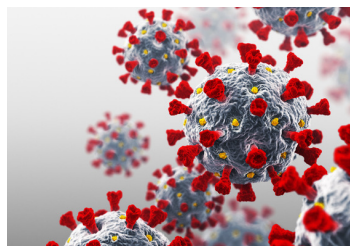


Covid-19 "Vital Signs"

Issue # 307

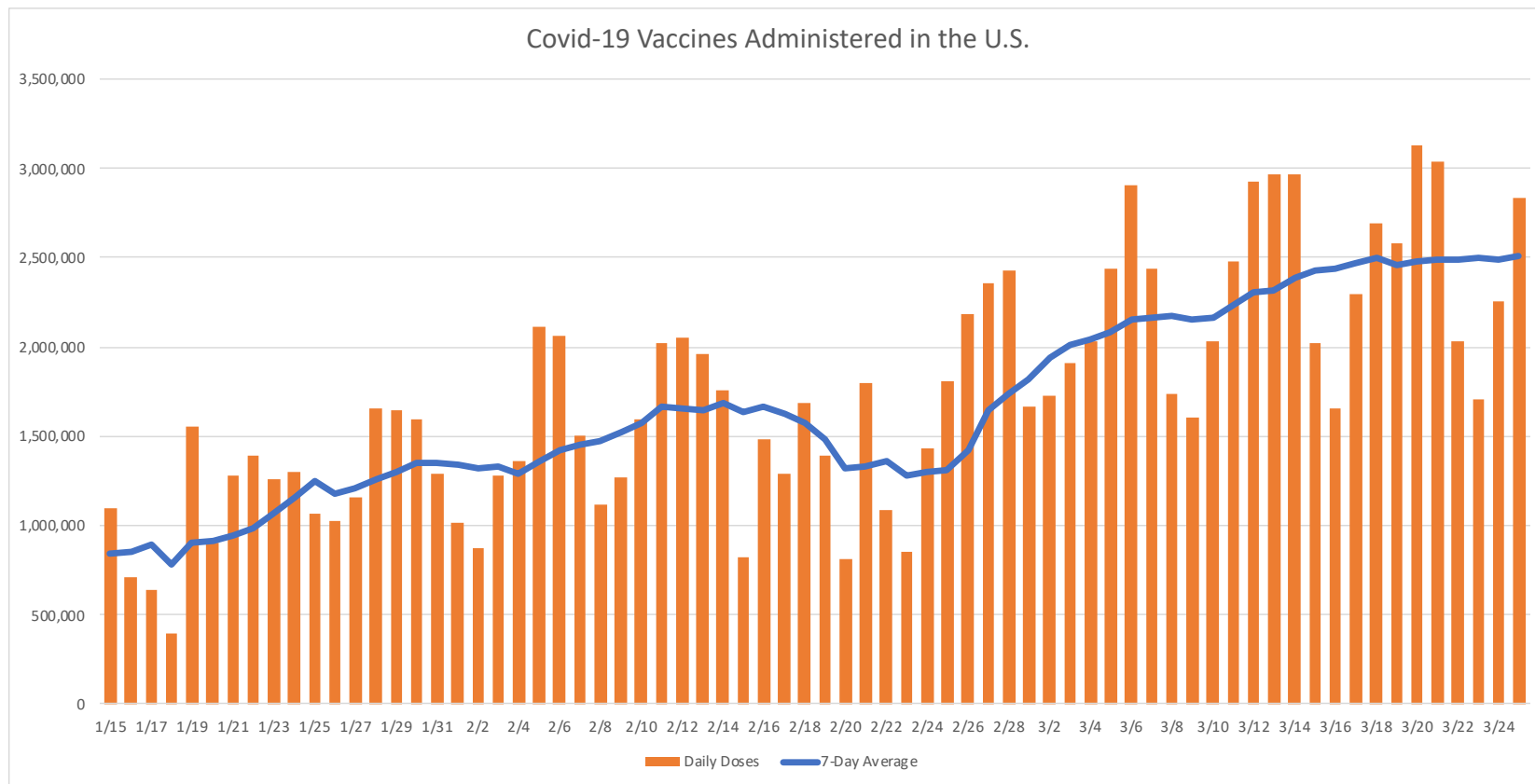
March 26, 2021



Covid-19 "Vital Signs"

Pace of Vaccinations

The vaccination pace stabilized over the past week, averaging 2.5 million daily doses.



Covid-19 "Vital Signs"

Vaccine Tracking

To date, the US has administered 133 million doses, with 47 million people fully inoculated – 18.4% of the adult population.

Vaccination Progress

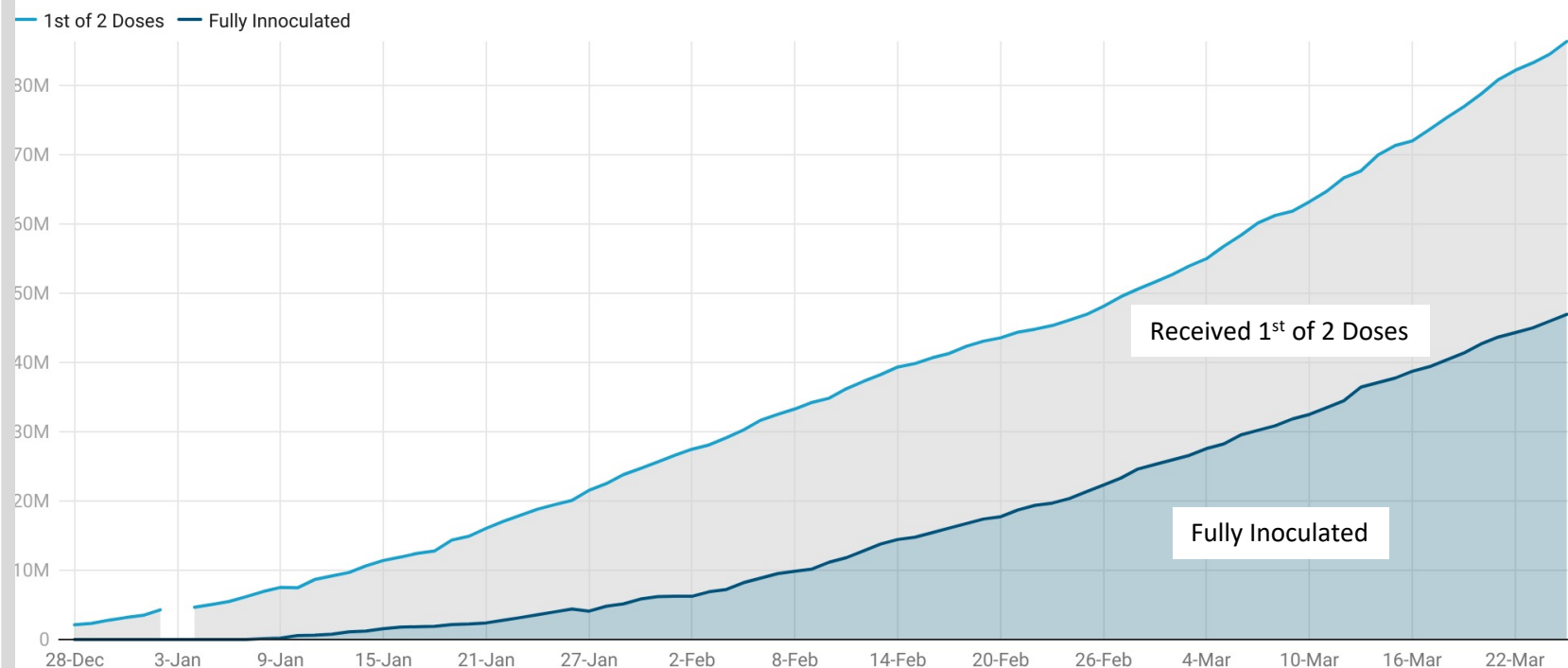


Chart: Health Industry Advisor LLC • Source: CDC, Bloomberg • Created with Datawrapper

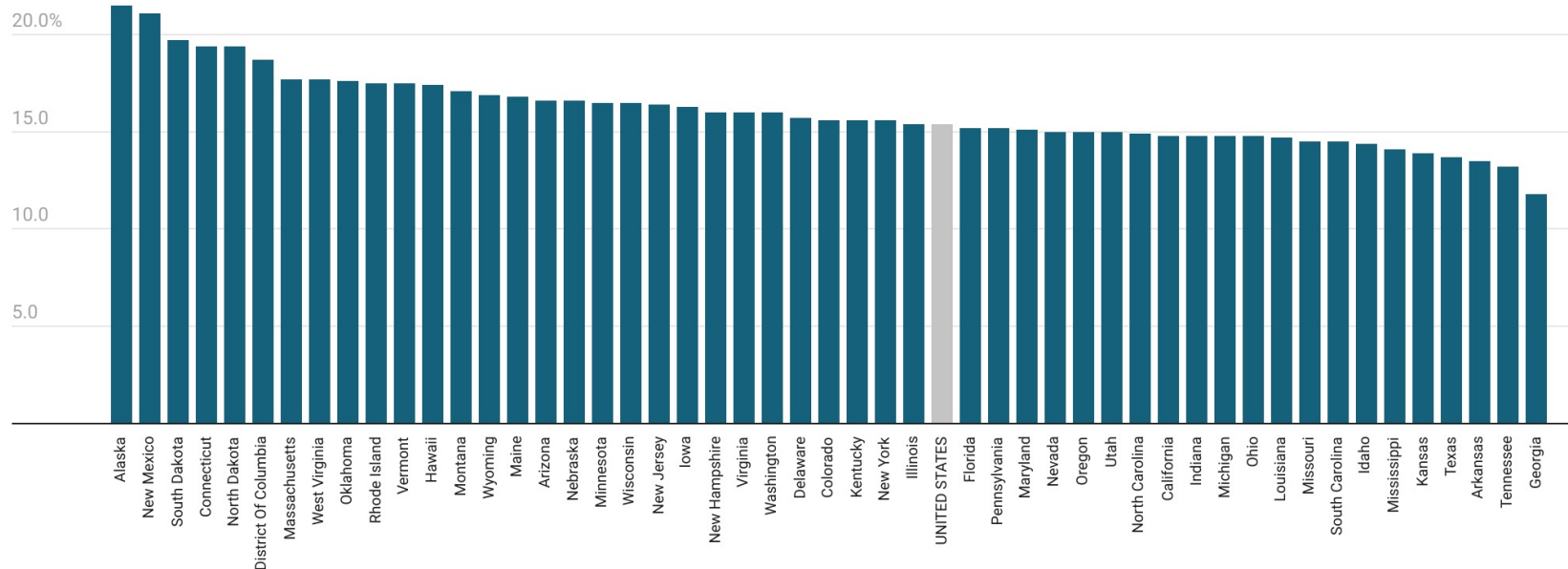
Vaccine data from: [Centers for Disease Control and Prevention](#) and [Bloomberg Vaccine Tracker](#)

% of Residents Immune Via Vaccine By State

15% of U.S. residents have full immunity via vaccination. This rate varies from a high of 21.5% in Alaska to a low of 11.8% in Georgia.

Vaccination Immunity (Est.)

As of March 25



Based on # of doses & vaccine efficacy. Presumes 2-week lag from injection to immunity

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

Covid-19 "Vital Signs"

Newly Detected Cases Per Day

In the US, 7-day new case rates increased 5% week-over-week; 3% compared to two weeks ago. Outside the U.S., cases increased 14% week-over-week and 31% over the last two weeks.

Newly Detected Cases

As of March 25

United States Outside the US

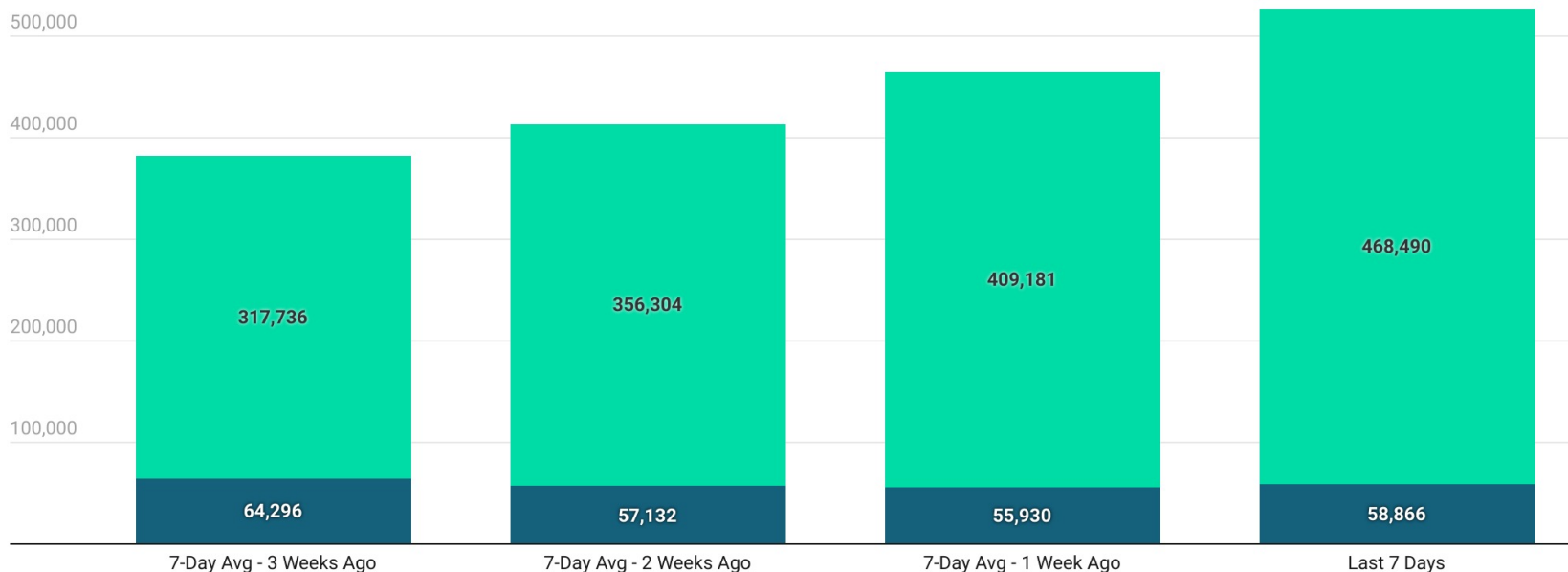


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

Covid-19 "Vital Signs"

Newly Detected Cases / Million - US

Despite increasing week-over-week, newly detected cases (7-day average) remain lower than detected from November through February.

Newly-Detected Cases / Million

7-Day Average

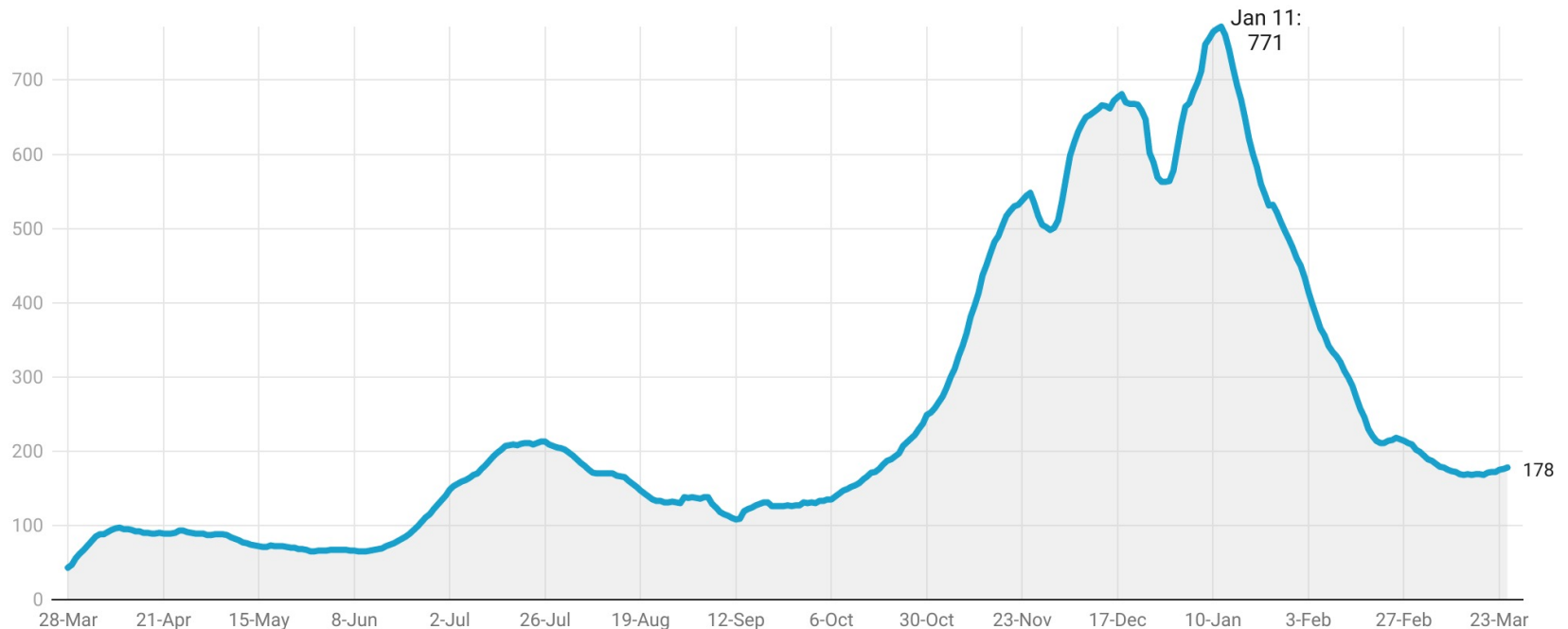


Chart: Health Industry Advisor LLC • Created with Datawrapper

Estimated Daily Infections & New Case Rates

Covid-19 “Vital Signs”

Estimated new infections (7-day average) increased on each of the past seven days yet remain lower than anytime from mid-October through the first nine days of March.

Estimated Daily Infections v. Detected Cases

Yale/Harvard Schools of Public Health Model

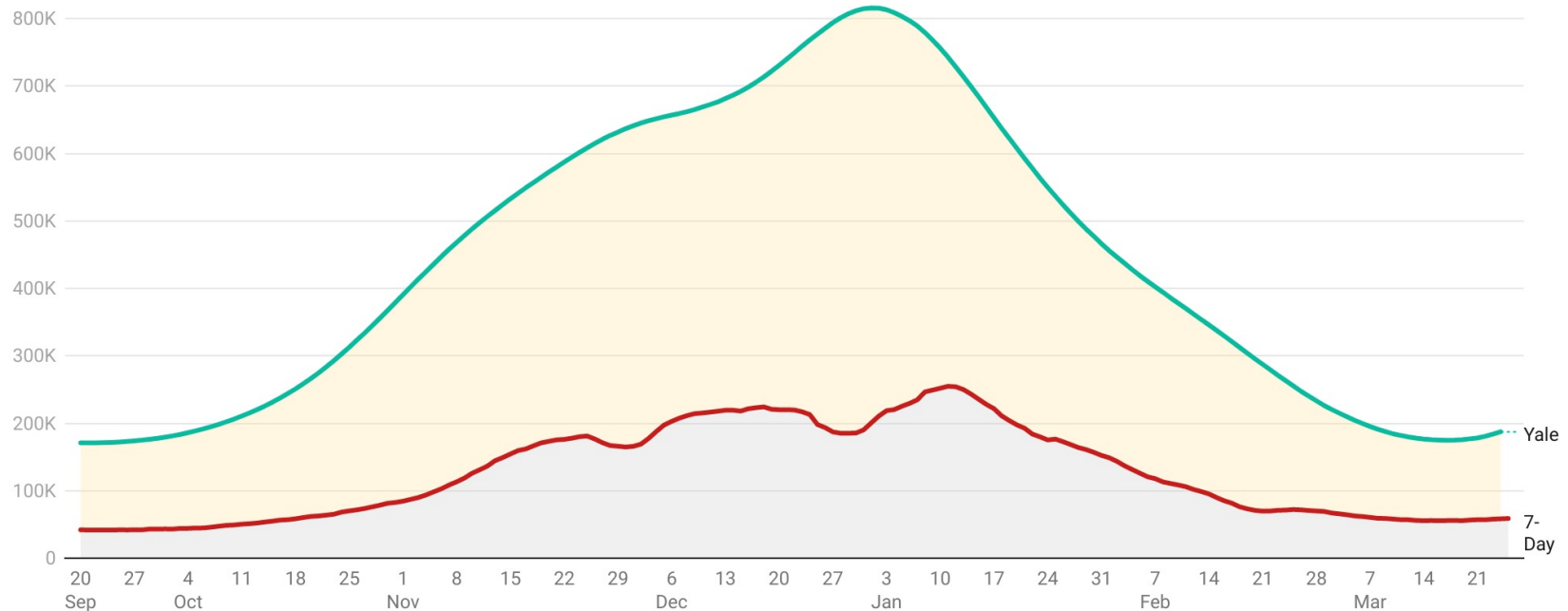


Chart: Health Industry Advisor LLC • Source: Youyang Gu, Yale School of Public Health • Created with Datawrapper

- Youyang Gu: <https://covid19-projections.com/>, page by two weeks
- Yale School of Public Health: <https://covidestim.org>

Covid-19 "Vital Signs"

Test-Positivity Rate

The 7-day test-positivity rate began moving up slightly in the last several days. However, this rate remains strong by historical levels and below the target set by the World Health Organization.

Test-Positivity Rate

7-Day Average, Through March 25

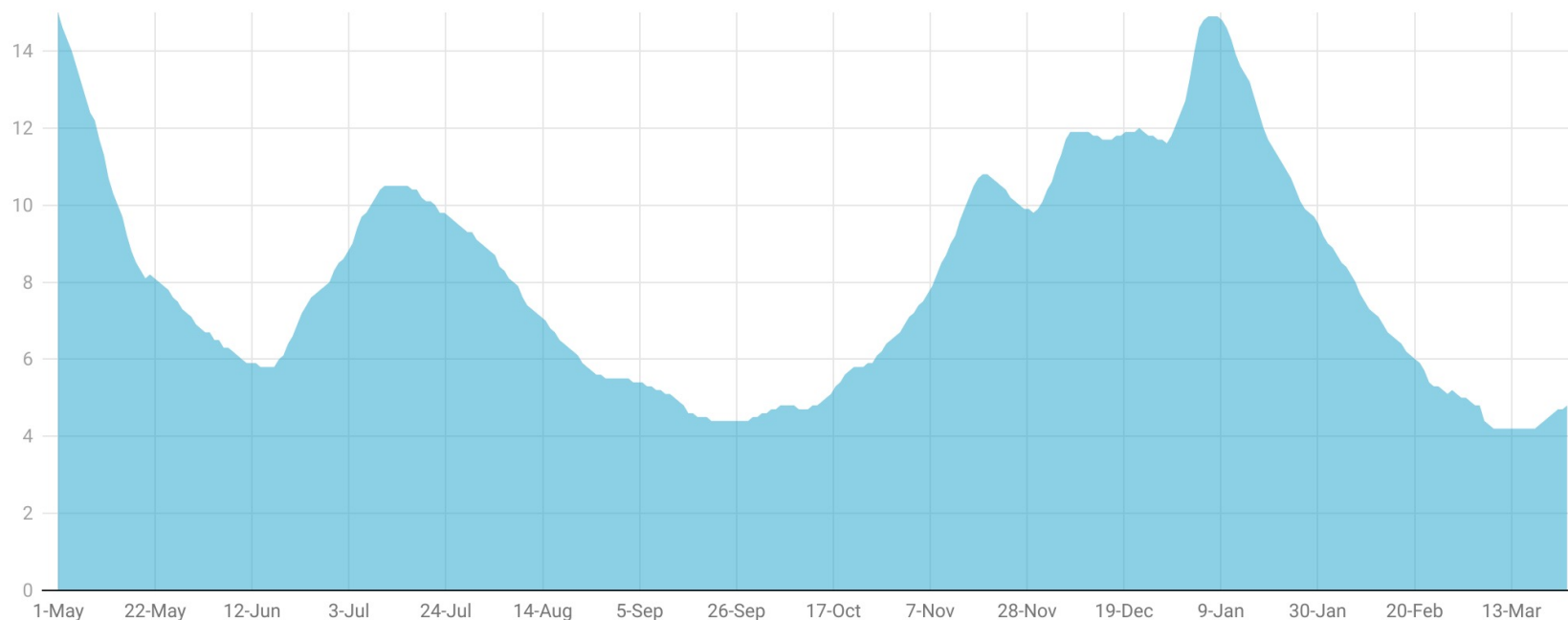


Chart: Health Industry advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Test-Positivity Rate

The test-positivity rate increased slightly last week yet remains below the suggested WHO target.

Test-Positivity Rate

As of March 25

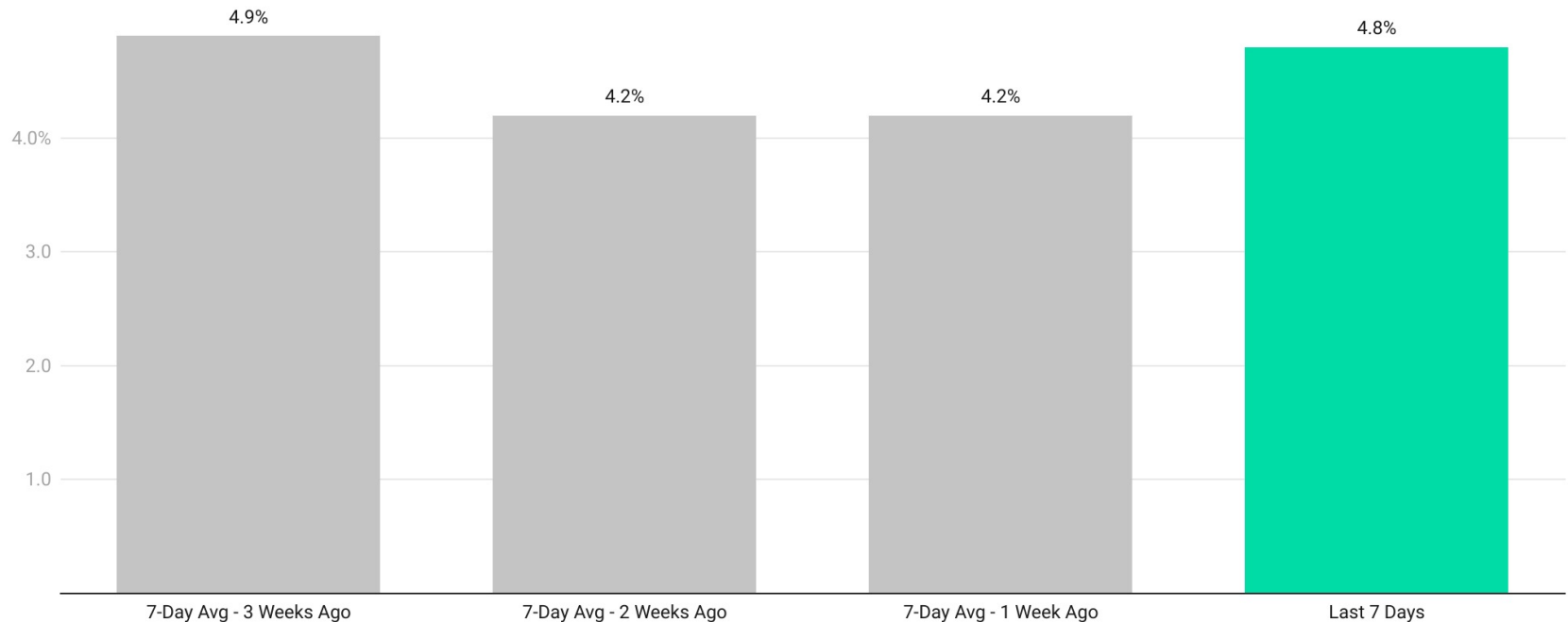


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

Covid-19 "Vital Signs"

Covid-19 Inpatient Census

Covid-19 inpatient census has declined steadily since early February, when the Department of Health & Human Services began tabulating these data (a 56% decline in six-and-one-half weeks).

Covid-19 Inpatient Census

Through March 25

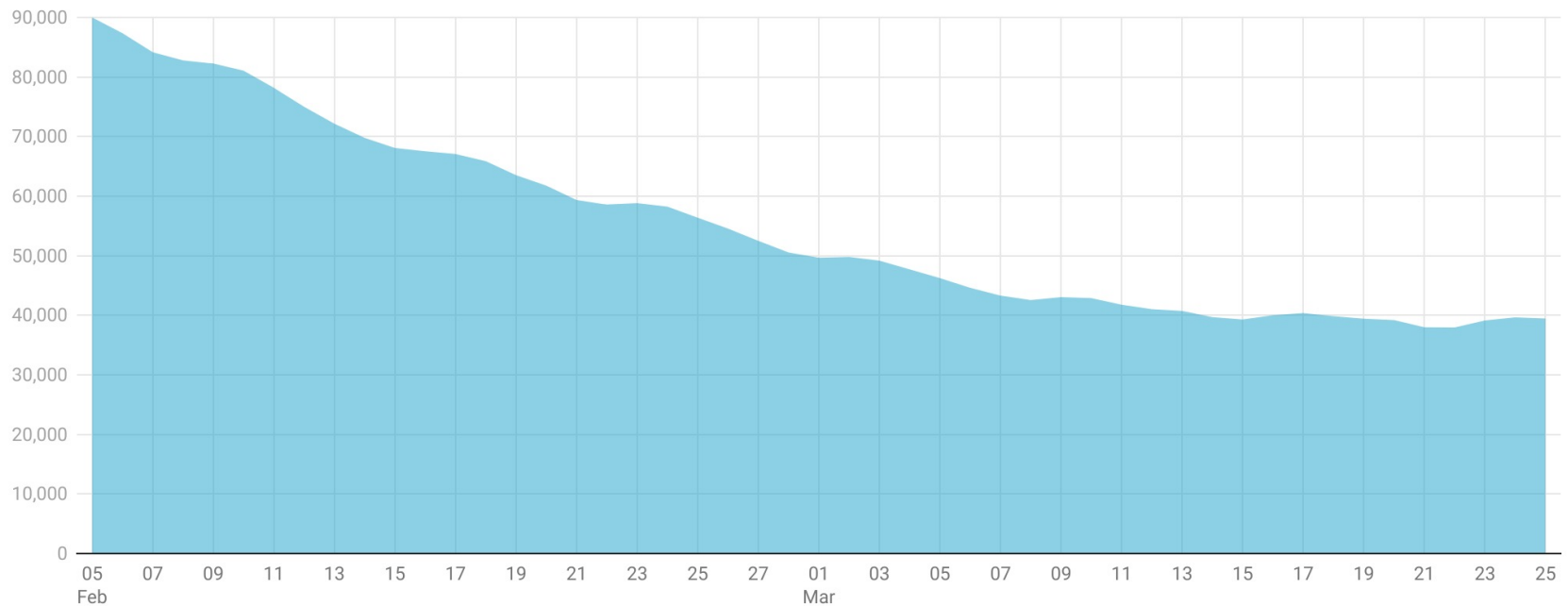


Chart: Health Industry advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Covid-19 Inpatient Census

Covid-19 inpatient census was stable week-over-week, after falling 5% to 15% during the previous three weeks.

Hospitalized Covid-19 Patients

Compared to Same Day, Prior Weeks, As of March 25

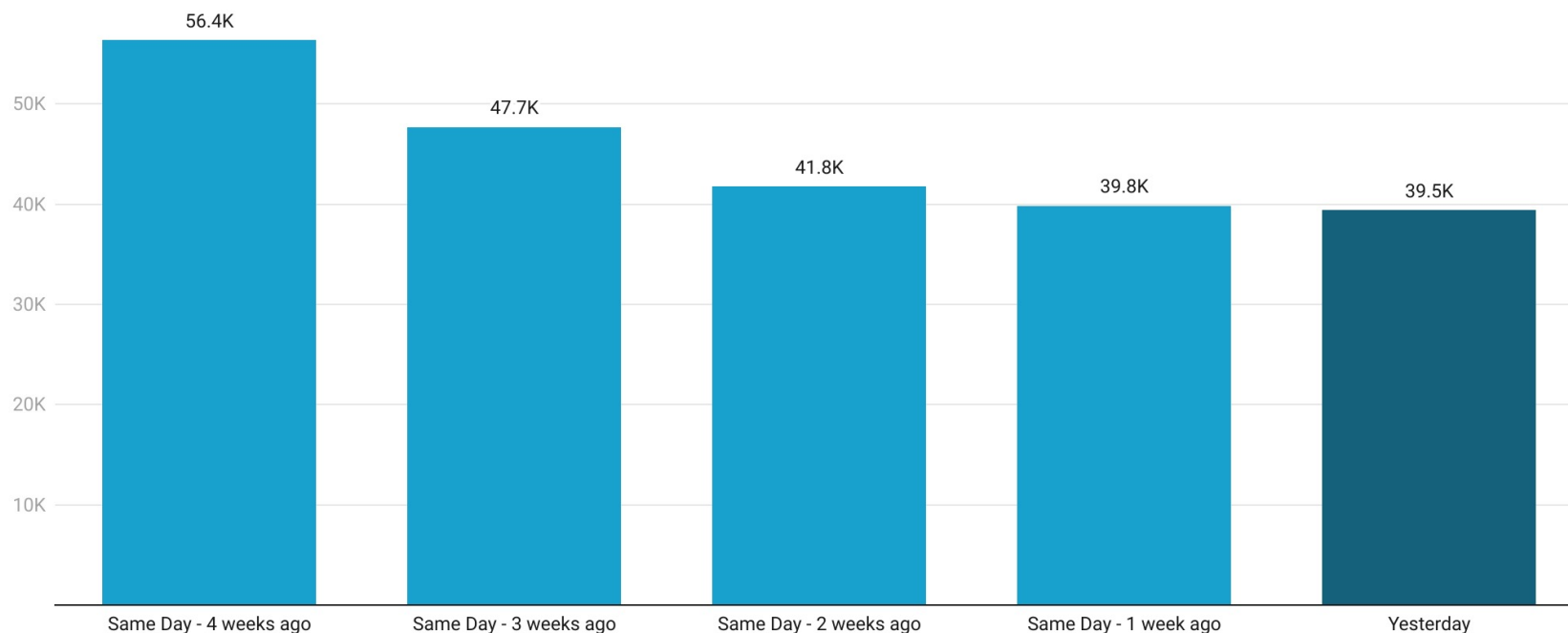


Chart: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Covid-19 “Vital Signs”

Deaths With Coronavirus

Deaths with coronavirus (7-day average) have declined by 70% since a peak in late January. This rate is lower than at any time in the last twenty weeks.

Deaths With Coronavirus

7-Day Average, Through March 25



Chart: Health Industry Advisor LLC • Created with Datawrapper

Covid-19 "Vital Signs"

Deaths Reported With Coronavirus

The 7-day average death rate fell 17% from last week and 56% in three weeks. This 7-day rate has not been lower than 1,000 since the beginning of November.

Daily Deaths Reported With Coronavirus

As of March 25

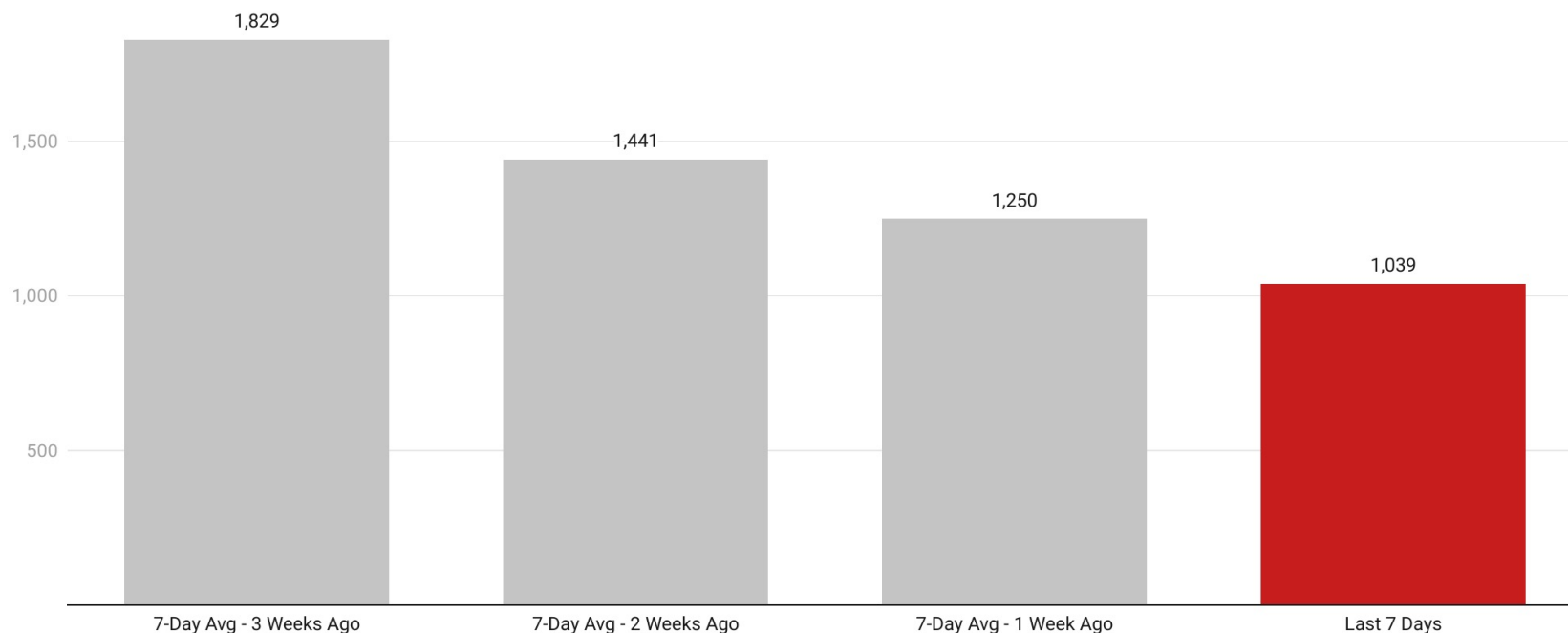


Chart: Health Industry Advisor LLC • Source: The Atlantic • Created with Datawrapper

Covid-19 "Vital Signs"

State-By-State Scorecard: Scoring Grid

Designed to reflect five critical measures of a state's current experience with Covid-19

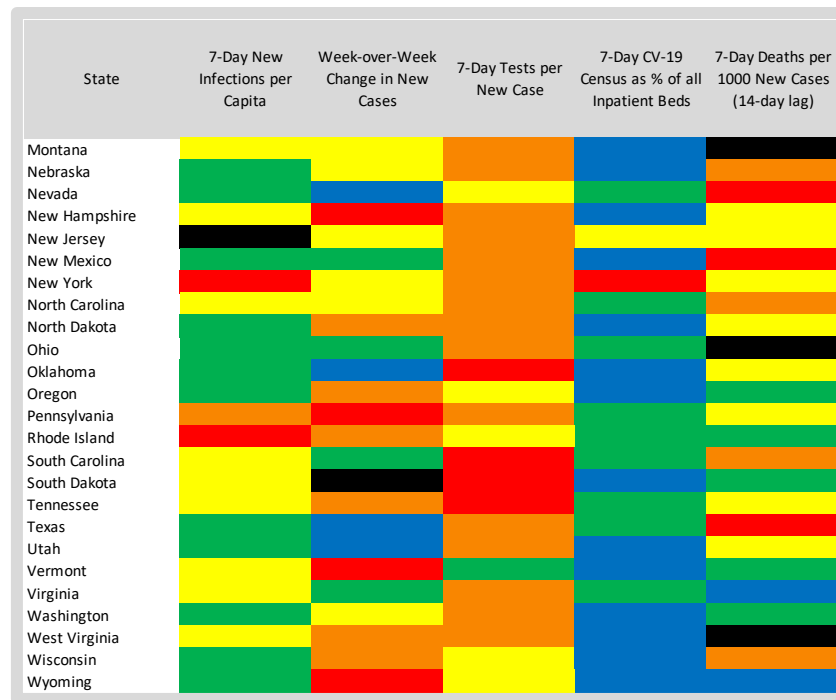
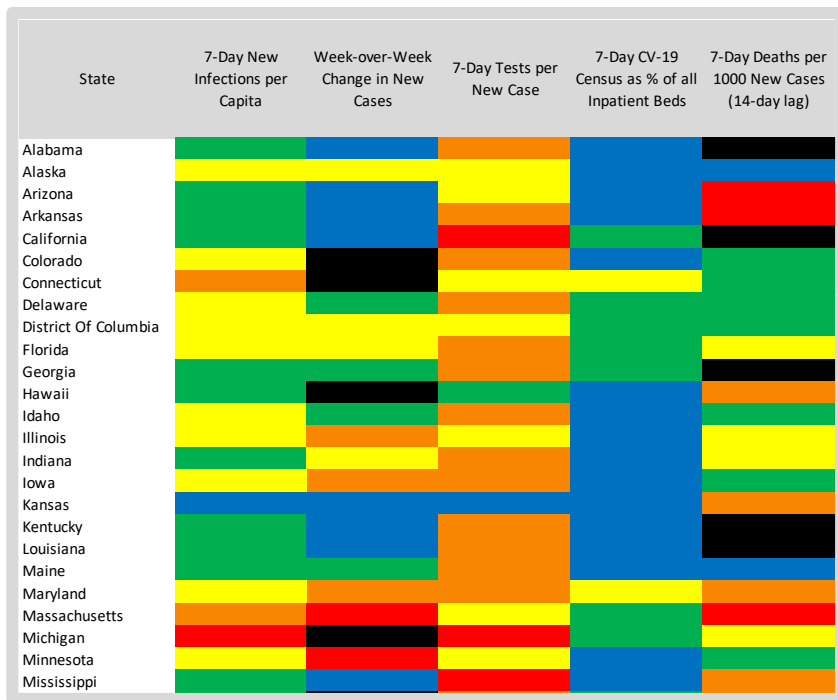


Metric		Black	Red	Orange	Yellow	Green	Blue
7-Day Average New Daily Reported Infections per Capita	Greater than	450	350	250	150	50	0
Week-over-Week Change in Newly Reported Cases	Greater than	30%	20%	10%	0%	-10%	N/A
7-Day Average Viral Tests per 7-Day Average Newly Reported Cases	Less than	5	10	25	50	75	N/A
Covid-19 Inpatient Census as % of All Inpatient Beds	Greater than	50%	40%	30%	20%	10%	0%
7-Day Deaths per 1000 New Cases (14-day lag)	Greater than	25	20	15	10	5	0

Covid-19 "Vital Signs"

State-By-State Scorecard:

New case rates are "cautious" to "good" across many parts of the country; and the hospital crisis eased for most of the country.



Covid-19 "Vital Signs"

New Cases / Million

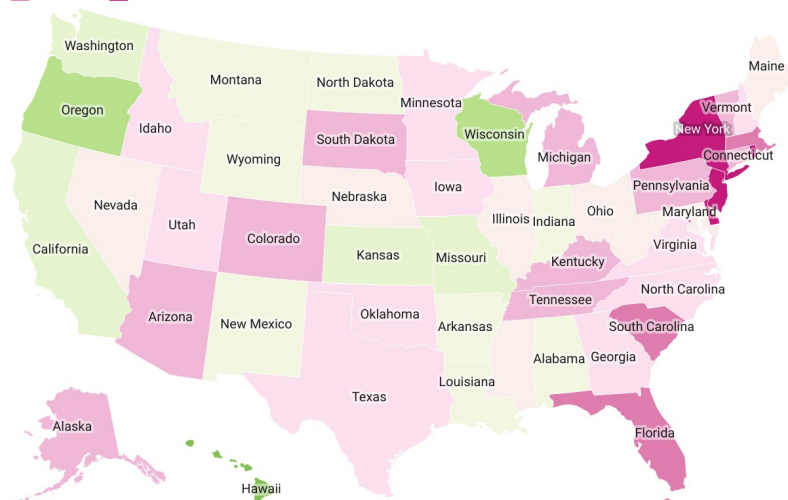
In the past two weeks, new daily case rates increased in Colorado, Connecticut, Michigan, Minnesota, Montana, New Hampshire, Pennsylvania, South Dakota, West Virginia. Rates declined in Arizona, California, Kentucky, Nevada, Oklahoma, and Texas

March 11

March 25

New Cases / Million

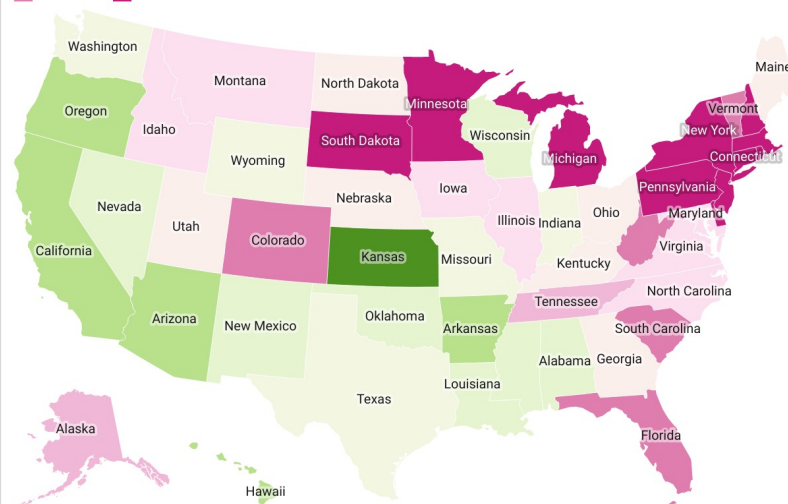
7-Day Moving Average, As of March 11



Map: Health Industry Advisor LLC • Created with Datawrapper

New Cases / Million

7-Day Moving Average, As of March 18



Map: Health Industry Advisor LLC • Created with Datawrapper

Note: With the recent decline in case detection rates, we have lowered the scale used for these charts.

Covid-19 "Vital Signs"

Covid-19 Hospitalizations

Covid-19 hospital census is about the same or lower in most states as it was two weeks ago. Georgia and Michigan have seen increased census, yet this census remains low compared with historical levels.

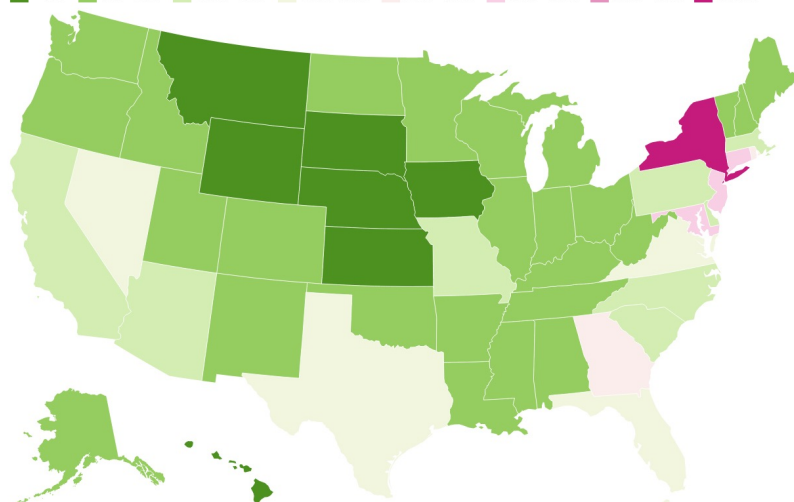
March 11

March 25

Covid-19 Patients As % of All Inpatient Beds

As of March 25

■ < 5%
 ■ 5%–10%
 ■ 10%–15%
 ■ 15%–20%
 ■ 20%–25%
 ■ 25%–30%
 ■ 30%–35%
 ■ ≥ 35%

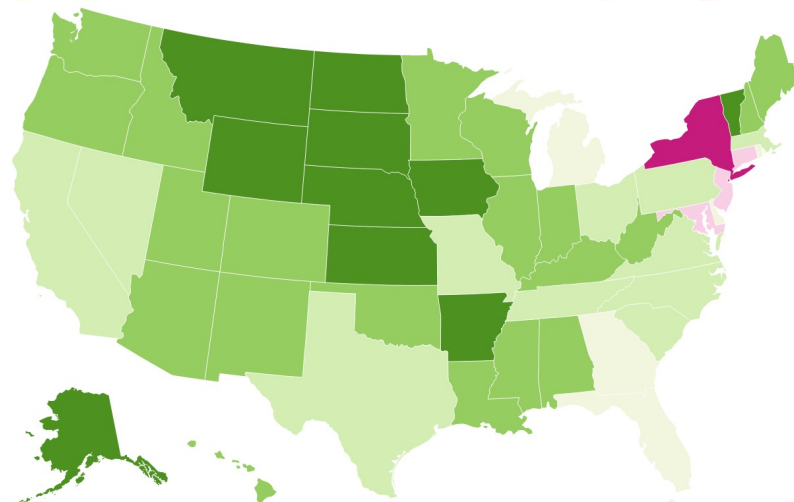


Map: Health Industry Advisor LLC • Source: The Atlantic's Covid Tracking Project • Created with Datawrapper

Covid-19 Patients As % of All Inpatient Beds

As of March 25

■ < 5%
 ■ 5%–10%
 ■ 10%–15%
 ■ 15%–20%
 ■ 20%–25%
 ■ 25%–30%
 ■ 30%–35%
 ■ ≥ 35%



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

Covid-19 "Vital Signs"

Projected Covid-19 Admission Trends

Projected Covid-19 hospital admissions increase materially in Hawaii, Maryland, Michigan, and Minnesota over the next three weeks. For the U.S. overall, projected Covid-19 admissions increased 3% in this time.

% Change in Hospital Admissions

Week Ending April 12 v. Week Ending March 22

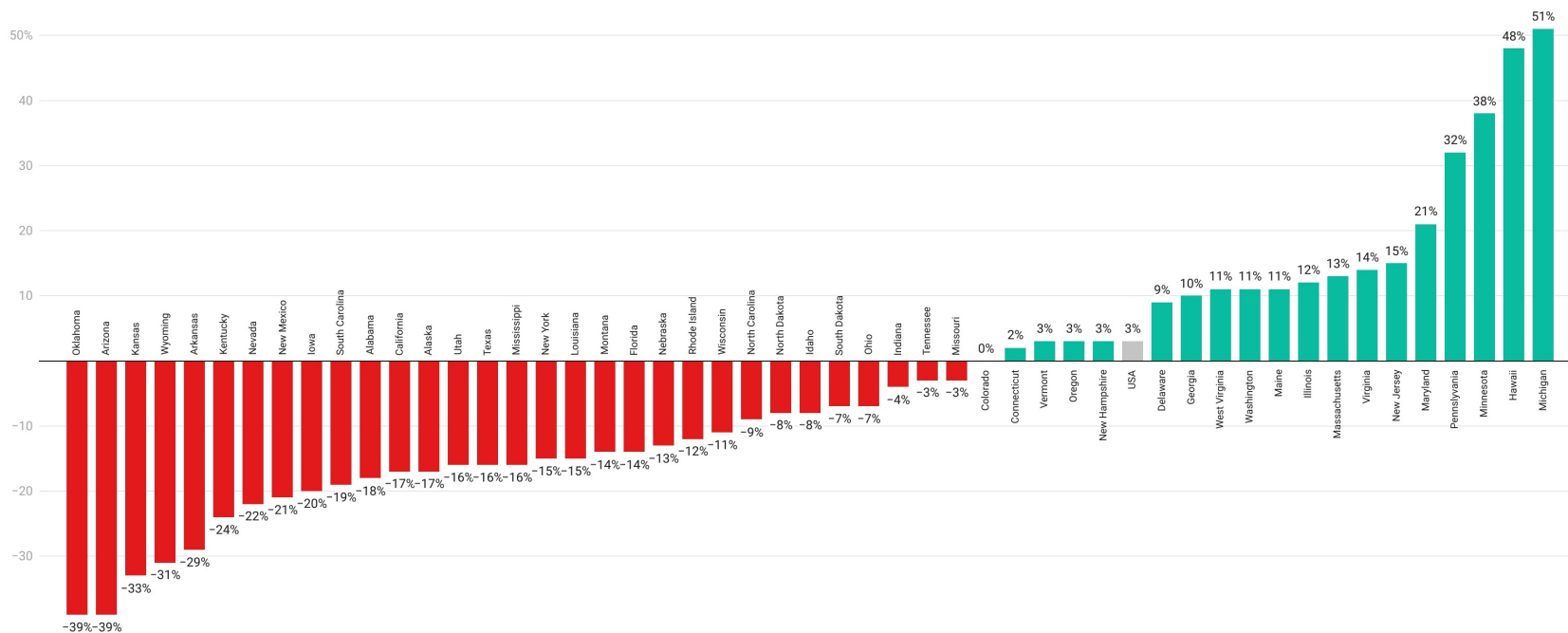
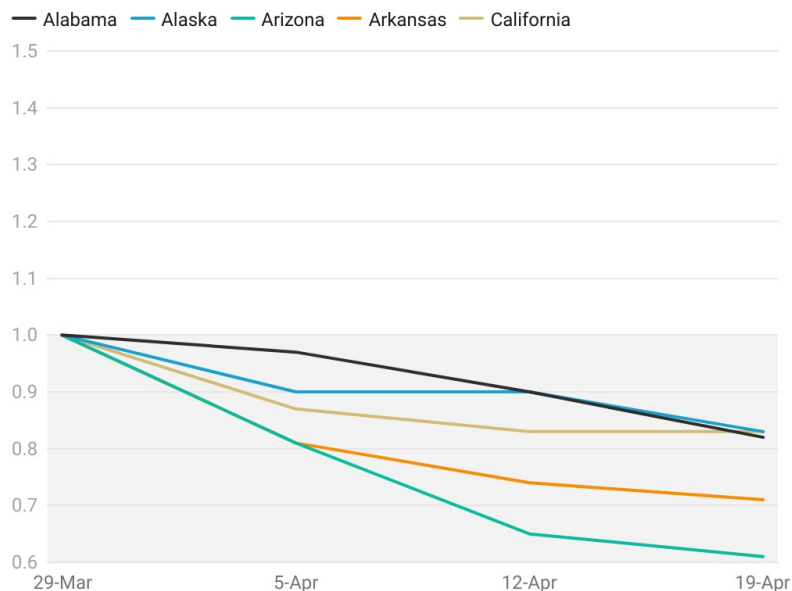


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Projections of Hospital Admissions (US) – 1 of 5

Projected Hospital Admissions

Next Three Weeks, Indexed To This Week

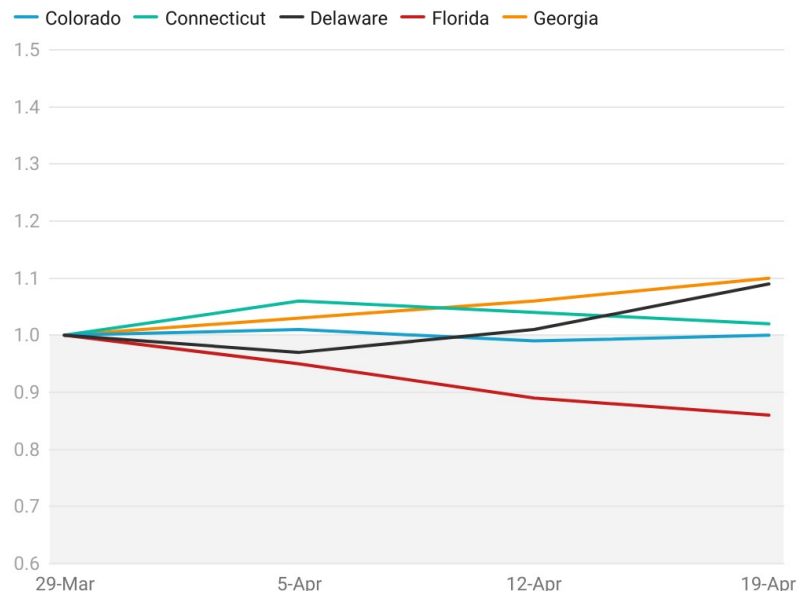


Updated March 24

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

Projected Hospital Admissions

Next Three Weeks, Indexed To This Week



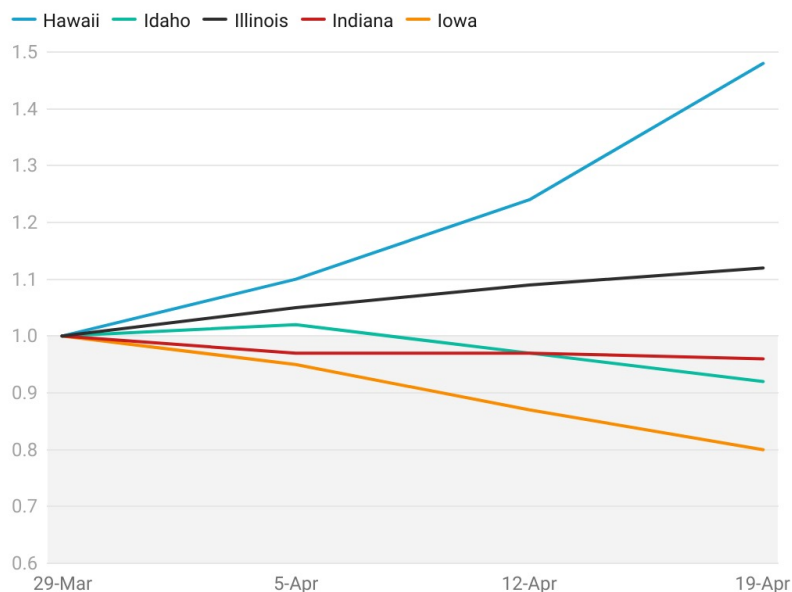
Updated March 24

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

Projections of Hospital Admissions (US) – 2 of 5

Projected Hospital Admissions

Next Three Weeks, Indexed To This Week

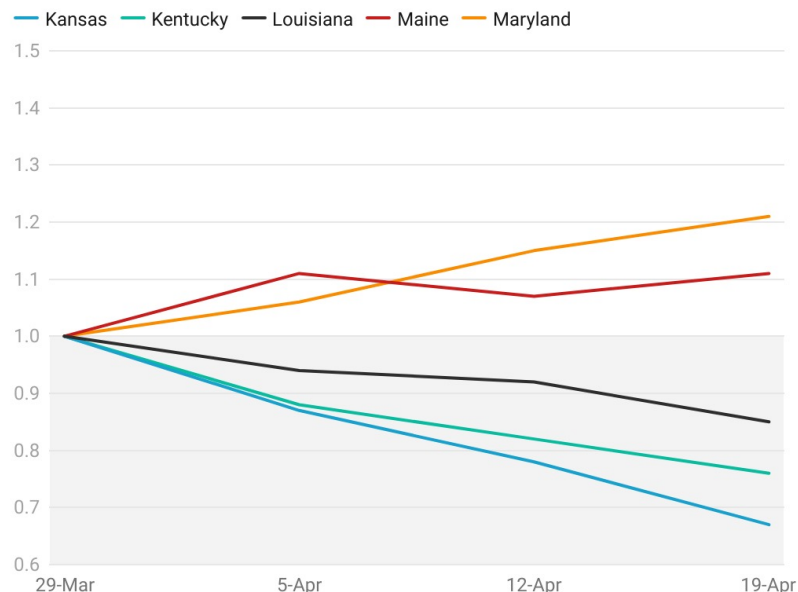


Updated March 24

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

Projected Hospital Admissions

Next Three Weeks, Indexed To This Week



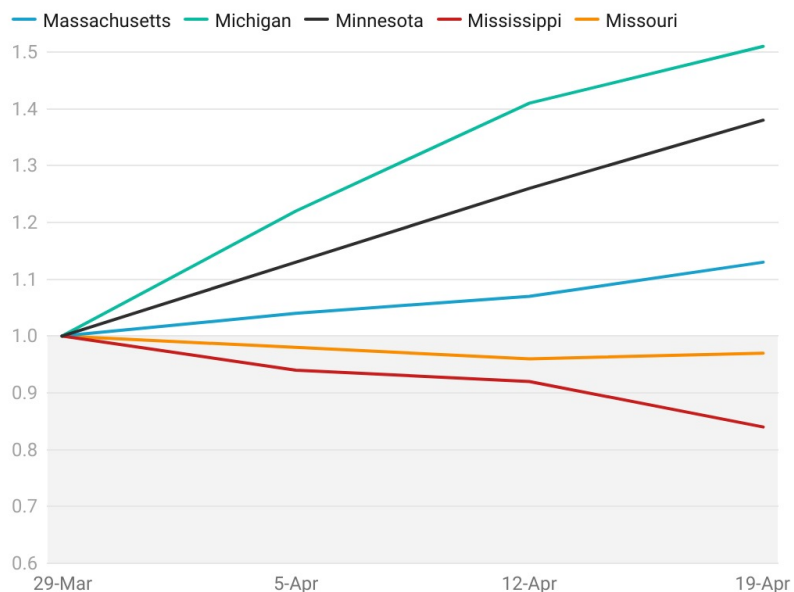
Updated March 24

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

Projections of Hospital Admissions (US) – 3 of 5

Projected Hospital Admissions

Next Three Weeks, Indexed To This Week

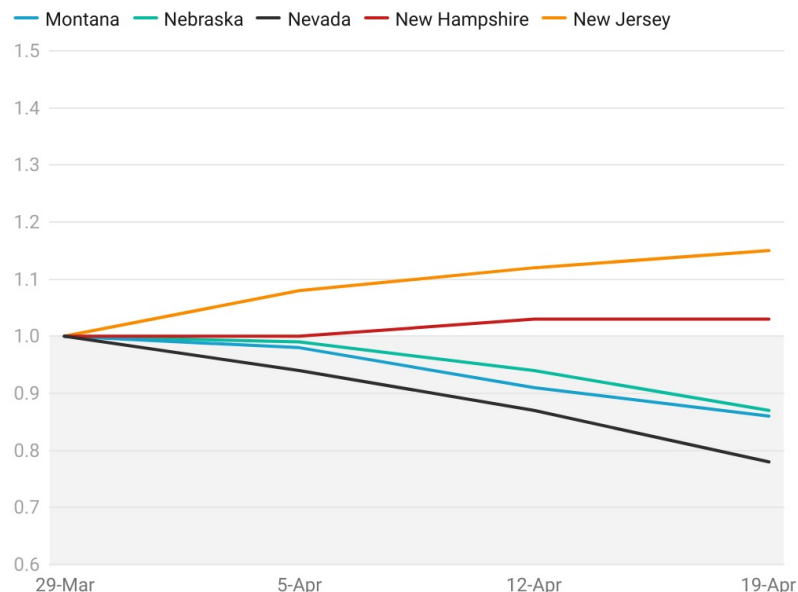


Updated March 24

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

Projected Hospital Admissions

Next Three Weeks, Indexed To This Week



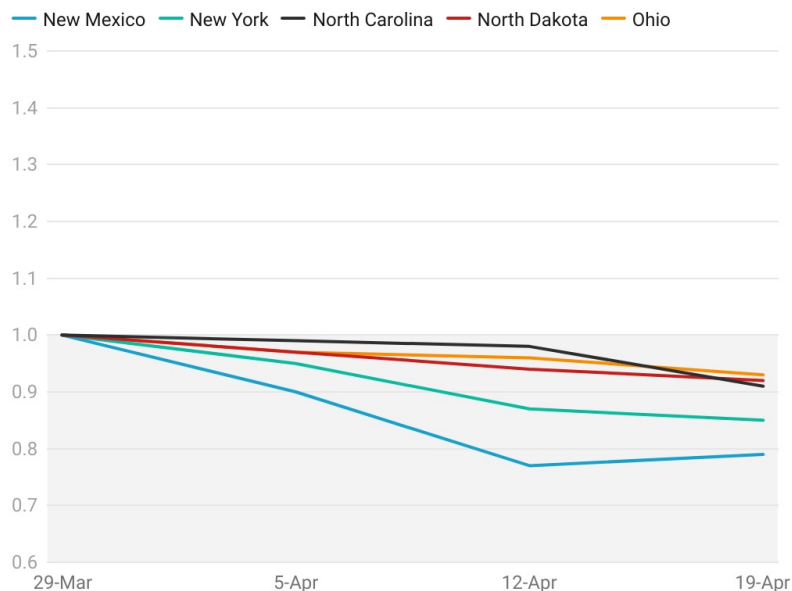
Updated March 24

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

Projections of Hospital Admissions (US) - 4 of 5

Projected Hospital Admissions

Next Three Weeks, Indexed To This Week

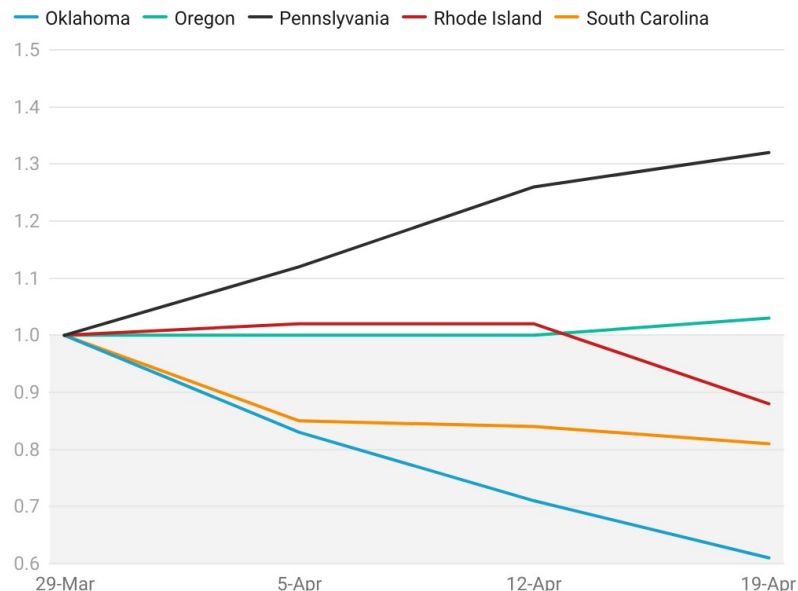


Updated March 24

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

Projected Hospital Admissions

Next Three Weeks, Indexed To This Week



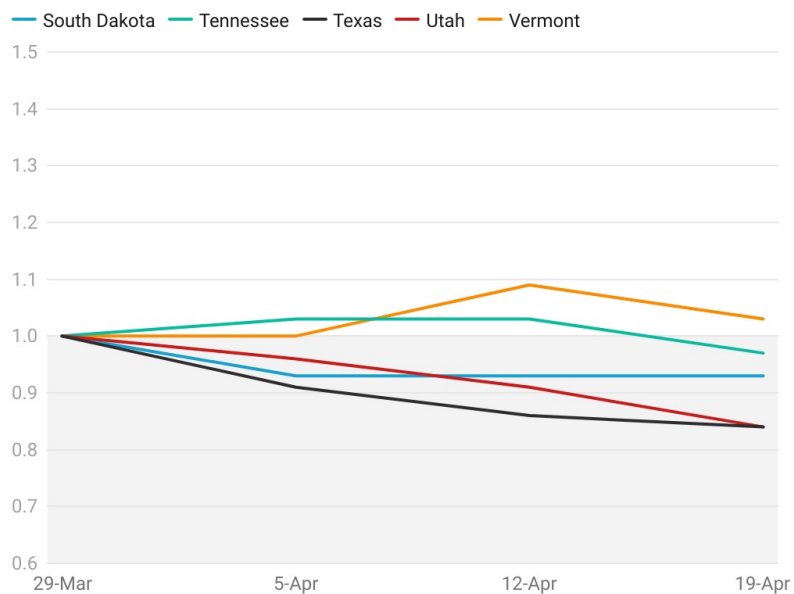
Updated March 24

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

Projections of Hospital Admissions (US) – 5 of 5

Projected Hospital Admissions

Next Three Weeks, Indexed To This Week

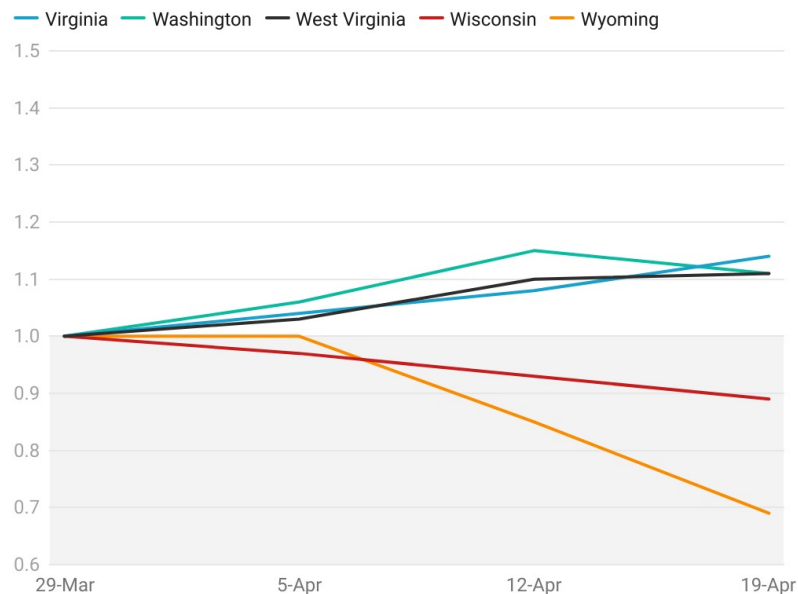


Updated March 24

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

Projected Hospital Admissions

Next Three Weeks, Indexed To This Week



Updated March 24

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

State-By-State Data Table (1 of 3)

State-By-State Comparisons

State	Infection Prevalence	Deaths per 1 Million Population	Tests per 1M Population Past 7 days	Test-Positive % (7-Day Moving Average)	New Daily Cases Per 1M Population (7-Day M.A.)	Tests / New Case	Covid-19 Census % of All Beds	7-Day Deaths /1000 New Cases , 14-Day Lag
Alabama	10.5%	2,142	1,422	5.3%	90	16	8%	27
Alaska	8.1%	422	8,237	2.4%	185	44	5%	3
Arizona	11.5%	2,318	2,221	3.7%	66	33	10%	24
Arkansas	10.9%	1,846	1,679	2.1%	69	24	4%	25
California	9.2%	1,469	588	1.9%	65	9	11%	45
Colorado	7.9%	1,075	3,599	4.3%	206	17	8%	7
Connecticut	8.5%	2,205	8,769	3.6%	322	27	29%	8
Delaware	9.6%	1,577	5,477	4.0%	237	23	17%	9
District Of Columbia	6.2%	1,492	7,496	2.7%	157	48	18%	6
Florida	9.4%	1,535	3,428	7.1%	222	15	16%	11
Georgia	9.9%	1,766	1,642	5.4%	142	12	16%	26
Hawaii	2.1%	323	3,771	1.5%	57	67	5%	18
Idaho	10.0%	1,090	2,250	5.6%	166	14	8%	8
Illinois	9.7%	1,850	4,336	2.7%	156	28	9%	14
Indiana	10.1%	1,928	2,930	3.5%	119	25	7%	13
Iowa	11.9%	1,809	2,023	5.6%	165	12	5%	10
Kansas	10.4%	1,675	1,702	3.2%	3	526	4%	15

Covid-19 "Vital Signs"

State-By-State Data Table (2 of 3)

State-By-State Comparisons

State ▲	Infection Prevalence	Deaths per 1 Million Population	Tests per 1M Population Past 7 days	Test-Positive % (7-Day Moving Average)	New Daily Cases Per 1M Population (7-Day M.A.)	Tests / New Case	Covid-19 Census % of All Beds	Week-Over-Week Change in New Cases	7-Day Deaths /1000 New Cases , 14-Day Lag
Kentucky	9.5%	1,336	2,547	3.9%	136		19	7%	82
Louisiana	9.5%	2,167	2,062	2.8%	95		22	5%	29
Maine	3.7%	544	2,671	3.3%	144		19	9%	3
Maryland	6.7%	1,359	4,198	5.2%	171		25	29%	18
Massachusetts	9.0%	2,448	11,811	2.2%	286		41	12%	23
Michigan	7.1%	1,703	3,576	7.4%	415		9	17%	13
Minnesota	9.1%	1,220	6,646	4.7%	226		29	8%	8
Mississippi	10.2%	2,348	582	4.2%	97		6	6%	16
Missouri	9.3%	1,464	1,823	4.1%	106		17	10%	19
Montana	9.7%	1,343	2,584	4.7%	162		16	3%	32
Nebraska	10.7%	1,116	1,728	7.2%	125		14	4%	15
Nevada	9.8%	1,693	2,134	4.8%	81		26	12%	22
New Hampshire	6.0%	904	4,742	3.3%	246		19	9%	14
New Jersey	9.9%	2,739	4,976	8.7%	459		11	28%	11
New Mexico	9.1%	1,868	2,206	2.1%	91		24	7%	25
New York	9.6%	2,575	7,520	5.2%	398		19	41%	11
North Carolina	8.6%	1,143	2,475	5.2%	164		15	14%	17

Covid-19 "Vital Signs"

State-By-State Data Table (3 of 3)

State-By-State Comparisons

State	Infection Prevalence	Deaths per 1 Million Population	Tests per 1M Population Past 7 days	Test-Positive % (7-Day Moving Average)	New Daily Cases Per 1M Population (7-Day M.A.)	Tests / New Case	Covid-19 Census % of All Beds	Week-Over-Week Change in New Cases	7-Day Deaths /1000 New Cases , 14-Day Lag
North Dakota	13.4%	1,922	2,394	2.8%	149	16	4%	11	
Ohio	8.6%	1,573	2,667	3.2%	127	21	10%	37	
Oklahoma	11.0%	1,226	541	5.0%	88	6	6%	14	
Oregon	3.9%	562	3,315	4.3%	74	45	6%	9	
Pennsylvania	7.9%	1,956	2,846	6.5%	261	11	15%	11	
Rhode Island	12.8%	2,461	12,011	2.0%	361	33	18%	6	
South Carolina	10.6%	1,764	1,820	10.8%	215	8	11%	19	
South Dakota	13.2%	2,178	1,395	9.5%	229	6	4%	7	
Tennessee	11.8%	1,726	1,846	6.5%	196	9	11%	13	
Texas	9.6%	1,657	1,576	6.0%	116	14	14%	23	
Utah	12.0%	651	2,783	4.4%	130	21	5%	13	
Vermont	2.9%	357	13,816	2.1%	222	62	4%	7	
Virginia	7.1%	1,189	2,248	5.6%	163	14	15%	(4)	
Washington	4.7%	692	1,523	4.5%	104	15	9%	8	
West Virginia	7.8%	1,468	3,388	5.4%	203	17	8%	30	
Wisconsin	9.9%	1,133	3,903	2.5%	79	49	5%	17	
Wyoming	9.7%	1,201	3,886	4.2%	109	36	3%	5	

Table: Health Industry Advisor LLC • Created with Datawrapper

Metro Areas in the US

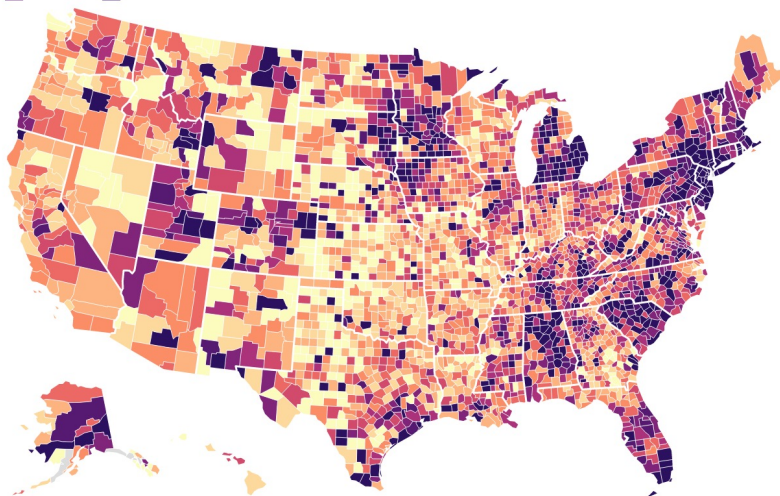
New case rates increased week-over-week in Michigan, Minnesota and the Northeast.

March 18

New Daily Infections / Million

7-Day Moving Average, As of March 18

< 25 25-50 50-75 75-100 100-125 125-150 150-175 175-200
200-225 ≥ 225



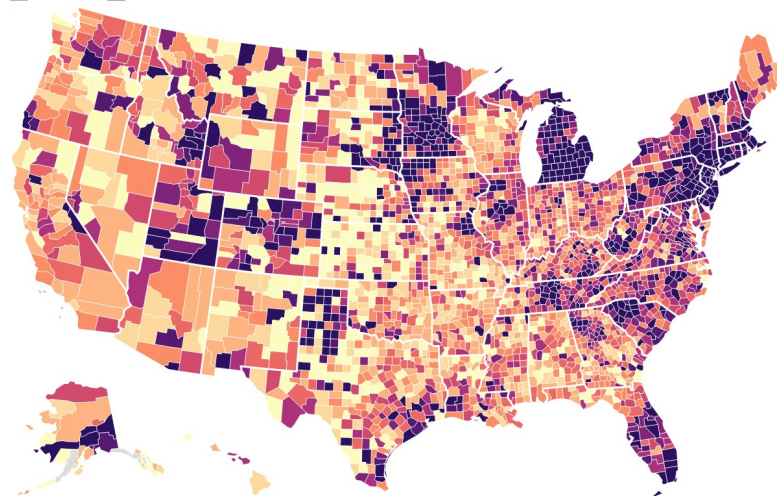
Map: Health Industry Advisor LLC • Created with Datawrapper

March 25

New Daily Infections / Million

7-Day Moving Average, As of March 25

< 25 25-50 50-75 75-100 100-125 125-150 150-175 175-200
200-225 ≥ 225



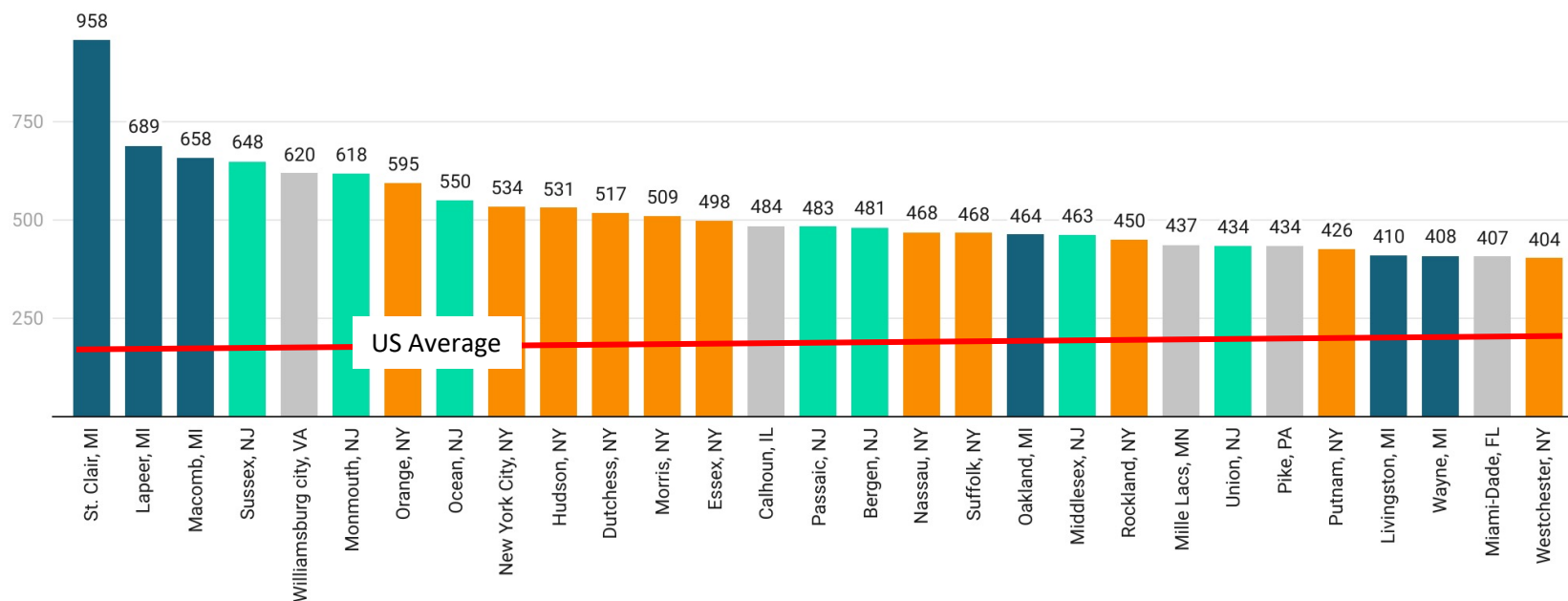
Map: Health Industry Advisor LLC • Created with Datawrapper

Large Central and Fringe Metro Areas

High rates of new cases per capita are concentrated in metro areas in Michigan, New Jersey, and New York.

Highest New Daily Cases / Million Population - Large Central & Fringe Metro Areas

7-Day Moving Average, As of March 25



Health Industry Advisor LLC analysis

Chart: Health Industry Advisor LLC • Source: worldometers.info • 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>
- 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>