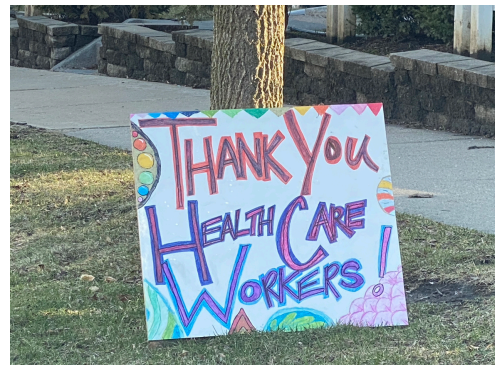
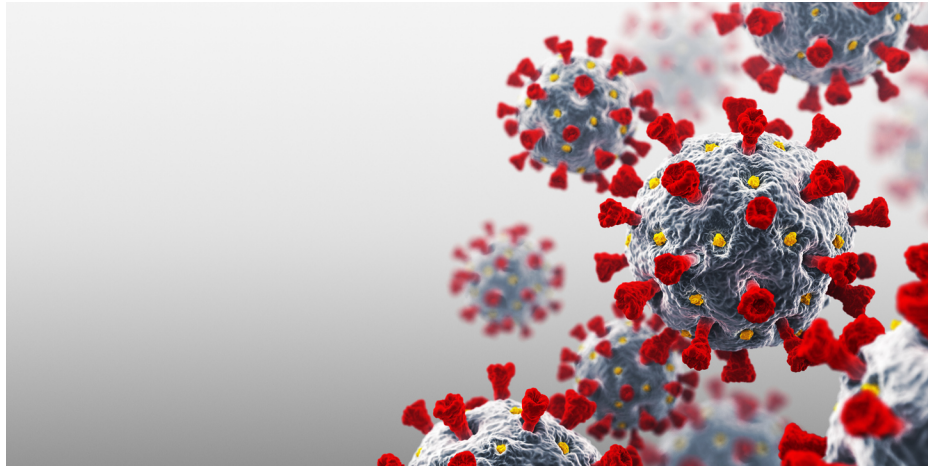
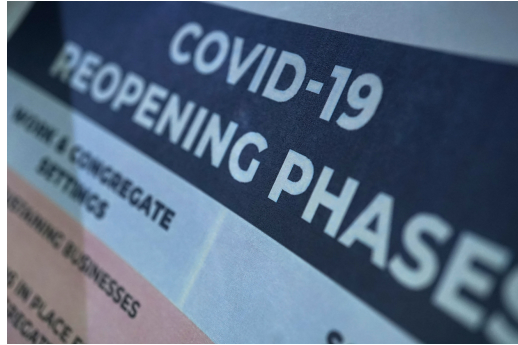




COVID-19 Report

Issue # 130

Sunday, August 9, 2020

- First, given the concern about testing availability and turnaround in the United States, a potentially "game-changing" development: a rapid, low-cost saliva test for SARS-CoV-2, *SalivaDirect*, was submitted in July to the FDA for Emergency Authorization Use. If approved, this test could significantly improve both back-to-work and back-to-school efforts
 - Non-invasive and does not require trained healthcare professionals for administration
 - Costs \$1.29-\$4.37 per sample
 - Reports a high agreement in testing outcomes with existing tests on the market
 - Backed by a number of foundations . . . and the NBA and NBA Players Association (hmmm)
- On the vaccine front, three potential vaccines updated their efforts:
 - Noravax, currently in combined Phase II and III trials, announced promising results on preliminary studies in monkeys and humans. If successful, Noravax anticipates having 100 million doses available in the U.S. in Q1 2021
 - Medigen announced a Phase I trial to begin in September in Taiwan
 - Zydus Cadila launched a Phase II trial in India on August 6
- The week ending August 8 provided encouraging trends with respect to the SARS-CoV-2 infection spread in the U.S., with the lone exception being test volume:
 - New infection rate: Down 14.4% week-over-week (lowest point since July 9)
 - U.S. rank in the world: Down to 11th, from 5th one week earlier
 - Tests/Capita: Down 8.6% (lowest point since July 13)
 - Test-positive rate: Down to 7.4% for the week, down from 8.0% week earlier (lowest since July 1)
 - Deaths per day: Down 11.5% week-over-week (lowest since July 27)
 - Hospital COVID-19 Census: Down 8.3% week-over-week (lowest since Florida began reporting these on July 10)
 - ICU COVID-19 Census: Down 7.6% week-over-week (lowest since Utah began reporting these on July 22)
 - ER Visits for COVID-19 Illness as % of all Visits: Down to 2.3% from 3.1% week earlier (lowest point since June 10)
 - Recoveries:Deaths: Up to 16.0 from 15.0 week earlier
 - Recoveries:Active cases: Up to 1.13 from 1.05 week earlier

Vaccines

On Aug. 4, Novavax announced promising results from two preliminary studies in monkeys and humans

Noravax expects to deliver 100 million doses in the U.S. in Q1 2021*

Pre-Clinical –

Vaccines not yet in clinical trial

135+

Phase I –

Vaccines testing safety and dosage

18

• **Medigen – announced a September Phase I launch**

Phase II –

Vaccines in expanded safety trials

12

• **Noravax – announced strong preliminary results**
• **Zydus Caila – launched a Phase II trial**

Phase III –

Vaccines in large-scale efficacy tests

6

• Moderna/National Institutes of Health • Sinopharm
• BioNTech/Pfizer/Fosun Pharma • Sinovac Biotech
• AstraZeneca/University of Oxford • Murdoch Children's Research Institute

Phase IV –

Vaccine approved for limited use

1

• CanSinoBIO/China's Academy of Military Medical Sciences

* - Source: "Coronavirus Vaccine Tracker", New York Times, Updated August 6, 2020
<https://www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html>

Current rate is best since:

- New Infections: 7/9
- Test-positive%: 7/1
- Deaths/Day: 7/27
- Hospital Census: Florida started reporting data on 7/10
- ICU Census: Utah started reporting data on 7/22
- ER Visit%: 6/10

Test volume is lowest since 7/13

Week-Over-Week Changes in Key Metrics

United States, August 8 v. August 1

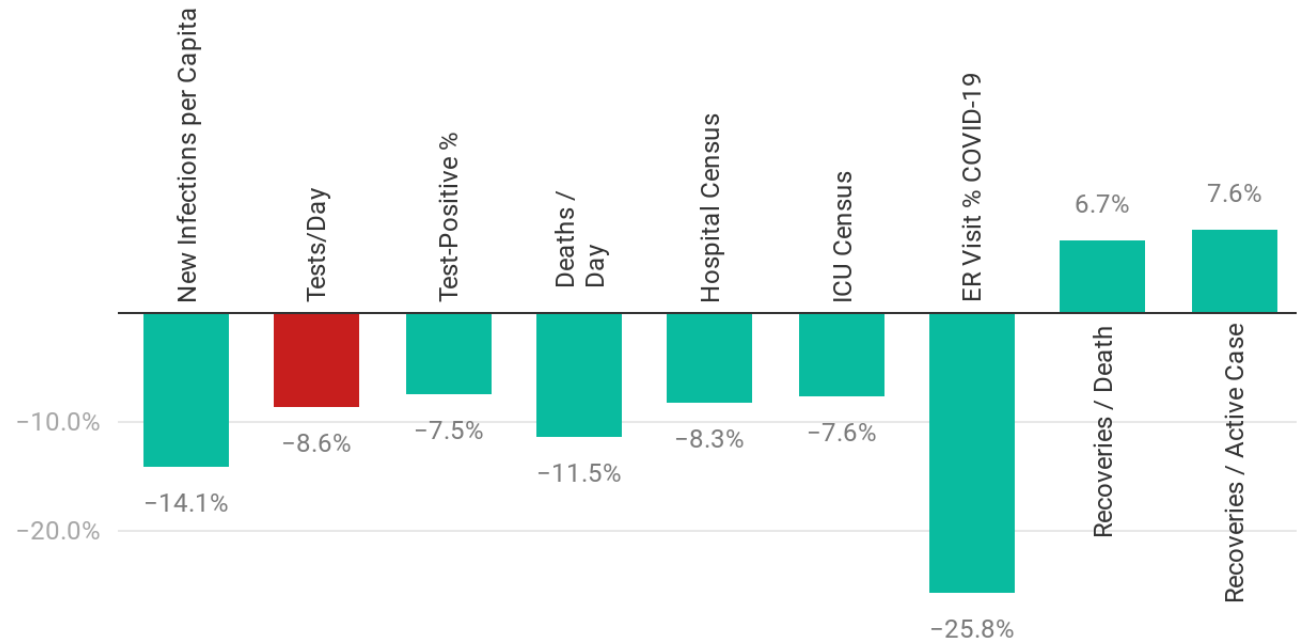


Chart: Health Industry Advisor LLC • Created with Datawrapper

New Cases

Through August 8

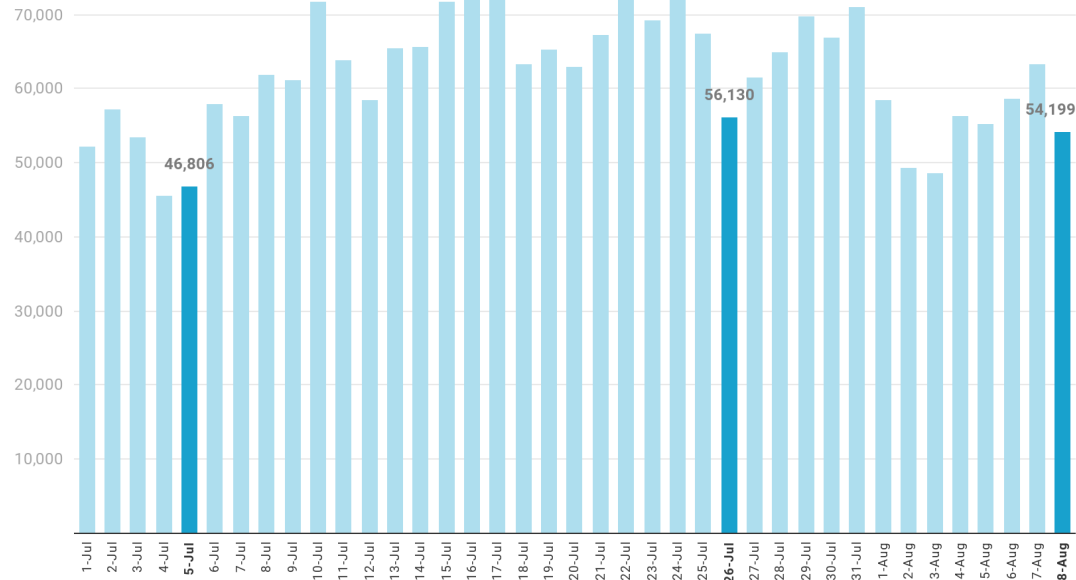
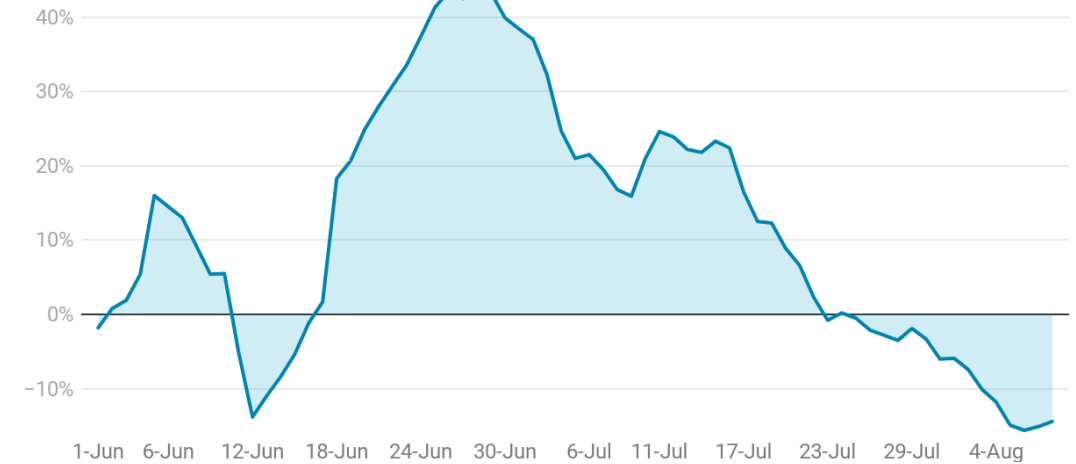


Chart: Health Industry Advisor LLC • Source: eorlometers.info • Created with Datawrapper

Week-Over-Week Change In New Cases

Through August 8



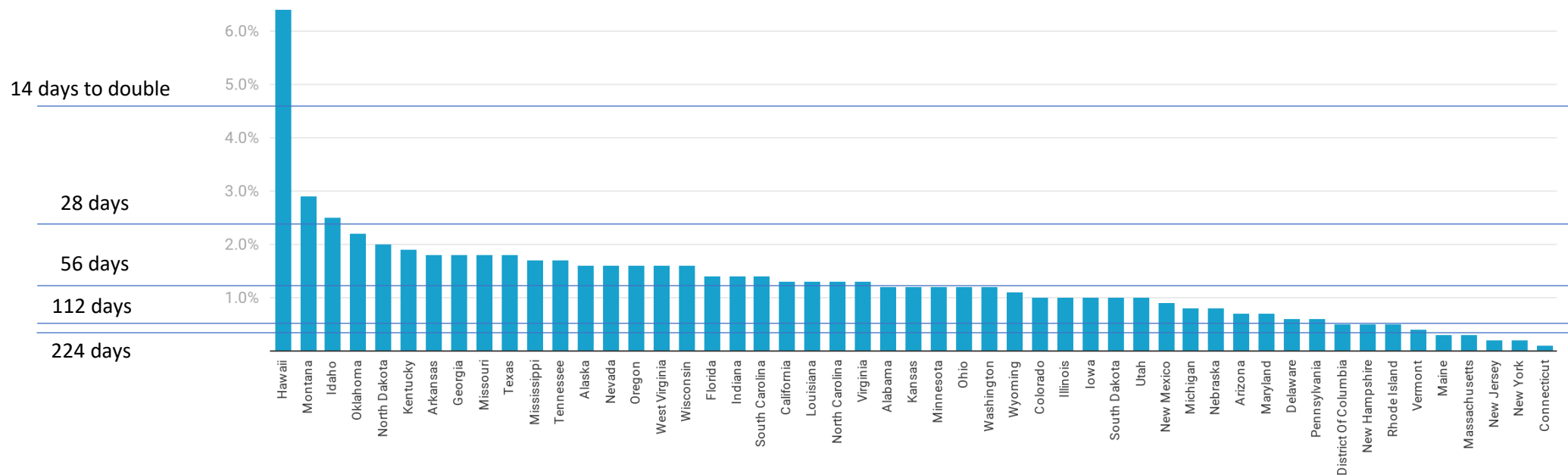
Health Industry Advisor LLC analysis

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

Case growth is slowing but, Hawaii remains the outlier. At current rates, cases are doubling every 11 days in Hawaii; every 674 days in Connecticut; 60-61 days for the United States overall

Growth Rate in Total Cases

Trailing 5-Day Moving Average, Through August 8



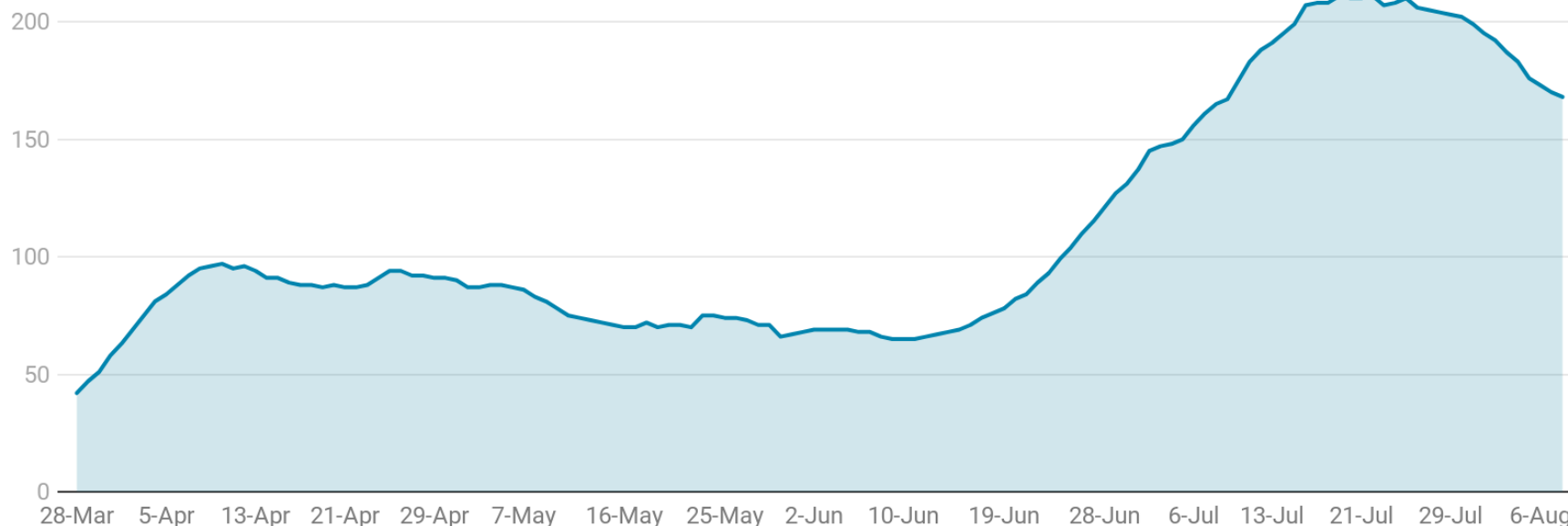
Health Industry Advisor LLC analysis

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

New infections per capita* declined for the 14th consecutive day on Friday; At its lowest level since July 9th

New Infections Per 1 Million Population - United States

Trailing 7-Day Moving Average, Through August 8



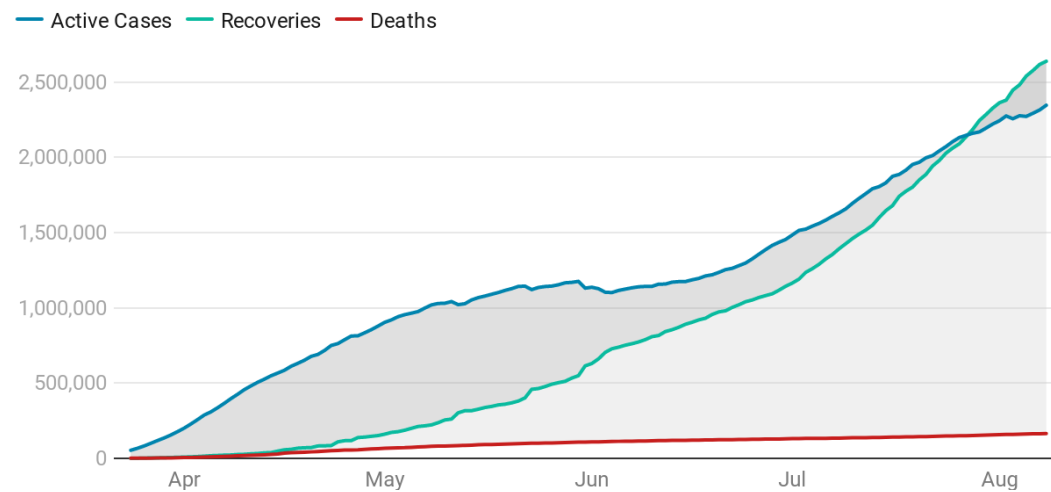
Health Industry Advisor LLC analysis

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

* - per million per day, trailing 7-day moving average

Active Cases v. Recoveries & Deaths

Through August 8

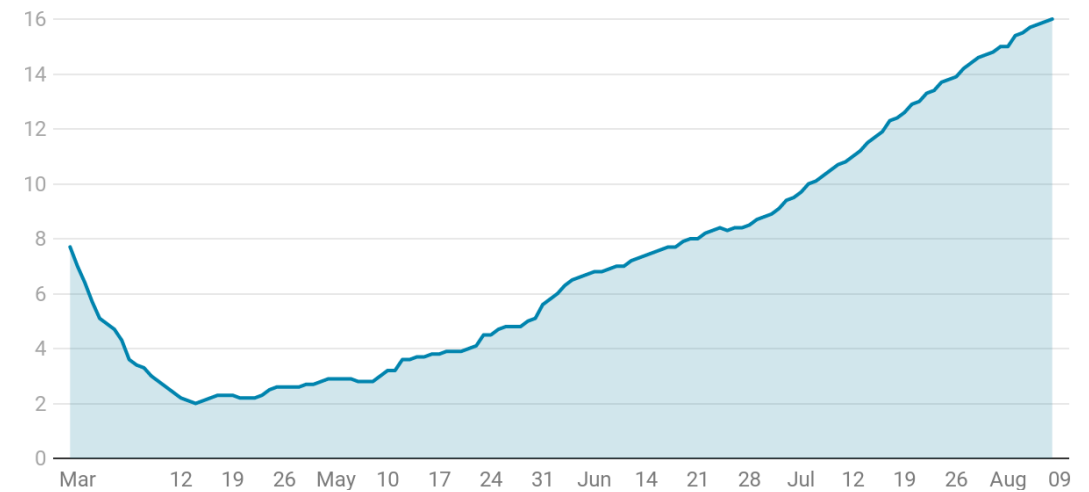


Health Industry Advisor LLC analysis

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

Recoveries: Deaths - United States

As of August 8

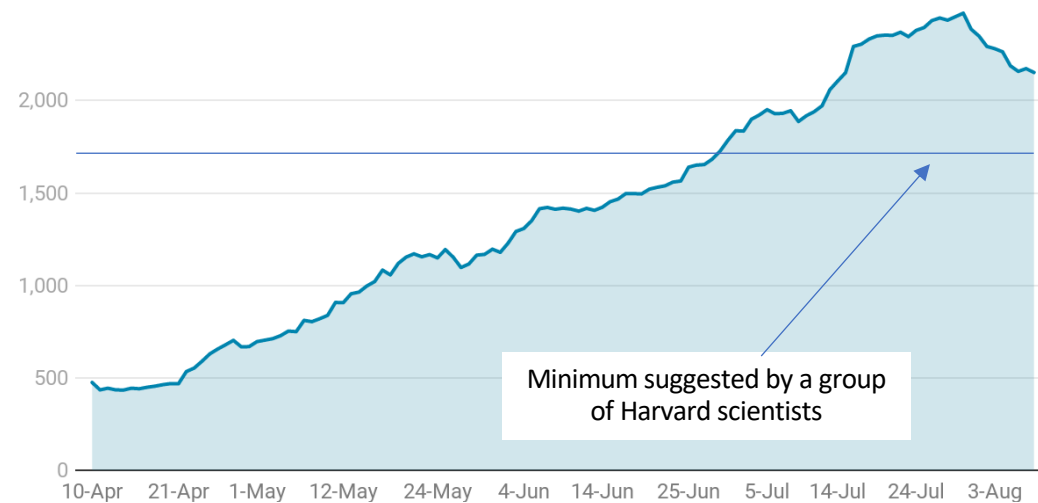


Health Industry Advisor LLC analysis

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

Daily Tests Per 1 Million - United States

Trailing 7-Day Moving Average, As of August 8

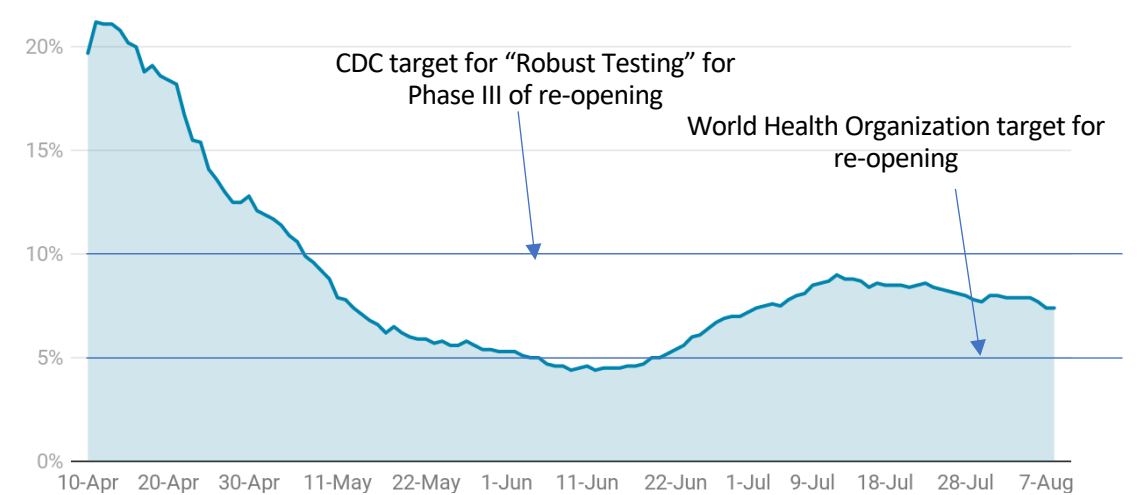


Health Industry Advisor LLC analysis

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

Test-Positive Rate - United States

Trailing 7-Day Moving Average, As of August 8

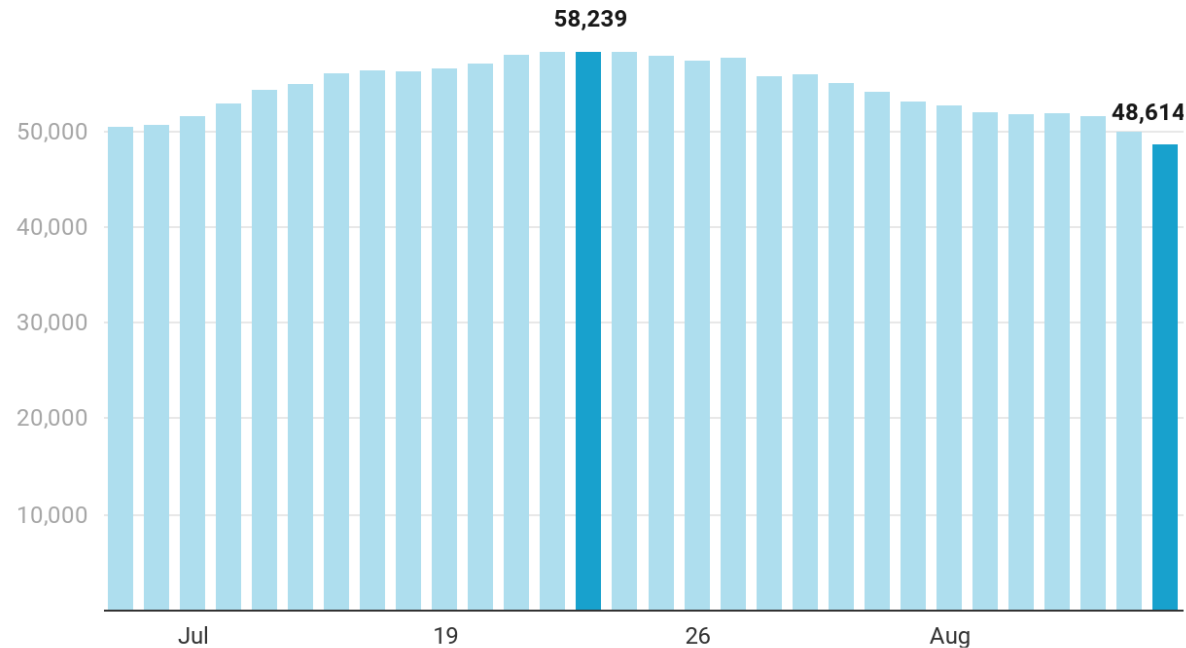


Health Industry Advisor LLC analysis

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

Hospital Census: COVID-19 Patients

As of August 8



Florida data first available on July 10

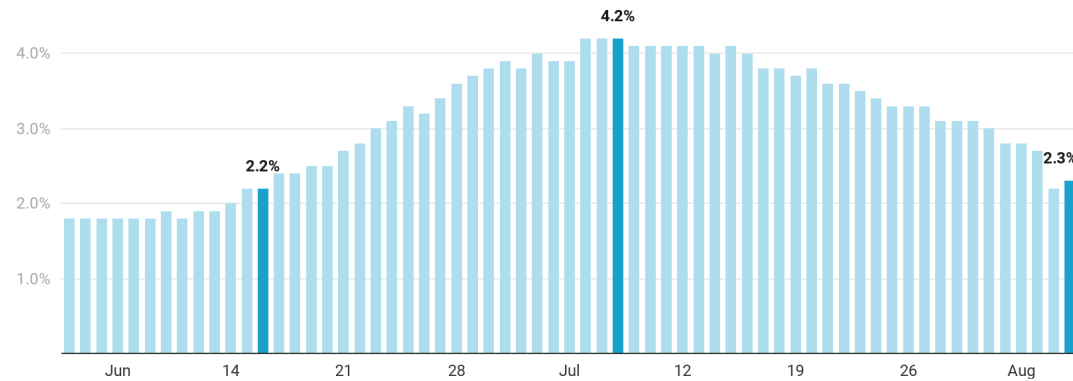
Chart: Health Industry Advisor LLC • Source: the Atlantic's Covid Tracking Project • Created with Datawrapper

United States Stress on ICU beds and ERs are also easing

ER Visits for COVID-19 are Declining

% of Emergency Department Visits for COVID-Like Illness

As of August 5



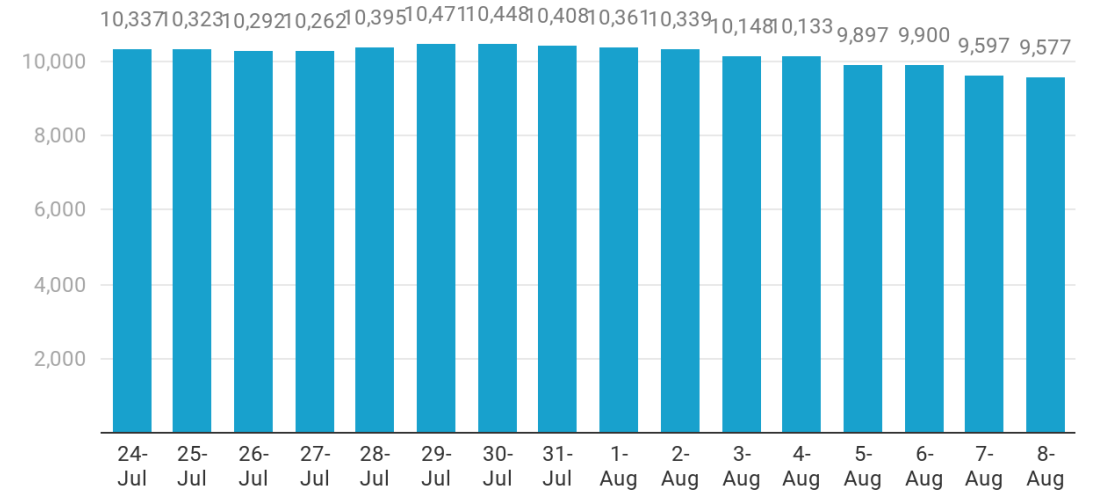
Health Industry Advisor LLC analysis

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

ICU COVID-19 Census Also Down

ICU Census

As of August 8



Not all state report these data

Chart: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracing Project • Created with Datawrapper

Deaths Recorded With Coronavirus in the U.S.

Trailing 7-Day Moving Average, As of August 8

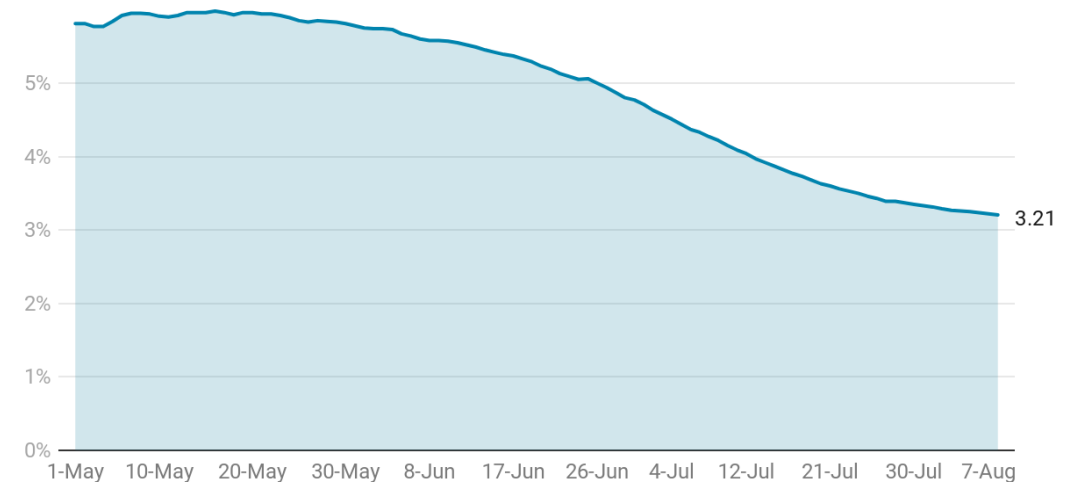


Health Industry Advisor LLC analysis

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

Deaths Per Case

As of August 8



Health Industry Advisor LLC analysis

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

New Daily Infections / Million Population

Trailing 7-Day Moving Average, As of August 8

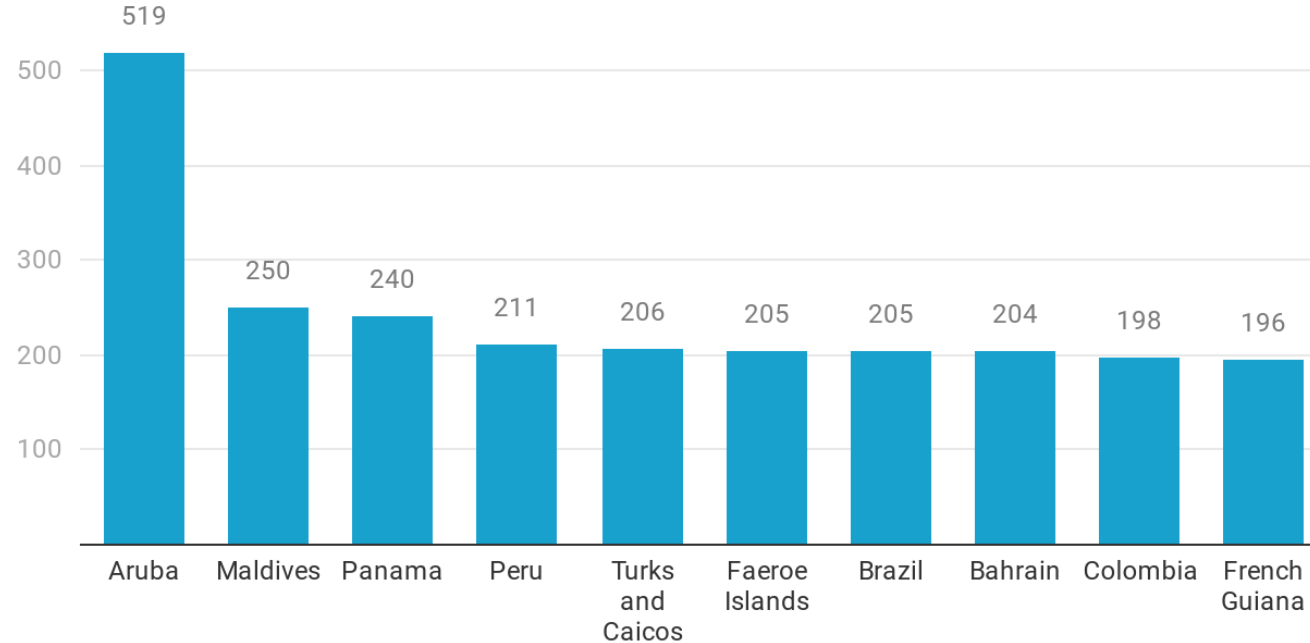


Chart: Health Industry Advisor LLC • Created with Datawrapper

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>