Health Industry Advisor, llc

"Strategic Advice in an Era of Unprecedented Change"

Covid-19 "Vital Signs"

Issue # 350

October 4, 2021

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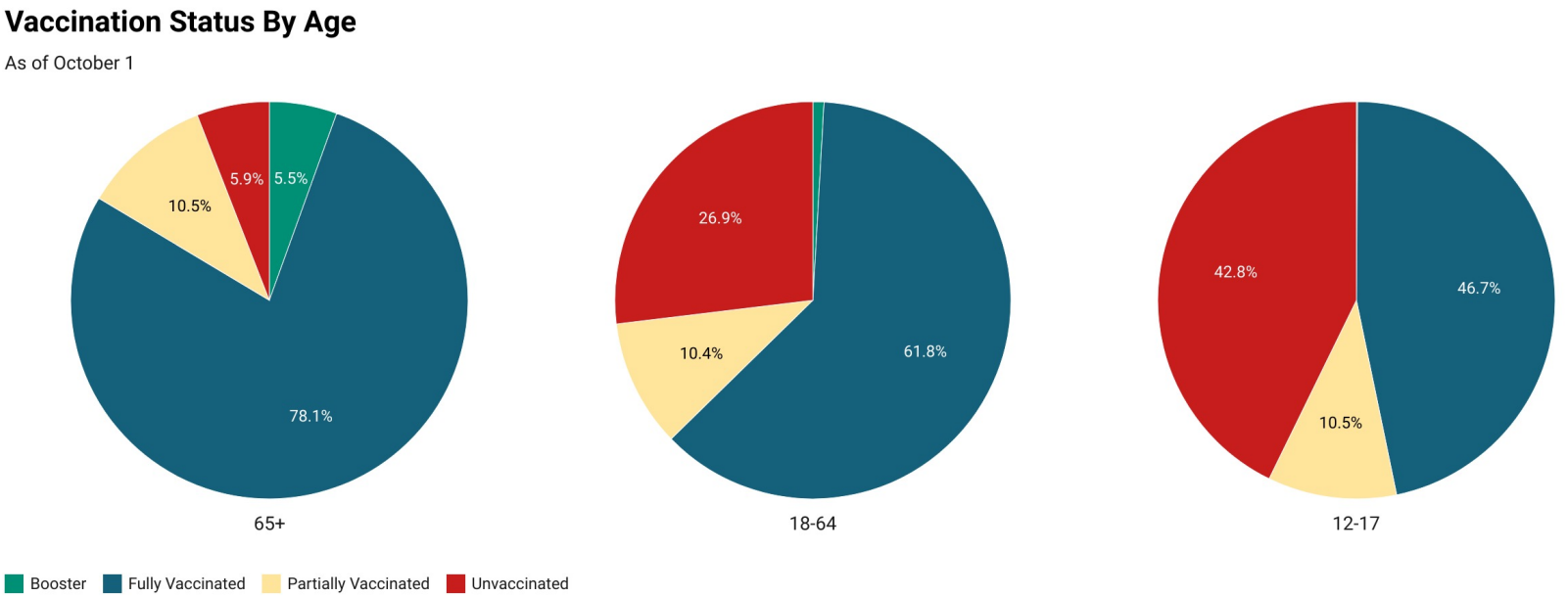
Vaccination Status By Age – United States

5.5% of seniors have received a booster shot already. This nearly matches the number of seniors that remain unvaccinated. 42.6% of eligible teens and 26% of non-senior adults are unvaccinated.



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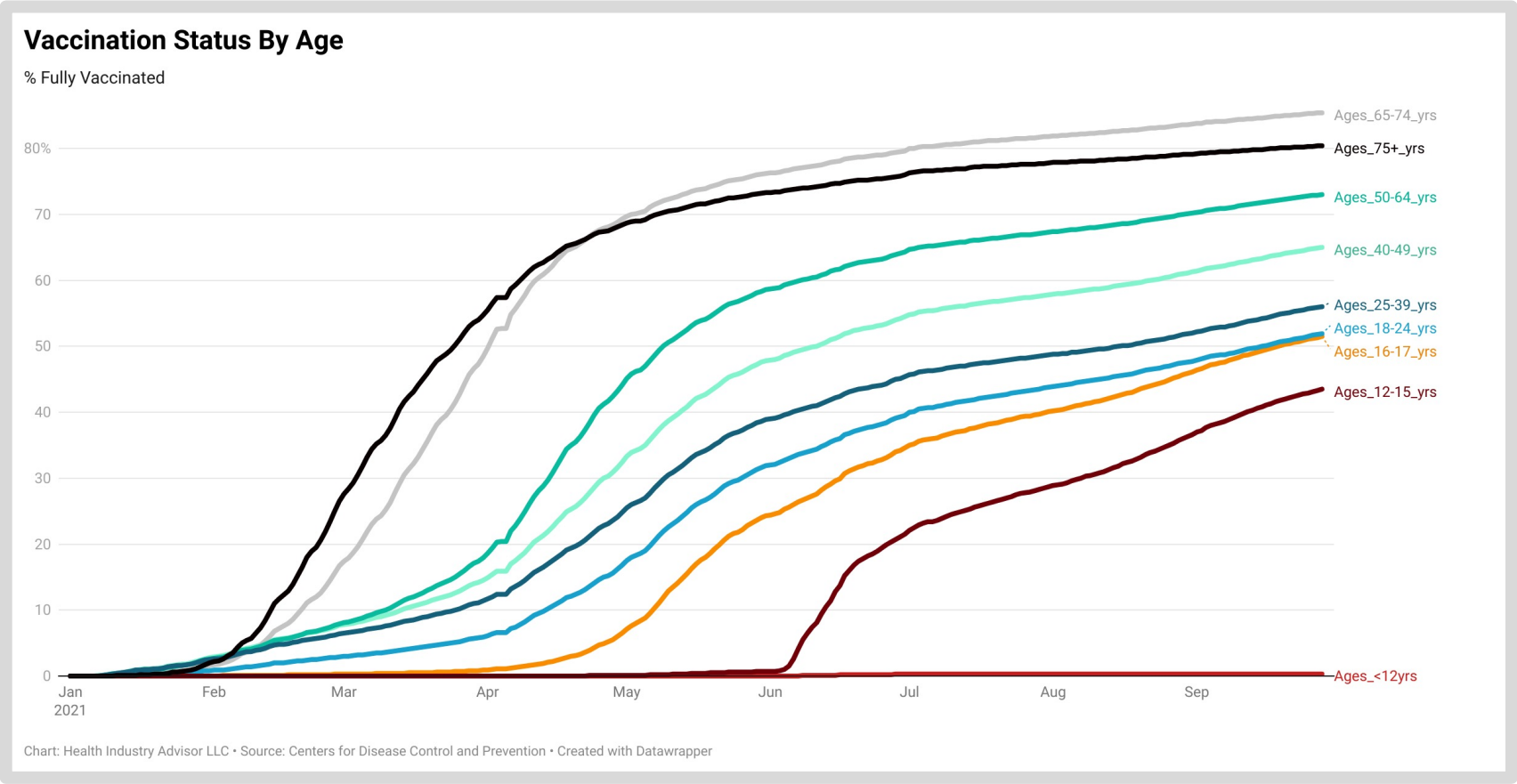
Vaccination Trends By Age

Persons 65-to-74-years old are most likely to be fully vaccinated, followed by persons 75-and-older. Eligible teenagers are least likely to be vaccinated but, rates are increasing fastest among this age group.



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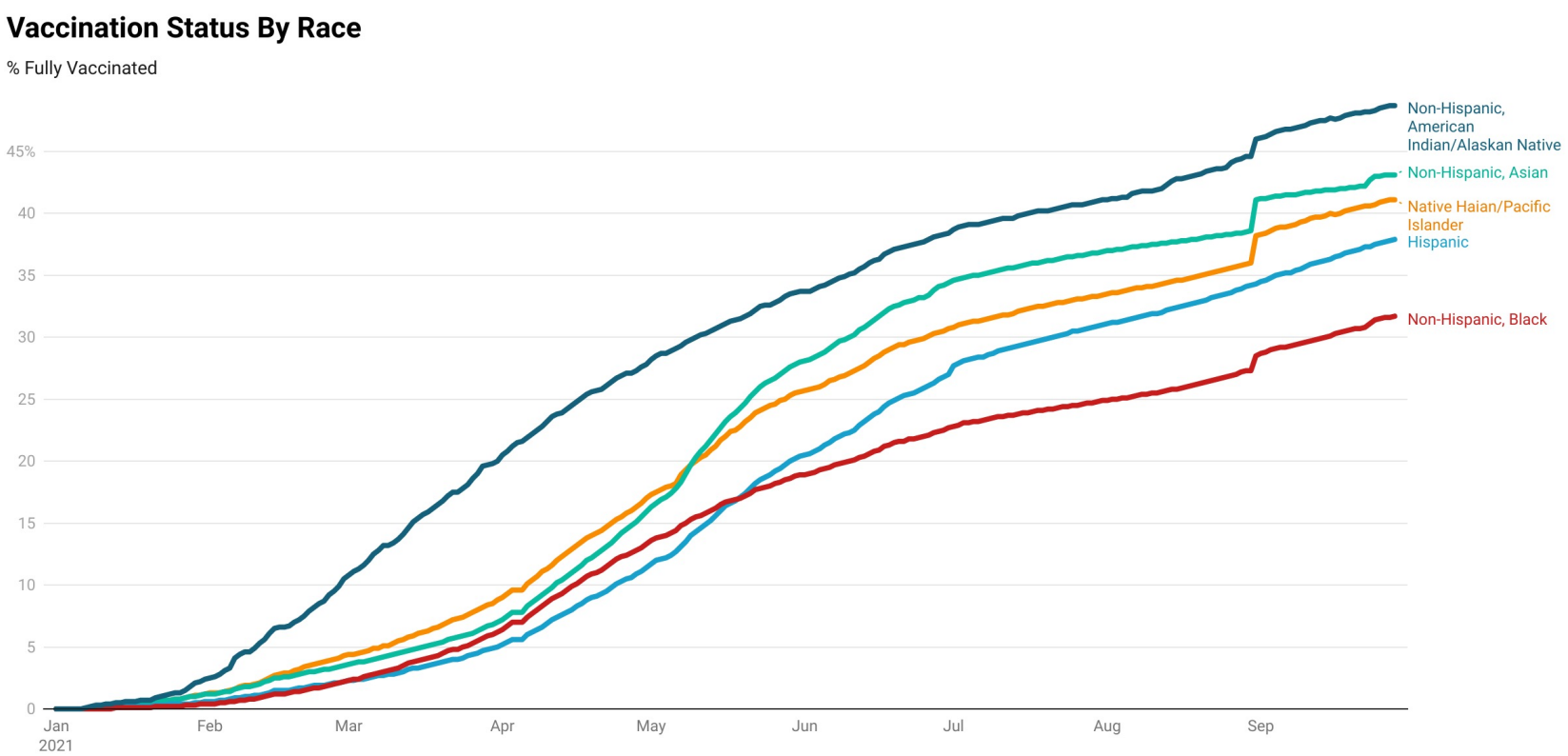
Vaccination Trends By Race and Ethnicity

Black Americans are hesitating to be vaccinated more so than other races and ethnicities. American Indians and Alaskan Natives are most likely to be fully vaccinated.



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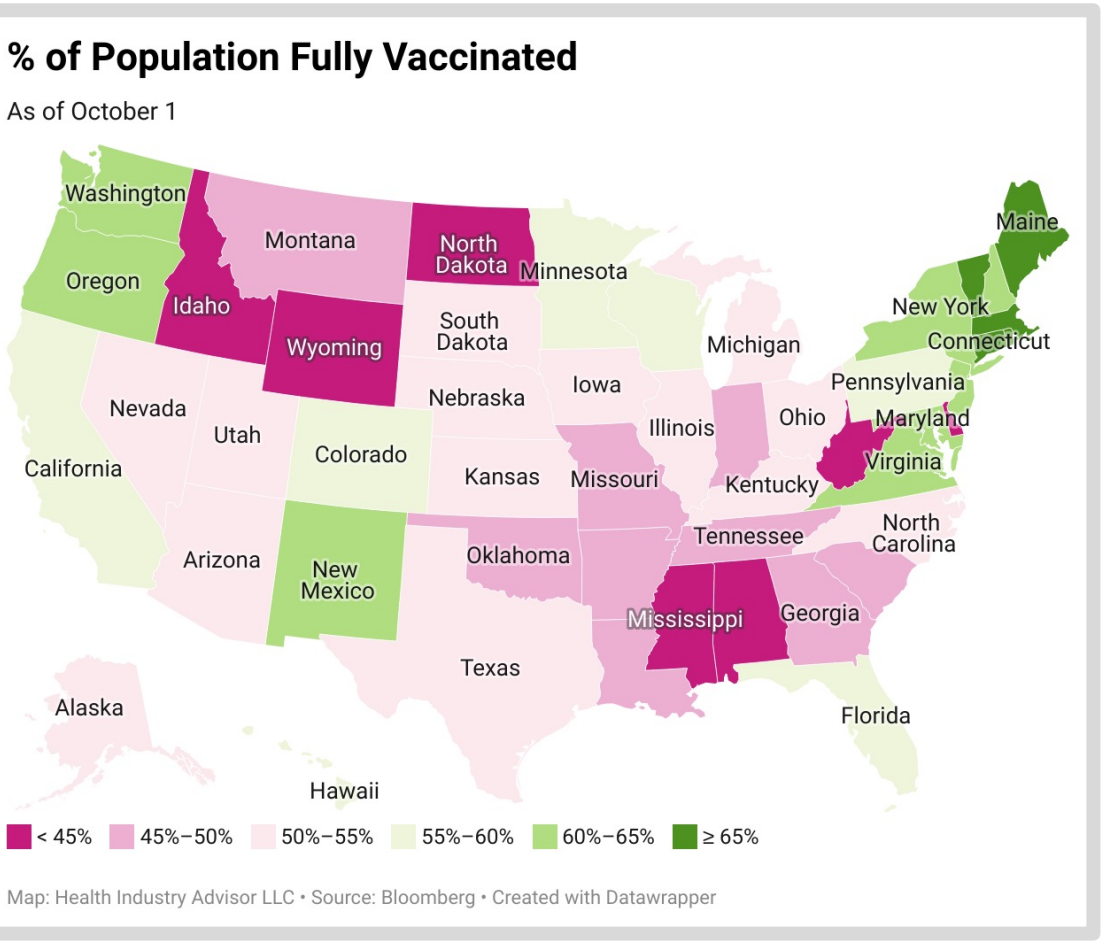
Vaccine Tracking - % of Population Vaccinated

The United States still has a long way to go in getting enough people vaccinated against Covid-19.

- Alabama, Delaware, Idaho Mississippi, North Dakota, West Virginia, and Wyoming trail the rest of the country in vaccination rates.
- Other states that have vaccinated fewer than half of their citizens: Arkansas, Georgia, Indiana, Louisiana, Missouri, Montana, Ohio, Oklahoma, and South Carolina.
- Connecticut, Maine, Massachusetts, Rhode Island, and Vermont have done the best job of vaccinating citizens.
- Other states that have vaccinated at least 60% of their citizens: Maryland, New Hampshire, New Jersey, New Mexico, New York, Oregon, Virginia, and Washington.



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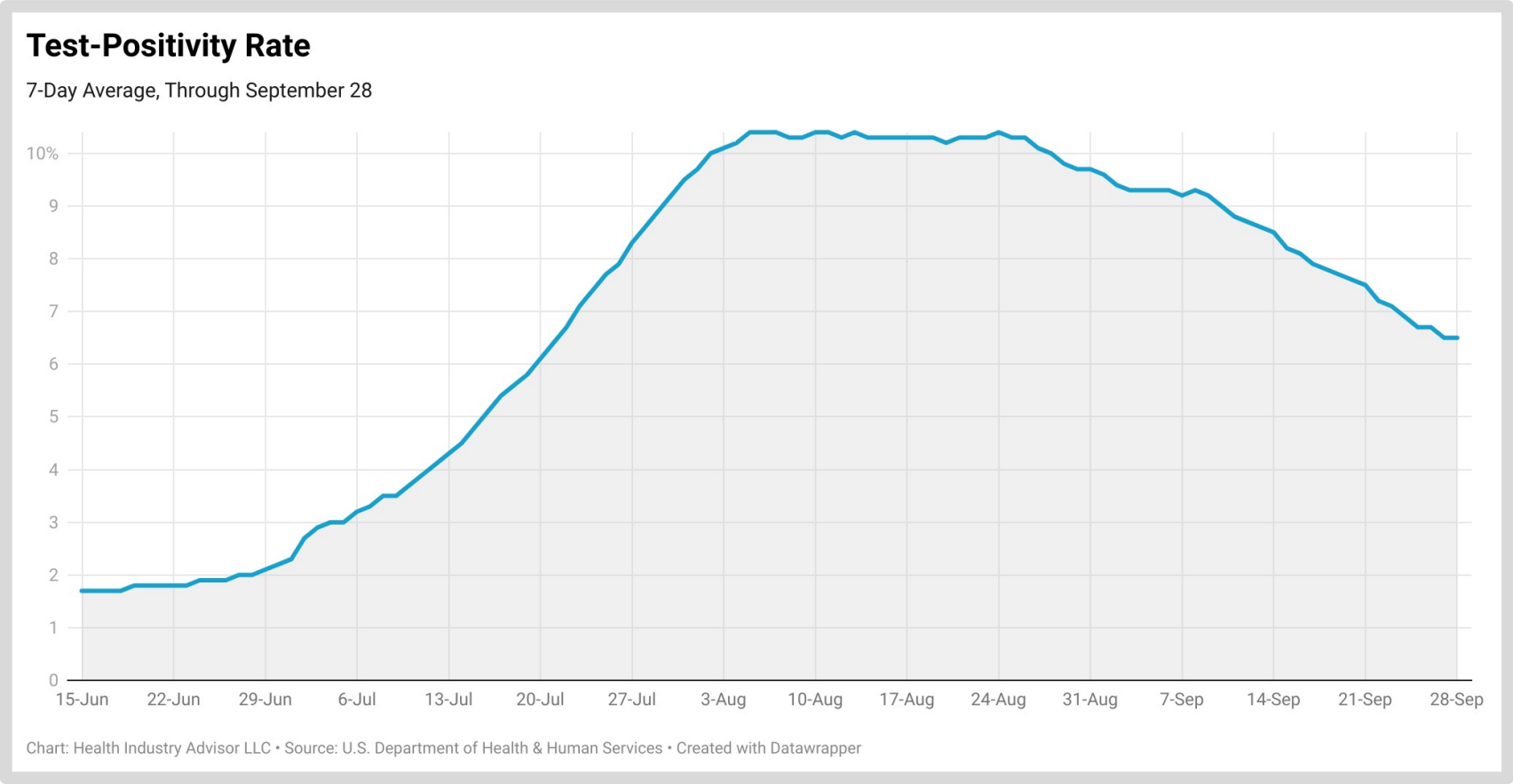
Test-Positive Rate

The test-positive has fallen over the past several weeks.



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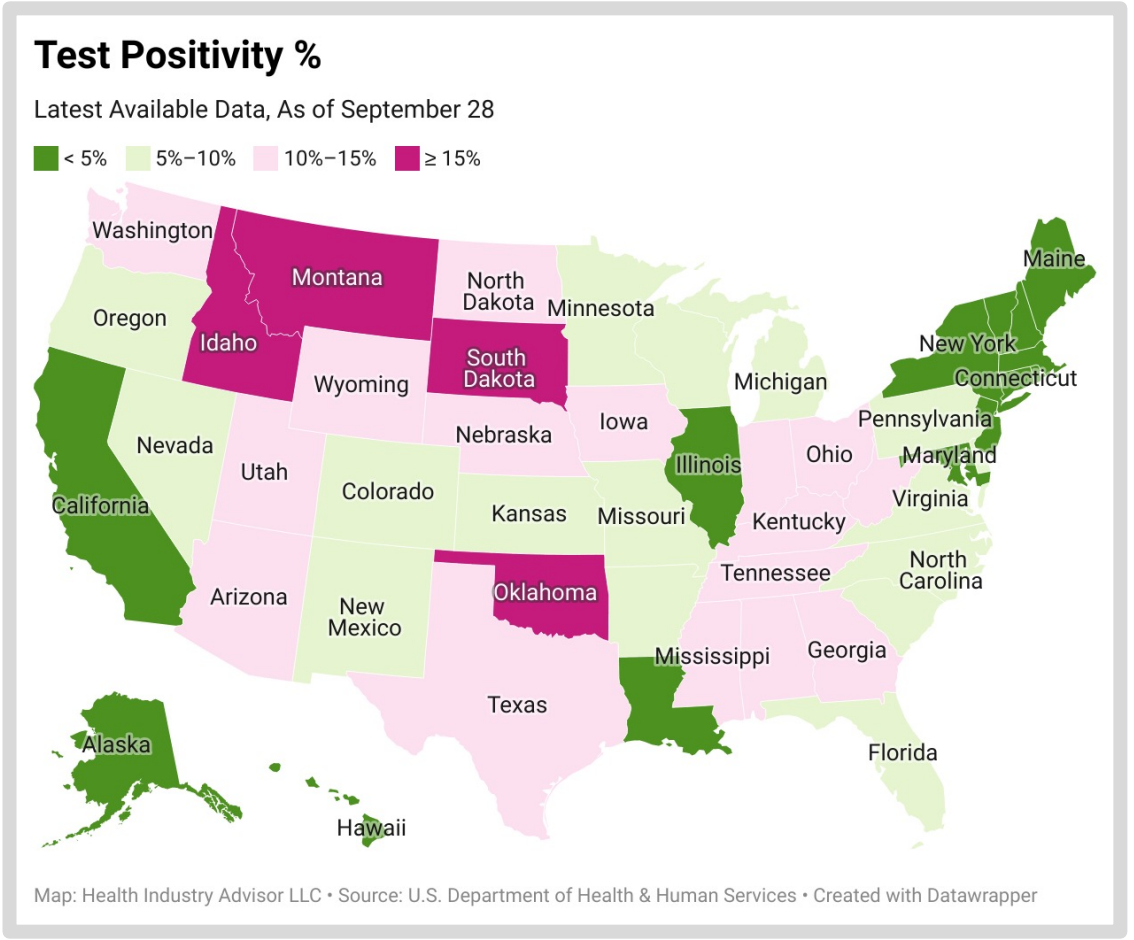
7-Day Average Test-Positivity %

Test-positivity rates are improving but, still higher than recommended by public health officials.

- Several states continue to post high test-positive rates (>15%):
  - Idaho, Montana, South Dakota, Oklahoma, and South Dakota,
- Several states report rates that beat recommended targets (<5%):
  - Alaska, California, Connecticut, Hawaii, Illinois, Louisiana, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.



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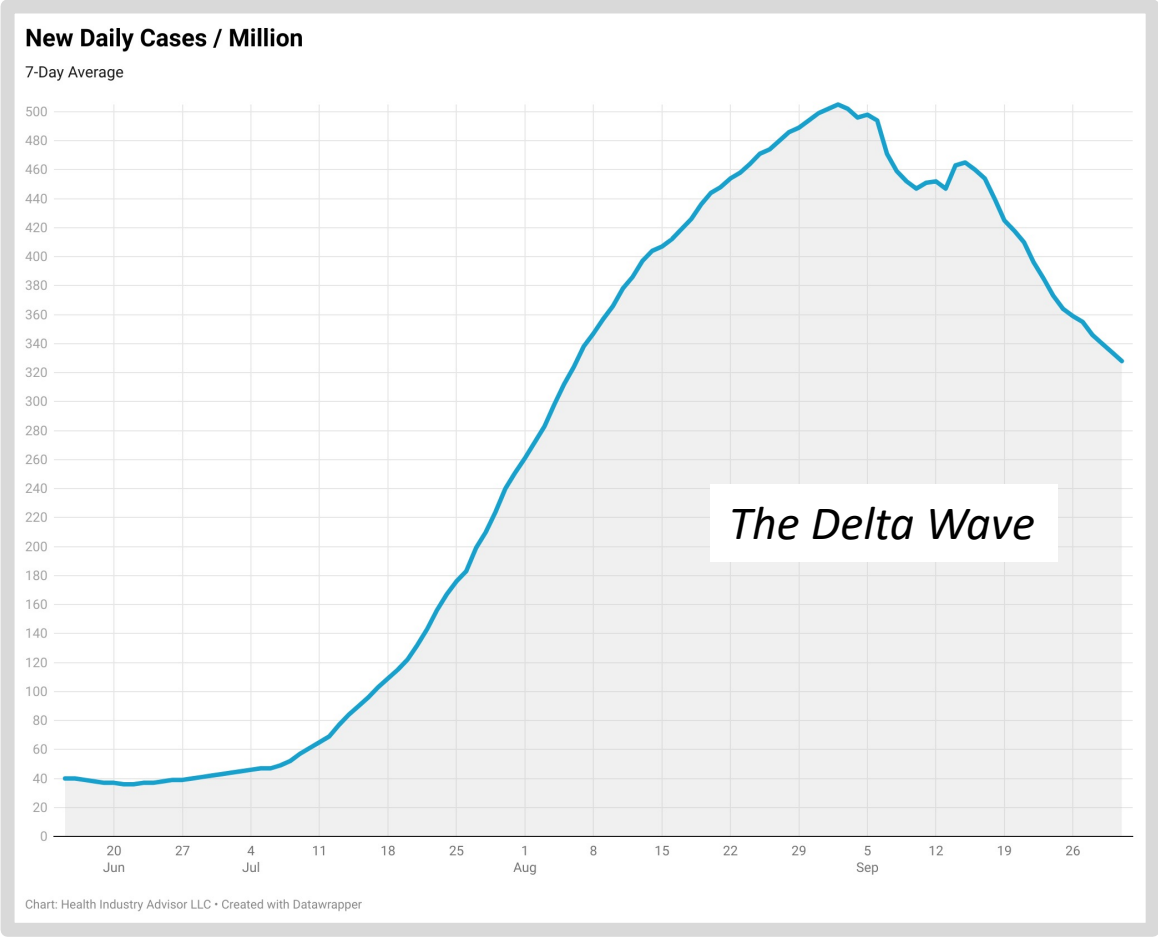
Newly Detected Cases

New cases (7-day average) fell to a two-month low on Friday. This rate has plunged 35% in a month.

- New cases are dropping sharply, after peaking on September 2
- This rate is 35% lower than its recent peak



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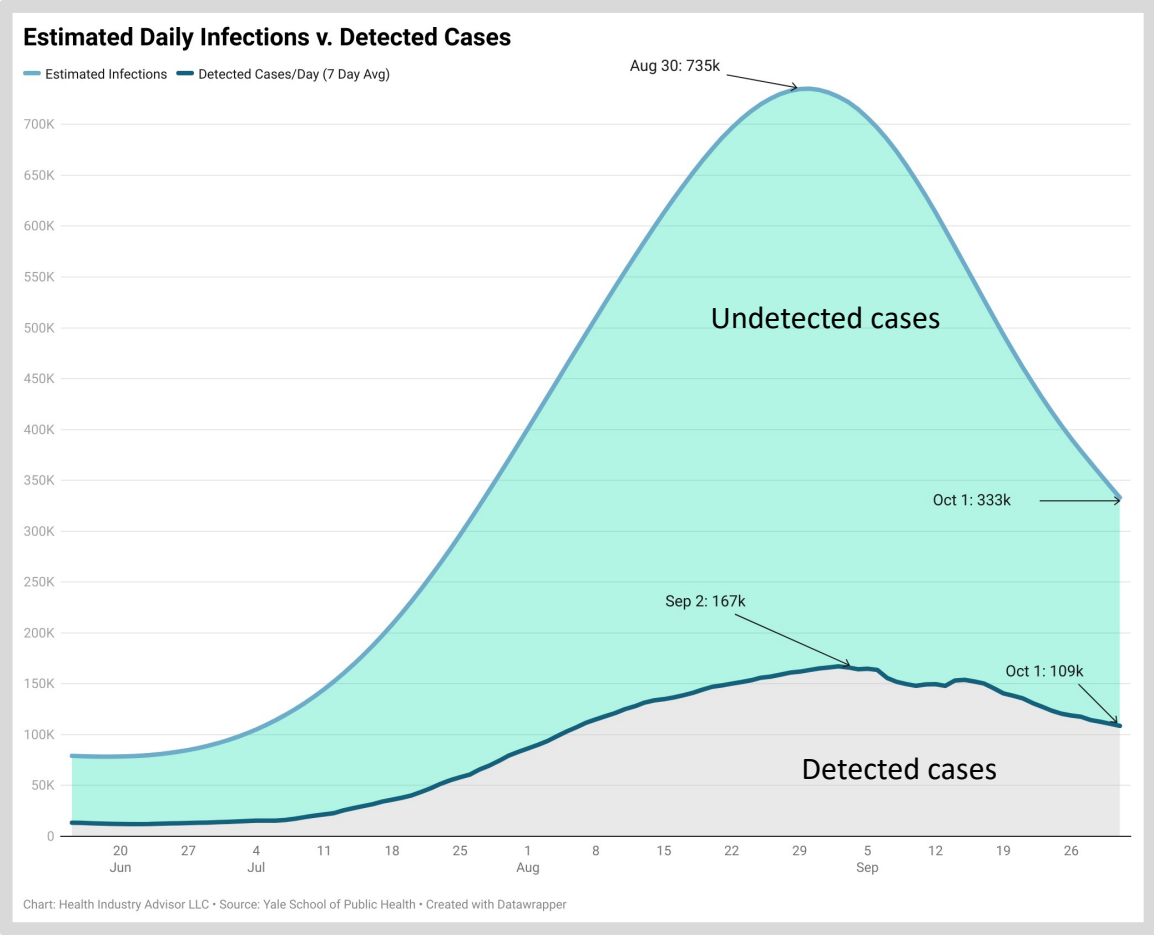
Estimated Daily Infections & New Case Rates

Estimated infections are falling too, even faster than detected cases.

- Estimated new daily cases peaked on August 30
- Since then, these infections plunged 55%
- Infections lower than they have been in more than nine weeks.



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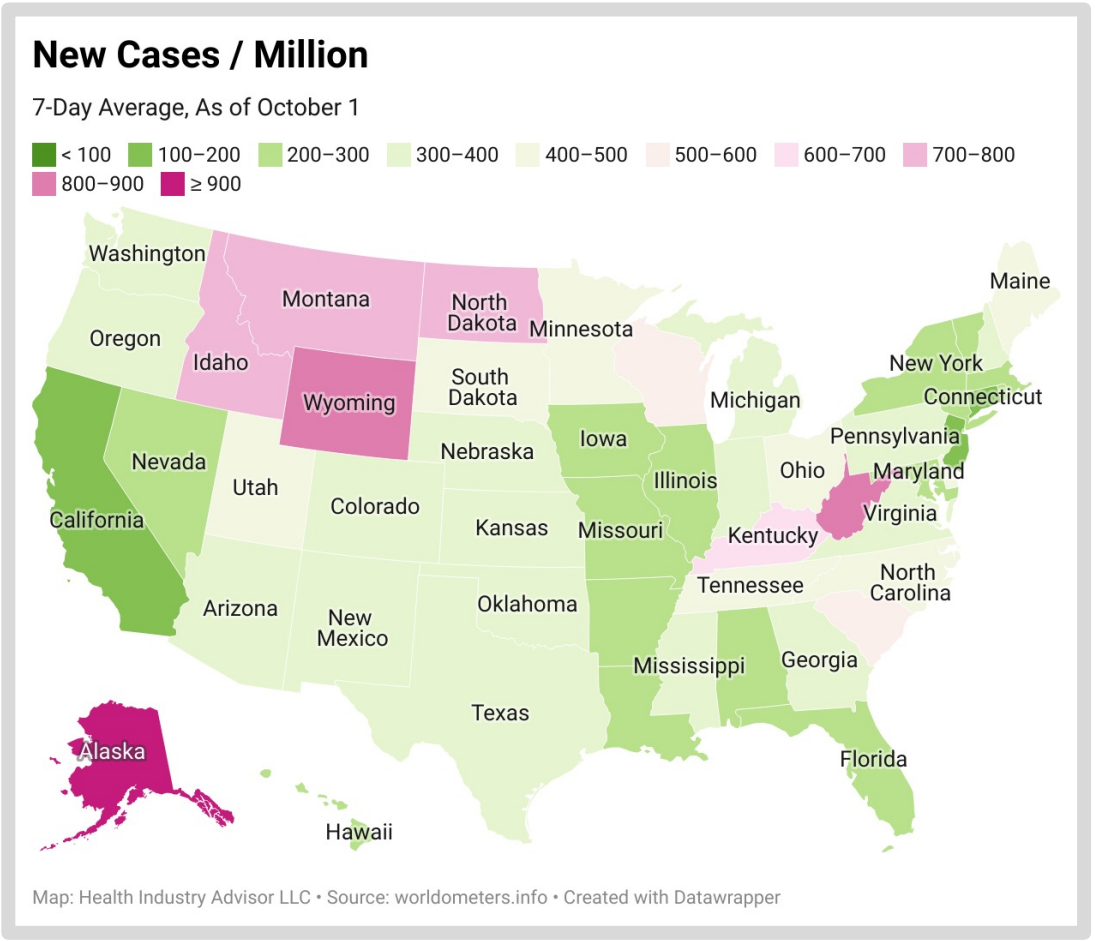
New Daily Cases per Capita By State

Pockets of high case rates are found across the country.

- Alaska, West Virginia, and Wyoming posted the highest rates of new cases per capita, as of Friday
- Rates are high in Idaho, Kentucky, Montana, North Dakota, South Carolina, Tennessee, and Wisconsin too
- California and Maryland have the lowest rates in the country, followed by Arkansas, Florida, Hawaii, Illinois, Iowa, Louisiana, Massachusetts, Missouri, Nevada, and New York



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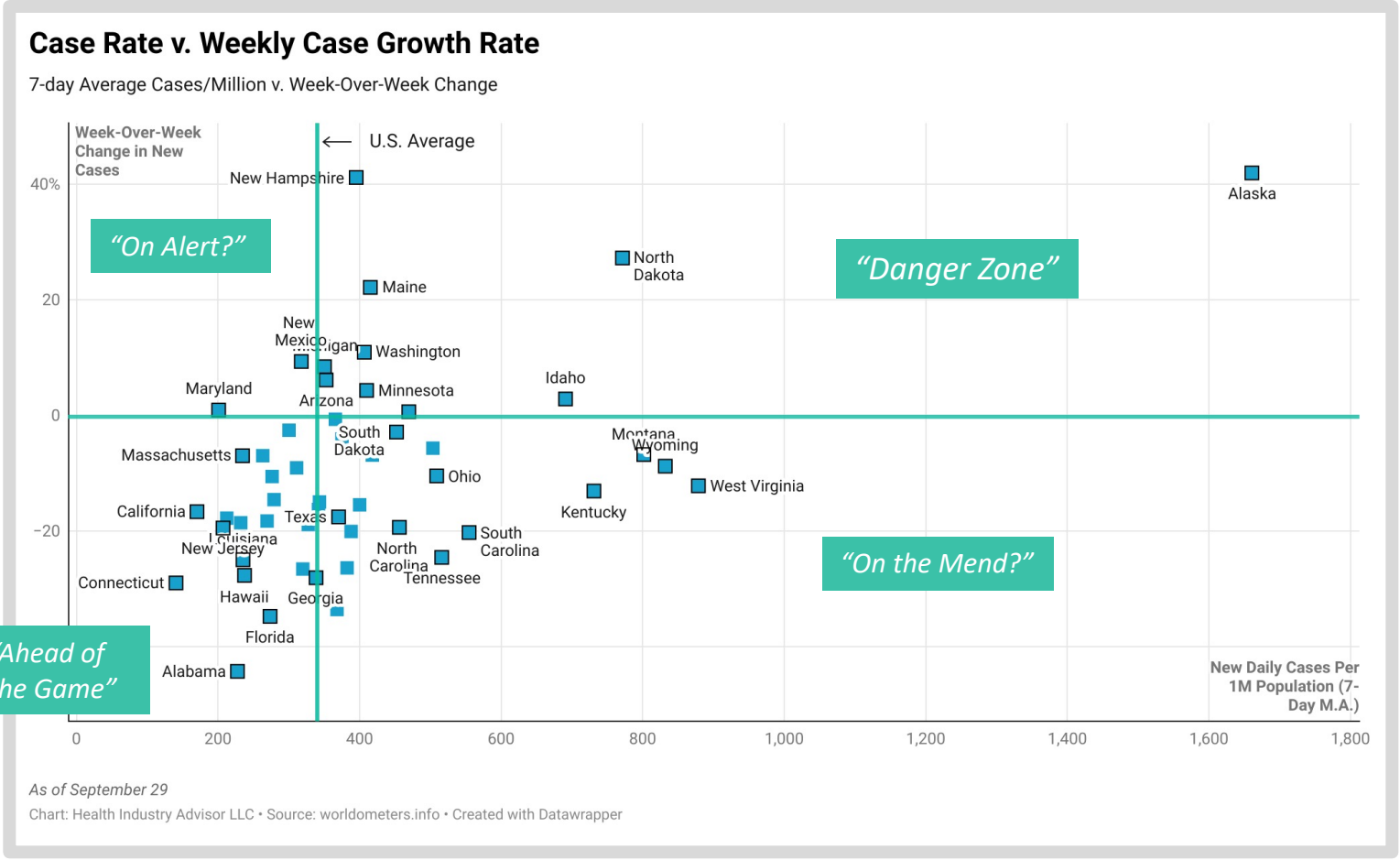
Which States Have Highest Rates of New Cases?

Alaska suffers with both the highest rate of new cases per capita and the most significant week-over-week in increase in this rate. Montana, West Virginia and Wyoming each face high but, declining new case rates.



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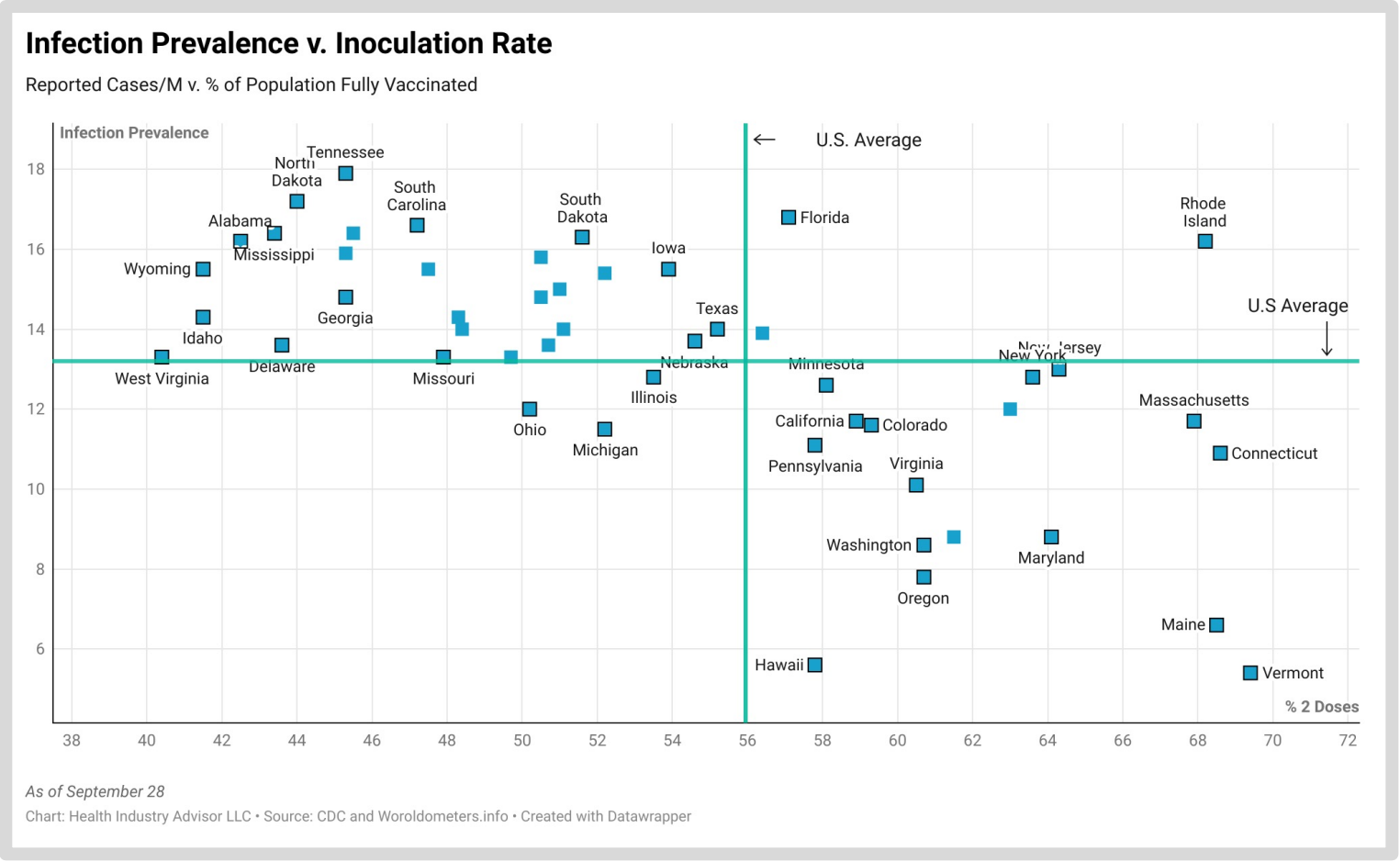
Correlation Between Vaccination and Pandemic To-Date Infection Rates

There seems to be a significant and negative relationship between a state's full vaccination rate and its pandemic to-date reported case rate per capita.



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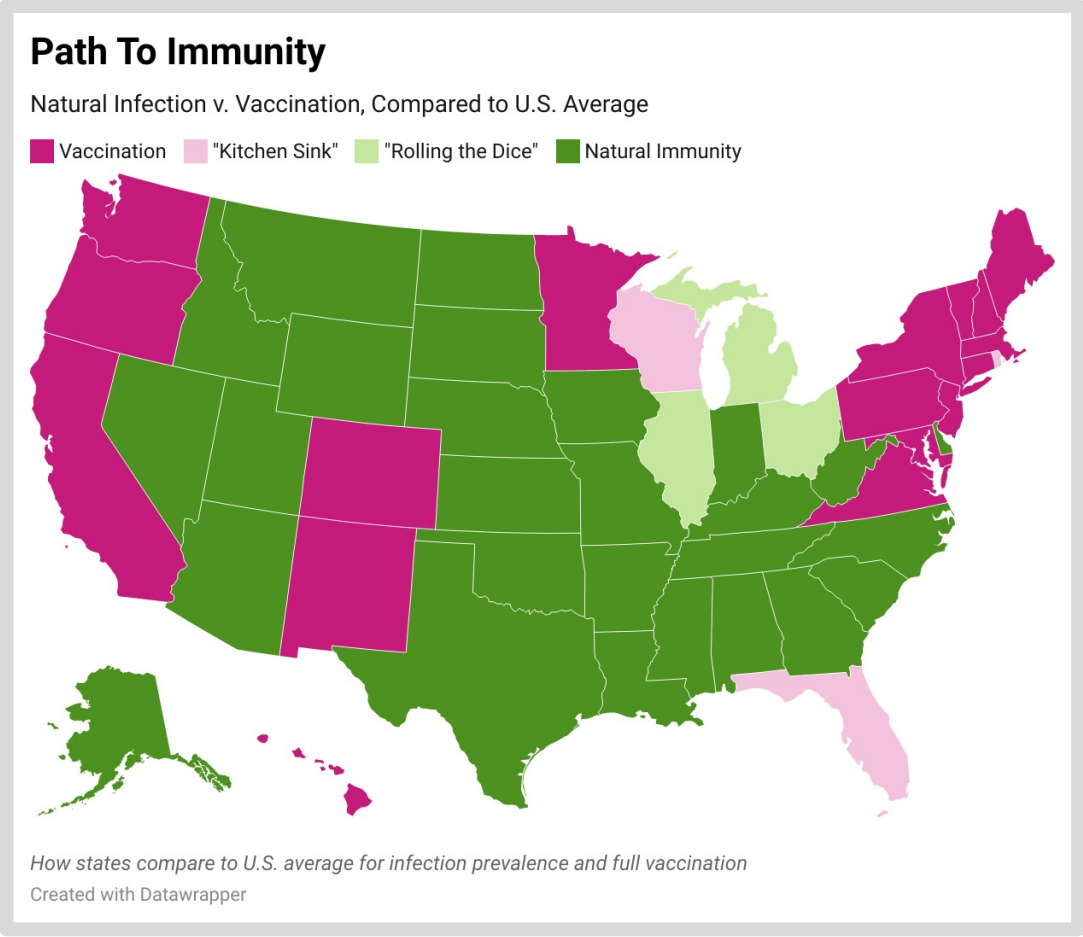
Each State's Predominant Path To Immunity

All except six states have either a high vaccination rate and low infection rate or, a low vaccination rate and a high infection rate.



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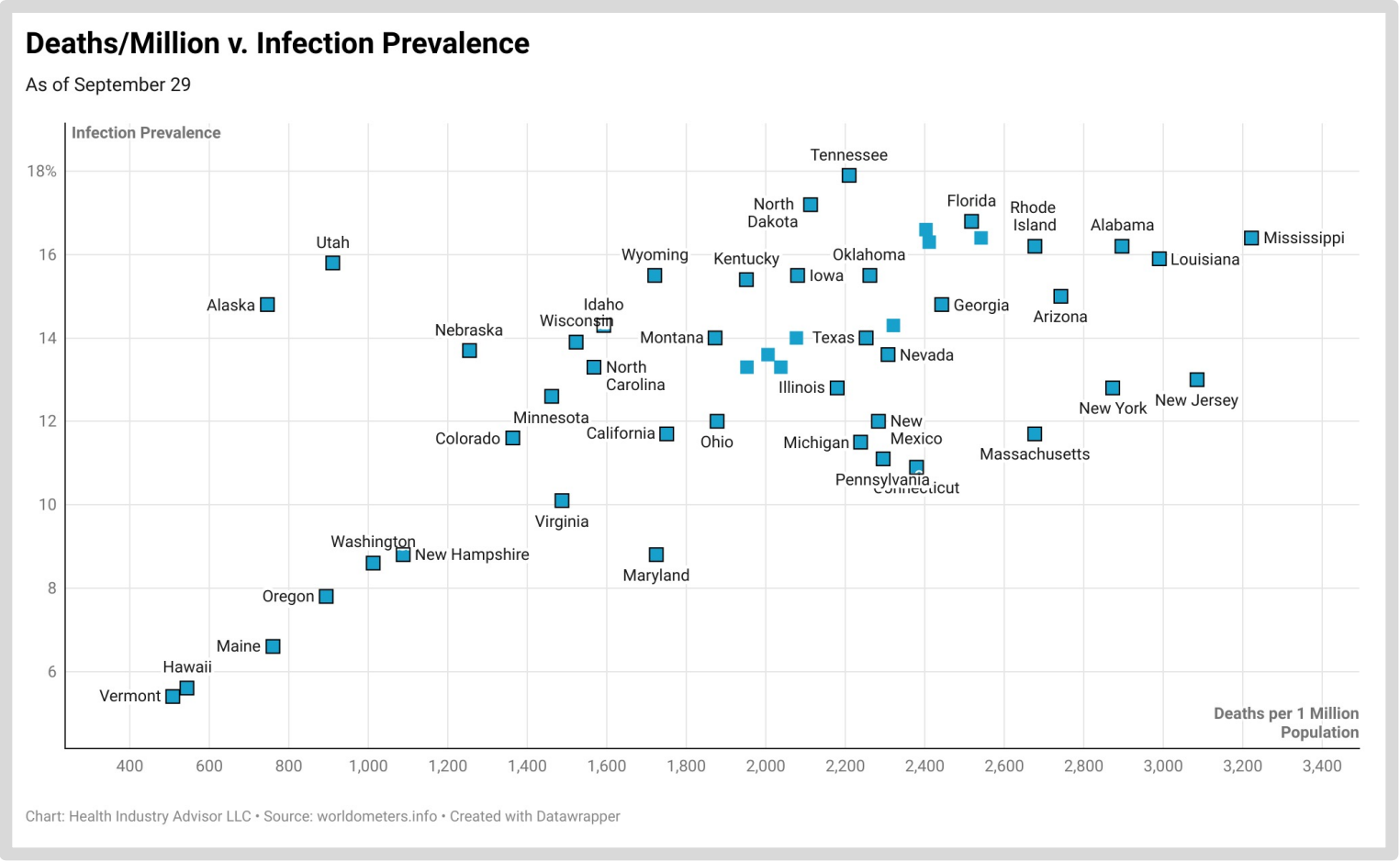
Correlation Between Pandemic To-Date Infection Rates and Death Per Capita

Unsurprisingly, natural infection comes at a tragic price.



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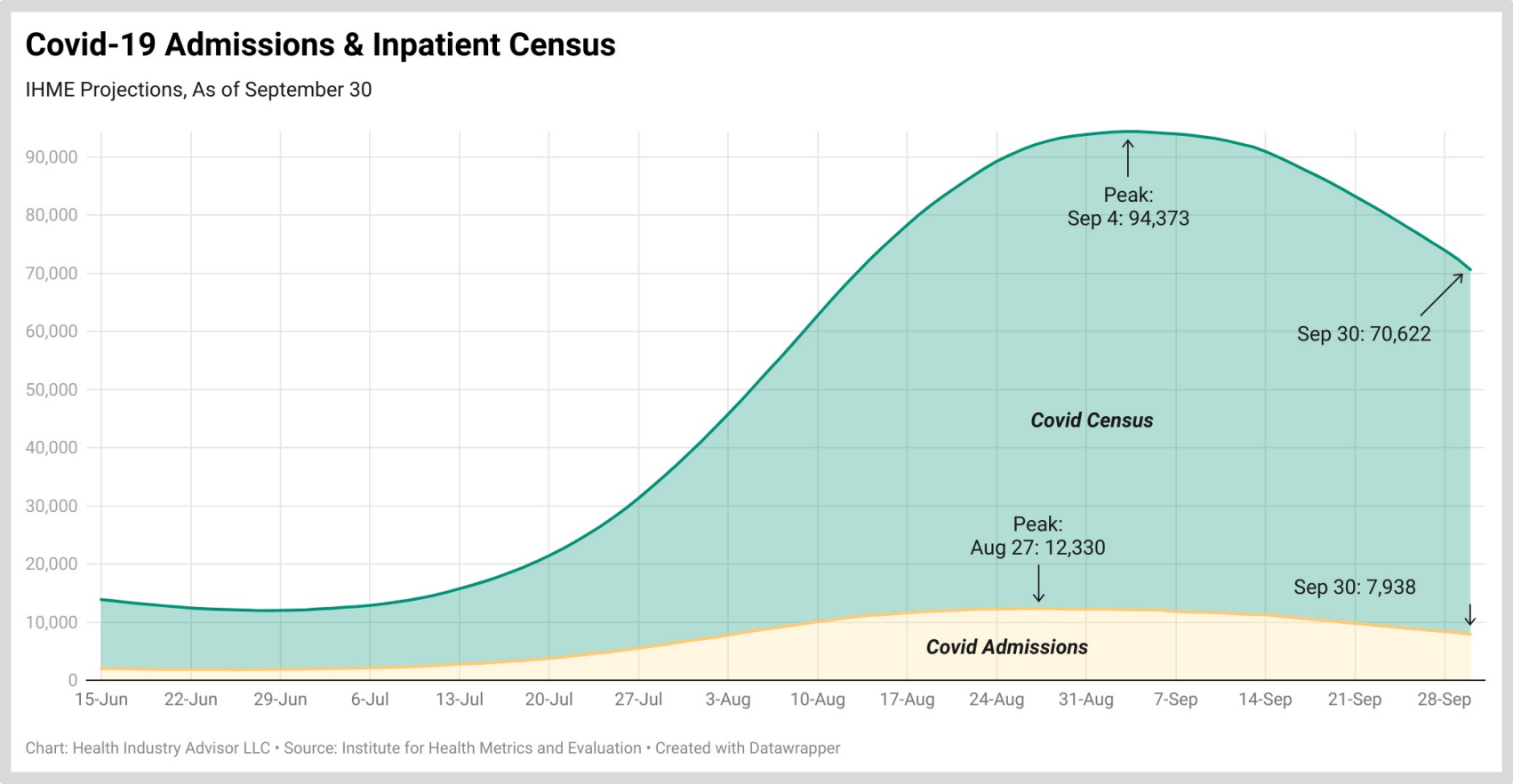
Inpatient Covid Admissions and Census

Inpatient census is declining for the United States in total.



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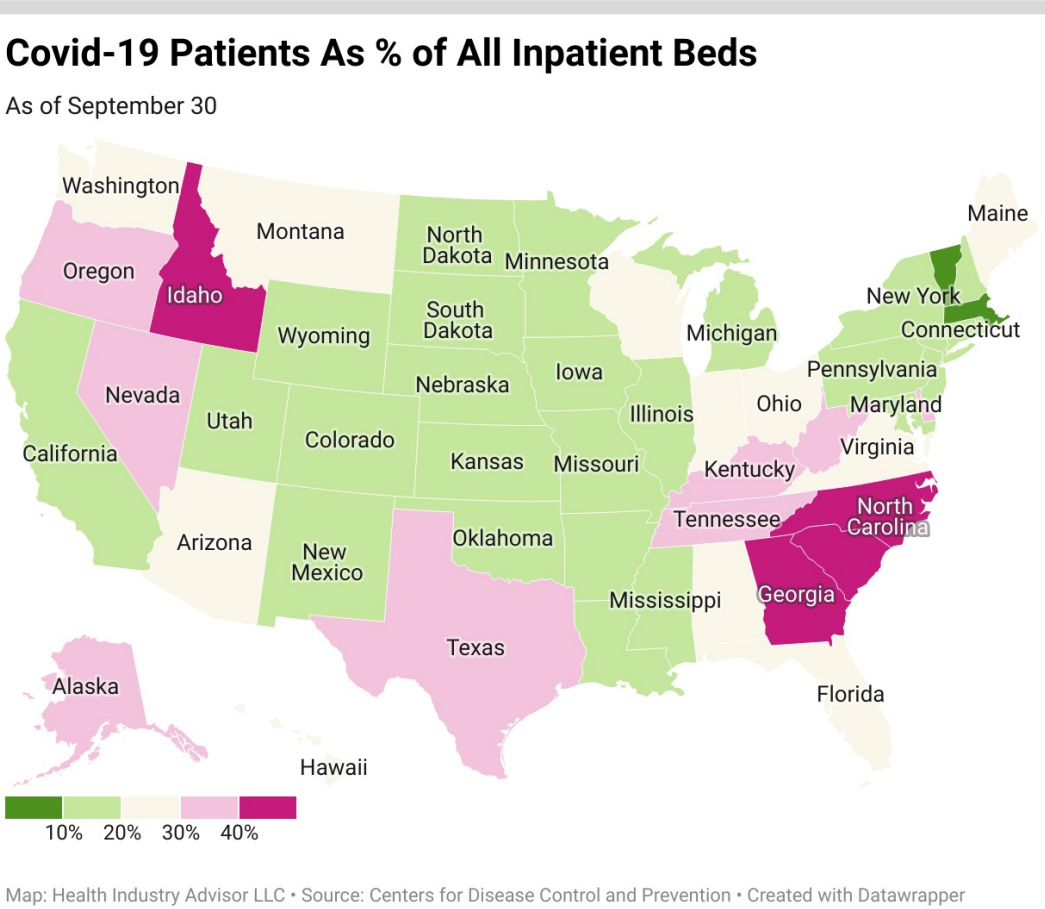
Covid Hospital Occupancy By State

Covid inpatient census is falling but, remains too high in several states.

- Covid patients account for more than 40% of available beds in Georgia, Idaho, and North Carolina
- Nine states are using at least 30% of their beds for treating Covid patients:
  - Alaska, Delaware, Nevada, Oregon, South Carolina, Tennessee, Texas, Washington, and West Virginia
- In Massachusetts, South Dakota, Vermont, Covid patients occupy less than 10% of available beds
- Twenty-four additional states are using fewer than one of every five beds for Covid patients:
  - Arkansas, California, Colorado, Connecticut, Illinois, Iowa, Kansas, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Utah, and Wyoming.



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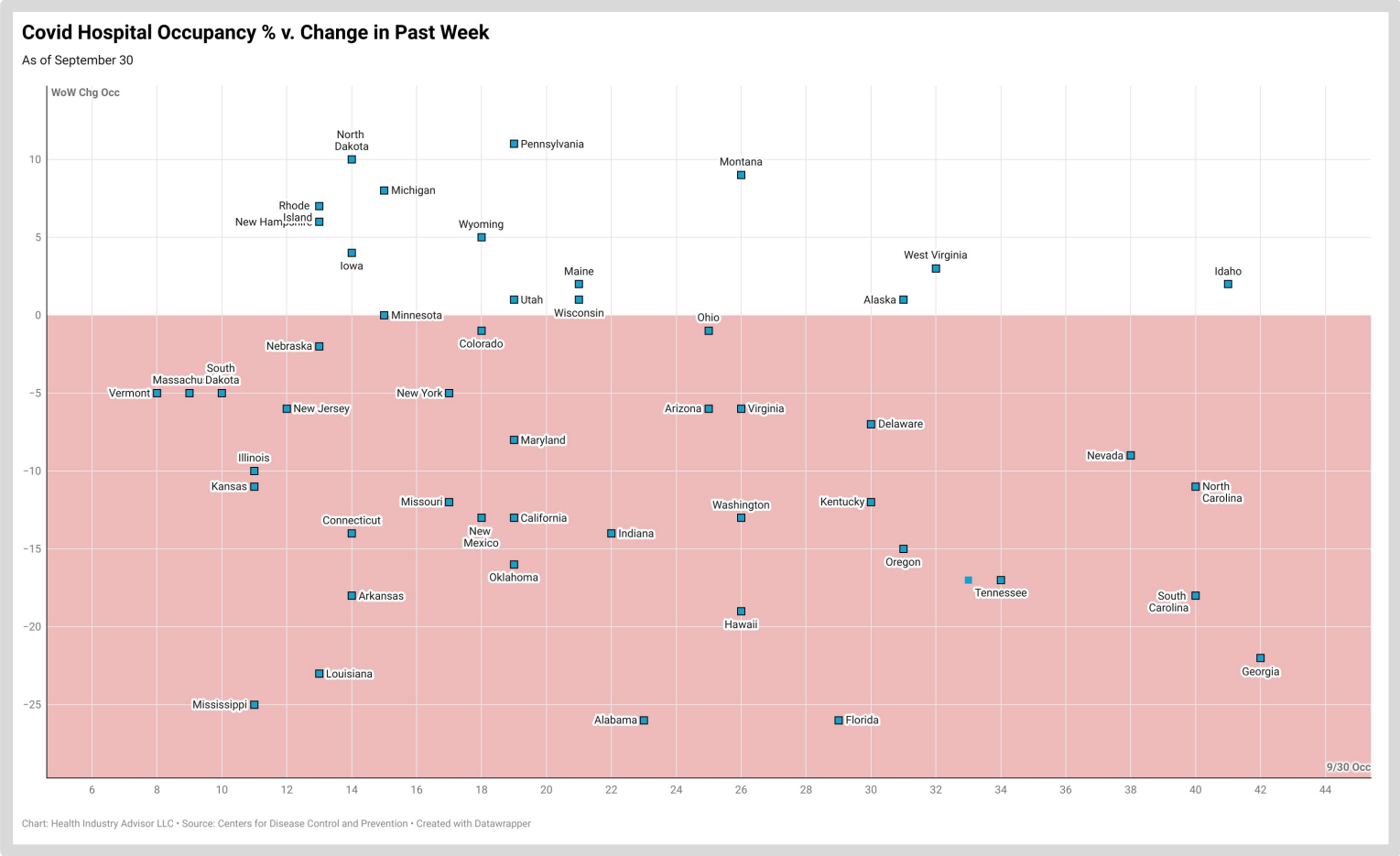
Covid Hospital Occupancy Versus Week-Over-Week Change

Thirty-five states saw declining Covid occupancy last week. Of the fifteen states that experienced increasing Covid census last week, only Alaska, Idaho, Montana, and West Virginia posted occupancy rates of 25% or higher.



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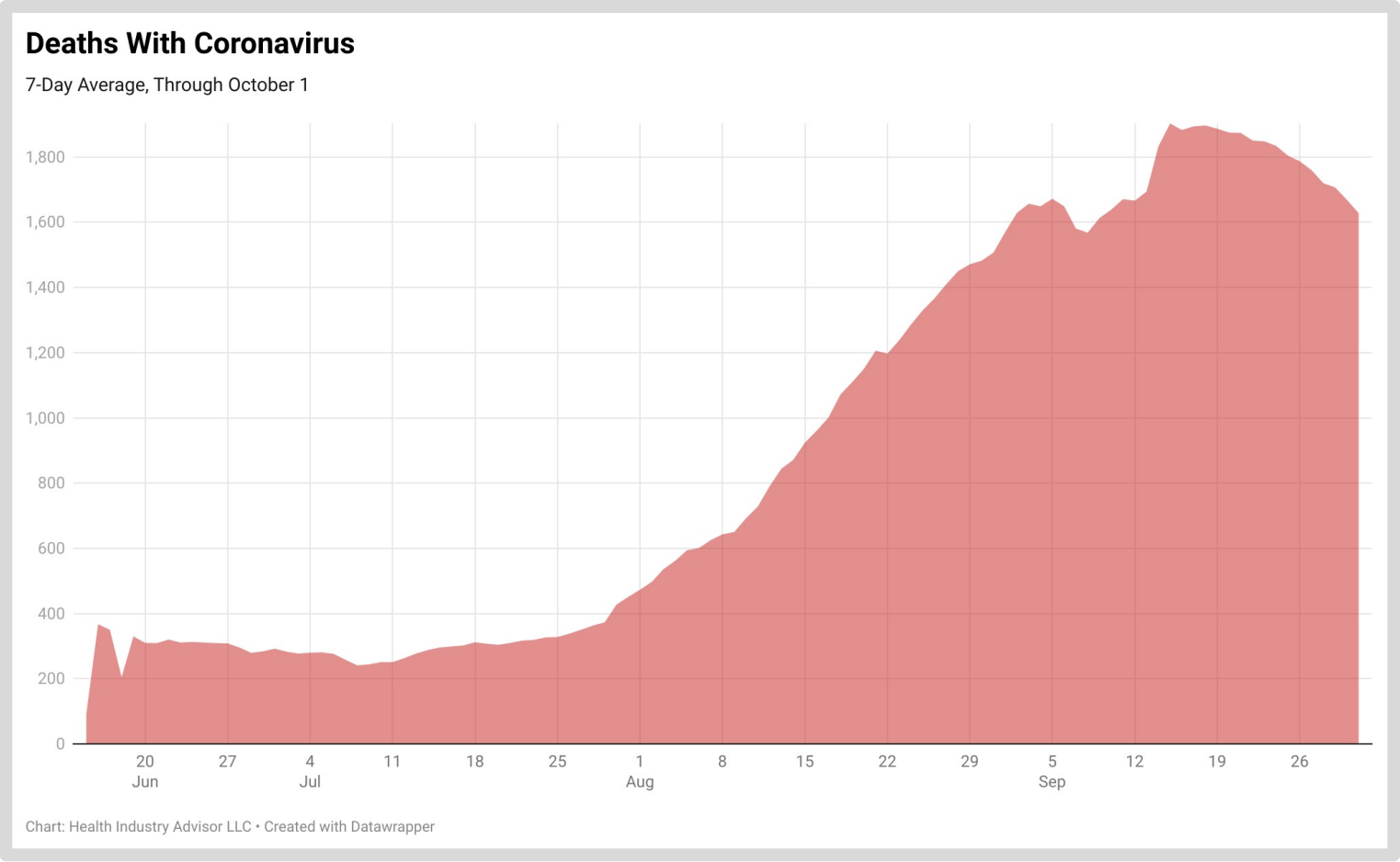
Deaths with Covid-19

Deaths with Covid-19 are dropping, following an extended rise in late-Summer.



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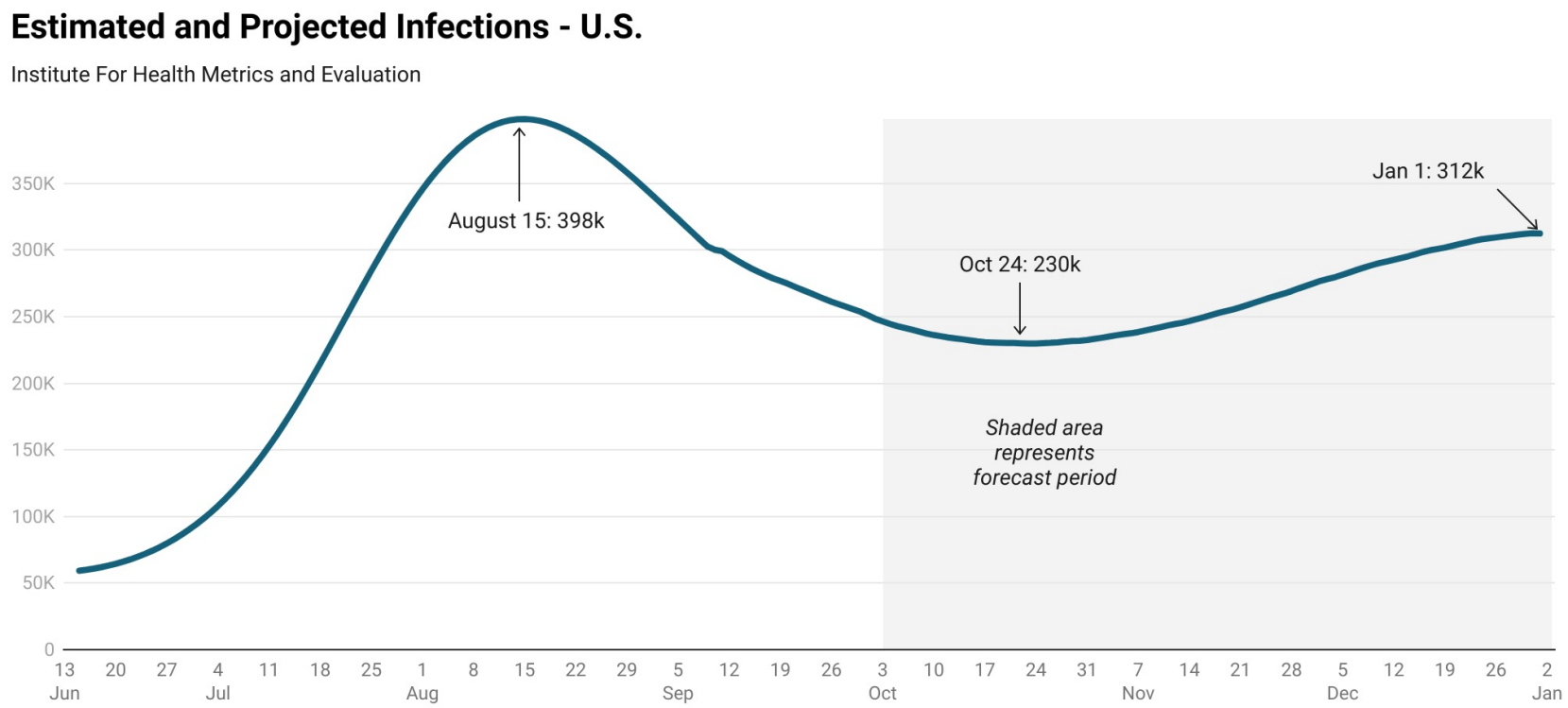
Estimated Infections- IHME Projections

IHME's latest model (published September 30) anticipates that infections will decline for another three weeks, then increase through New Year's Day..



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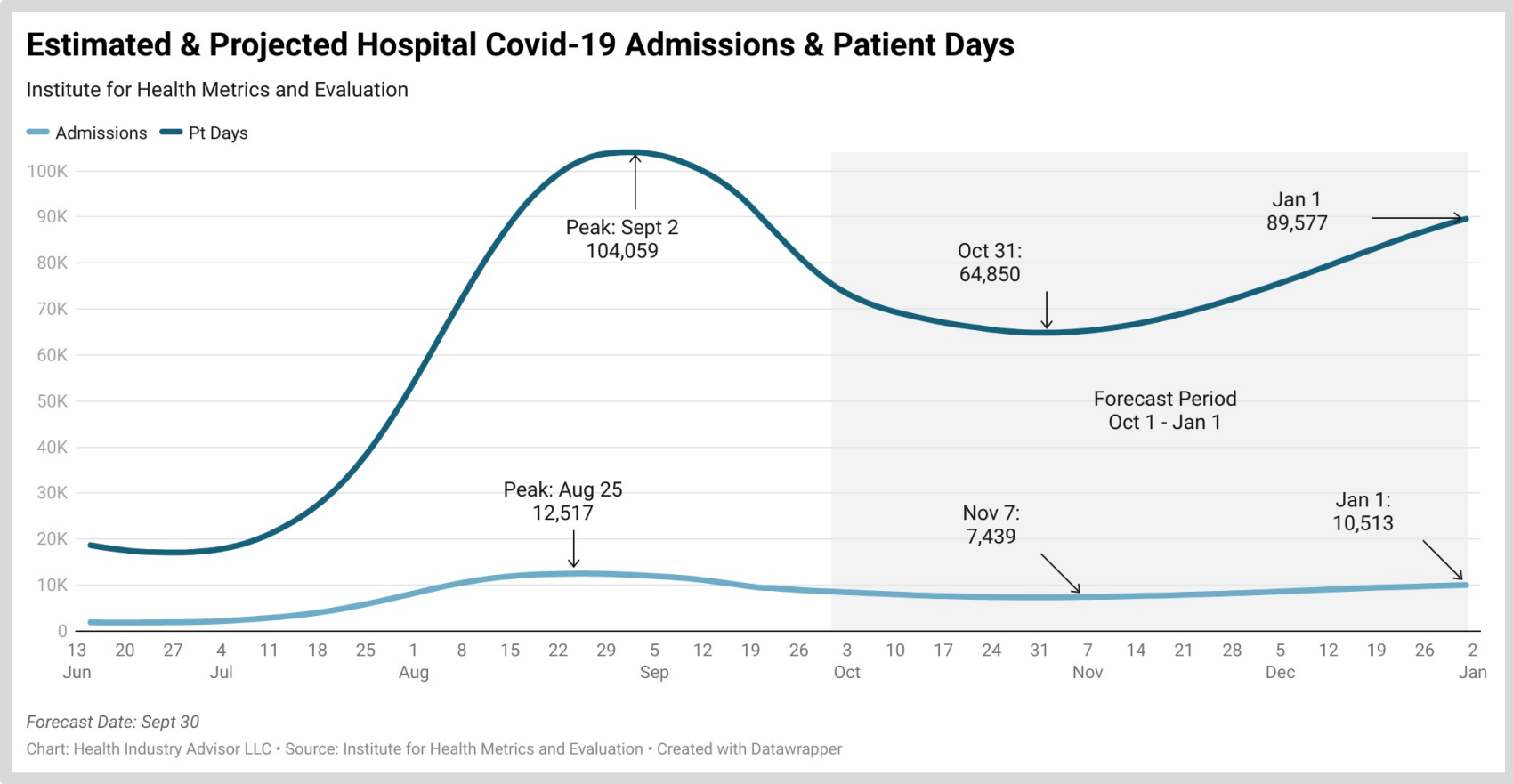
Covid-19 Inpatient Admissions & Census – IHME

IHME suggests that Covid hospital admissions peaked five weeks ago and Covid hospital census peaked a month ago. Both measures are expected to increase in November and December.



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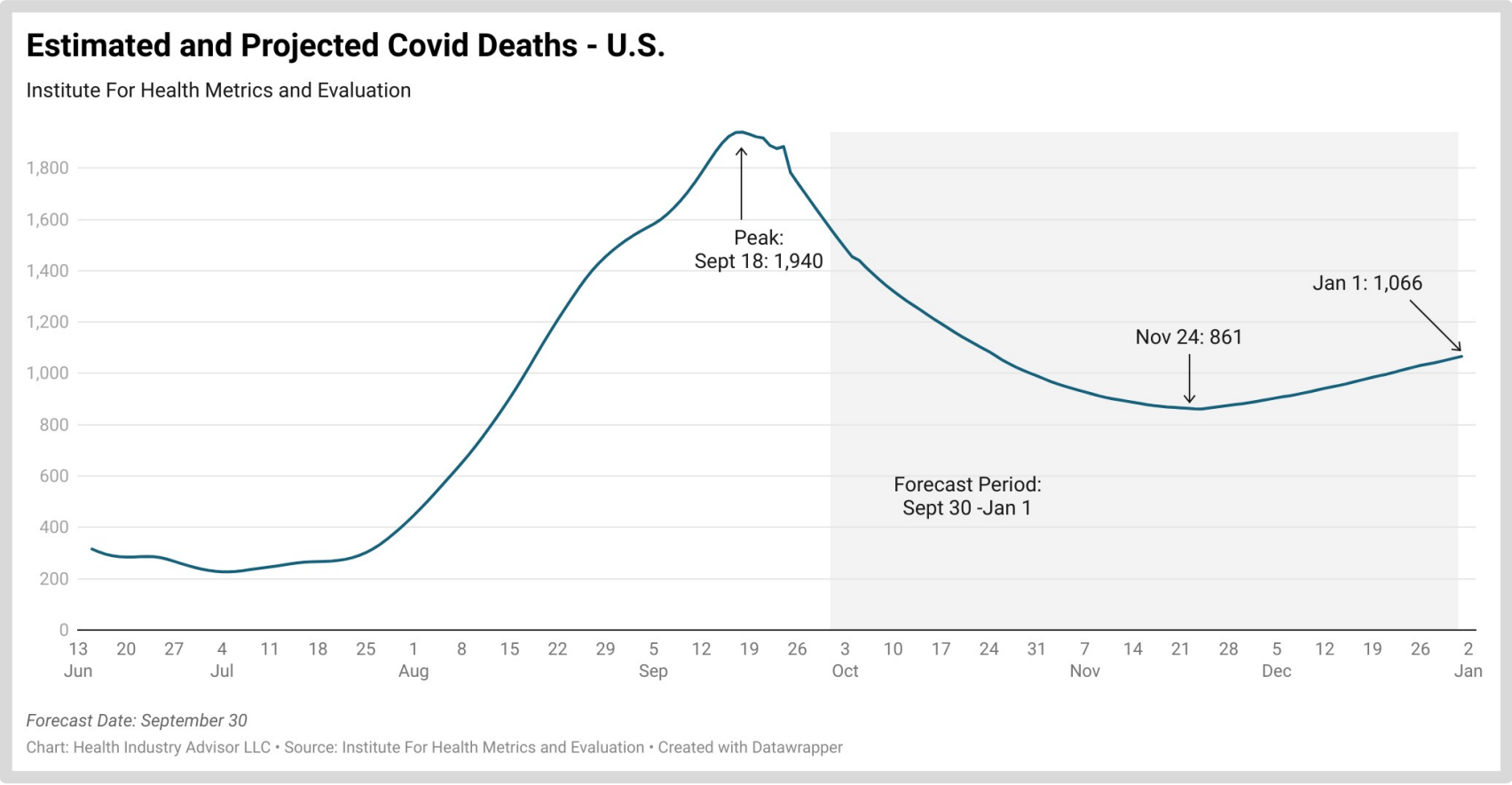
Deaths With Covid-19: IHME Projection

IHME's model suggests that we have seen the peak of daily deaths from the Delta variant. Deaths are expected to drop until Thanksgiving, before rising again through the end of the year.



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Sources

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

- U.S. Department of Health & Human Services: https://healthdata.gov/dataset/covid-19-estimated-patient-impact-and-hospital-capacity-state
- U.S. Department of Health & Human Services https://beta.healthdata.gov/dataset/COVID-19-Diagnostic-Laboratory-Testing-PCR-Testing/j8mb-icvb
- Worldometers.info: https://www.worldometers.info/coronavirus/
- 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, COVID-19 Laboratory-Confirmed Hospitalizations https://gis.cdc.gov/grasp/COVIDNet/COVID19_5.html
- 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, Vaccines, https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html
- 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
- Our World In Data, https://ourworldindata.org/covid-vaccinations
- Covid-19 Forecast Hub, https://viz.covid19forecasthub.org
- Yale School of Public Health & Harvard TH Chan School of Public Health, https://covidestim.org
- Bloomberg Vaccine Trackers, https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/?sref=Z0b6TmH

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