

Issue # 171

Saturday, September 26, 2020

COVID-19 Report

## Highlights

- The virus spread in the United States has clearly shifted to less-densely-populated states - particularly those in the central portion of the country
  - Of the states that experienced the largest increases in new daily infections per capita over the past two weeks, eight have populations < 4 million</li>
  - Of the ten most populated states (population >~10 million), only North Carolina has experienced an increase in new infections per capita of > 14 per 1M over the past two weeks
  - Using our multi-factor state-by-state scorecard (based on rates of new infections, case growth, test-positive% and hospitalizations), as many people now live in the fifteen states rated as "Low" concern as in twenty-five states rated "High" or "Moderately High" concern
- Testing the U.S. improved over the past week
  - There were nearly 1 million more tests completed the past week than the previous week
  - Test volume for the week was the highest of any week since the pandemic began
  - The test-positive rate declined on a week-over-week basis; the rate during the past week (along with the week of September 5-11) was as low as it has been since June 13-19
- New Cases increased this past week
  - New cases were up ~1,000 per day versus the prior week
  - This was the second straight week that new cases increased - although the increase was not as significant this previous week
  - Nevertheless, there were fewer new cases last week than during the ten weeks from June 27-July 3 to August 29-September 4

#### Deaths with the coronavirus declined last week

- This represented the sixth time in the last eight weeks that deaths have declined
- There were 35% fewer deaths last week than the week of July 25-31 and 52% fewer than the week of May 2-15

#### Hospital resource use for COVID-19 infections continued to decline last week

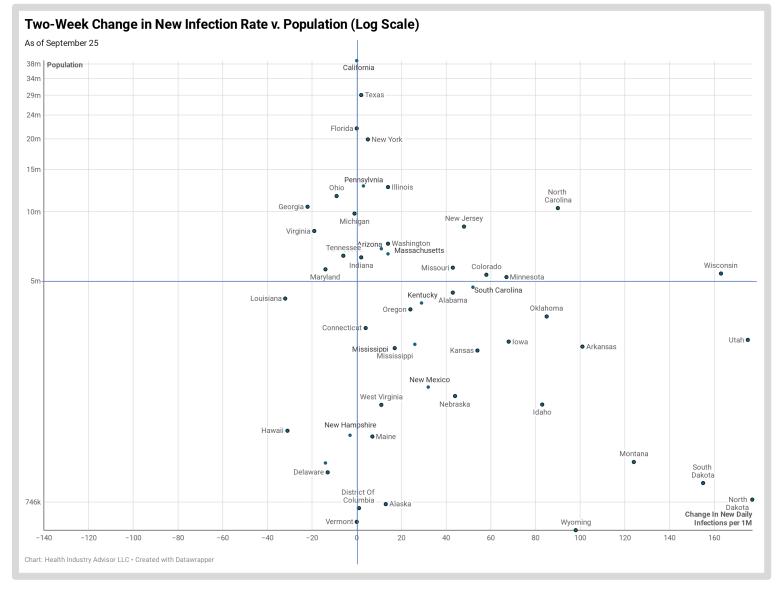
- Inpatient days for COVID-19 patients declined for the ninth consecutive week; During this time, this census has fallen by nearly 50%
- ICU days for COVID-19 patients declined for at least the eighth consecutive week (prior to that, fewer states reported these data); During this time, this census has fallen by 44%
- Ventilator days for COVID-19 patients also declined for the eighth consecutive week; During this time, ventilator days have fallen by 42%
- The % of ER visits for COVID-19 like illnesses continued to decline, a trend that began in early July; During this time, this rate has fallen by more than 50%
- Israel now has the highest rate of new infections per capita of all countries with >1 million population
  - Israel's infection rate also has risen sharply in the past two weeks
  - Israel's rate was 4x that of the U.S. for the past week
  - Belgium, Czechia, France, Lebanon and the Netherlands also have experienced increasing infection rates over the past two weeks
  - Bahrain, which has the second highest infection rate, and Peru have seen rates decline over the past two weeks



The virus spread has moved to less-densely populated states

Of the ten mostpopulated states, only North Carolina has experienced an increase in new daily infections of >14/M in the past two weeks

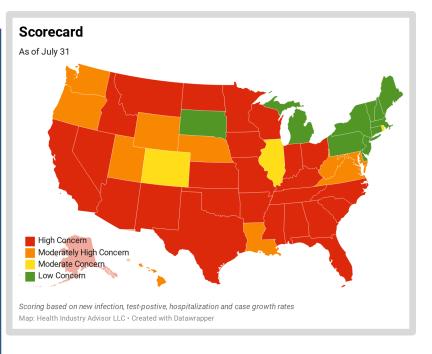
Of the ten states with the largest increases in new daily infections, eight have fewer than four million residents





Another perspective of the shift in infection spread to less-densely-populated states:

As many people live in states rated "Low" concern (~39% of the U.S. population) as in states rated "High" or "moderately High" concern



July 31

Multi-factor scorecard, considering rates of new infections, case growth, testpositives and hospitalizations

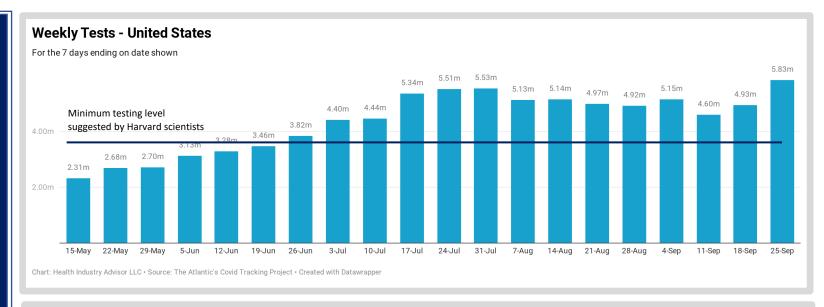


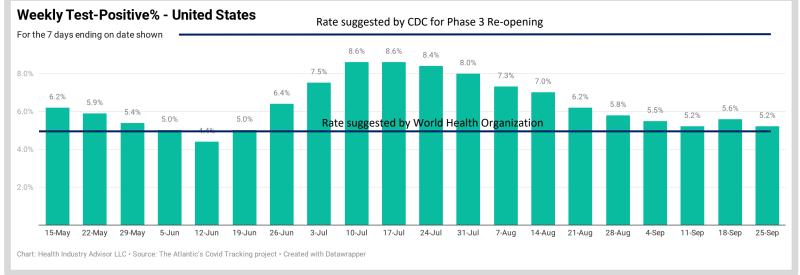




Test volume this past week was the highest of any week throughout the pandemic

Test-positive rate dropped last week, is as low as it has been since June 13-19



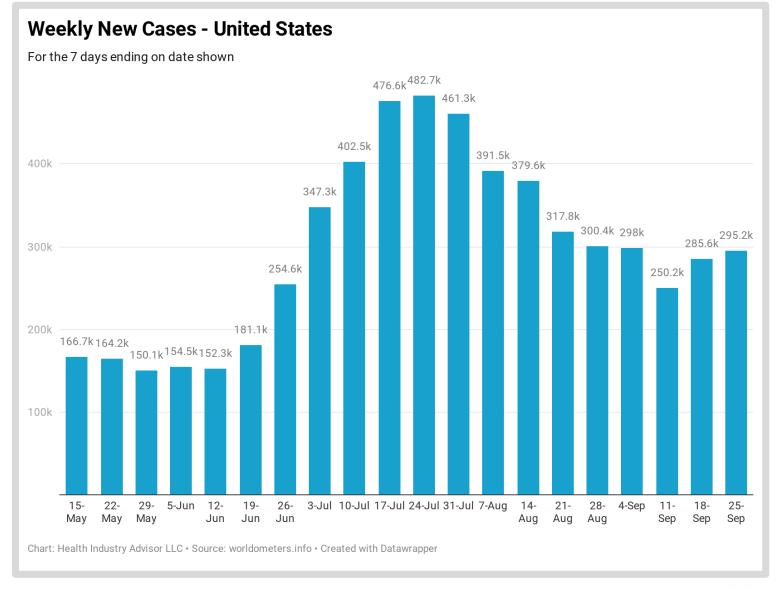




New cases increased this past week, by ~1,000 per day

Second consecutive week that new cases increased

Nonetheless, there were fewer new cases last week than any week from June 27-July 3 to August 29-Spetmber 4

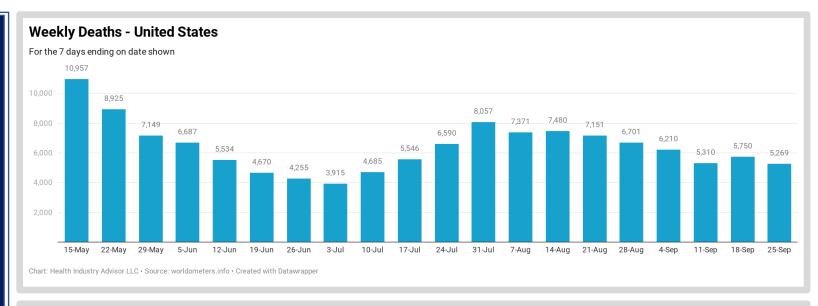


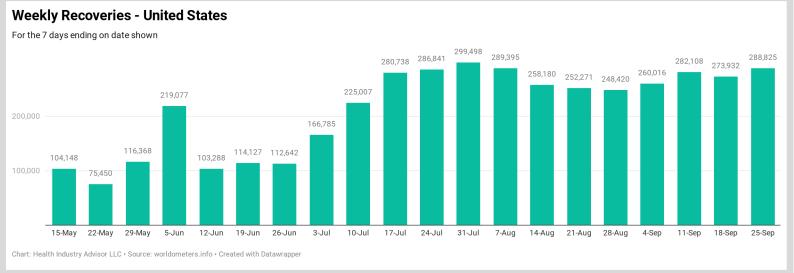


Reported deaths this past week declined from the prior week

There were fewer deaths reported last week than any week since July 4-10

There were more reported recoveries from the virus this past week than any week since August 1-7; third highest since pandemic began







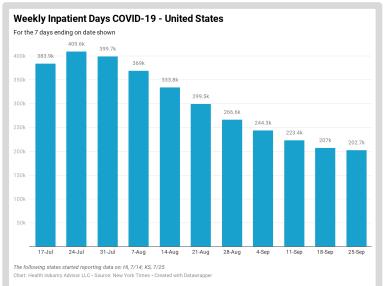
Hospital resource demand for COVID-19 cases continued to decline last week:

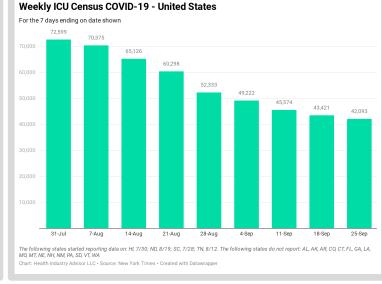
The number of persons hospitalized with the virus last week was <1/2 that for July 18-24

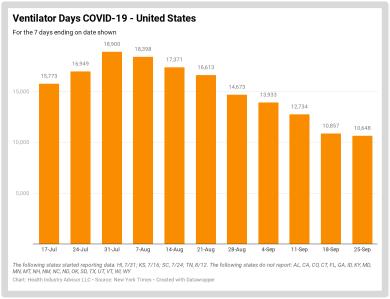
The number of COVID-19 ICU patients last week was 44% lower than on July 25-31

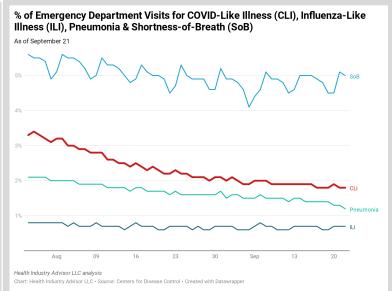
The number of COVID-19 patients on ventilators was 42% lower last week than on July 25-31

The % of ER visits for COVIDlike illnesses is less than ½ what it was in July











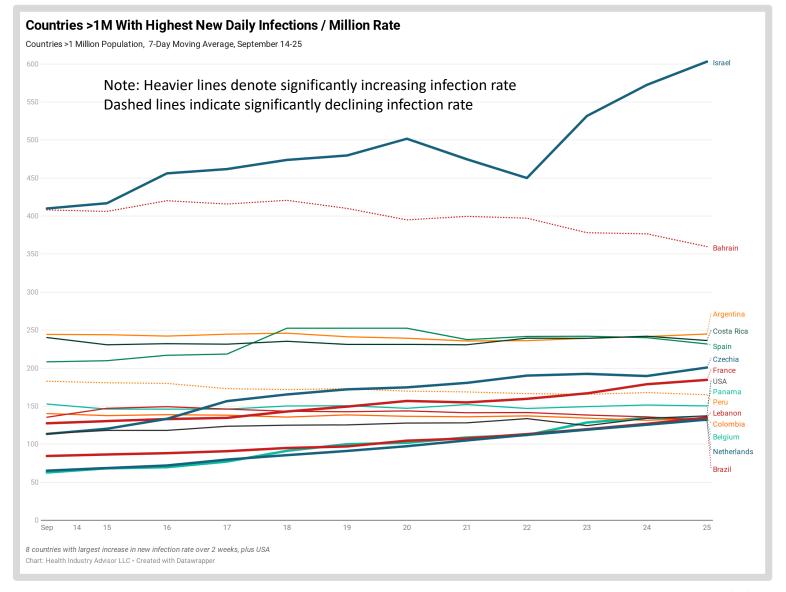
# Countries with >1M population:

Israel has the highest current infection rate per capita\*, and its rate has increased significantly in the past two weeks

Belgium, Czechia, France, Lebanon and the Netherlands have also experienced increasing infection rates over the past two weeks

Bahrain, which has the second highest rate, and Peru have seen rates decline over the past two weeks

\* 7-day average





### **Data Sources**

The following data sources are accessed on a daily or weekly basis:

- The Atlantic's Covid Tracking Project: <a href="https://covidtracking.com">https://covidtracking.com</a>
- Worldometers.info: <a href="https://www.worldometers.info/coronavirus/">https://www.worldometers.info/coronavirus/</a>
- Centers for Disease Control, National, Regional, and State Level Outpatient Illness and Viral Surveillance <a href="https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html">https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html</a>
- 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 <a href="https://www.cdc.gov/covid-data-tracker/index.html#mobility">https://www.cdc.gov/covid-data-tracker/index.html#mobility</a>
- Institute for Health Metrics and Evaluation, COVID-19 estimate downloads http://www.healthdata.org/covid/data-downloads
- New York Times, Covid-19 data <a href="https://github.com/nytimes/covid-19-data">https://github.com/nytimes/covid-19-data</a>
- COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University <a href="https://github.com/CSSEGISandData/COVID-19">https://github.com/CSSEGISandData/COVID-19</a>
- COVID-19 Projections Using Machine Learning, <a href="https://covid19-projections.com">https://covid19-projections.com</a>

