



*"Strategic Advice in an Era of Unprecedented Change"*

Issue #386

Monday, June 13, 2022

COVID19  
VITAL SIGNS

# Highlights – As of June 10

- Virus transmission rates reached High or Substantial levels in nine of every ten counties in the United States last week. Just three weeks ago, three of every four countries achieved this dubious distinction
- The Omicron BA.2.12.1 strain remains the most prevalent in the United States, resenting nearly two-thirds of all infections. However, the BA.4 and BA.5 strains have exploded recently and now account for one of every eight infections
- 85% of all wastewater testing sites detected the virus in virtually every sample. However, one-in-ten sites failed to detect any virus in any samples
- Nearly half of these sites reported declines in virus levels detected from the prior week
- Covid patients occupy one of every thirteen inpatient beds in the United States. Connecticut, Delaware, Hawaii, Maine, and New York each recorded Covid occupancy greater than 15% of inpatient beds last week
- The case fatality rate dropped further last week, with about 3 deaths for every 1,000 new cases
- IHME's latest forecast predicts that cases will decline in the United States through the end of summer. Thereafter, projected cases rise slowly in September and October
- Even with the anticipated rise this Fall, projected cases in early October fall short of the low in cases recorded in April
- IHME expects hospitalizations to follow a similar pattern, declining the remainder of the summer before rising slowly in the early Fall
- Globally, new cases fell 7% week-over-week. South America posted an 11% increase; Asia and Oceania recorded 19% and 13% declines, respectively
- Taiwan suffered the highest infection rate per capita last week, followed by Martinique, North Korea, and Portugal. Taiwan's rate was nine times higher than the United States' rate, which ranked thirty-first overall
- IHME's model suggests that China could experience a sizable infection surge this Fall

The Omicron BA.2.12.1 variant remains the predominant strain in the United States. However, the BA.4 and BA.4 variants have spread rapidly recently. BA.2 is fading away

## Variant Proportions in the United States

CDC's Genomic Surveillance

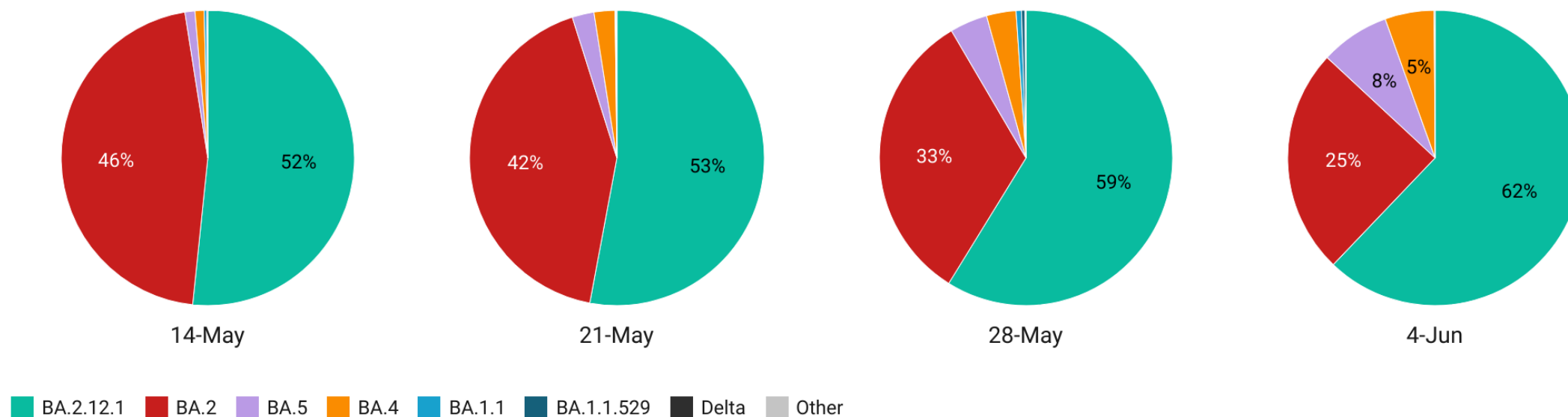


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Most wastewater testing sites (85%) across the country detect the virus in nearly all samples (80 – 100%). However, one-in-ten sites found no evidence of the virus

## Test-Positivity Rate

7-Day Average, Through May 30

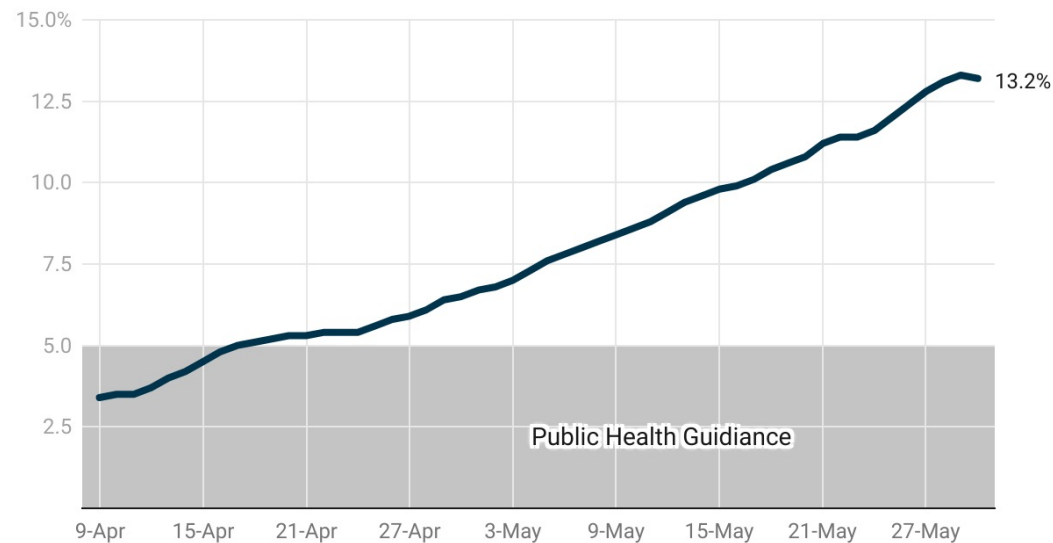
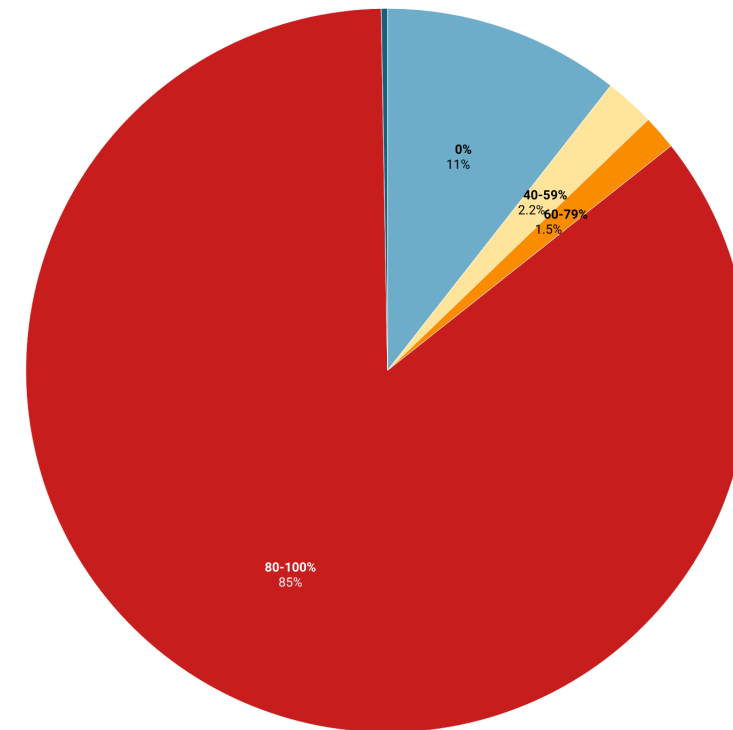


Chart: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

## Percent of Samples With Detectable Virus - Number of Sites

May 25 - June 8

0% (11%) 40-59% (2.2%) 60-79% (1.5%) 80-100% (85%) Other (0.3%)



Source: <https://covid.cdc.gov/covid-data-tracker/#wastewater-surveillance>

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

Nearly as many testing sites reported lower virus levels in the last week as those reporting higher levels. Two weeks ago, three-in-five reported higher virus levels week-over-week

### Current Wastewater Virus Levels v. Peak

May 25 - June 8

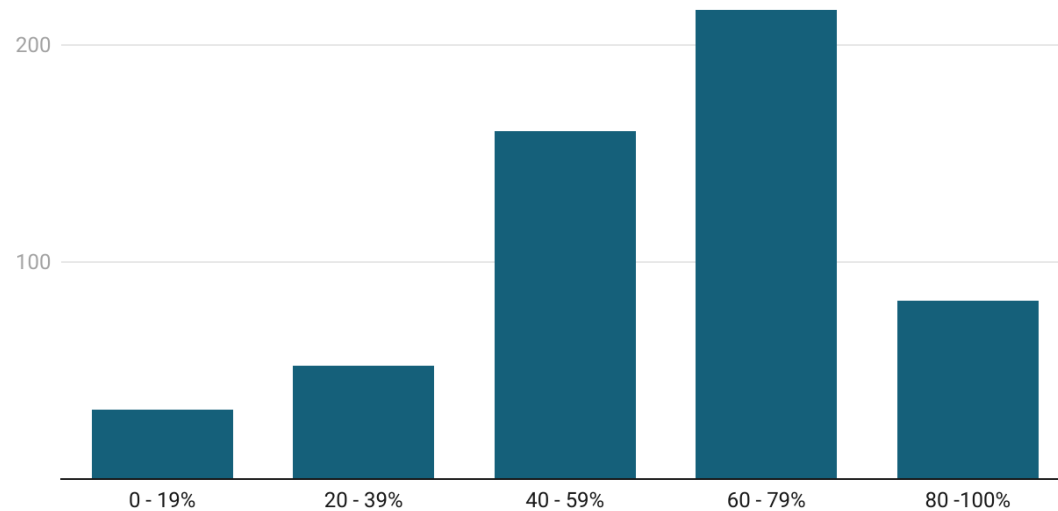


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

### Change (%) in Virus Levels Since Last Period - Number of Sites

May 25 - June 8

Legend: -100+% (dark green), -10 to -99% (teal), 0 to -9% (light green), 1 to 9% (light orange), 10 to 99% (orange), 100 to 999% (red), 1000+% (dark red)

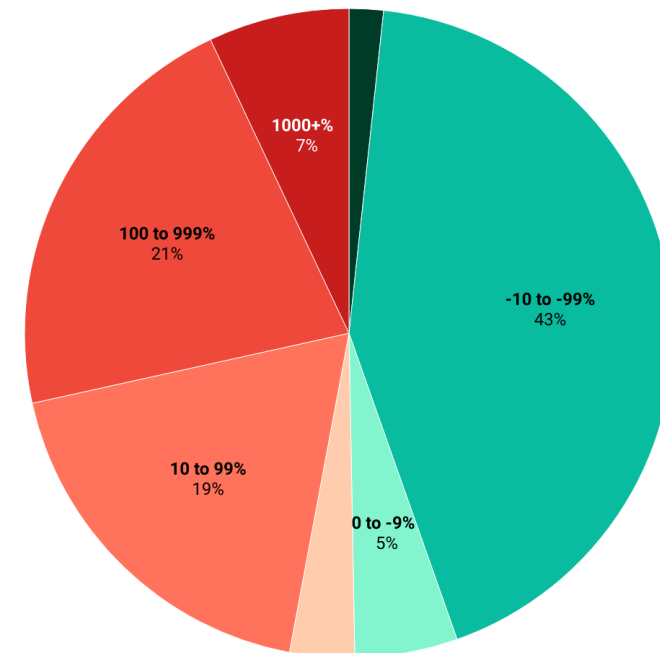
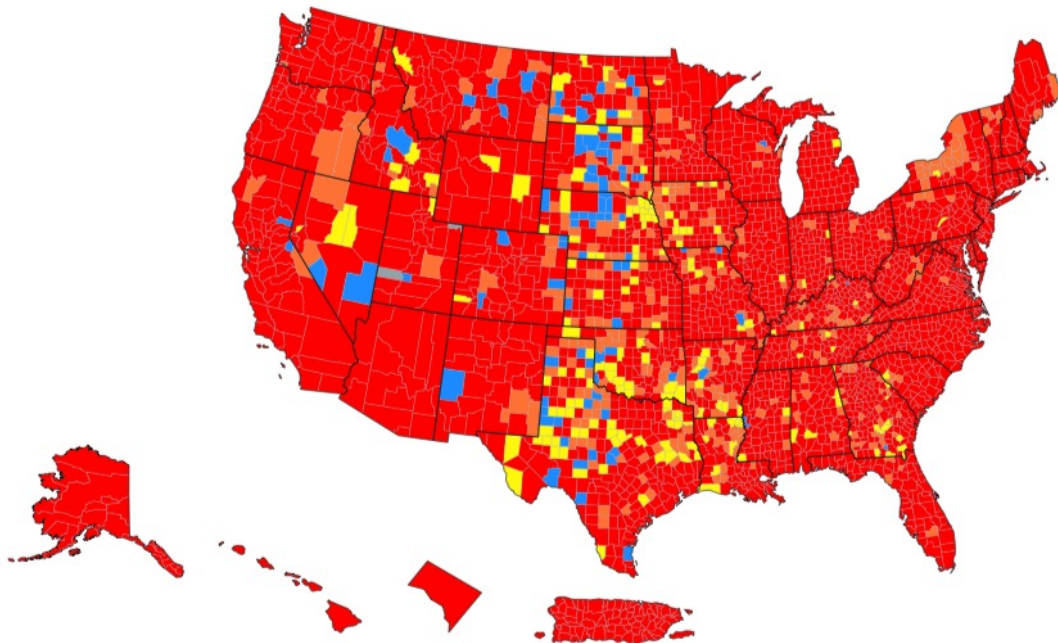


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Virus spread rated High or Substantial in 91% of U.S. counties last week. 81% rated High, up sharply from 58% three weeks earlier

Community Transmission  
June 3-9, 2022



Source: Centers for Disease Control and Prevention website; accessed June 11, 2022

Community Transmission By County

June 3-9

High Substantial Moderate Low

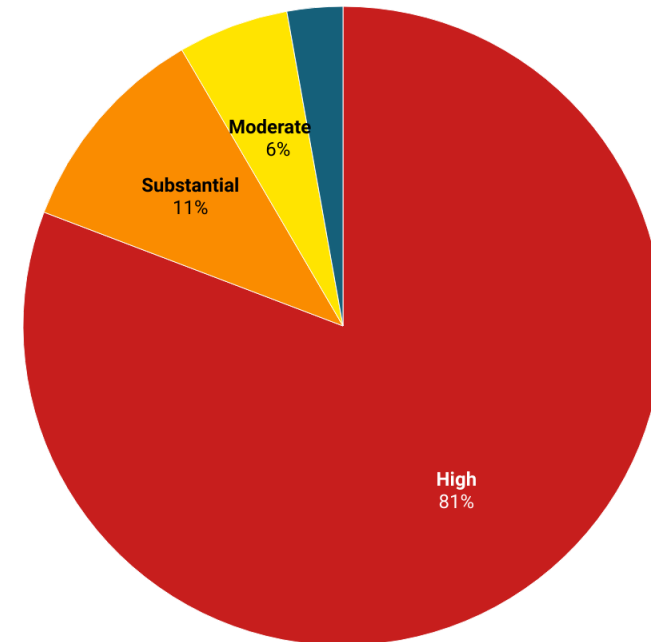


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

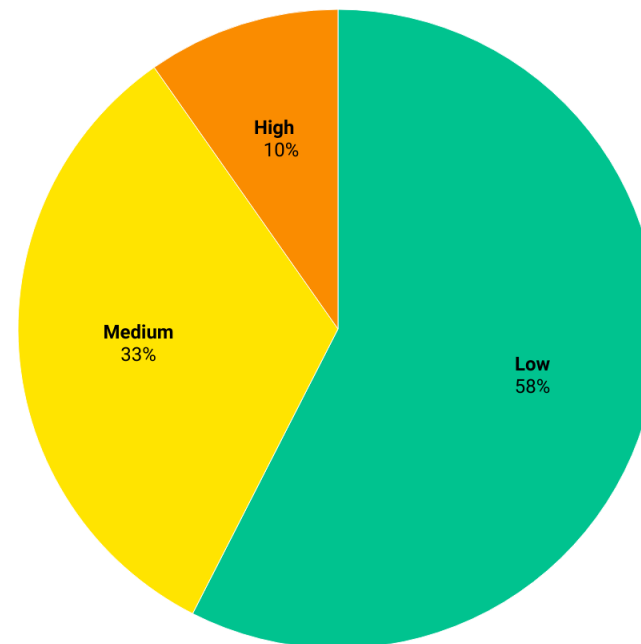
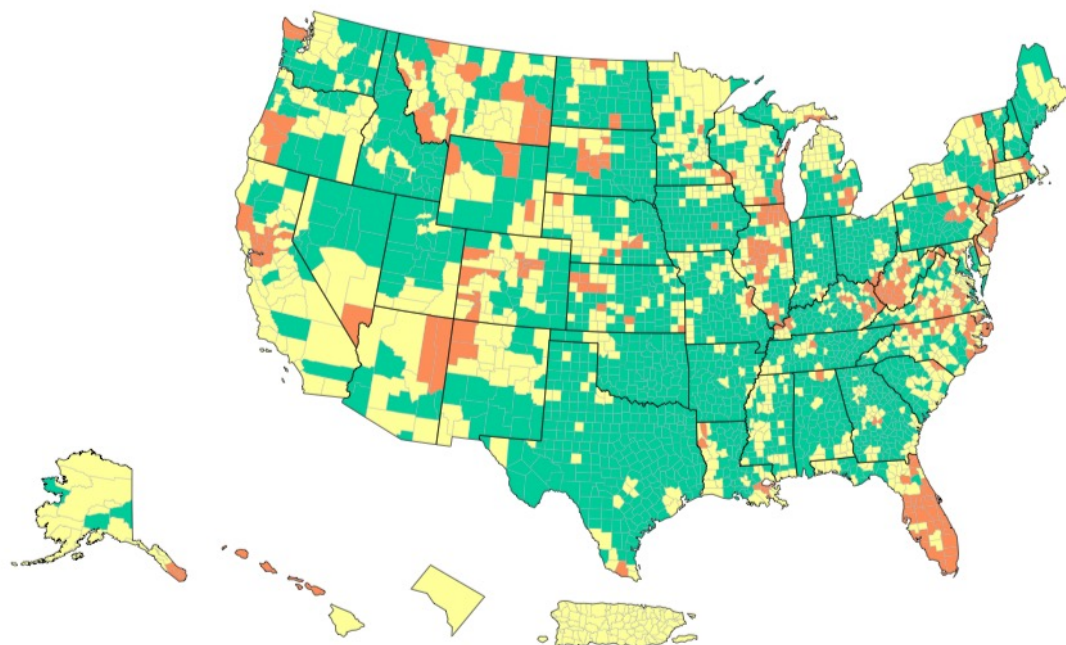
Six-in-ten counties rated Low on the CDC's Community Level scorecard last week, down from seven-in-ten the prior week. One-third now rate Medium

June 3-9, 2022

### Community Levels By County

June 3-9

Low Medium High



Source: Centers for Disease Control and Prevention website; accessed June 11, 2022

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

Covid hospitalizations have increased since mid-April. However, they seem to be reaching a plateau

## Covid-19 Admissions & Census

7-Day Average Thru June 9

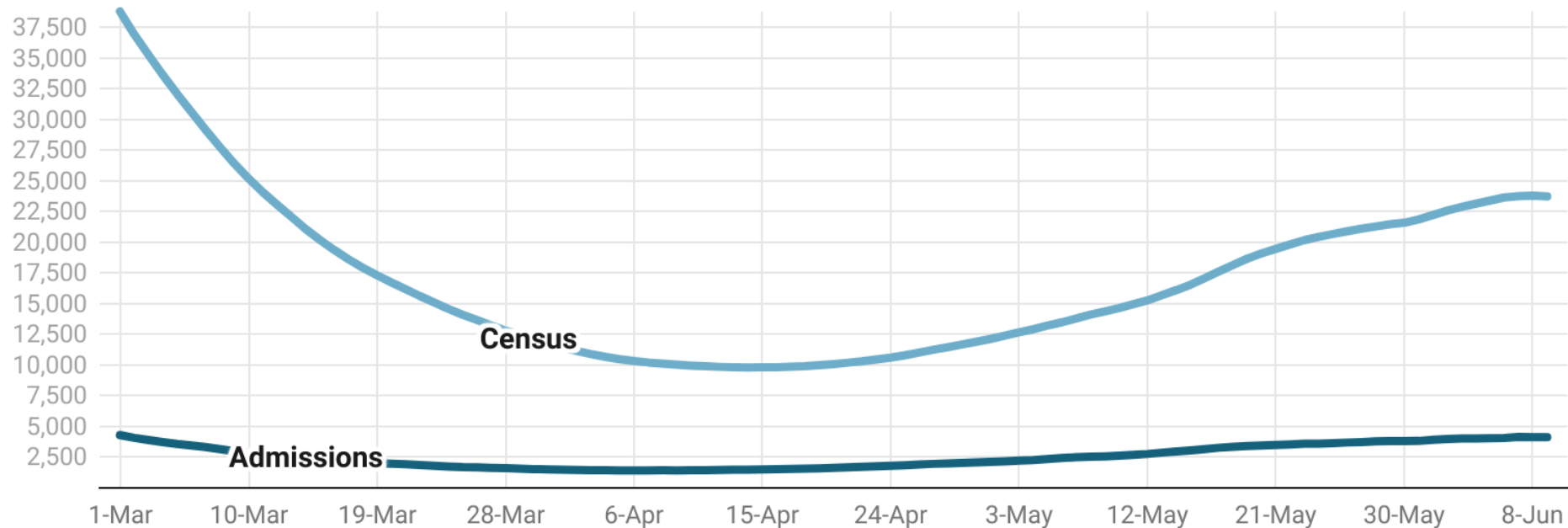
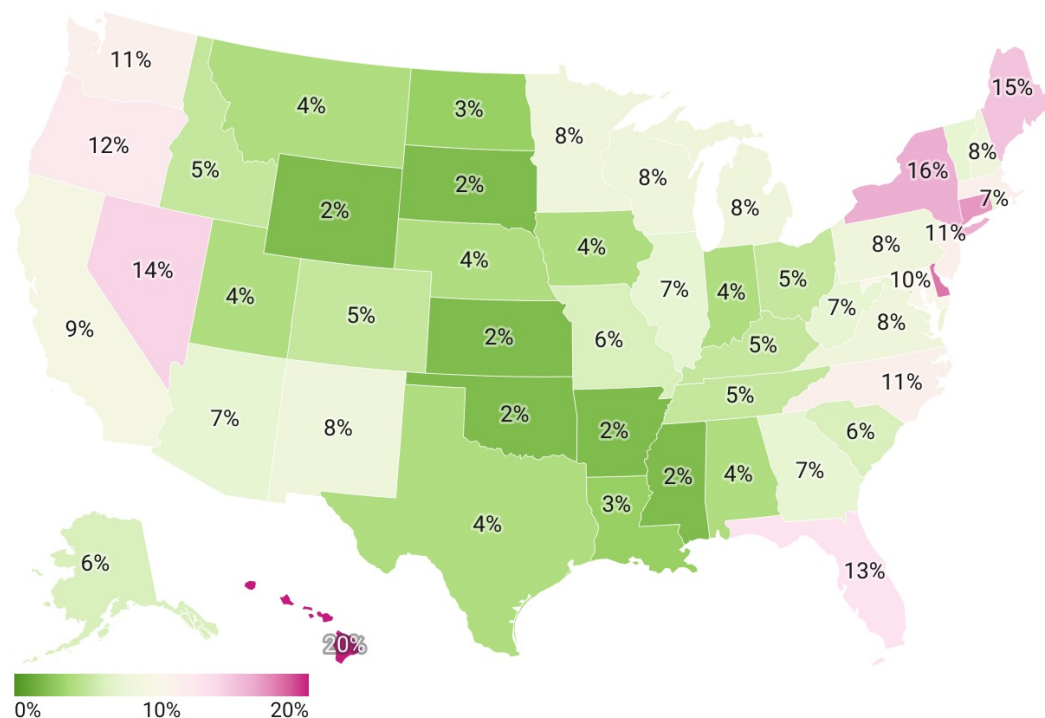


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Covid patients occupy one of every thirteen inpatient beds in the United States. Occupancy rates are highest in Connecticut, Delaware, Hawaii, Maine, and New York. Rates fell in fourteen states last week

## Covid-19 Patients As % of All Inpatient Beds

As of June 9



Map: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

## % Weekly Change in Covid Inpatients

7-day average, As of June 9

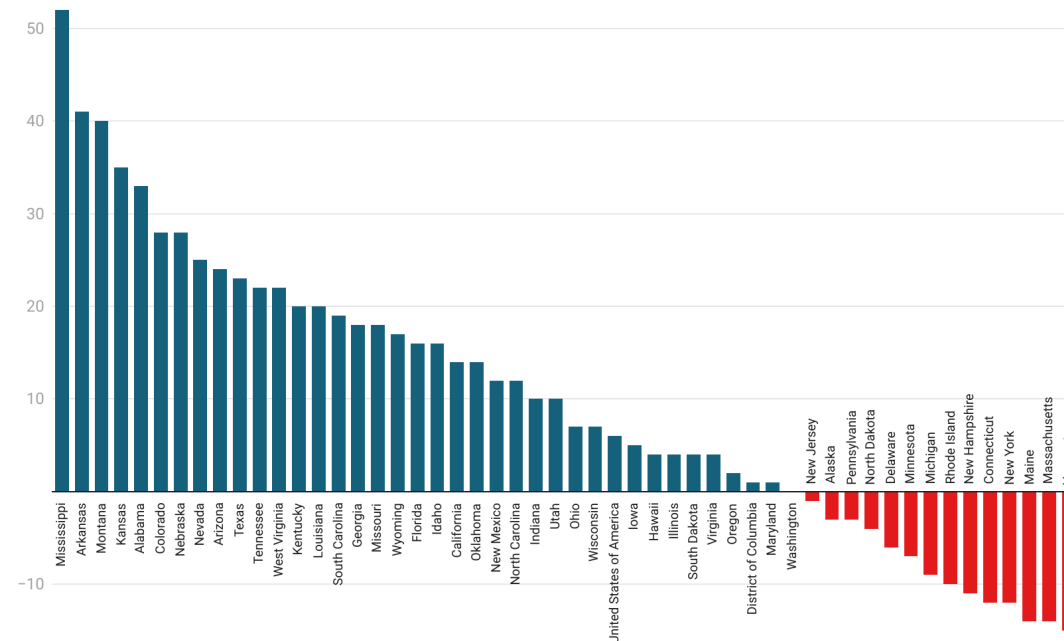


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

While new daily infection rates in many states are high by pandemic standards, most report low hospitalization and death rates

| State                | New Daily Infections / Million |       | Admissions/100,000 |       | Covid Occupancy % |       | Case Fatality Rate |       | State                | New Daily Infections / Million |       | Admissions/100,000 |       | Covid Occupancy % |       | Case Fatality Rate |       |
|----------------------|--------------------------------|-------|--------------------|-------|-------------------|-------|--------------------|-------|----------------------|--------------------------------|-------|--------------------|-------|-------------------|-------|--------------------|-------|
|                      | 7-Day                          | Trend | 7-Day              | Trend | 7-Day             | Trend | 7-Day              | Trend |                      | 7-Day                          | Trend | 7-Day              | Trend | 7-Day             | Trend | 7-Day              | Trend |
| Alabama              | 243                            | 🚩     | 0.92               | 🚩     | 4%                | 🚩     | 0.7%               | 🚩     | Montana              | 264                            | 🚩     | 2.10               | 🚩     | 4%                | 🚩     | 4.5%               | 🚩     |
| Alaska               | 438                            | 🚩     | 1.31               | 🚩     | 6%                | 🚩     | 0.0%               | 🚩     | Nebraska             | 239                            | 🚩     | 0.97               | 🚩     | 4%                | 🚩     | 1.8%               | 🚩     |
| Arizona              | 288                            | 🚩     | 1.25               | 🚩     | 7%                | 🚩     | 0.6%               | 🚩     | Nevada               | 317                            | 🚩     | 1.41               | 🚩     | 14%               | 🚩     | 0.9%               | 🚩     |
| Arkansas             | 188                            | 🚩     | 0.71               | 🚩     | 2%                | 🚩     | 1.1%               | 🚩     | New Hampshire        | 179                            | 🚩     | 1.18               | 🚩     | 8%                | 🚩     | 0.3%               | 🚩     |
| California           | 465                            | 🚩     | 1.15               | 🚩     | 9%                | 🚩     | 0.3%               | 🚩     | New Jersey           | 392                            | 🚩     | 1.55               | 🚩     | 11%               | 🚩     | 0.2%               | 🚩     |
| Colorado             | 731                            | 🚩     | 1.45               | 🚩     | 5%                | 🚩     | 0.0%               | 🚩     | New Mexico           | 425                            | 🚩     | 1.03               | 🚩     | 8%                | 🚩     | 2.1%               | 🚩     |
| Connecticut          | 177                            | 🚩     | 1.41               | 🚩     | 17%               | 🚩     | 0.1%               | 🚩     | New York             | 310                            | 🚩     | 1.41               | 🚩     | 16%               | 🚩     | 0.3%               | 🚩     |
| Delaware             | 379                            | 🚩     | 1.83               | 🚩     | 18%               | 🚩     | 0.1%               | 🚩     | North Carolina       | 365                            | 🚩     | 1.10               | 🚩     | 11%               | 🚩     | 0.0%               | 🚩     |
| District Of Columbia | 358                            | 🚩     | 2.00               | 🚩     | 5%                | 🚩     | 0.1%               | 🚩     | North Dakota         | 253                            | 🚩     | 1.01               | 🚩     | 3%                | 🚩     | 0.1%               | 🚩     |
| Florida              | 494                            | 🚩     | 2.44               | 🚩     | 13%               | 🚩     | 0.4%               | 🚩     | Ohio                 | 223                            | 🚩     | 1.24               | 🚩     | 5%                | 🚩     | 0.0%               | 🚩     |
| Georgia              | 239                            | 🚩     | 0.93               | 🚩     | 7%                | 🚩     | 0.4%               | 🚩     | Oklahoma             | 140                            | 🚩     | 0.50               | 🚩     | 2%                | 🚩     | 1.0%               | 🚩     |
| Hawaii               | 811                            | 🚩     | 2.24               | 🚩     | 20%               | 🚩     | 0.1%               | 🚩     | Oregon               | 370                            | 🚩     | 1.19               | 🚩     | 12%               | 🚩     | 0.4%               | 🚩     |
| Idaho                | 200                            | 🚩     | 0.82               | 🚩     | 5%                | 🚩     | 0.3%               | 🚩     | Pennsylvania         | 236                            | 🚩     | 1.37               | 🚩     | 8%                | 🚩     | 0.6%               | 🚩     |
| Illinois             | 383                            | 🚩     | 1.44               | 🚩     | 7%                | 🚩     | 0.3%               | 🚩     | Rhode Island         | 353                            | 🚩     | 0.74               | 🚩     | 7%                | 🚩     | 0.1%               | 🚩     |
| Indiana              | 183                            | 🚩     | 1.01               | 🚩     | 4%                | 🚩     | 0.8%               | 🚩     | South Carolina       | 518                            | 🚩     | 0.99               | 🚩     | 6%                | 🚩     | 1.1%               | 🚩     |
| Iowa                 | 248                            | 🚩     | 0.85               | 🚩     | 4%                | 🚩     | 0.2%               | 🚩     | South Dakota         | 156                            | 🚩     | 1.03               | 🚩     | 2%                | 🚩     | 0.0%               | 🚩     |
| Kansas               | 231                            | 🚩     | 0.78               | 🚩     | 2%                | 🚩     | 0.1%               | 🚩     | Tennessee            | 266                            | 🚩     | 0.87               | 🚩     | 5%                | 🚩     | 0.3%               | 🚩     |
| Kentucky             | 416                            | 🚩     | 1.24               | 🚩     | 5%                | 🚩     | 0.8%               | 🚩     | Texas                | 221                            | 🚩     | 0.91               | 🚩     | 4%                | 🚩     | 0.3%               | 🚩     |
| Louisiana            | 294                            | 🚩     | 1.25               | 🚩     | 3%                | 🚩     | 0.3%               | 🚩     | Utah                 | 334                            | 🚩     | 0.90               | 🚩     | 4%                | 🚩     |                    | 🚩     |
| Maine                | 195                            | 🚩     | 0.82               | 🚩     | 15%               | 🚩     | 1.2%               | 🚩     | Vermont              | 278                            | 🚩     | 1.10               | 🚩     | 7%                | 🚩     | 0.0%               | 🚩     |
| Maryland             | 271                            | 🚩     | 1.06               | 🚩     | 10%               | 🚩     | 0.3%               | 🚩     | Virginia             | 337                            | 🚩     | 1.12               | 🚩     | 8%                | 🚩     | 0.1%               | 🚩     |
| Massachusetts        | 301                            | 🚩     | 1.34               | 🚩     | 11%               | 🚩     | 0.2%               | 🚩     | Washington           | 359                            | 🚩     | 0.99               | 🚩     | 11%               | 🚩     | 0.4%               | 🚩     |
| Michigan             | 264                            | 🚩     | 1.17               | 🚩     | 8%                | 🚩     | 0.4%               | 🚩     | West Virginia        | 320                            | 🚩     | 1.96               | 🚩     | 7%                | 🚩     | 0.8%               | 🚩     |
| Minnesota            | 289                            | 🚩     | 1.20               | 🚩     | 8%                | 🚩     | 0.4%               | 🚩     | Wisconsin            | 309                            | 🚩     | 1.18               | 🚩     | 8%                | 🚩     | 0.4%               | 🚩     |
| Mississippi          | 216                            | 🚩     | 0.60               | 🚩     | 2%                | 🚩     | 0.3%               | 🚩     | Wyoming              | 305                            | 🚩     | 0.89               | 🚩     | 2%                | 🚩     | 1.1%               | 🚩     |
| Missouri             | 396                            | 🚩     | 1.32               | 🚩     | 6%                | 🚩     | 0.5%               | 🚩     | <b>United States</b> | <b>343</b>                     | 🚩     | <b>1.23</b>        | 🚩     | <b>8%</b>         | 🚩     | <b>0.3%</b>        | 🚩     |

| %-iles               | New Infections | Admissions | Occupancy | Case Fatality |
|----------------------|----------------|------------|-----------|---------------|
| Lowest Quintile      | 128            | 0.99       | 7%        | 1.1%          |
| 2nd Lowest Quintile  | 198            | 1.42       | 11%       | 1.3%          |
| Middle Quintile      | 300            | 1.94       | 16%       | 1.5%          |
| 2nd Highest Quintile | 495            | 3.44       | 28%       | 1.8%          |
| Highest Quintile     | > 495          | > 3.44     | > 28%     | > 1.8%        |

Quintiles calculated from United States experience from August 1, 2020 – June 9, 2022

Trend reflects change from prior week: Red flag = Increase; Green flag = Decline

The reported case fatality rate has trended lower since at least the Fall, 2020. Moreover, last week's rate fell further below the long-term trend line

### Deaths per 1000 Cases, 3 week lag

7-day average

Deaths/1000 New Cases    Trend

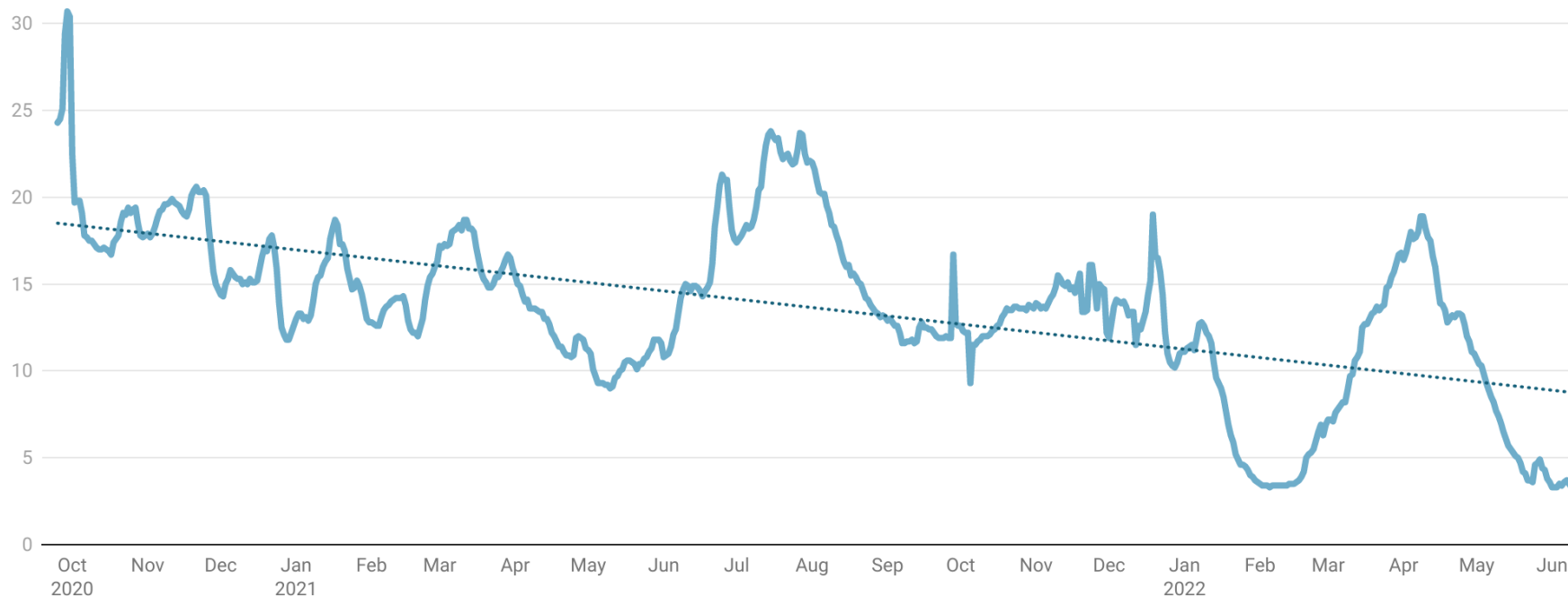
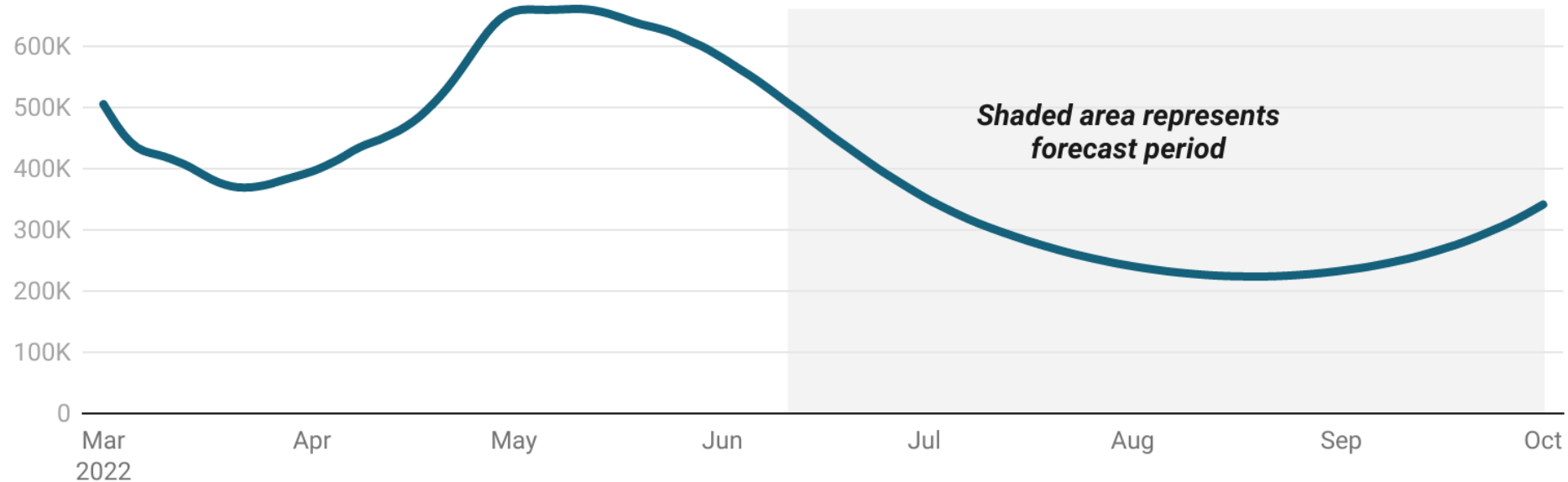


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

IHME projects infections will decline in the United States through the summer months then rise again in the Fall

## Estimated and Projected Infections - U.S.

Institute For Health Metrics and Evaluation



Forecast Date: June 10

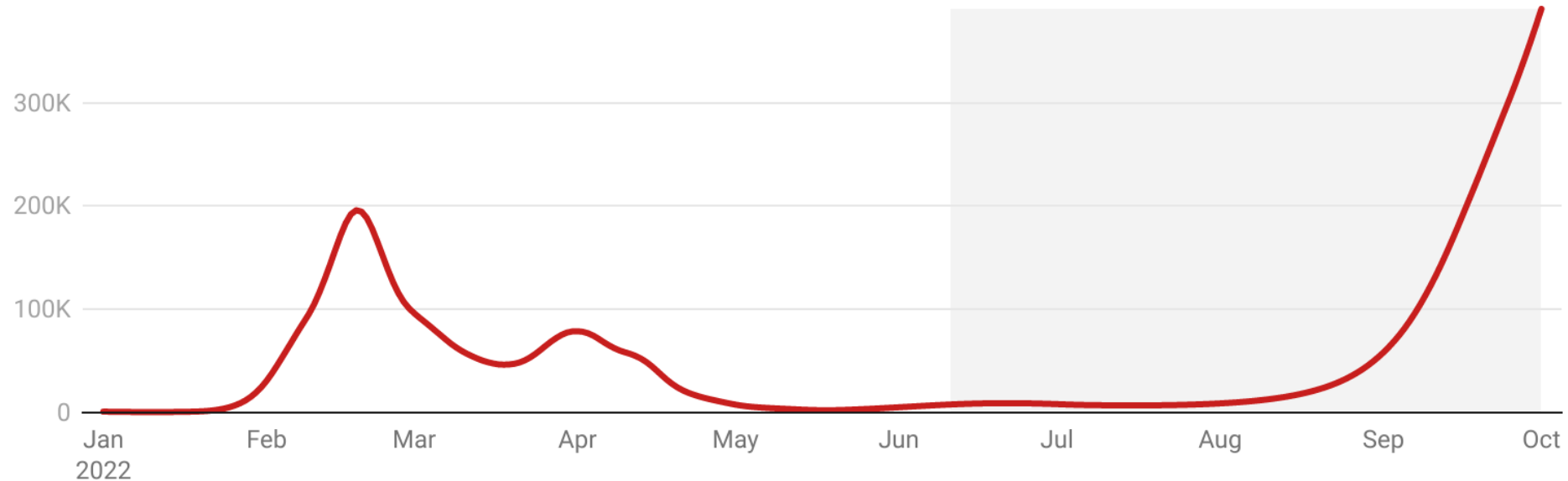
Chart: Health Industry Advisor LLC • Source: Institute For Health Metrics and Evaluation • Created with Datawrapper

## IHME's latest model suggests a significant infection surge in China this Fall

### Estimated and Projected Infections - China

Institute For Health Metrics and Evaluation

*Shaded area represents  
forecast period*



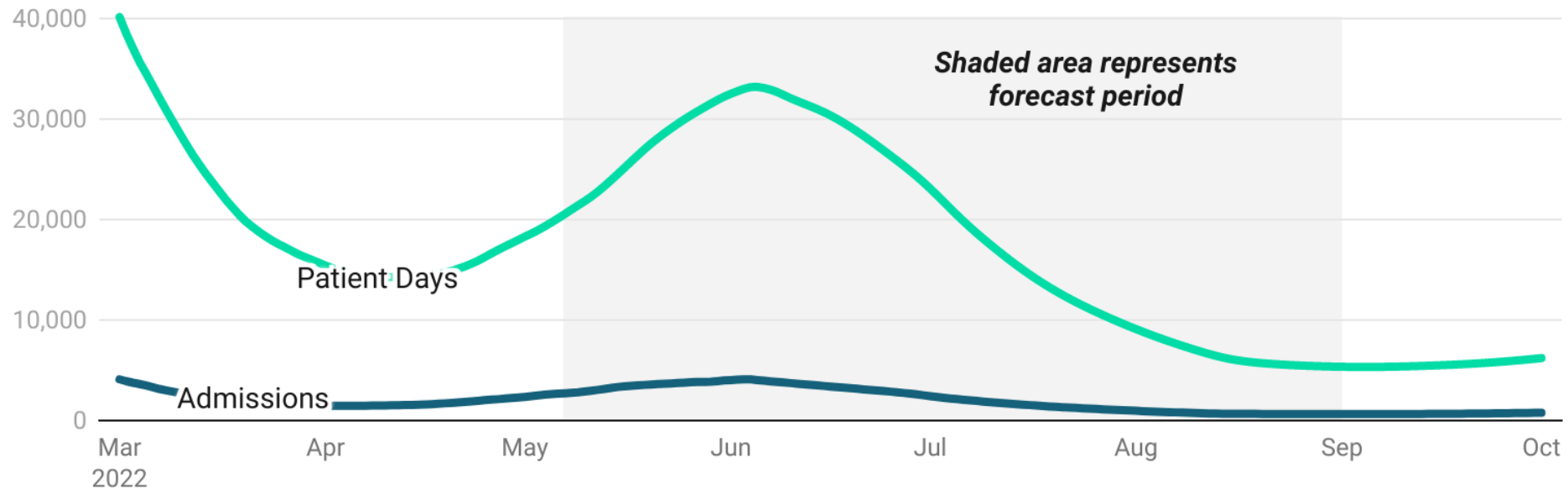
*Forecast Date: June 10*

Chart: Health Industry Advisor LLC • Source: Institute For Health Metrics and Evaluation • Created with Datawrapper

IHME anticipates Covid admissions and patient days decline through the end of the summer than rise slowly in the Fall

## Estimated & Projected Hospital Covid-19 Admissions & Patient Days

Institute for Health Metrics and Evaluation



Forecast Date: June 10

Chart: Health Industry Advisor LLC • Source: Institute for Health Metrics and Evaluation • Created with Datawrapper

Globally, cases plunge dropped 7% from a week earlier. South America witnessed the largest increase in new cases week-over-week; Asia reported the largest decline

### Weekly Change in Cases By Continent

As of June 10

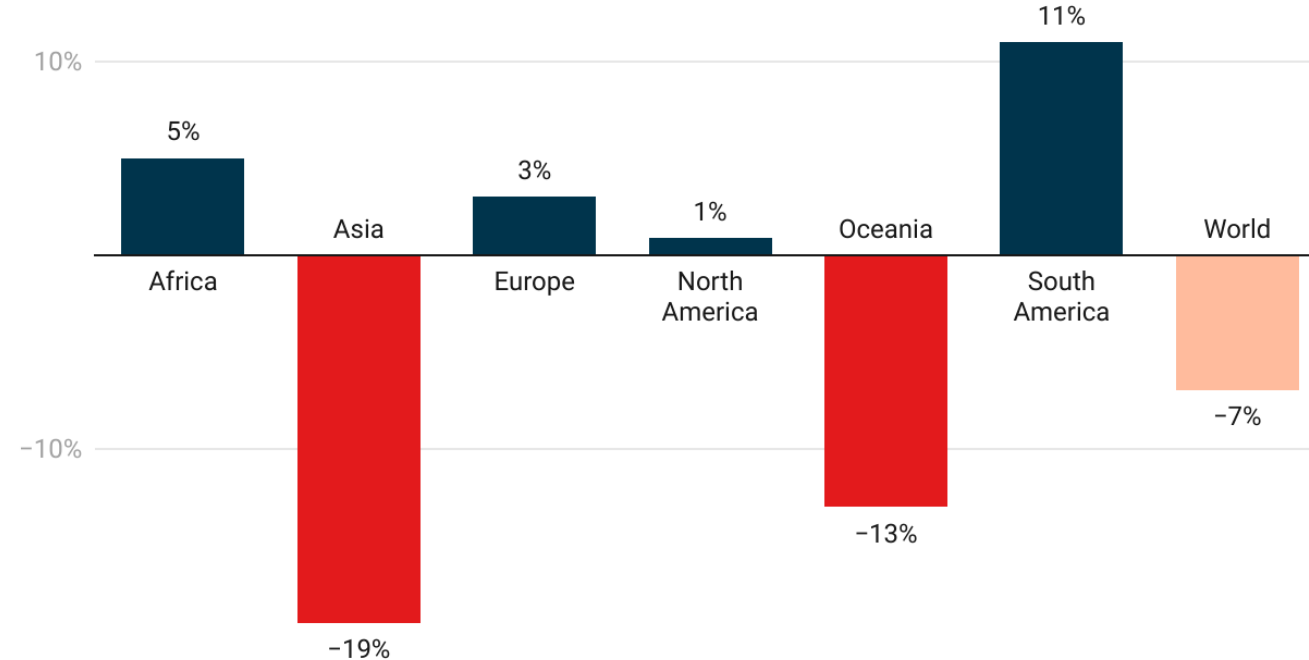
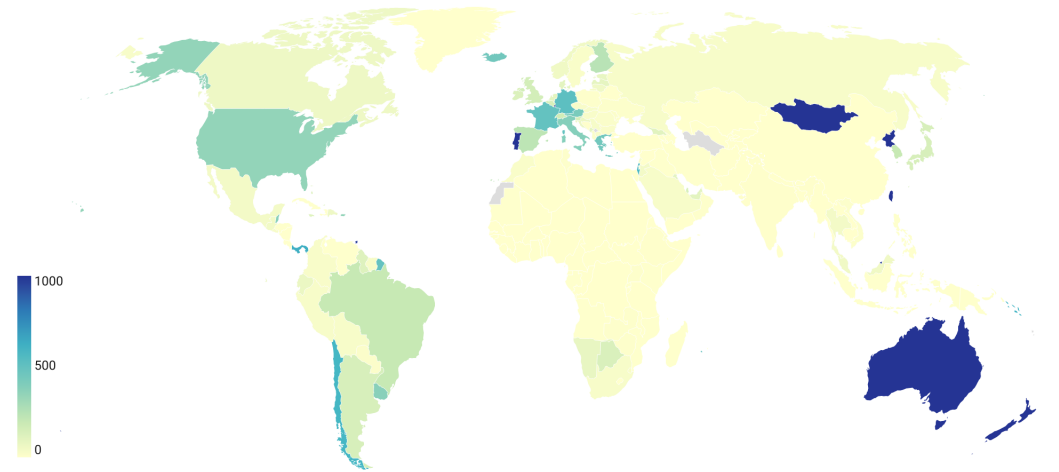


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

## Europe and South America report widespread infections, particularly compared to Africa and Asia

### New Daily Cases / Million

7-Day Average, As of June 10



### New Daily Cases / Million

7-Day Average, As of June 10



Martinique, North Korea, and Taiwan's infection rates outpaced all other countries last week. The United States' rate ranked thirty-first

## New Daily Cases Per Million

7-Day Average, As of June 10

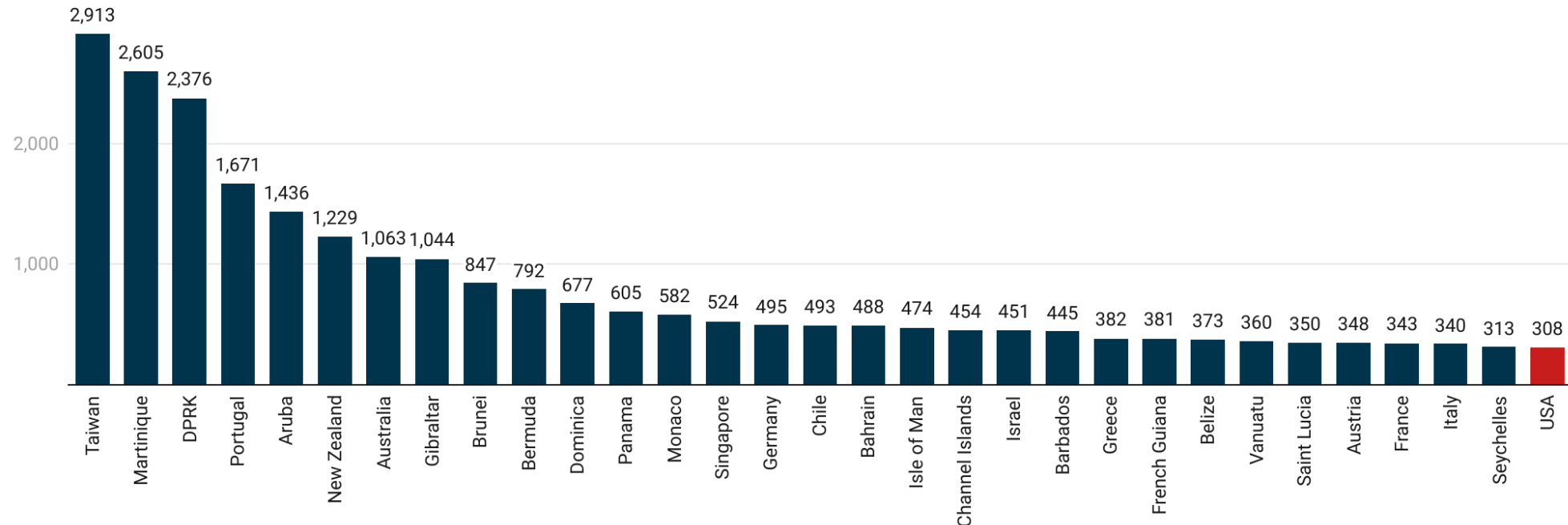


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

At least ten countries suffered nearly doubling in cases or more last week, including Israel. Similarly, ten countries saw cases fall by at least one-half.

### Largest Week-over-Week Increase in Covid Cases

Week ending June 10

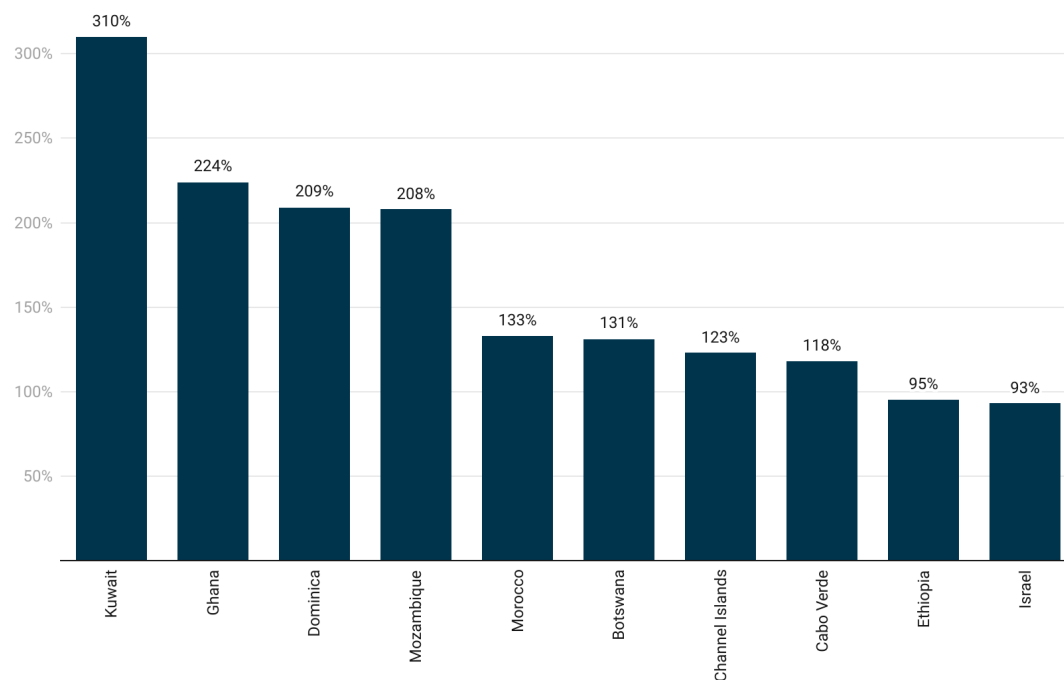


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

### Largest Week-over-Week Decrease in Covid Cases

Week ending June 10

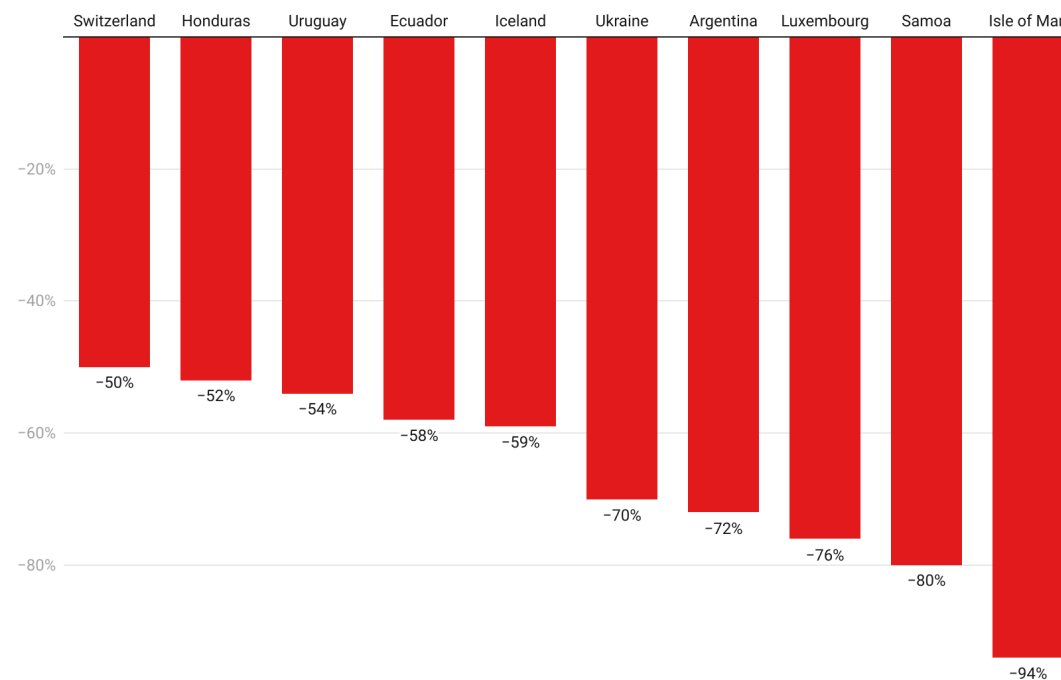


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

## Sources

- Bloomberg Vaccine Trackers, <https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/?sref=Z0b6TmH>
- Centers for Disease Control and Prevention, COVID Data Tracker <https://www.cdc.gov/covid-data-tracker/index.html#mobility>
- Centers for Disease Control and Prevention, COVID-19 Laboratory-Confirmed Hospitalizations [https://gis.cdc.gov/grasp/COVIDNet/COVID19\\_5.html](https://gis.cdc.gov/grasp/COVIDNet/COVID19_5.html)
- Centers for Disease Control and Prevention, National, Regional, and State Level Outpatient Illness and Viral Surveillance <https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>
- Centers for Disease Control and Prevention, Vaccines, <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html>
- 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 Forecast Hub, <https://viz.covid19forecasthub.org>
- COVID-19 Projections Using Machine Learning, <https://covid19-projections.com>
- Institute for Health Metrics and Evaluation, COVID-19 estimate downloads <http://www.healthdata.org/covid/data-downloads>
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- Our World In Data, <https://ourworldindata.org/covid-vaccinations>
- U.S. Department of Health & Human Services <https://beta.healthdata.gov/dataset/COVID-19-Diagnostic-Laboratory-Testing-PCR-Testing/j8mb-icvb>
- U.S. Department of Health & Human Services: <https://healthdata.gov/dataset/covid-19-estimated-patient-impact-and-hospital-capacity-state>
- Worldometers.info: <https://www.worldometers.info/coronavirus/>
- Yale School of Public Health & Harvard TH Chan School of Public Health, <https://covidestim.or>