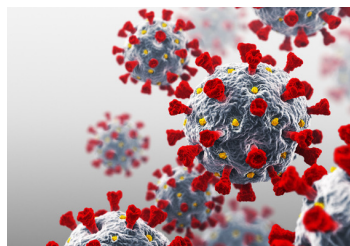


Covid-19 "Vital Signs"

Issue # 347

September 13, 2021



Vaccination Status By Age – United States

425,000 12-to-17-year-olds reached full vaccination status over the last week. 175,000 18-to-64-year-olds did too.
As of this past weekend, more than 60% of 18-to-64-year-olds are fully vaccinated. 55% of 12-to-17-year-olds are at least partially vaccinated.

Vaccination Status By Age

As of September 10

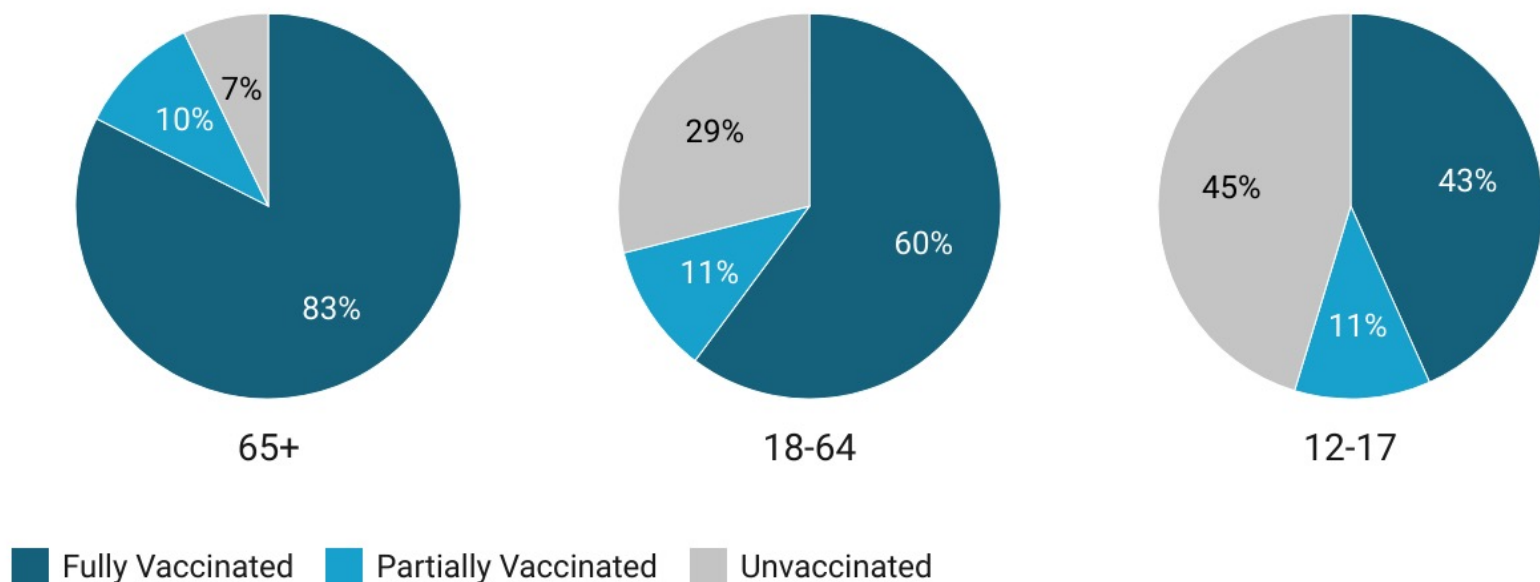
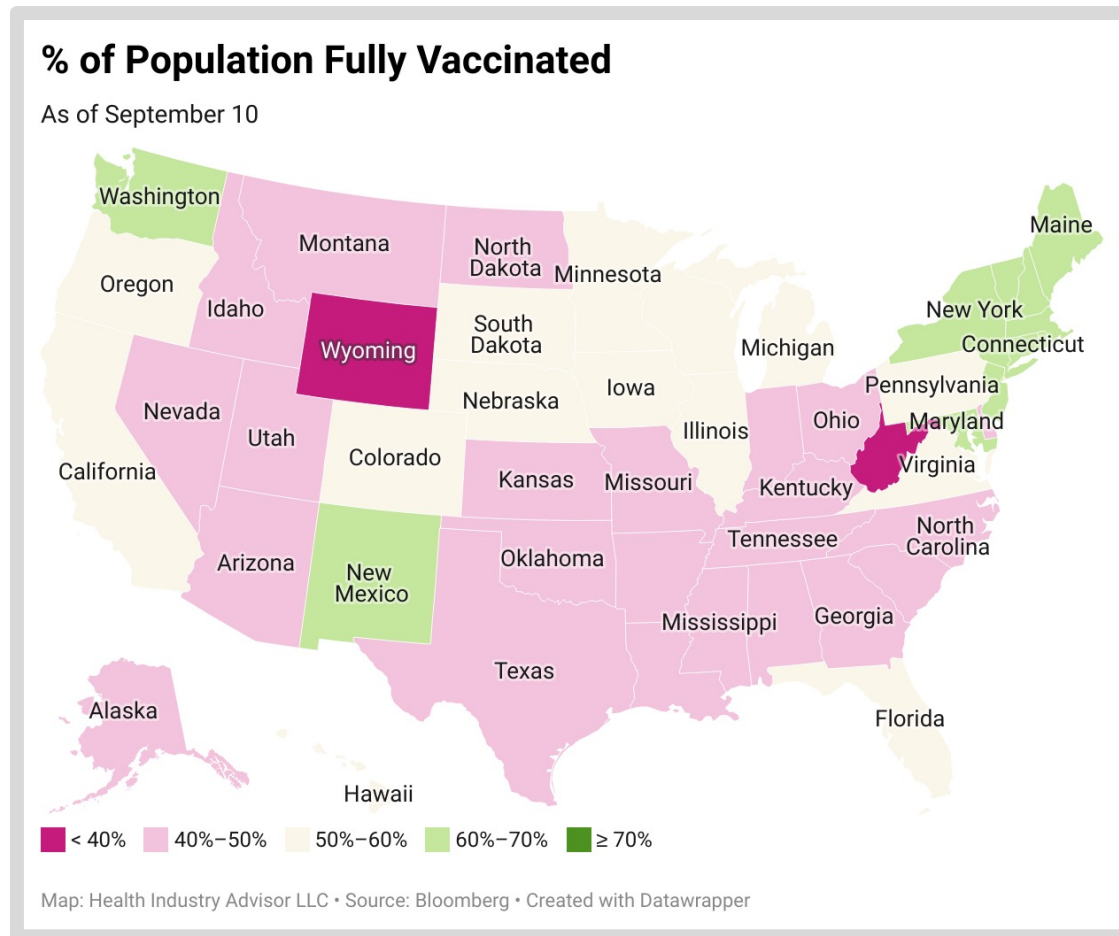


Chart: Health Industry Advisor LLC • Source: CDC • Created with Datawrapper

Vaccine Tracking - % of Population Vaccinated

West Virginia and Wyoming trail the rest of the country in vaccinations: fewer than four of ten residents of these states are fully vaccinated. Connecticut, Maine, Massachusetts, and Vermont lead the nation in this effort: more than two-thirds of residents of these states are immunized.



Test-Positive Rate

The test-positive rate declined steadily over the past two weeks.

Test-Positivity Rate

7-Day Average, Through September 7

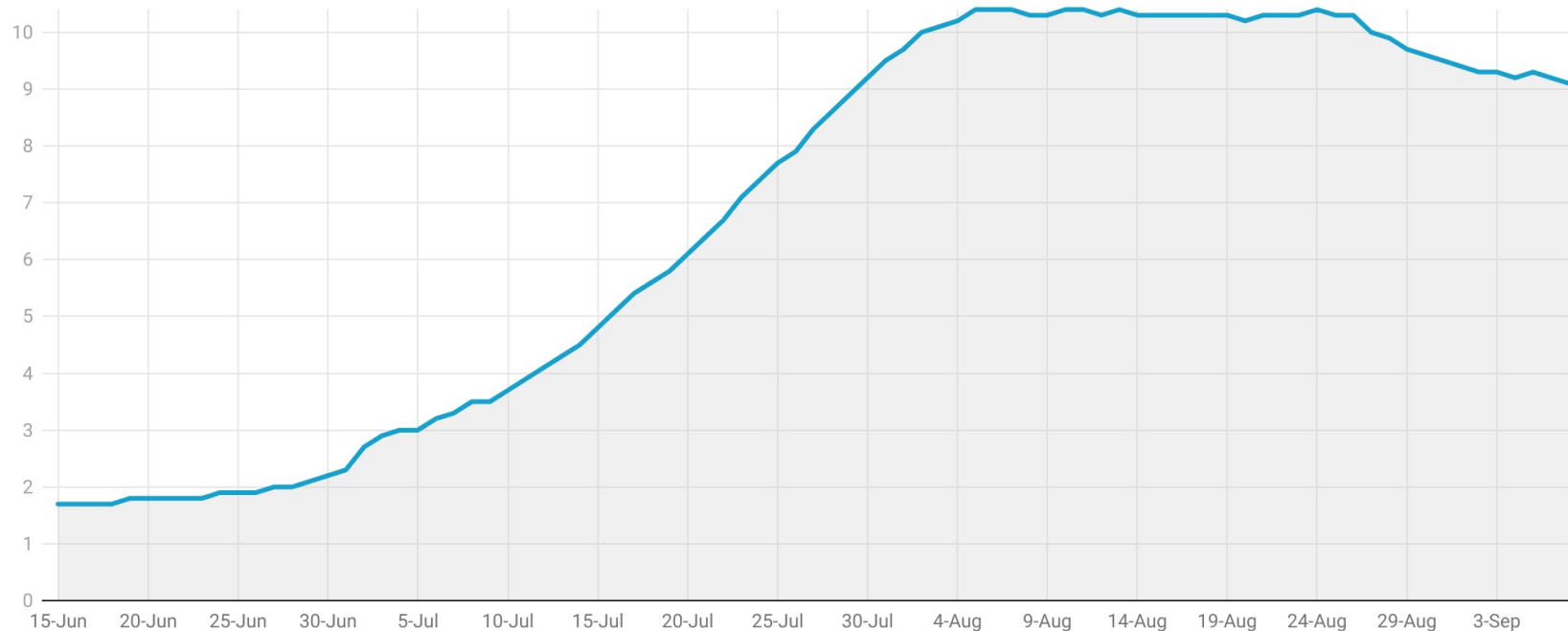


Chart: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

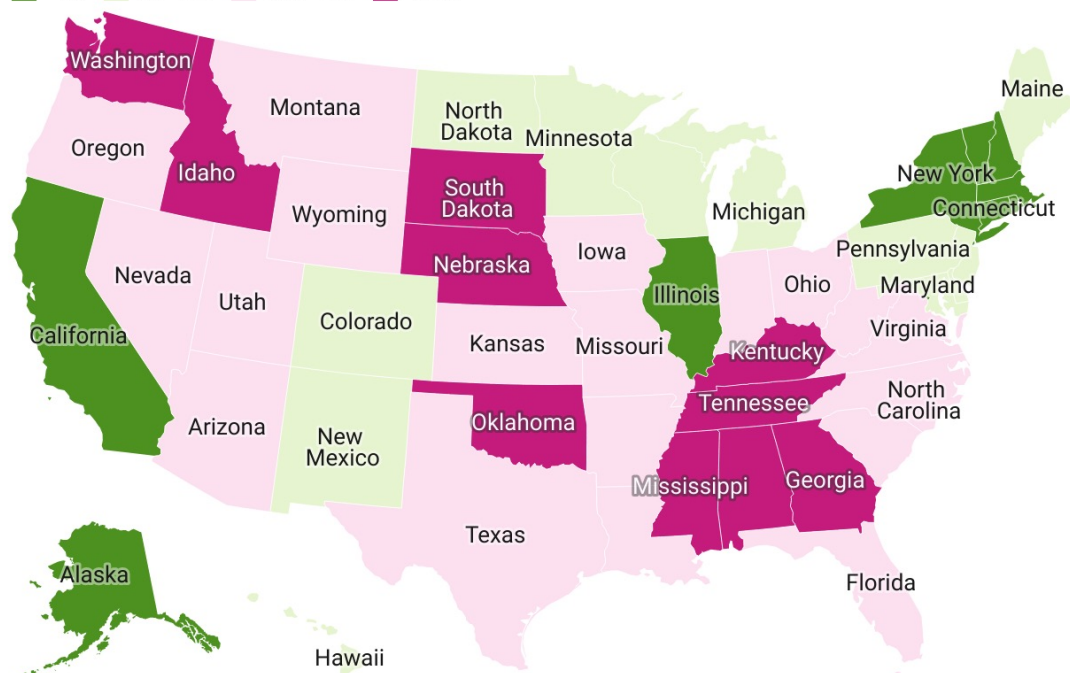
7-Day Average Test-Positivity %

Test-positive rates in nine states are below the desired 5% level: Alaska, California, Connecticut, Illinois, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Rates in ten states exceed 15%: Alabama, Georgia, Idaho, Kentucky, Mississippi, Nebraska, Oklahoma, South Dakota, Tennessee, and Washington.

Test Positivity %

Latest Available Data, As of September 7

■ < 5% ■ 5%–10% ■ 10%–15% ■ ≥ 15%



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

Newly Detected Cases

The 7-day new daily case rate peaked on September 2. This rate dropped 12% over the past eight days.

Newly-Detected Cases / Million

7-Day Average

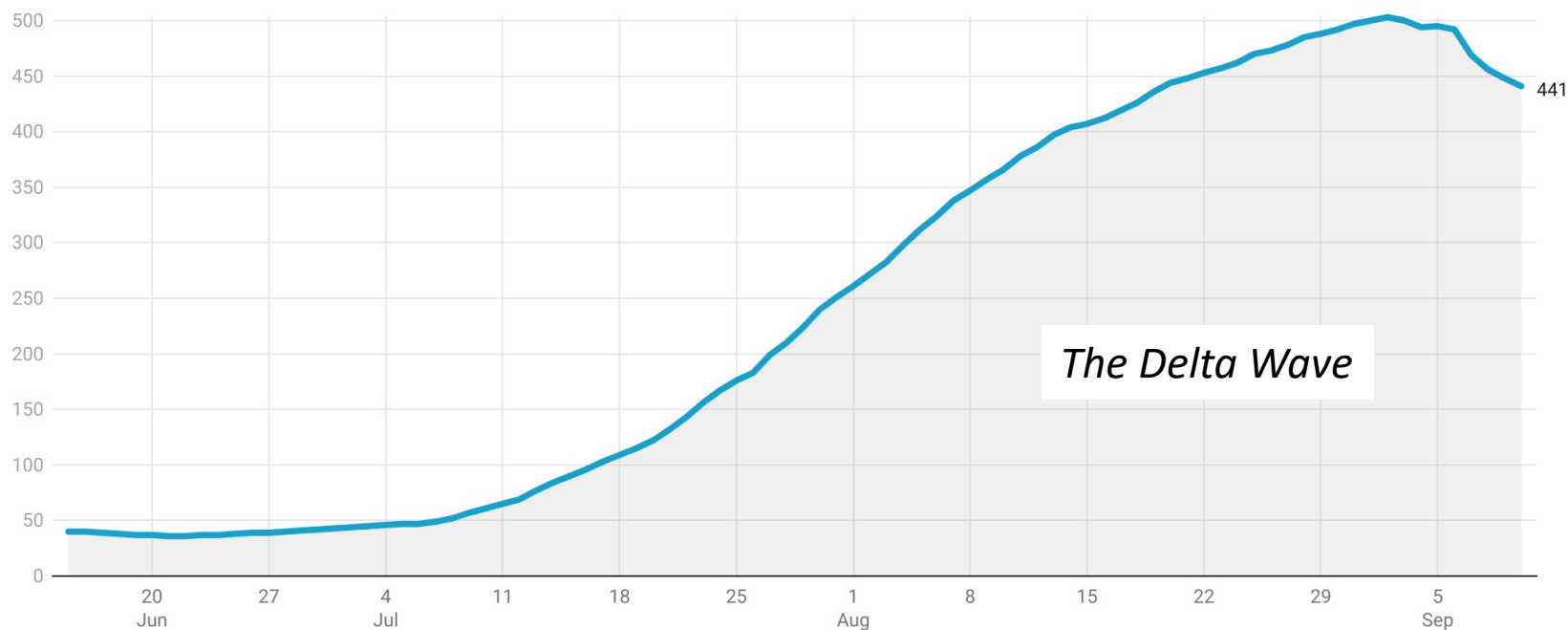


Chart: Health Industry Advisor LLC • Created with Datawrapper

Covid-19 "Vital Signs"

Weekly Change in Newly Detected Cases

On July 15, new cases increased 71% versus the prior week. This week-over-week change has declined since that day. Now, new cases are dropping week-over-week.

Week-Over-Week Changes in Newly-Detected Cases: USA

7-Day Moving Average, As of September 10

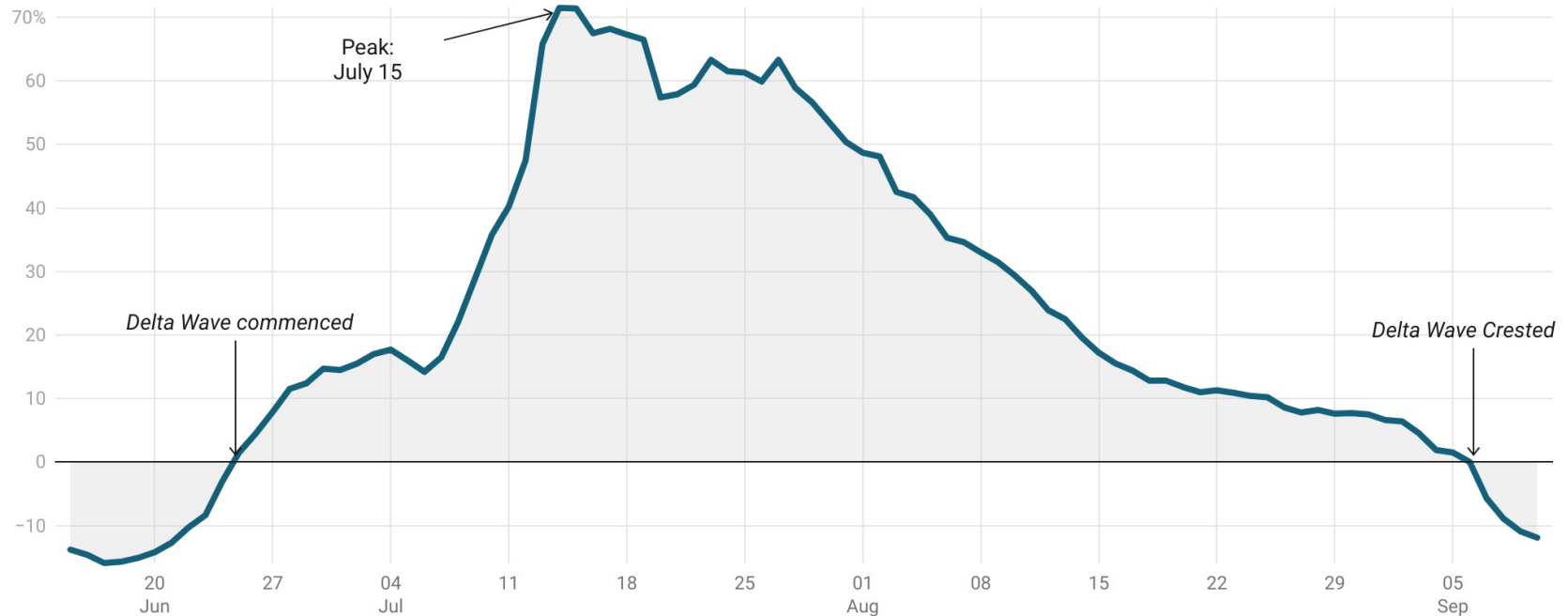


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid-19 "Vital Signs"

Estimated Daily Infections & New Case Rates

Based on reported cases, the Delta wave crested in September 2. Using estimated infections, the wave peaked on August 24. (Note: there is a built-in delay between the presumed infection date and the date a case is tested and then reported.)

Estimated Daily Infections v. Detected Cases

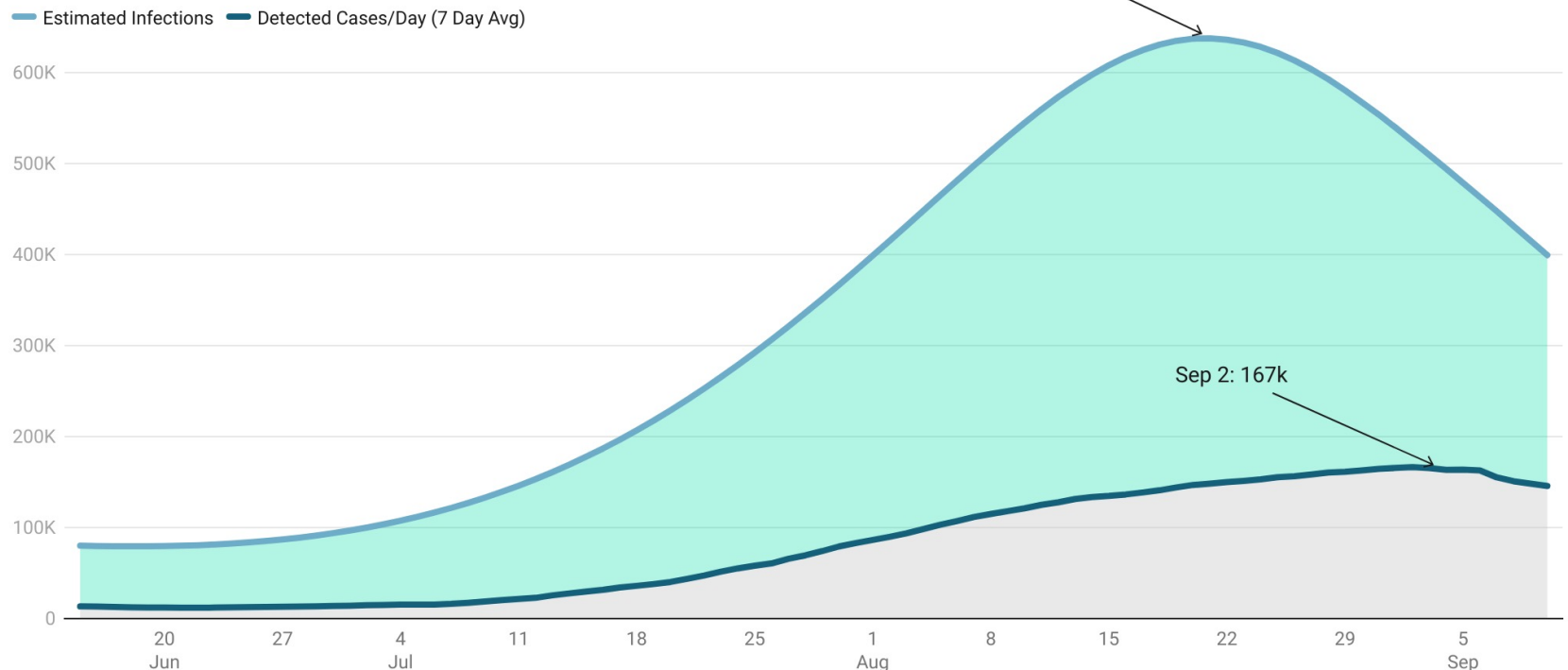


Chart: Health Industry Advisor LLC • Source: Yale School of Public Health • Created with Datawrapper

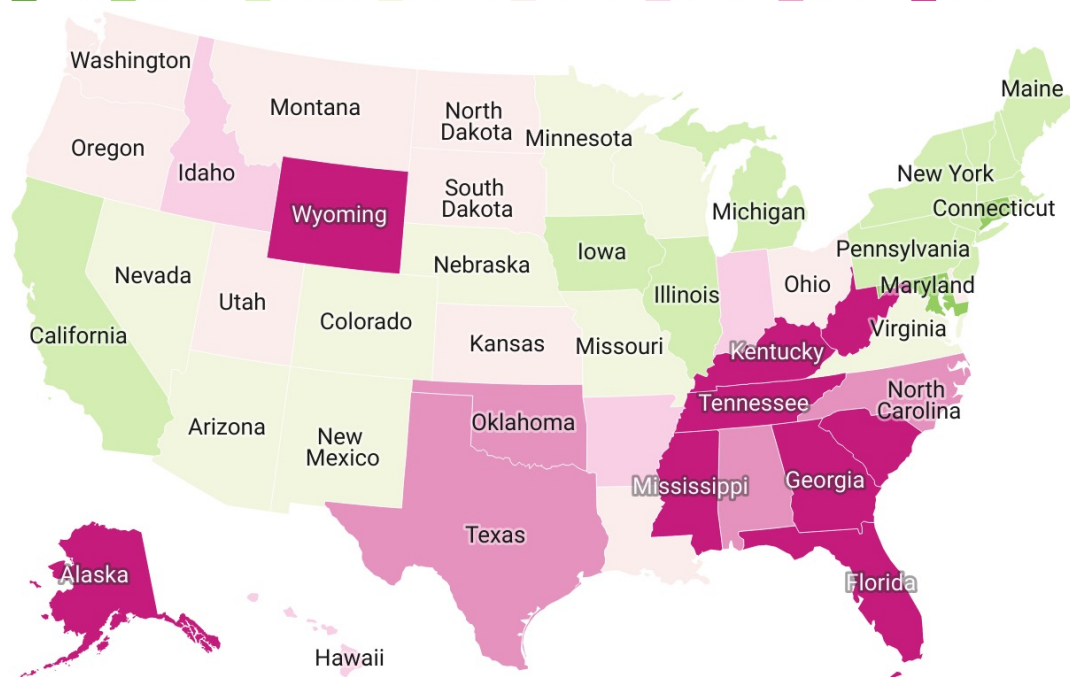
New Daily Cases per Capita By State

New case rates remain highest in the Southeast, as well as Alaska and Wyoming. Rates are lowest in the Northeast, Midwest and California.

New Cases / Million

7-Day Moving Average, As of September 10

< 100 100–200 200–300 300–400 400–500 500–600 600–700 ≥ 700



Map: Health Industry Advisor LLC • Created with Datawrapper

Covid-19 "Vital Signs"

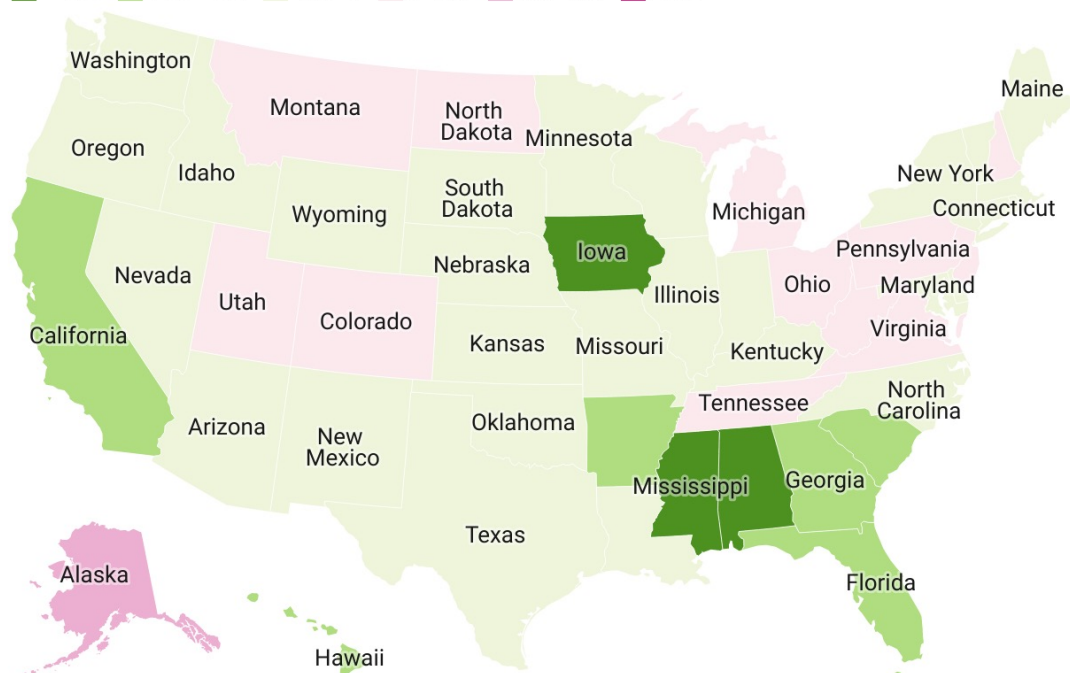
Week-Over-Week Change in New Daily Cases per Capita

Alabama, Iowa, and Mississippi posted sharp declines in new case rates compared to a week ago. Arkansas, California, Florida, Georgia, Hawaii and South Carolina noted large drops too. Alaska experienced the largest week-over-week increase.

Week-Over-Week Change in New Daily Cases / Million

7-Day Moving Average, September 10 v. September 3

Legend: < -200 (Dark Green), -200--100 (Medium Green), -100-0 (Light Green), 0-100 (Pink), 100-200 (Magenta), ≥ 200 (Dark Magenta)

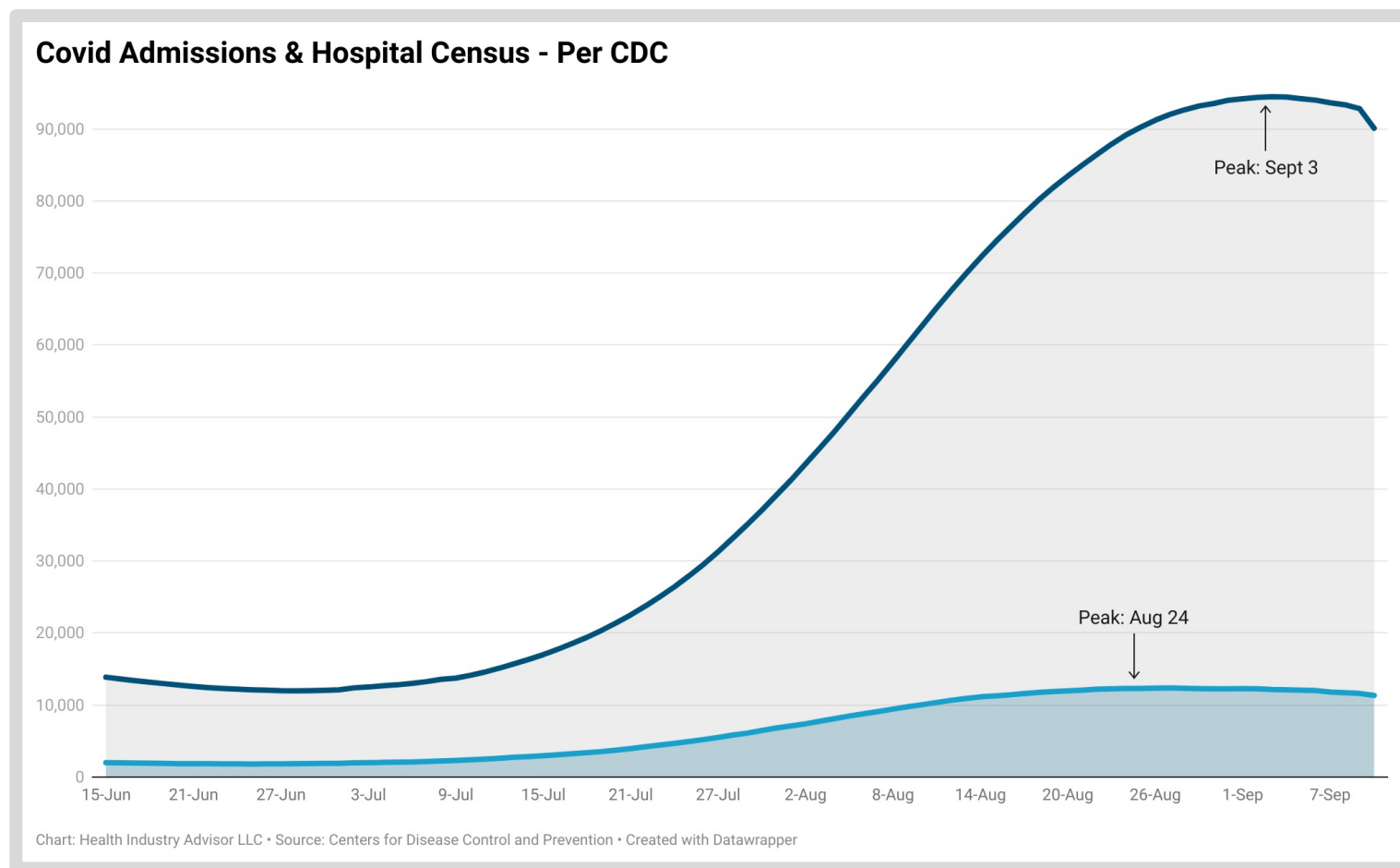


Map: Health Industry Advisor LLC • Created with Datawrapper

Covid-19 “Vital Signs”

Covid Hospital Admissions and Census – Per CDC

Covid hospital admissions peaked on August 24; Covid census peaked on September 3.



Deaths with Covid-19

Deaths with Covid-19 seemed to have stabilized, if not peaked.

Deaths With Coronavirus

7-Day Average, Through September 10

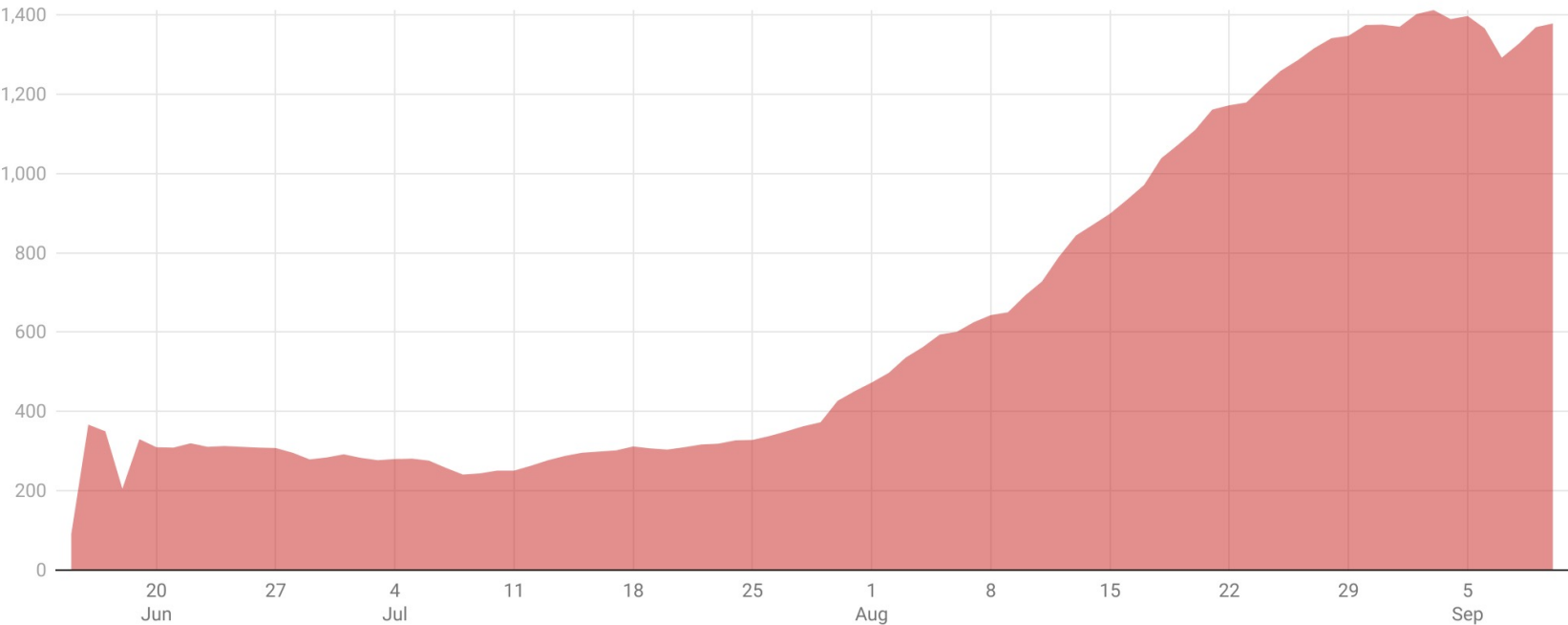


Chart: Health Industry Advisor LLC • Created with Datawrapper

Cases Per Capita By Age Group

Covid-19 "Vital Signs"

Only children 11 years and younger suffered more infections per capita at the peak of the Delta wave than at the peak of the Fall/Winter 2020 peak. Infection rates among persons 50 and older are 30-to-40% lower than last Fall/Winter. Persons 12-to-17 years old are reporting the highest infection rates per capita currently.

Weekly Cases / 100,000 By Age

9-Jan 3-Jul 28-Aug

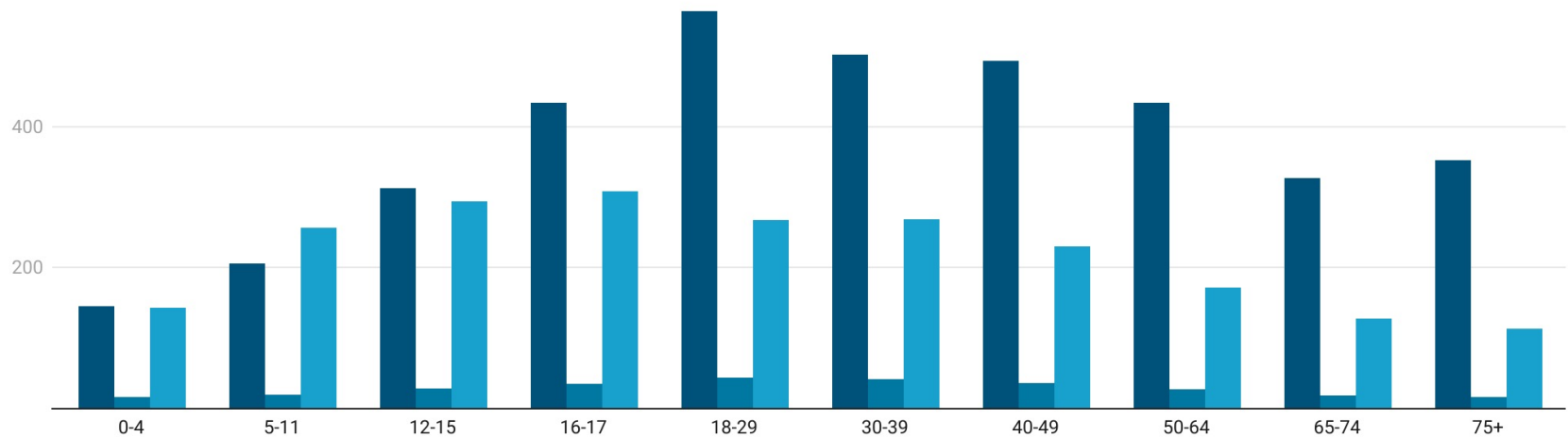


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control & Prevention • Created with Datawrapper

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Covid Hospital Admissions Per Capita By Age Group

Hospital admission rates rise with age. However, admission rates among the elderly have dropped dramatically since the vaccine effort began. Indeed, seniors were 63% less likely to be hospitalized at the peak of the Delta wave, compared to the peak of the Fall/Winter 2020 wave.

Hospitalization Rates / 100,000 By Age

9-Jan 3-Jul 28-Aug

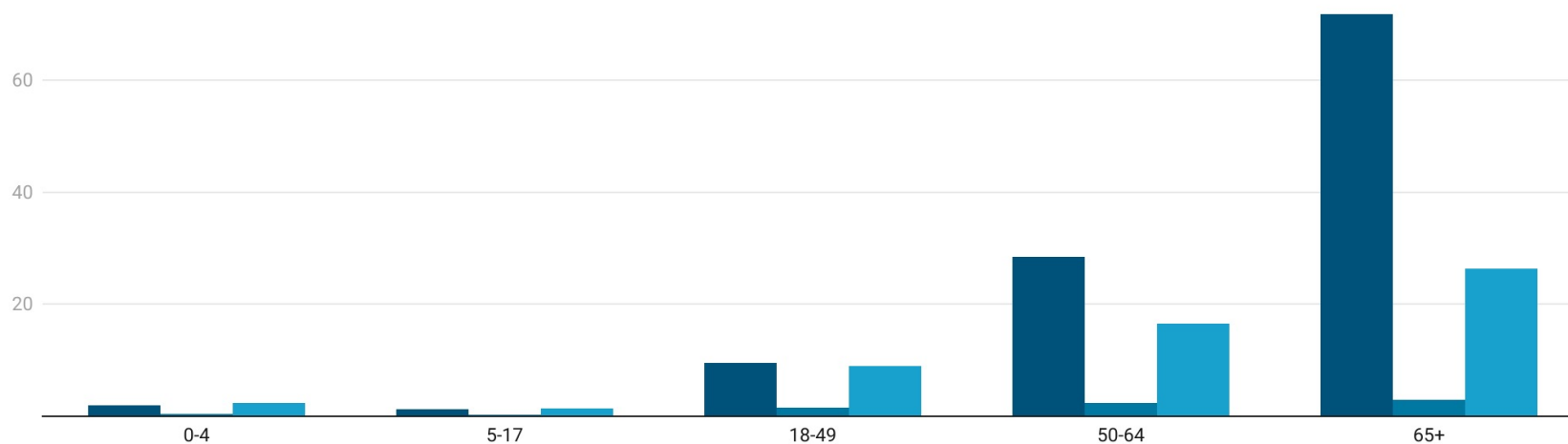


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control & Prevention • Created with Datawrapper

Covid-19 "Vital Signs"

Covid Deaths Per Capita By Age Group

Death rates rise also with age. Like hospital admissions, death rates among the elderly have dropped dramatically since the vaccine effort began.

Deaths per 100,000 By Age

Week Ending:

9-Jan 14-Aug

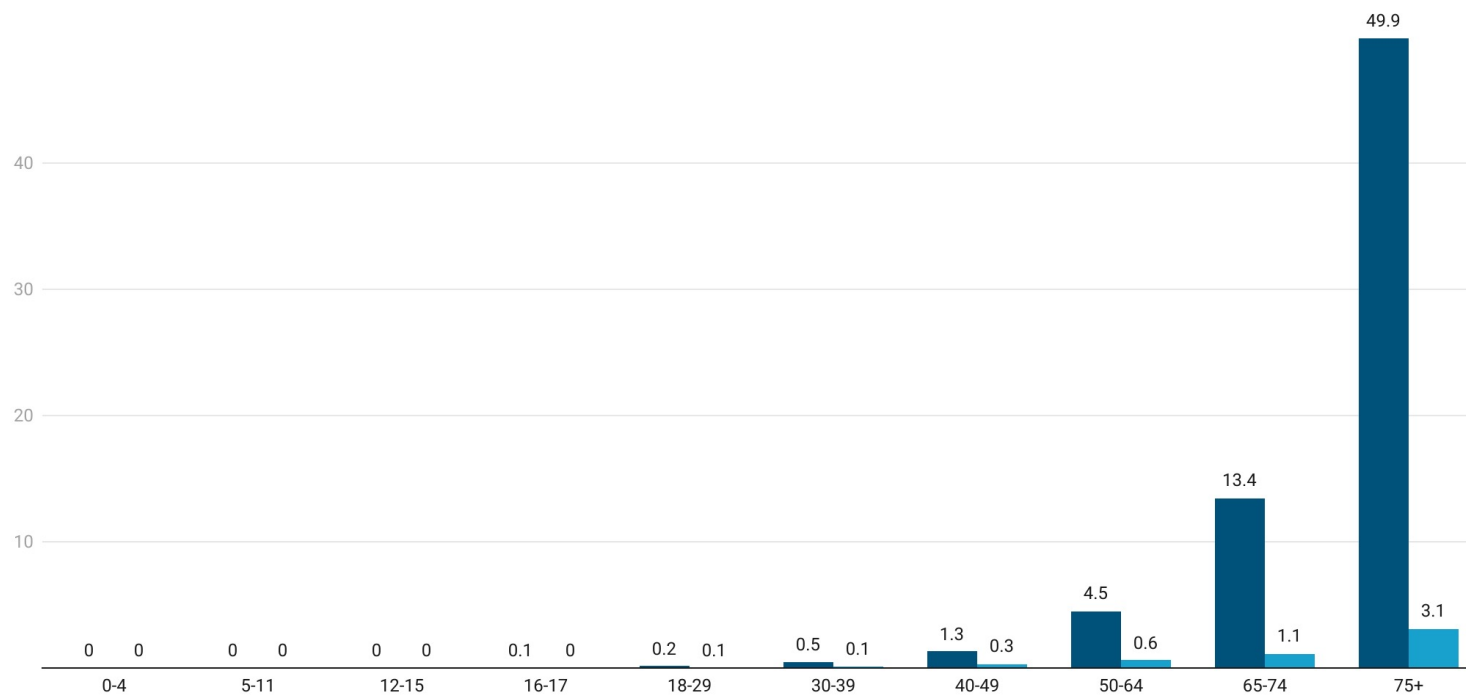


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

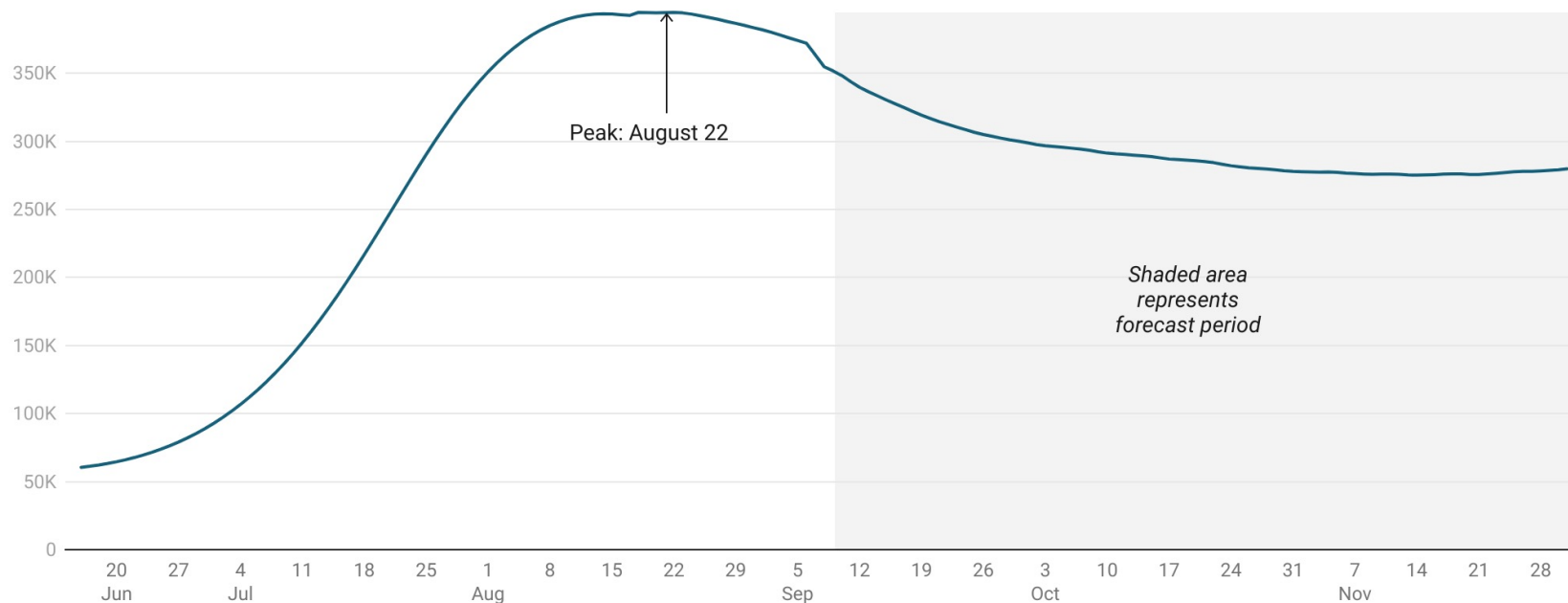
Covid-19 “Vital Signs”

Estimated Infections- IHME Projections

IHME's latest model supports the Harvard/Stanford/Yale view that new infections peaked three weeks ago. The IHME model anticipates that infections will stabilize at a relatively high rate through November.

Estimated and Projected Infections - U.S.

Institute For Health Metrics and Evaluation



Forecast Date: September 9

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

Covid-19 Inpatient Admissions & Census – IHME

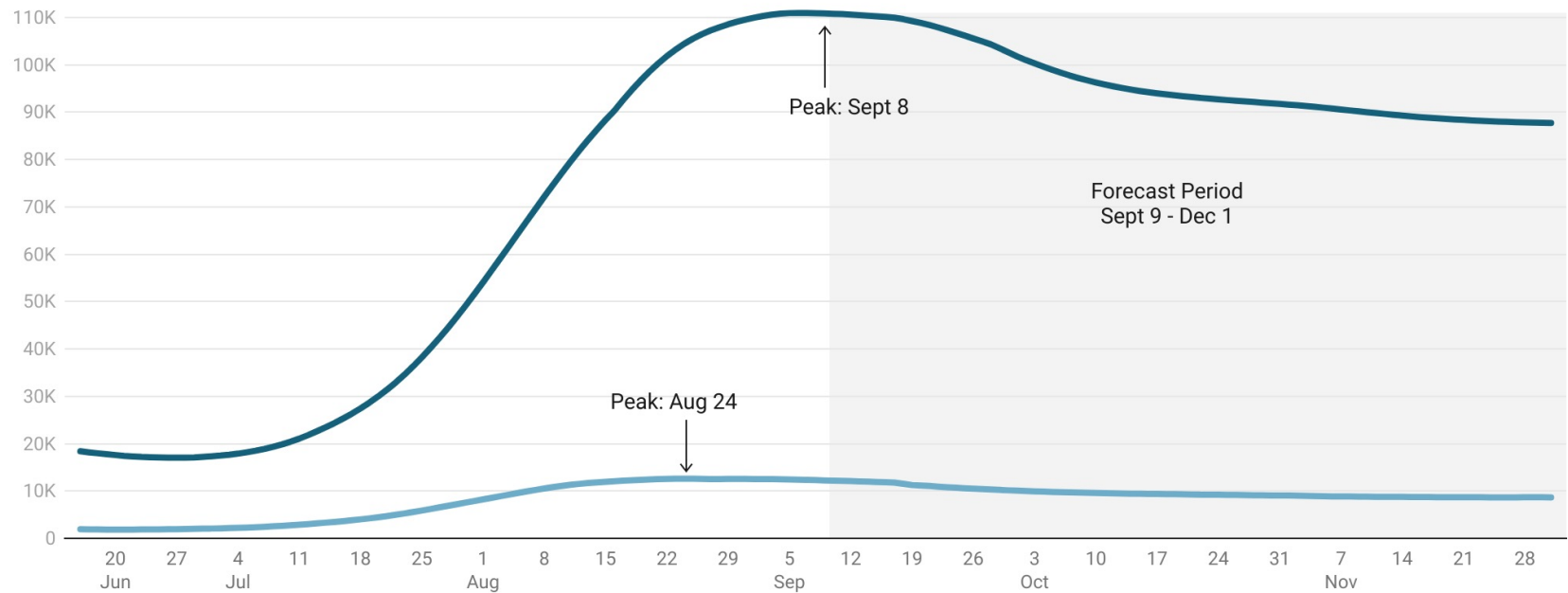
Covid-19 “Vital Signs”

Projections

IHME suggests that Covid hospital admissions peaked nearly three weeks ago and Covid hospital census peaked last Wednesday. Both measure will stabilize at a relatively high level.

Estimated & Projected Hospital Covid-19 Admissions

Institute for Health Metrics and Evaluation



Forecast Date: Sept 9

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

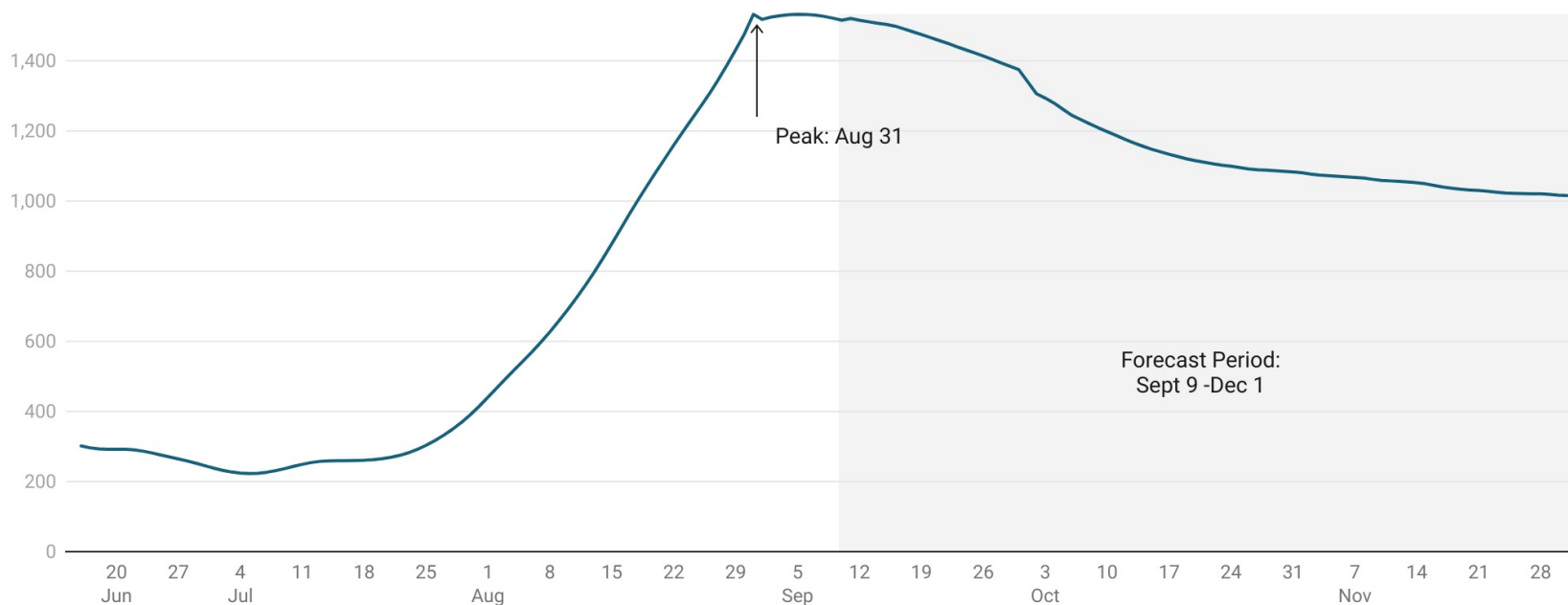
Covid-19 "Vital Signs"

Deaths With Covid-19: IHME Projection

IHME's model suggests that we have seen the peak of daily deaths from the Delta variant. Still, the model projects a significant death rate through November.

Estimated and Projected Covid Deaths - U.S.

Institute For Health Metrics and Evaluation



Forecast Date: September 9

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

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>