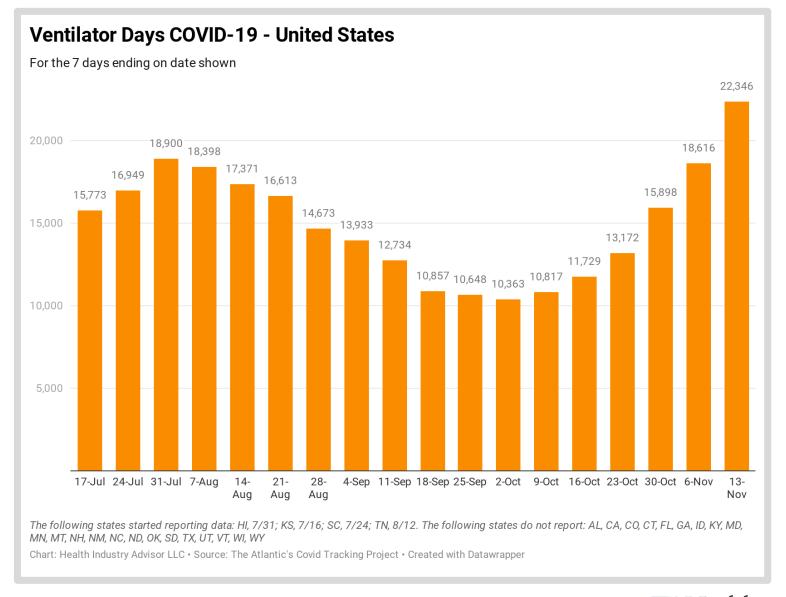
Fewer than a ¼ of Covid-19 inpatients were in the ICU last week

This % is as low as it has been since at least mid-May





Census of COVID-19 patients on ventilators increased last week – the sixth consecutive week-over-week increase

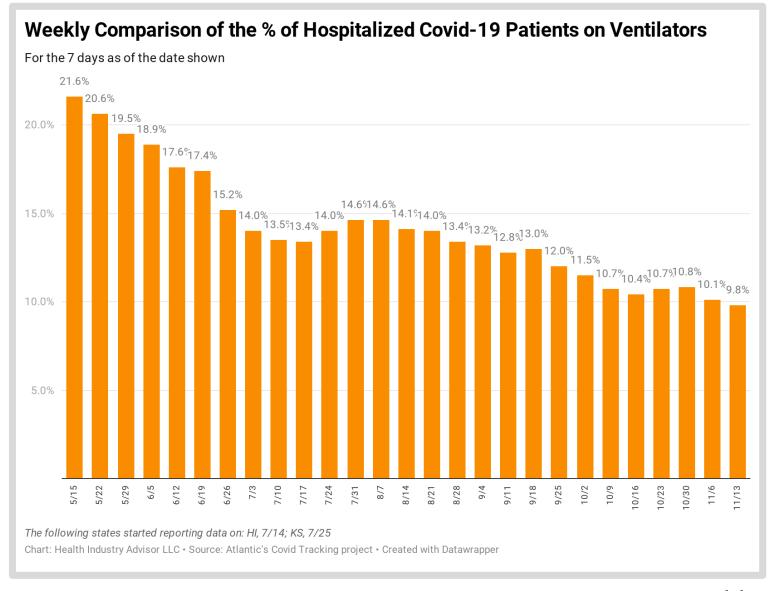




Despite the increase in ventilator patients last week, the likelihood of a hospitalized Covid-19 patient would be on a ventilator declined from last week

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

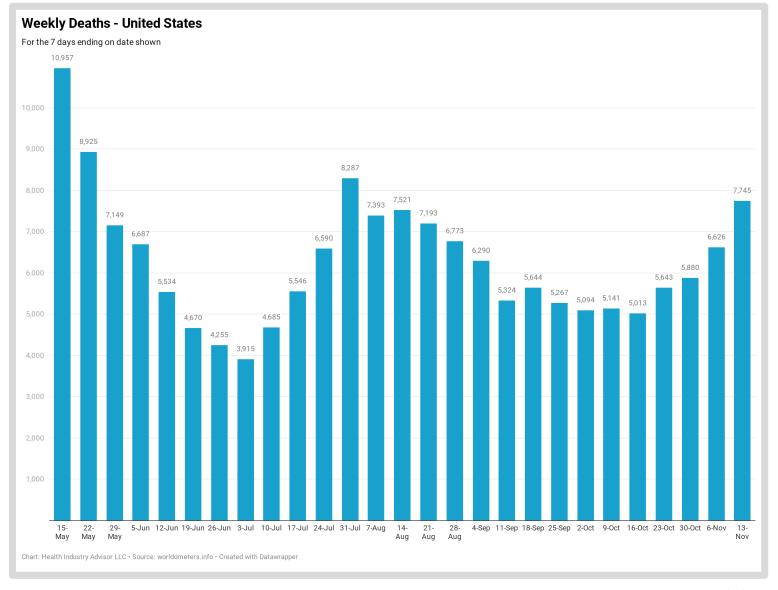
A reflection of changing treatment protocols, the likelihood of a person hospitalized with a SARS-CoV-2 infection has been cut by more than ½ since mid-May





Deaths reported with the coronavirus in the U.S. increased for the fourth consecutive week—likely a result of the recent case surge

There were more deaths last week than any week since July 25-31

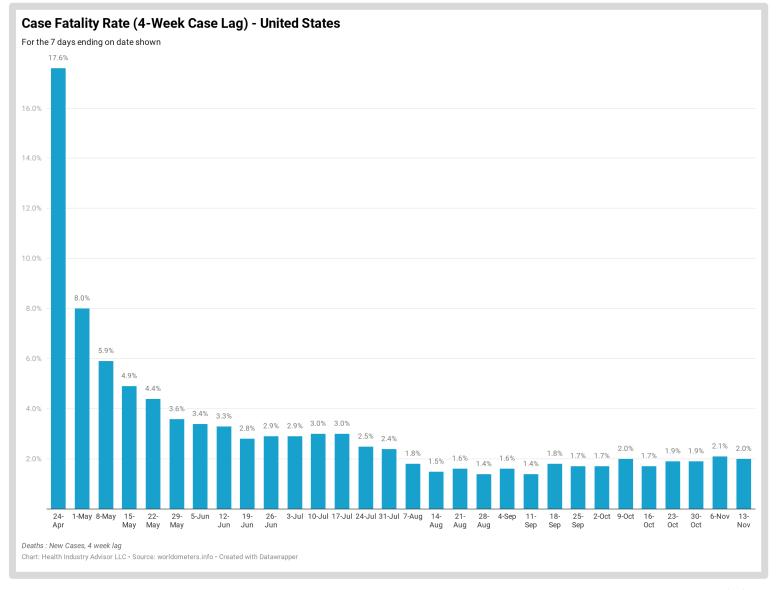




The rate of deaths per new case (4-week lag) has been relatively stable for the past two months

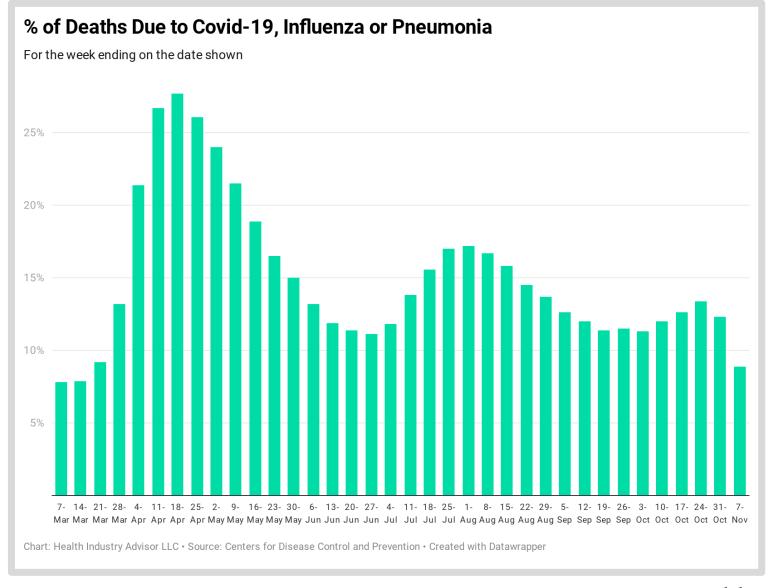
This rate is at least a full percentage point lower than it was for most of June and July

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





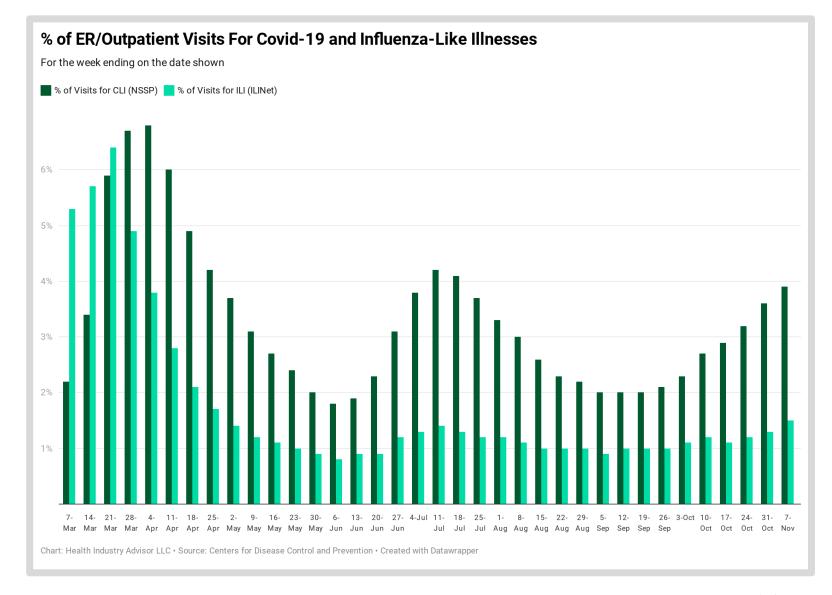
The % of deaths due to Covi-19, influenza and pneumonia remain lower than they have been for most weeks since the Spring . . . and markedly lower than the periods following March/April and June/July case surges





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

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





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

