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"Strategic Advice in an Era of Unprecedented Change"

Covid-19 "Vital Signs"

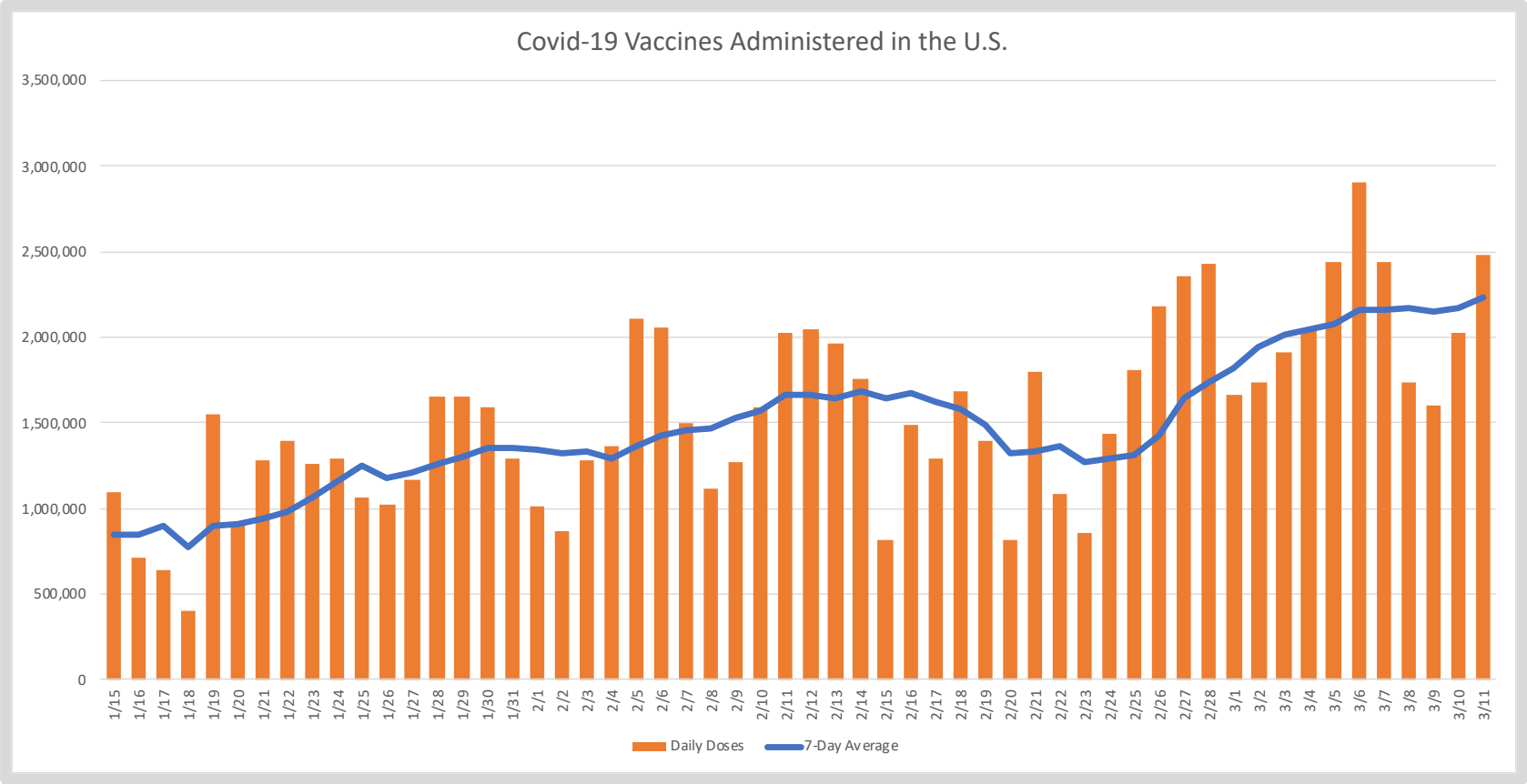
Issue # 299

March 12, 2021

Covid-19
"Vital Signs"

Pace of Vaccinations

An average of 2.45 million people were vaccinated over the past week, an increase of more than 20% from one week earlier and 35% from two weeks earlier.



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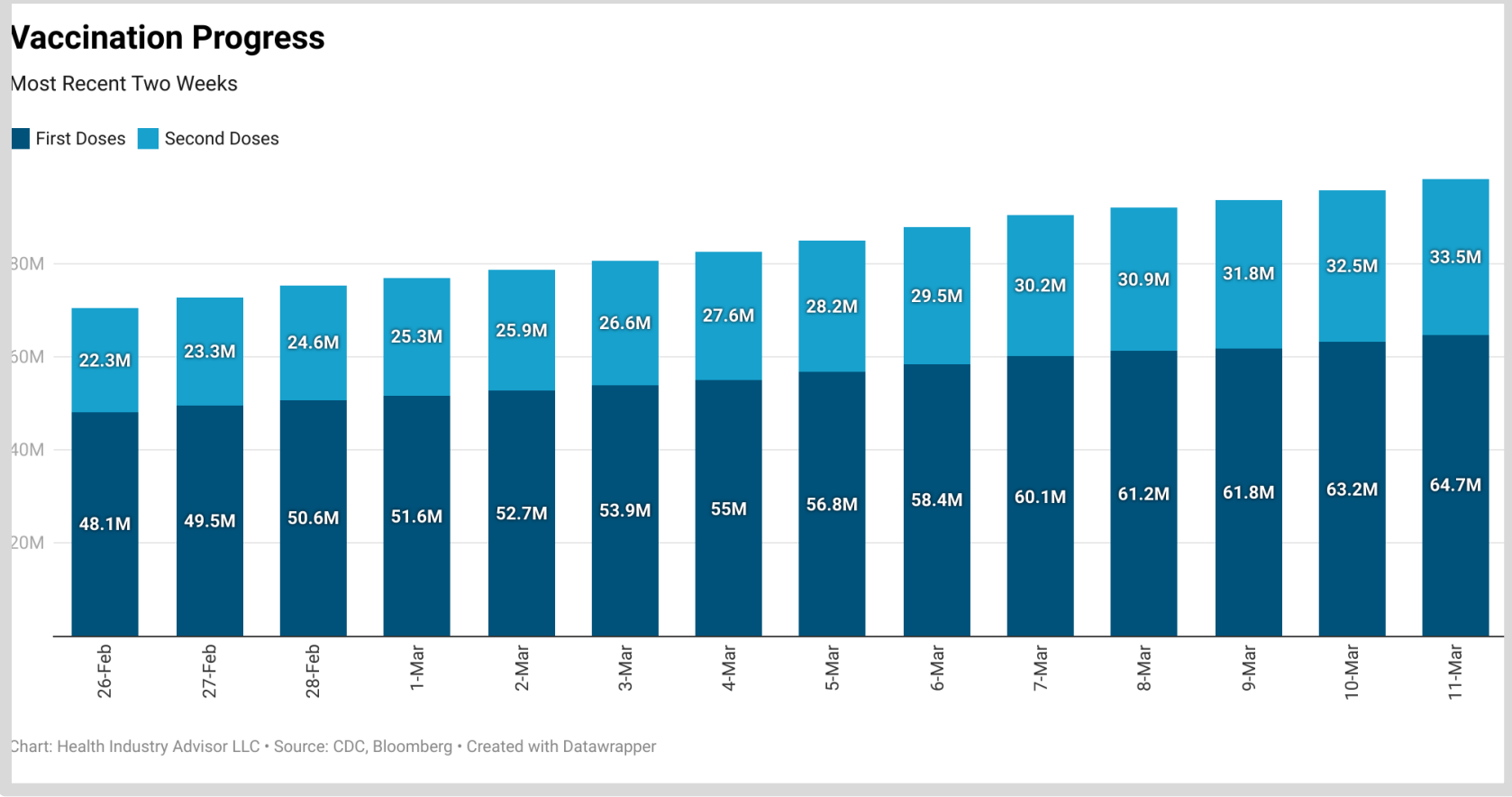
Vaccine Tracking

To date, the US has administered 98.2 million doses, with 33.5 million people jabbed twice. As of yesterday, 25.4% of U.S. adults have received at least one dose; 13.1% have received two.



Vaccine data from: Centers for Disease Control and Prevention and Bloomberg Vaccine Tracker

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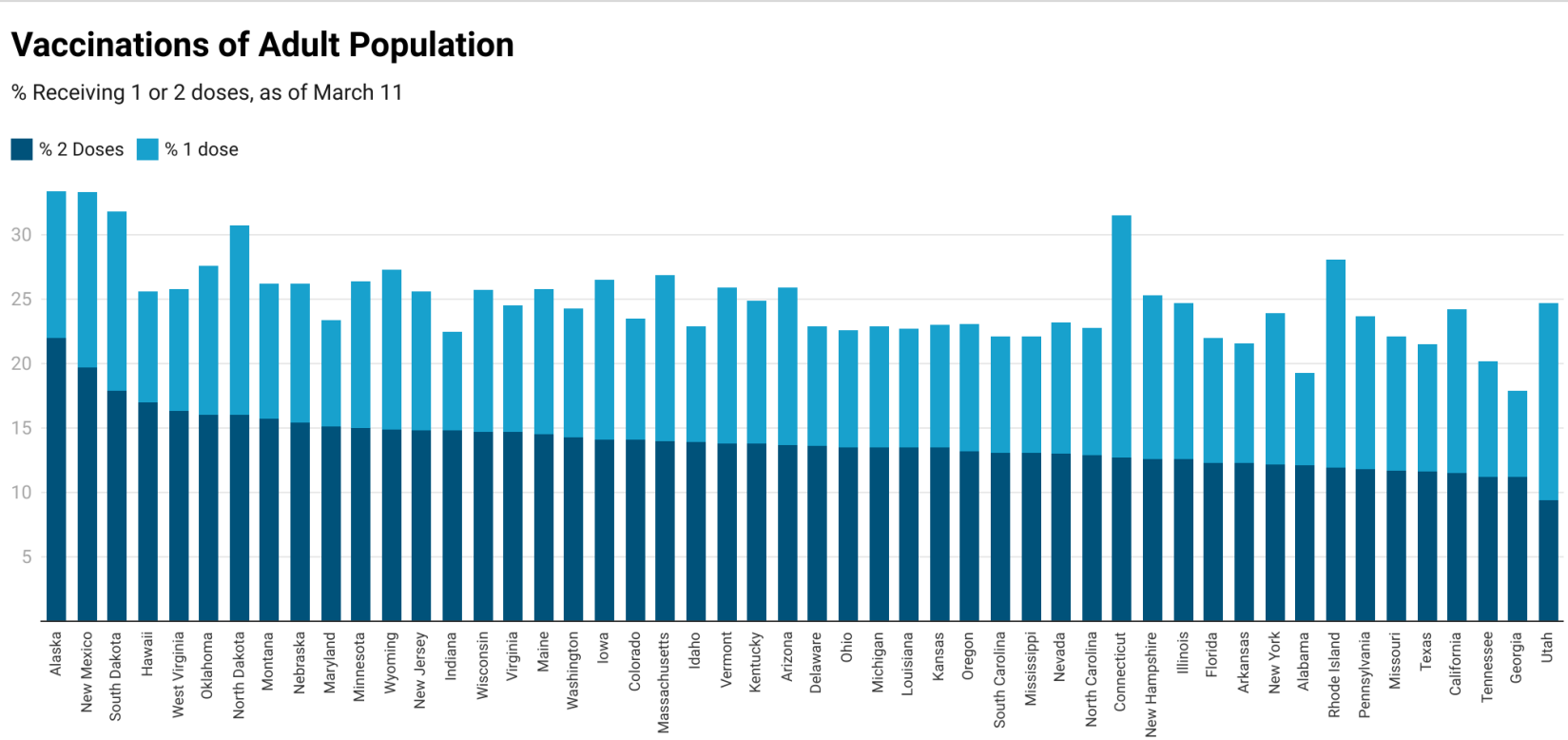
Vaccine Tracking - % of Adult Population Vaccinated

Alaska has fully inoculated more than 1-in-5 of its residents. Alaska, Connecticut, New Mexico, and North Dakota and South Dakota have administered at least one dose to more than 3-in-10 residents.



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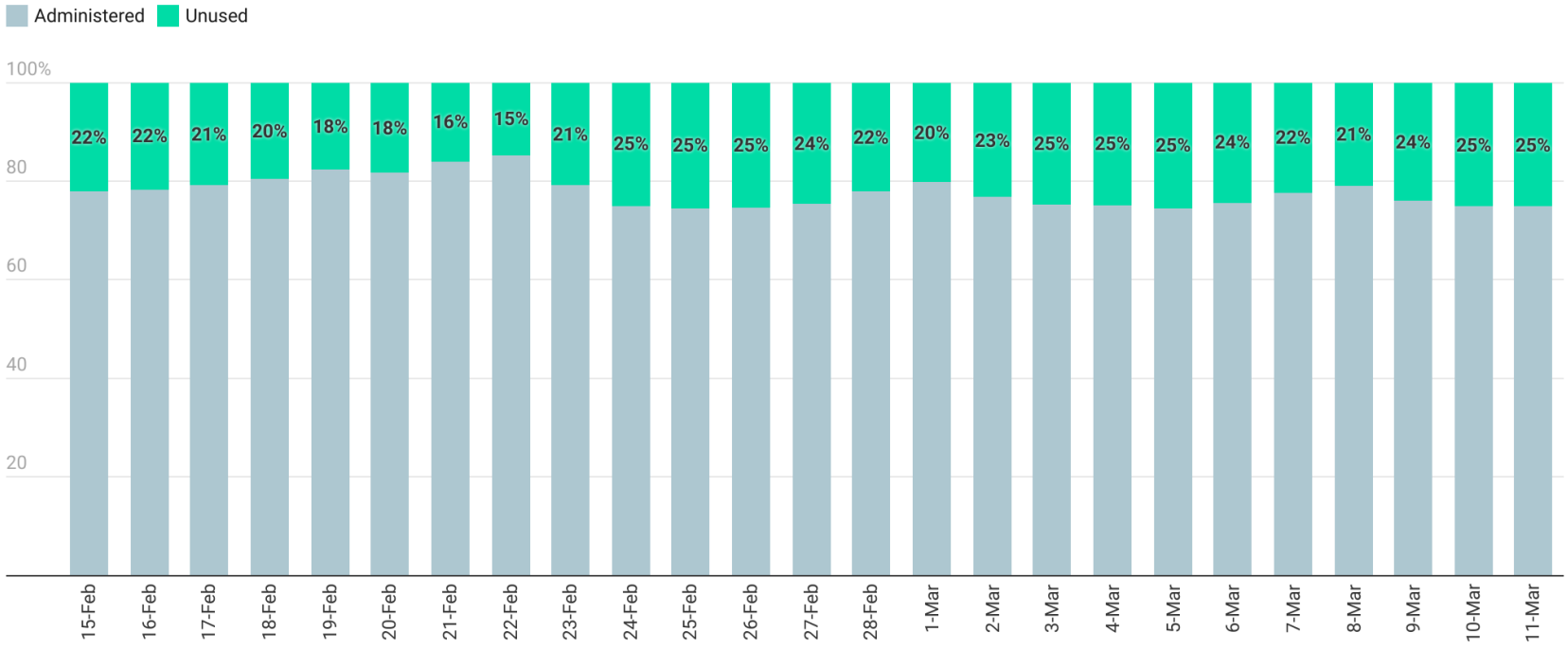
Vaccines Distributed v. Unused

More than 131 million doses have been distributed in the United States, an increase of nearly 14.7 million doses in the past three days. With an increased inventory, vaccinations should surge in the next day or two.



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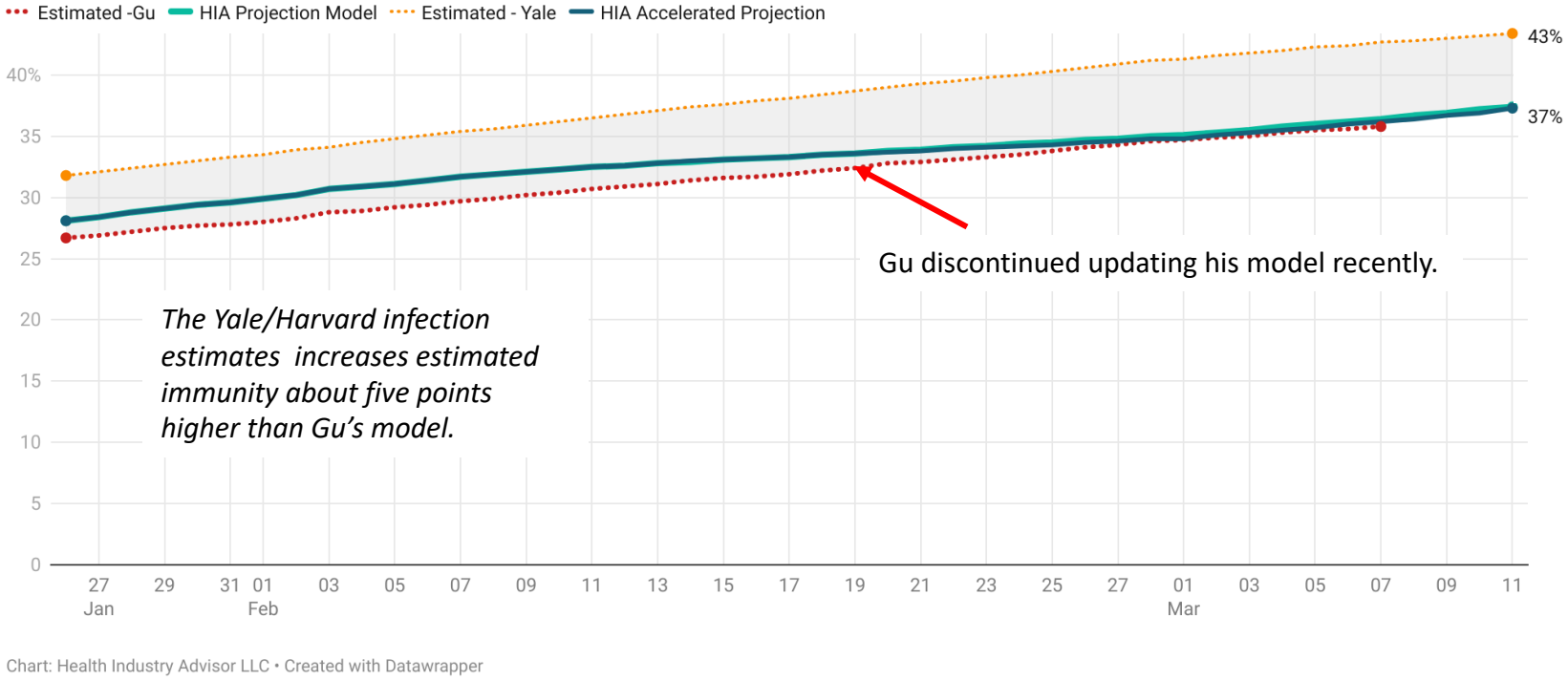
Immunity: Projected v. Estimated

Estimated immunity is 37% to 43%, based on vaccination and estimated infection rates, vaccine efficacy and a presumed two-week lag from infection or vaccination to immunity.



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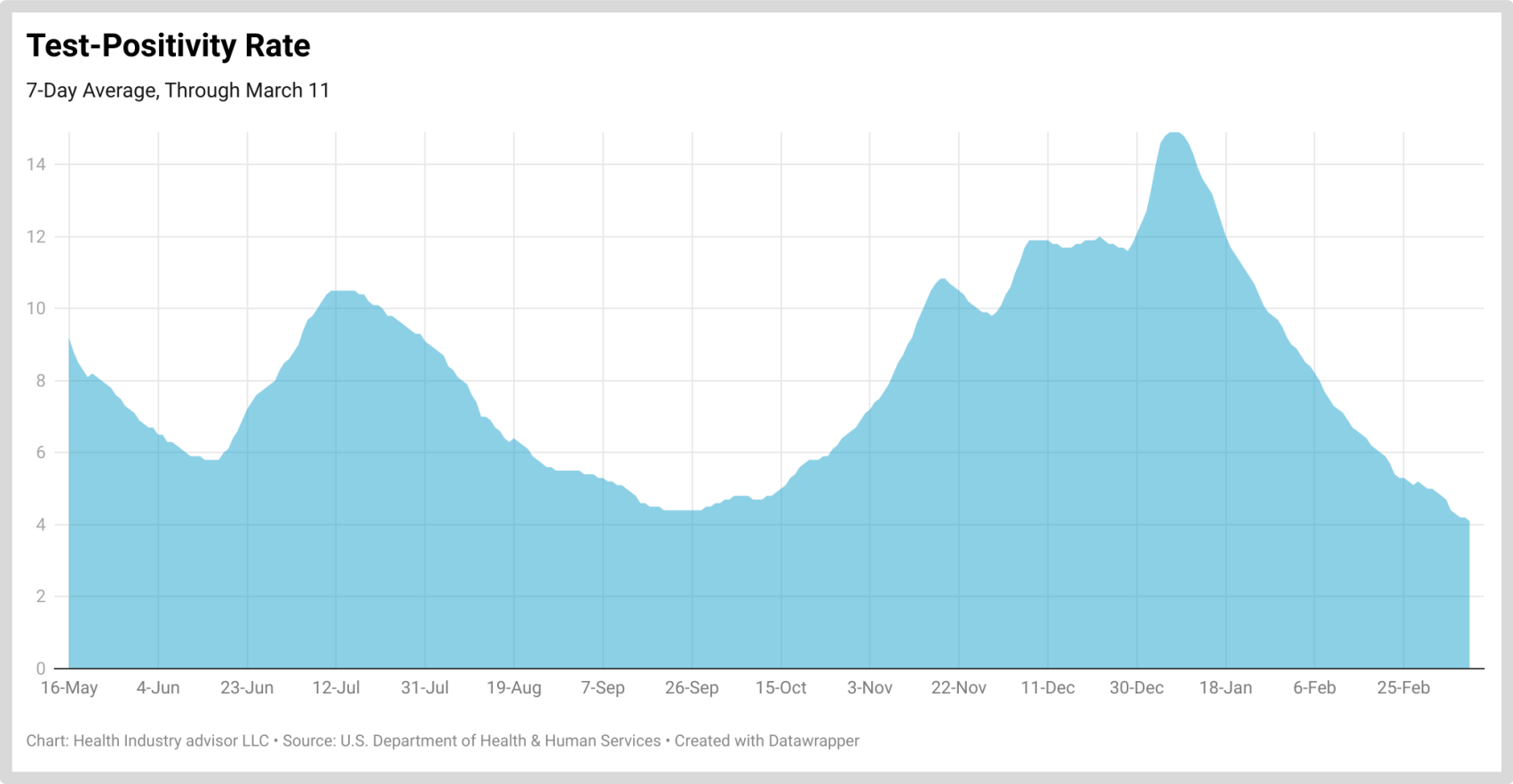
Test-Positivity Rate

The 7-day test-positivity rate reached its lowest point since the pandemic began.



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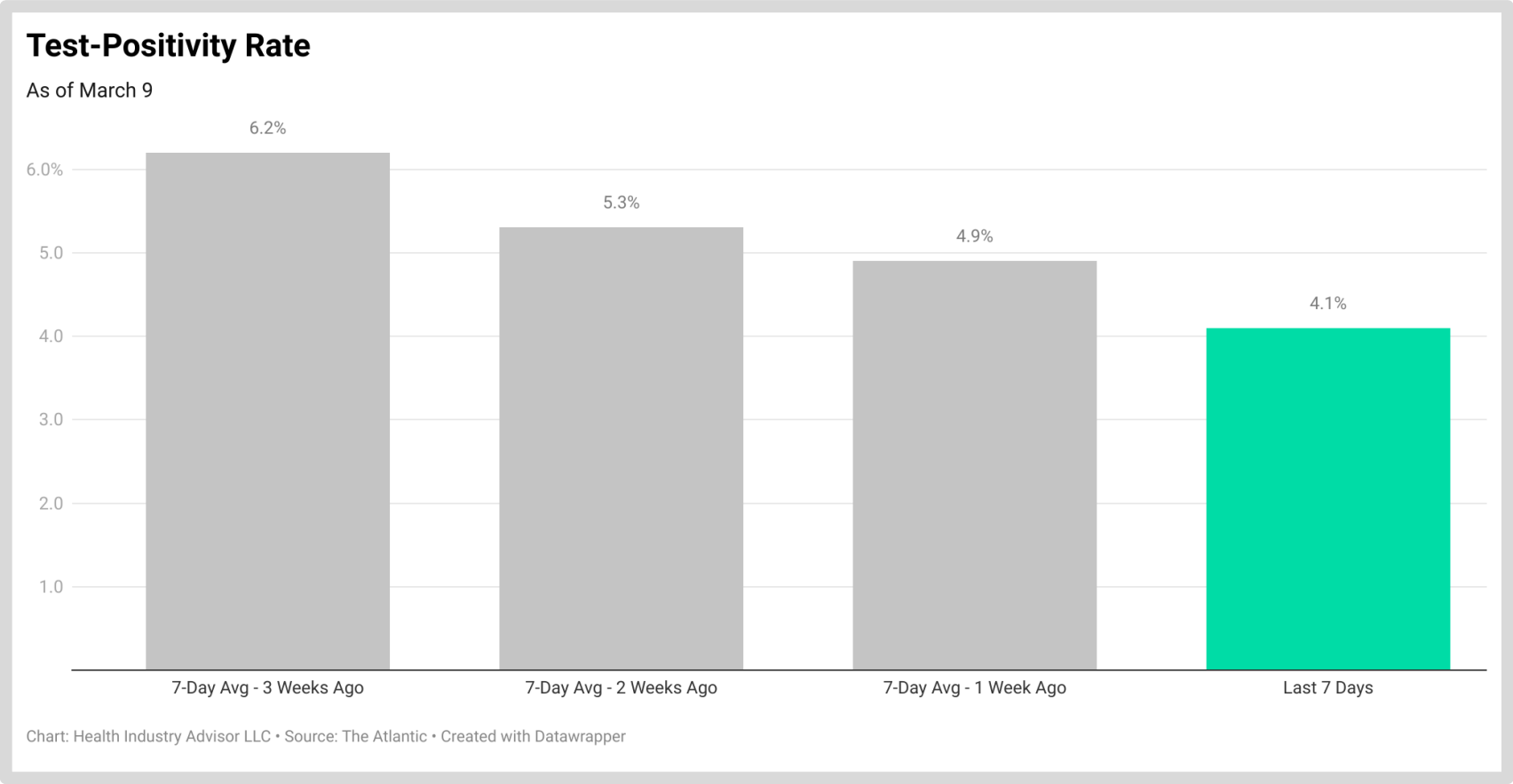
Test-Positivity Rate

The test-positivity rate has dropped by more than one-third in the past three weeks.



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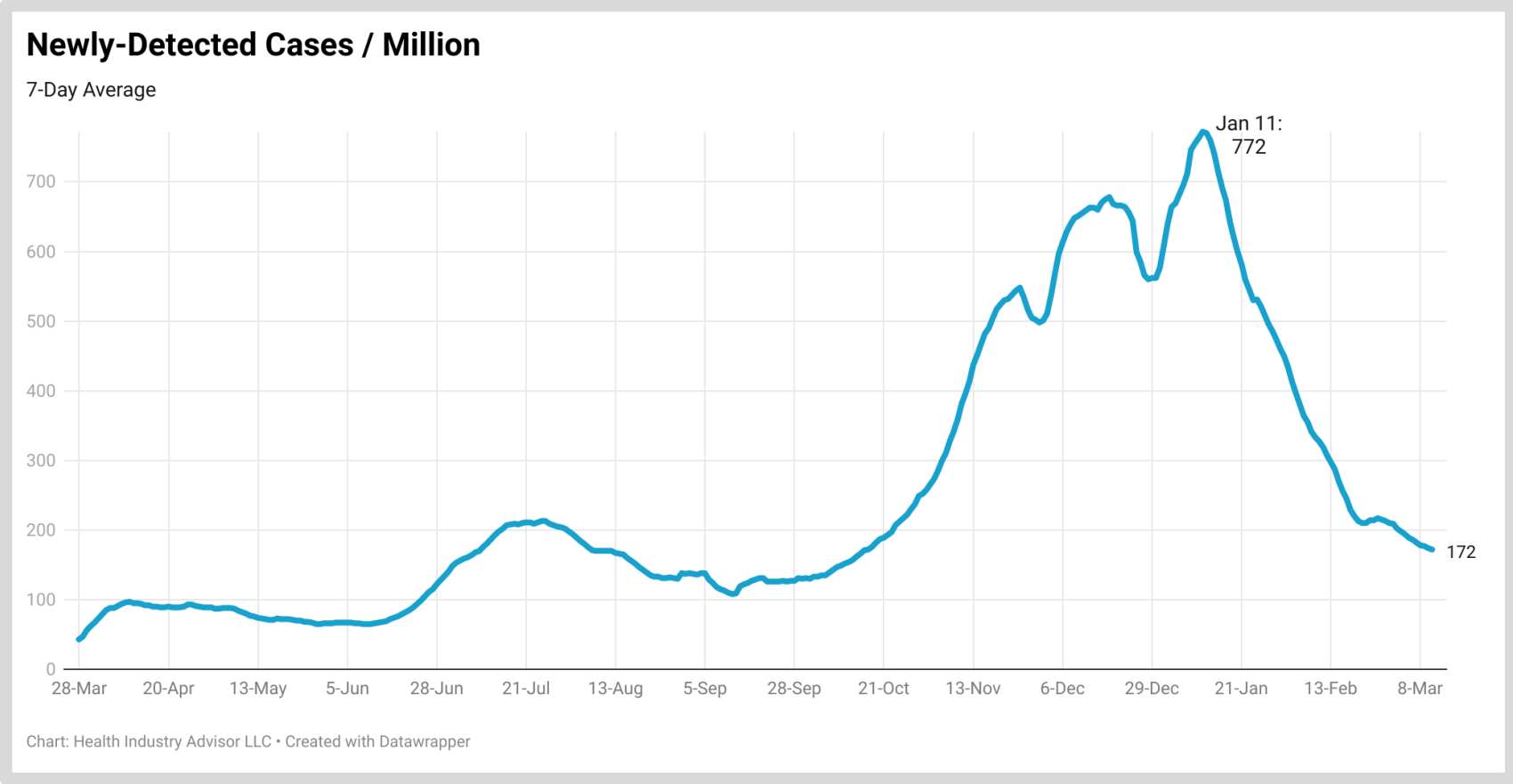
Newly Detected Cases / Million - US

Newly detected cases (7-day average) continue dropping from a January 11th peak. Cases plunged an astonishing 78% in less than two months. This rate is as low as it has been in nearly five months.



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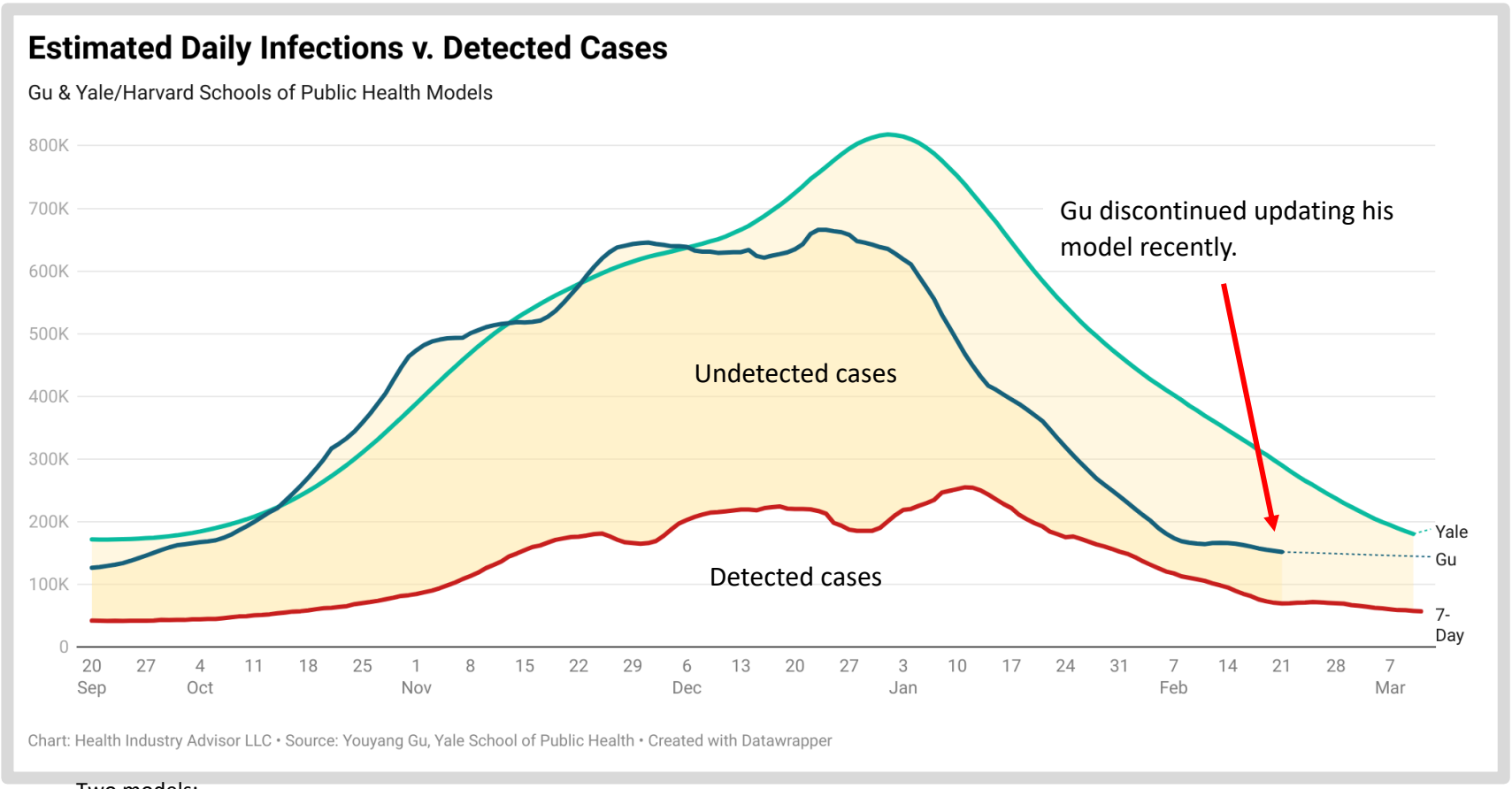
Estimated Daily Infections & New Case Rates

Estimated new infections and reported cases continue falling in the US. The Yale/Harvard model suggests that infections have plummeted 78% since the beginning of the year. The 7-day new case rate fell for the fourteenth straight day, and fifty-fifth time in the last fifty-nine days.



Two models:

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

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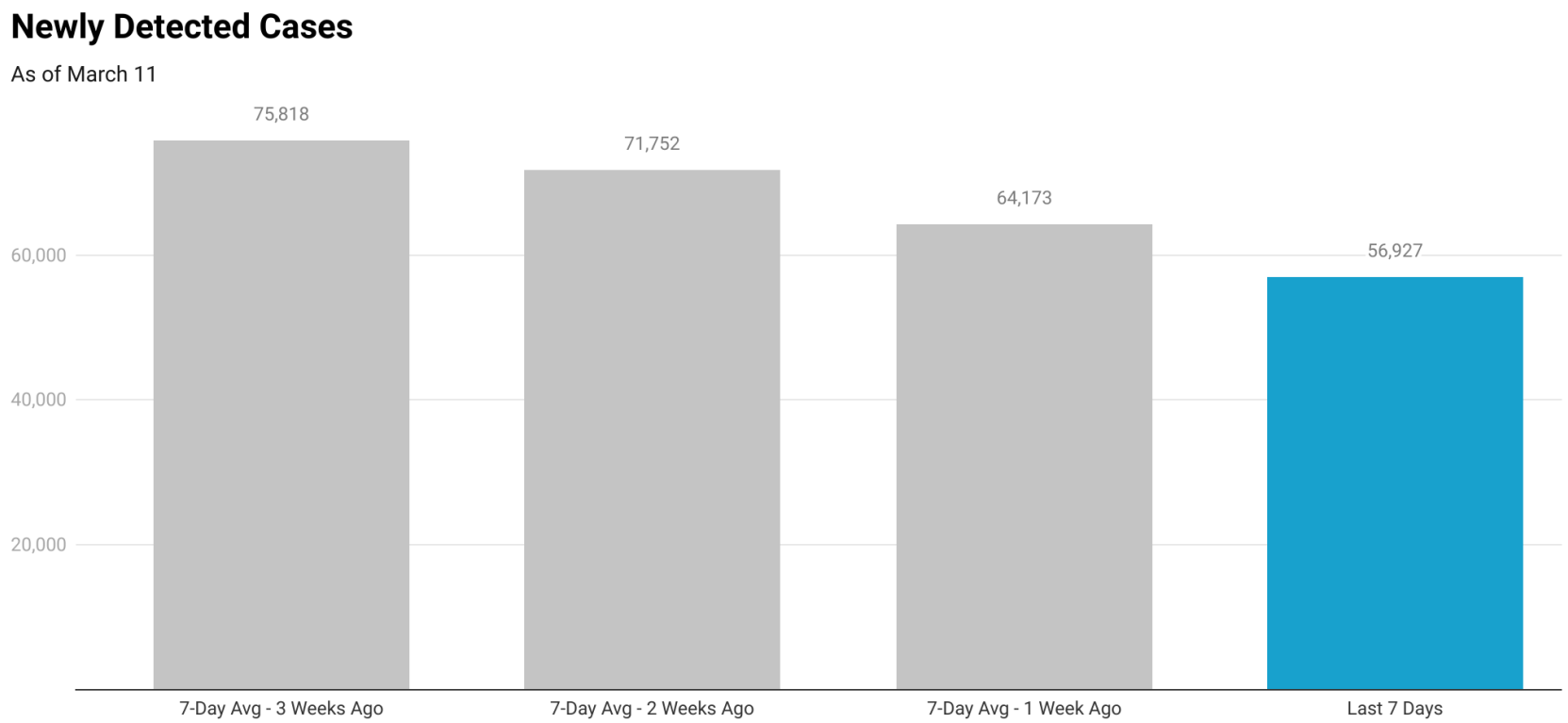
Newly Detected Cases Per Day

In the US, 7-day new case rates dropped more than 11% week-over-week and 25% in the last three weeks.



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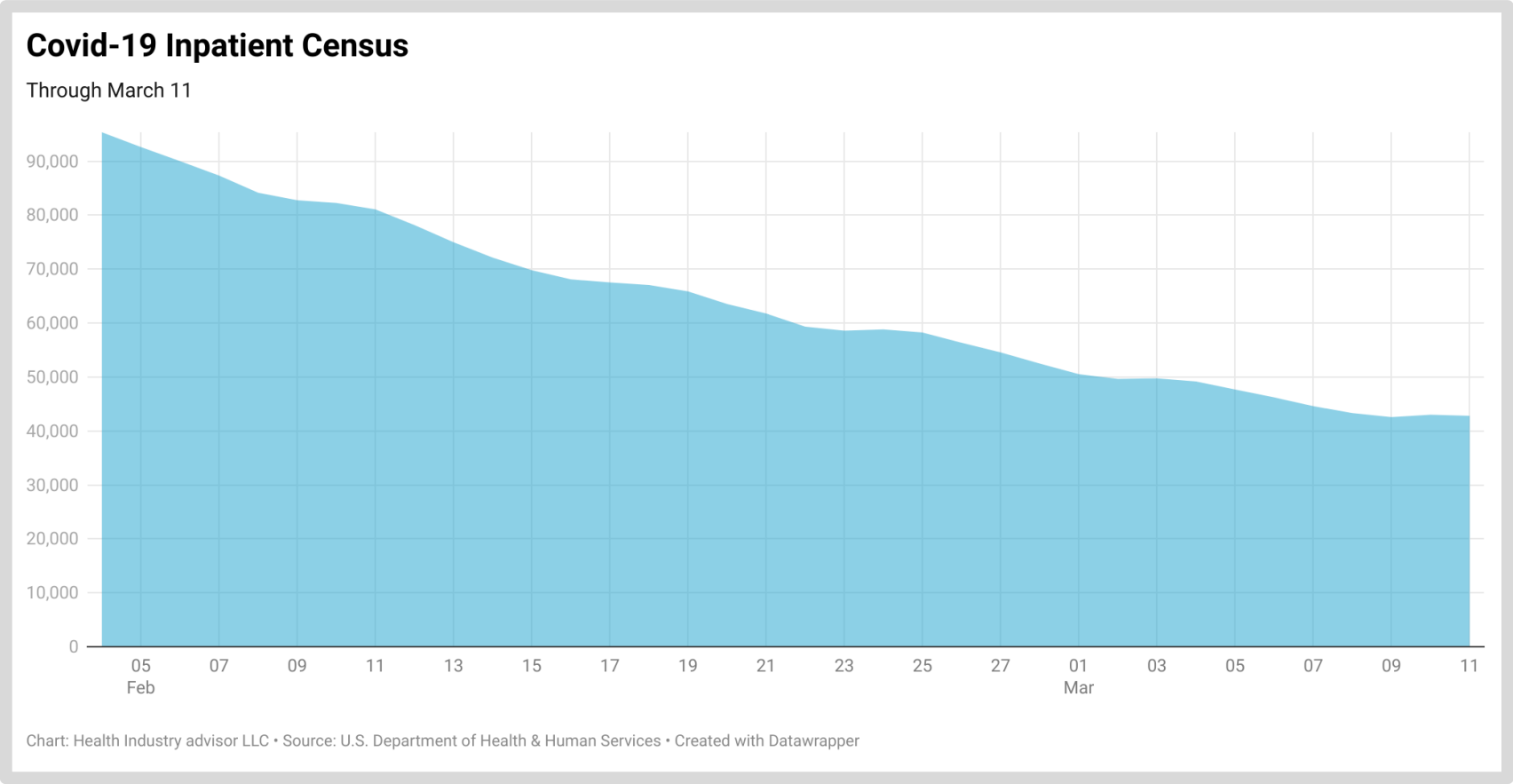
Covid-19 Inpatient Census

Covid-19 inpatient census has declined steadily since early February, when the Department of Health & Human Services began tabulating these data (a 55% decline in just more than a month).



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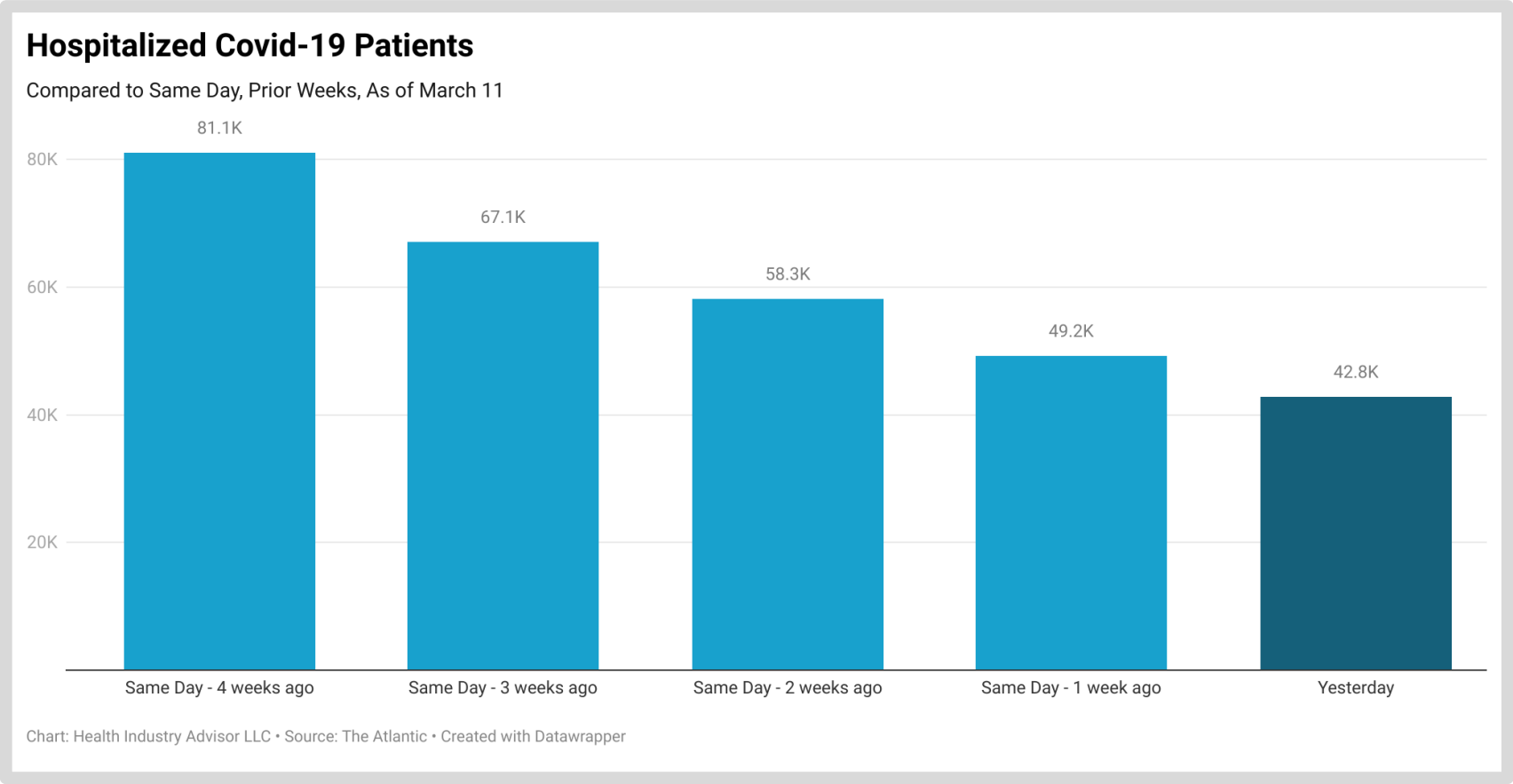
Covid-19 Inpatient Census

Covid-19 inpatient census fell 13% from last week and more than 50% in the past four weeks.



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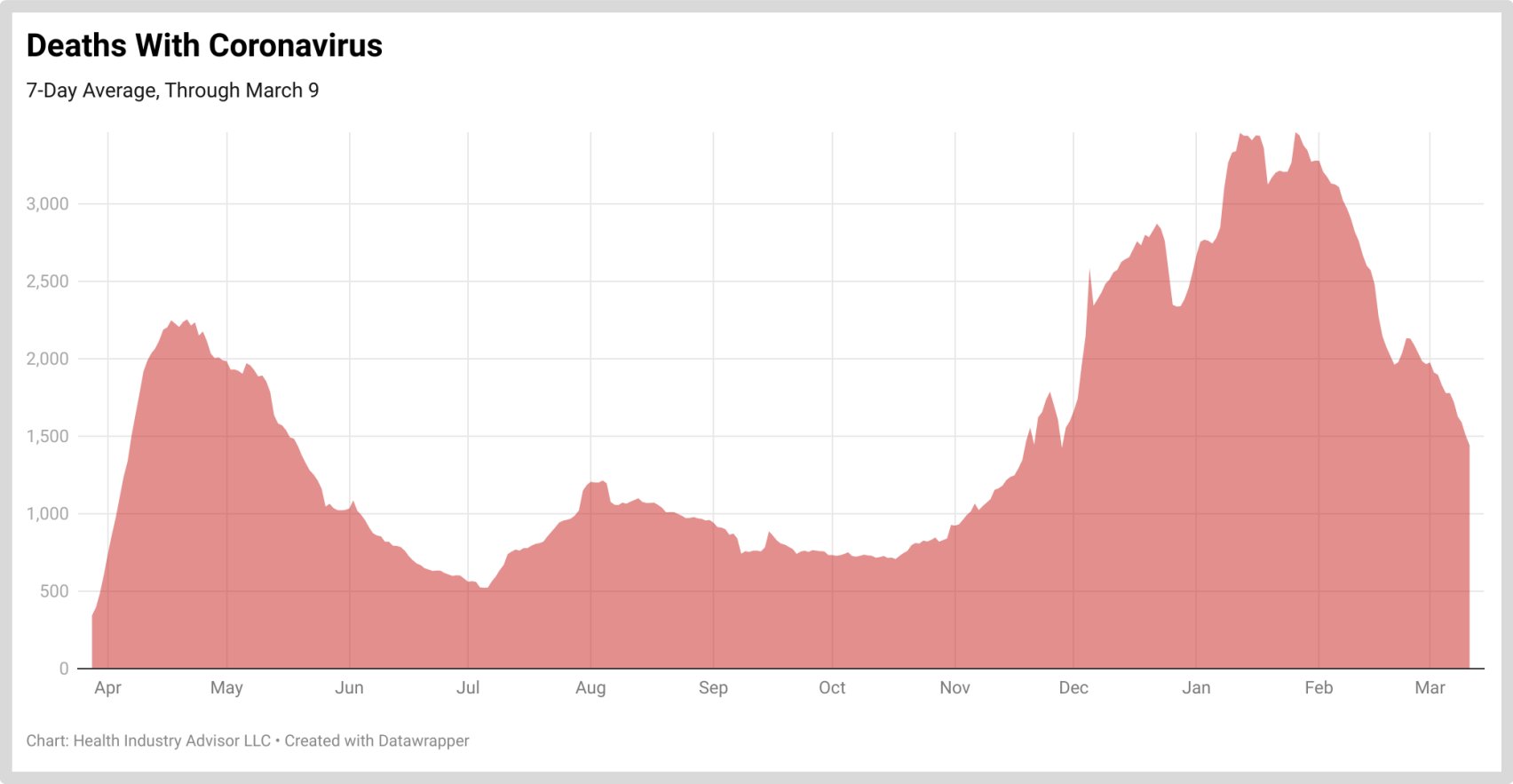
Deaths With Coronavirus

Deaths with coronavirus (7-day average) have declined by 58% since a peak in late January. This rate is lower than at any time in the last three-and-a-half months.



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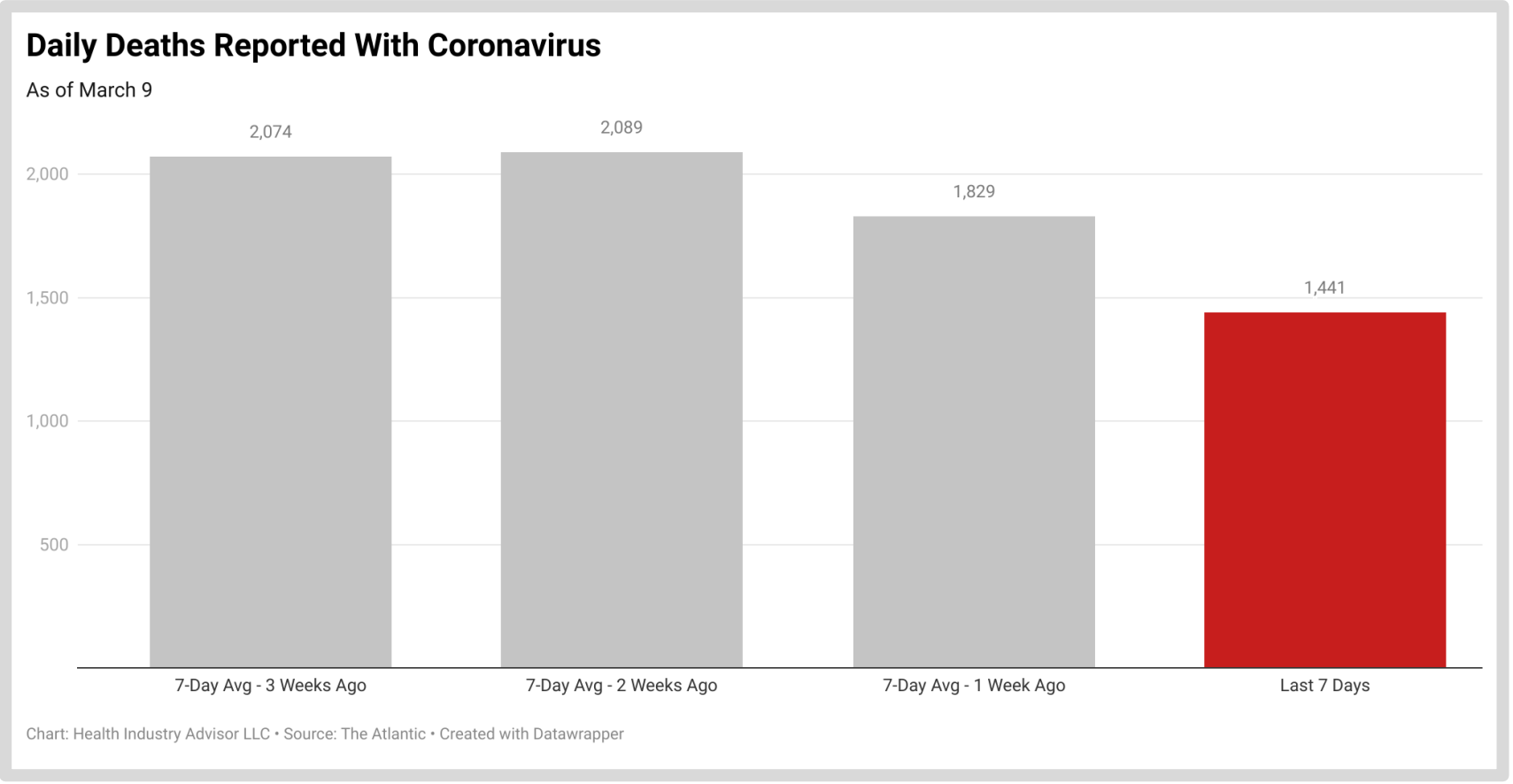
Deaths Reported With Coronavirus

The 7-day average death rate fell 12% from last week and 30% in three weeks.



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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

Worse ← → Better

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

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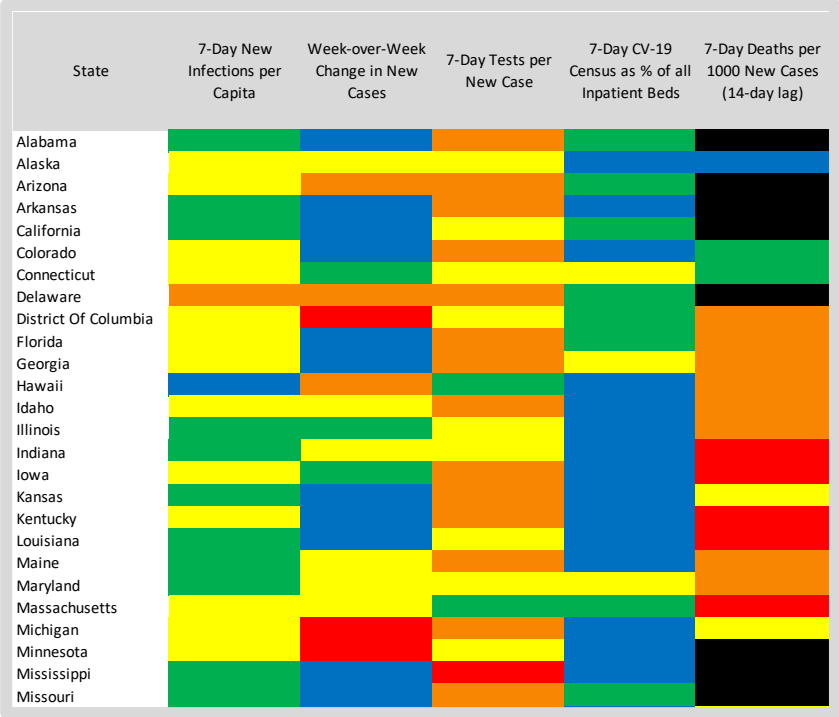
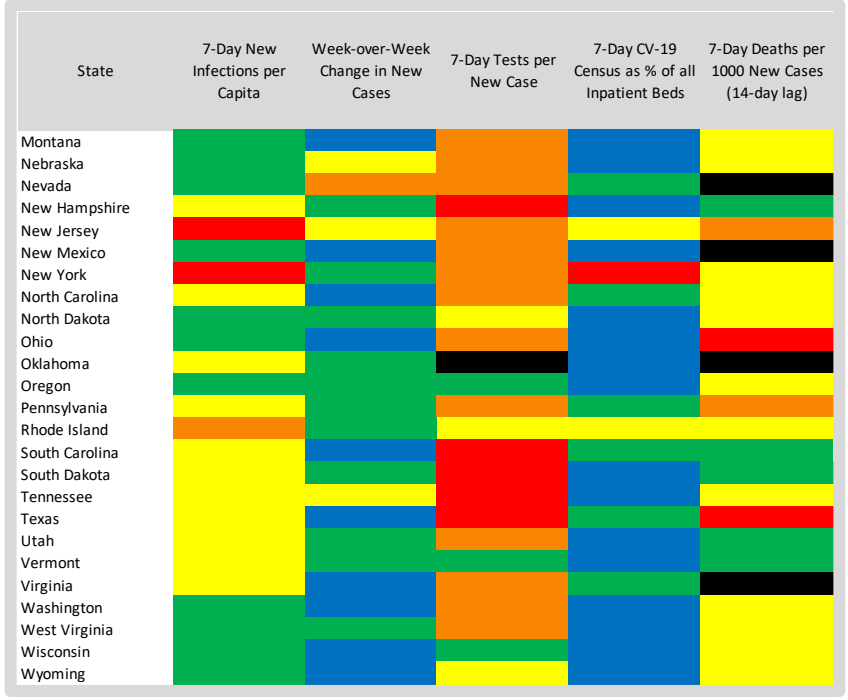
State-By-State Scorecard:

New case rates are "cautious" to "good" across many parts of the country; and the week-over-week changes in new cases are mostly encouraging. The hospital crisis eased for most of the country.





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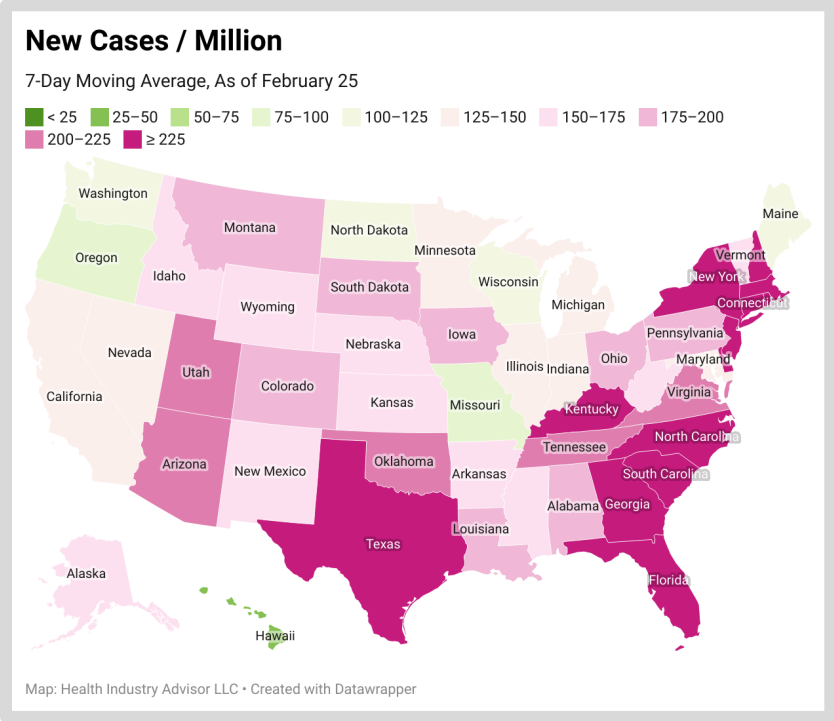
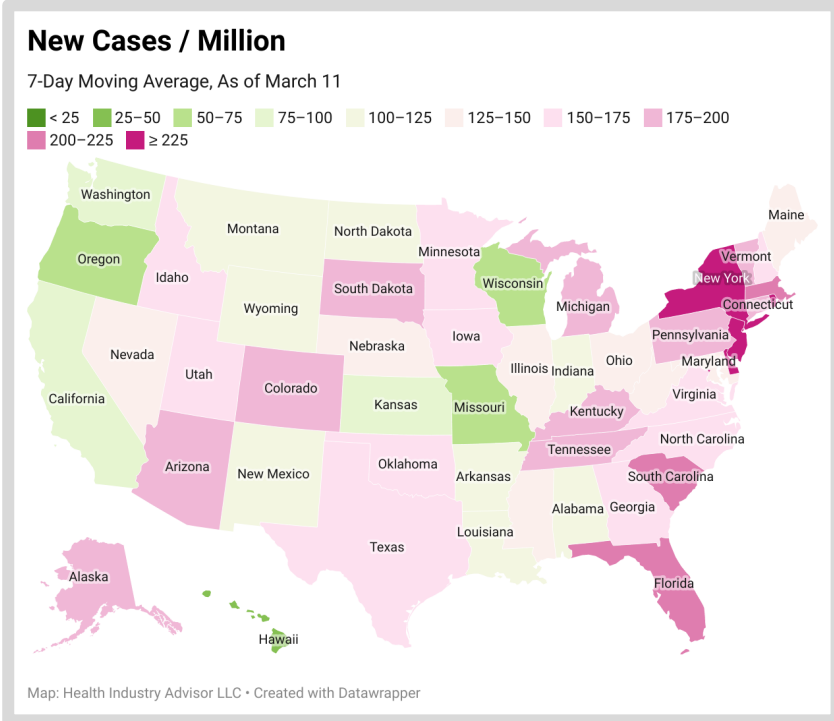
New Cases / Million

New daily case rates are marching toward relatively low levels in many states. States experiencing relatively high levels include Connecticut, Delaware, Florida, Massachusetts, New Jersey, New York, Rhode Island, and South Carolina.

February 25	March 11





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

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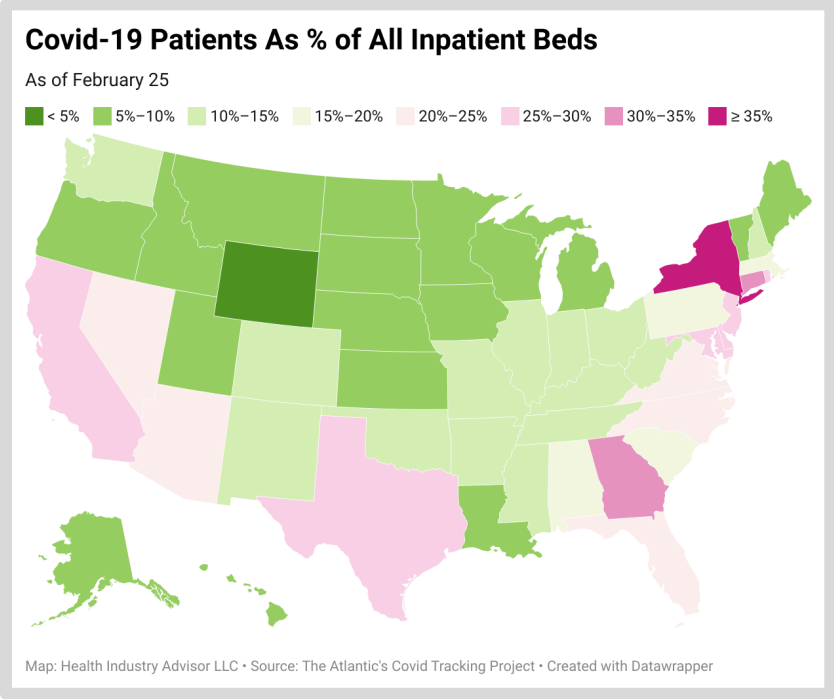
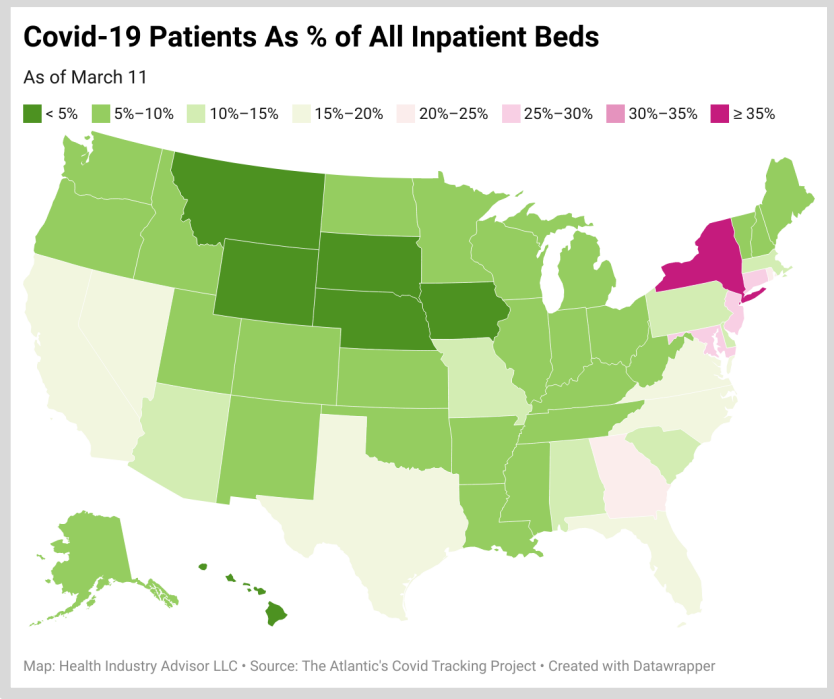
Covid-19 "Vital Signs"

Covid-19 Hospitalizations

Covid-19 hospital census dropped further in the past two weeks. New York remains of most concern among all states. Covid-19 patients occupied 14% of US beds yesterday versus its peak of 42% six weeks ago.

February 25	March 11





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

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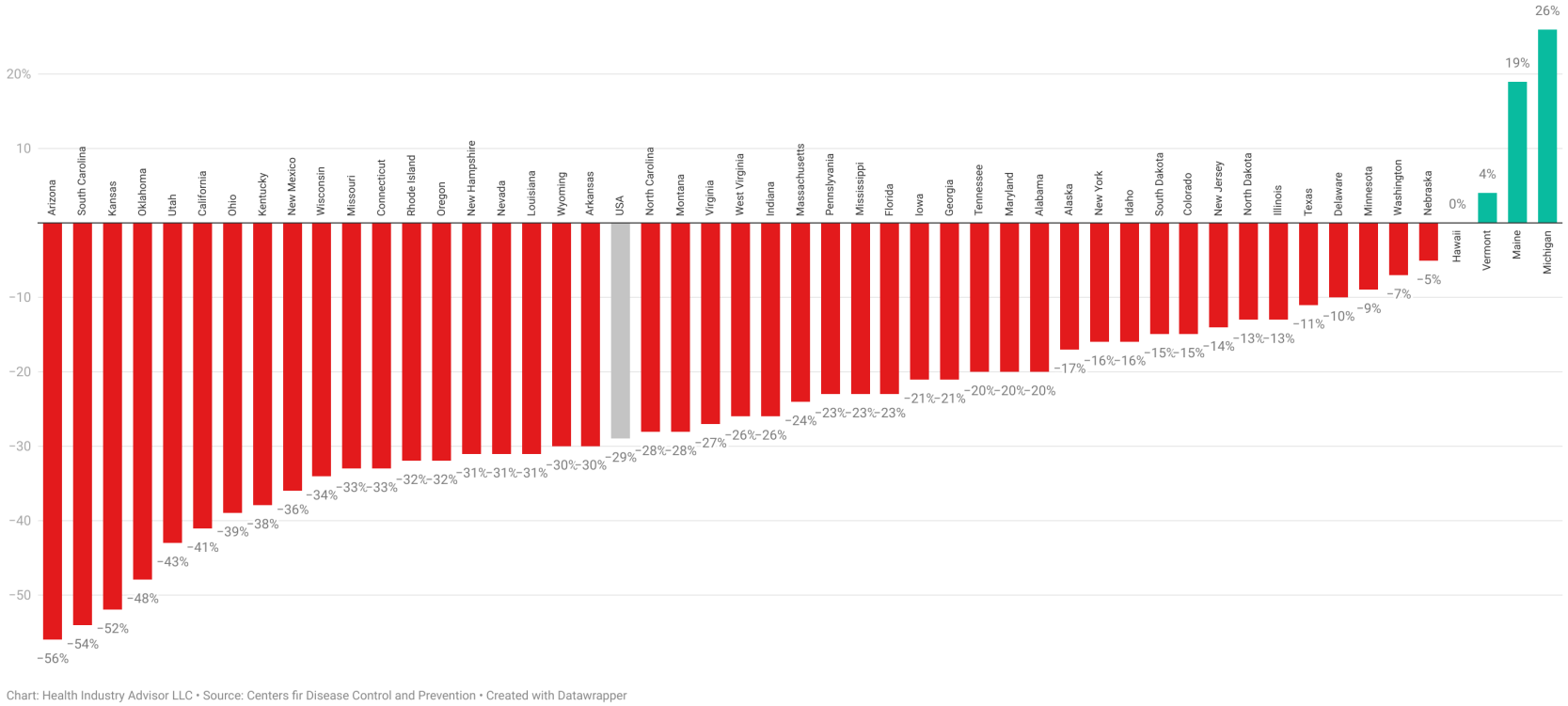
Covid-19 "Vital Signs"

Projected Covid-19 Admission Trends

Projected Covid-19 hospital admissions decline in all but three states over the next three weeks. For the U.S. overall, projected Covid-19 admissions drop 29% in this time.



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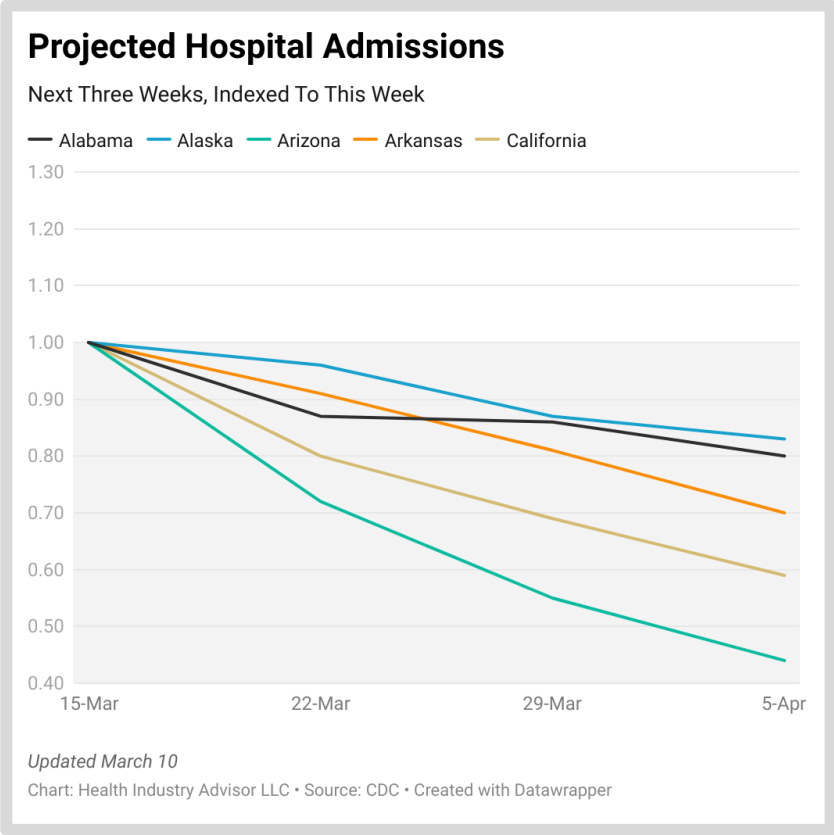
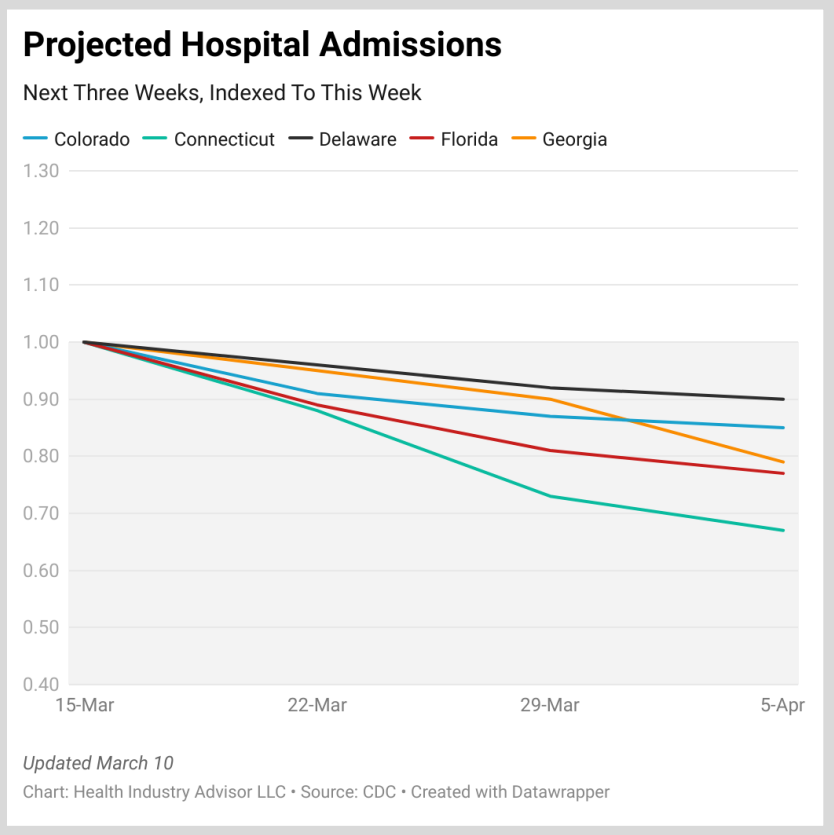
Projections of Hospital Admissions (US) – 1 of 5

Projected hospital admissions decline over the next few weeks in in all except Maine, Michigan, and Vermont.





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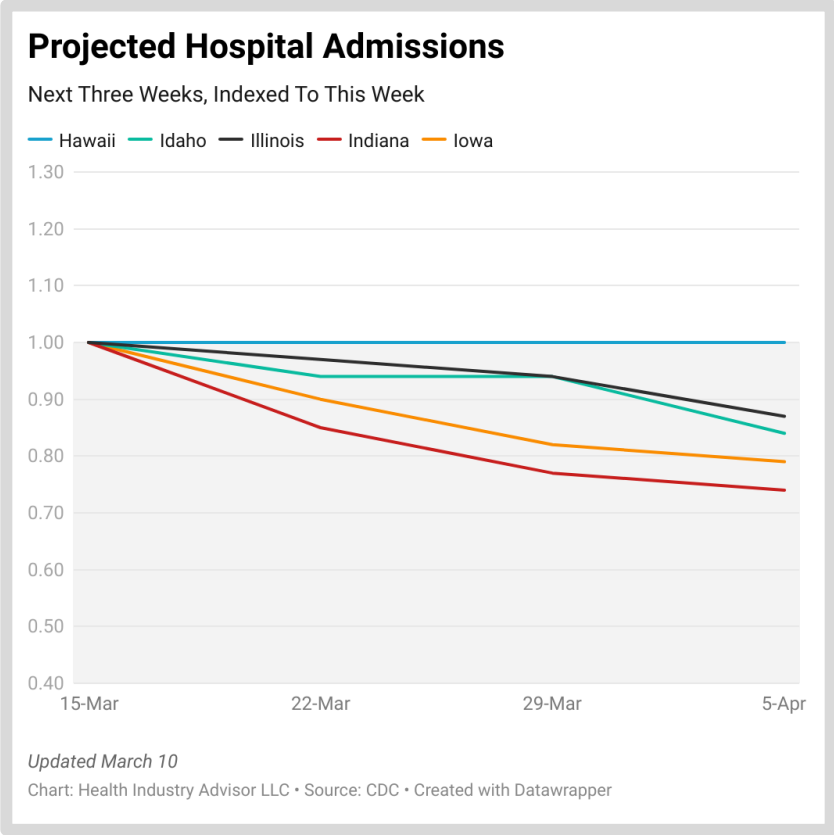
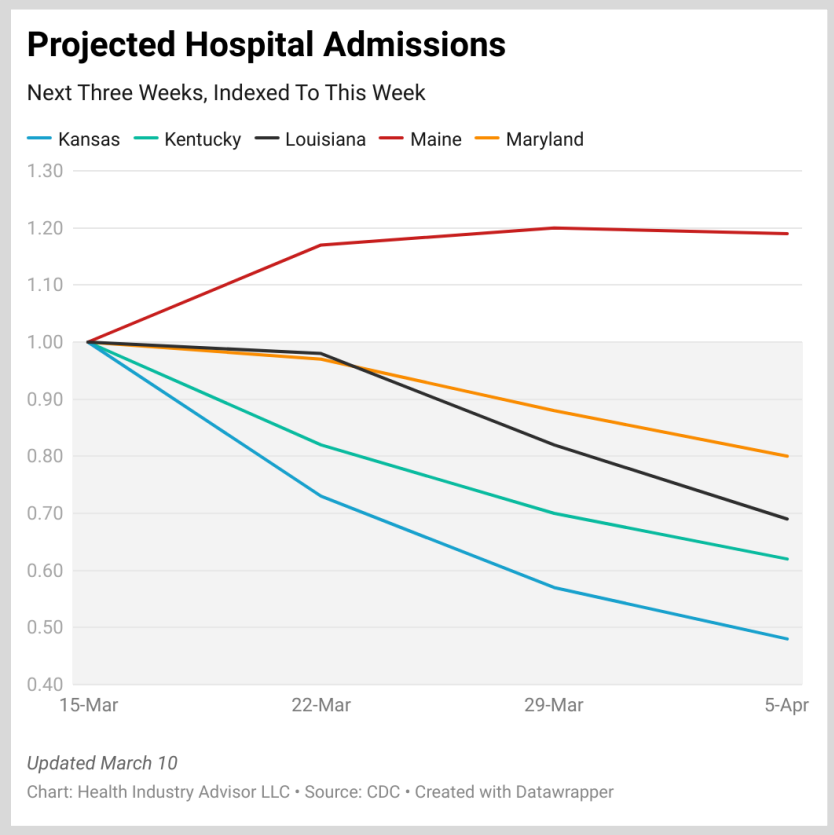
Projections of Hospital Admissions (US) – 2 of 5

Projected hospital admissions decline over the next few weeks in in all except Maine, Michigan, and Vermont.





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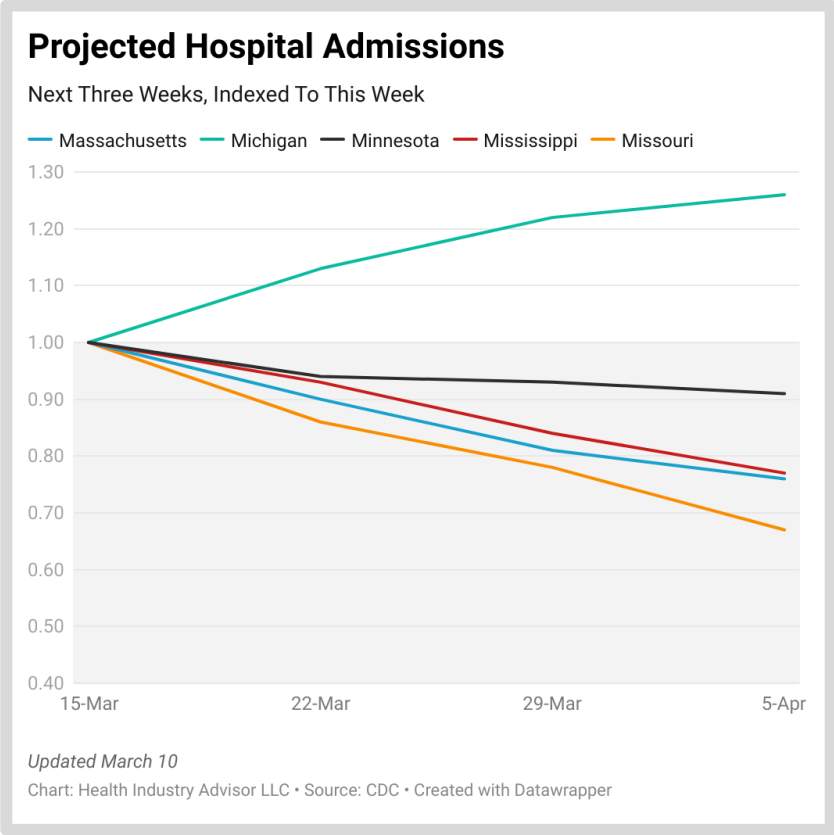
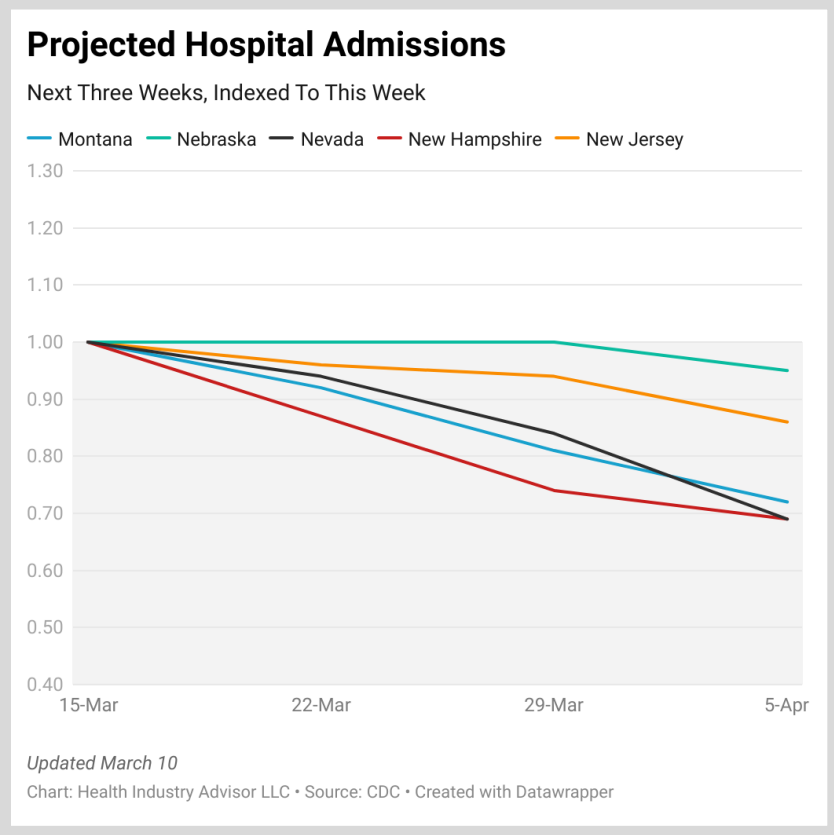
"Vital Signs"

Projections of Hospital Admissions (US) – 3 of 5

Projected hospital admissions decline over the next few weeks in in all except Maine, Michigan, and Vermont.





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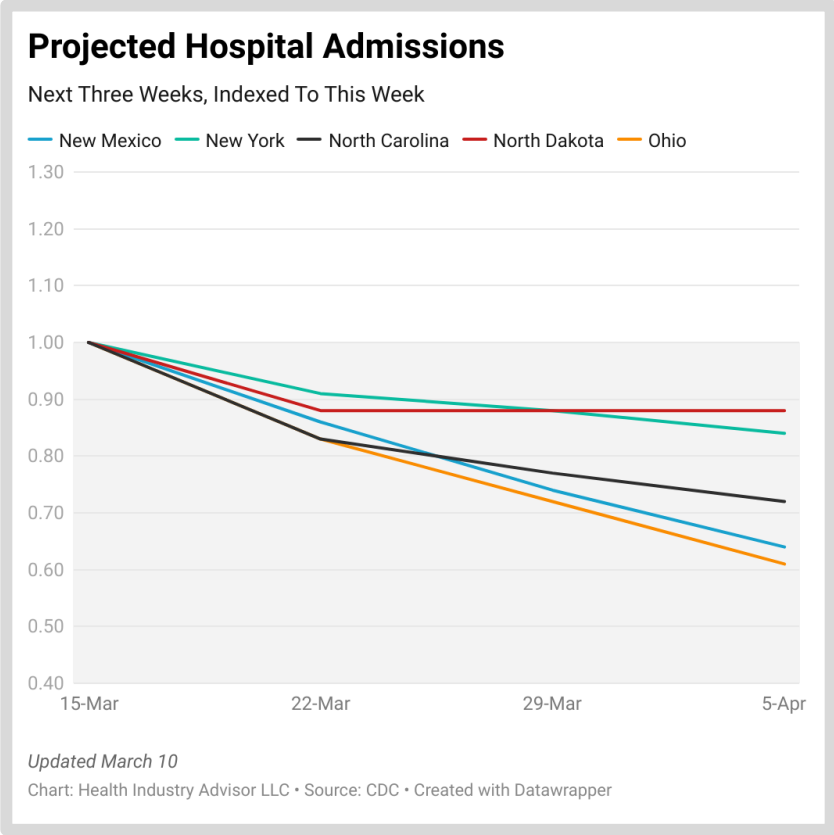
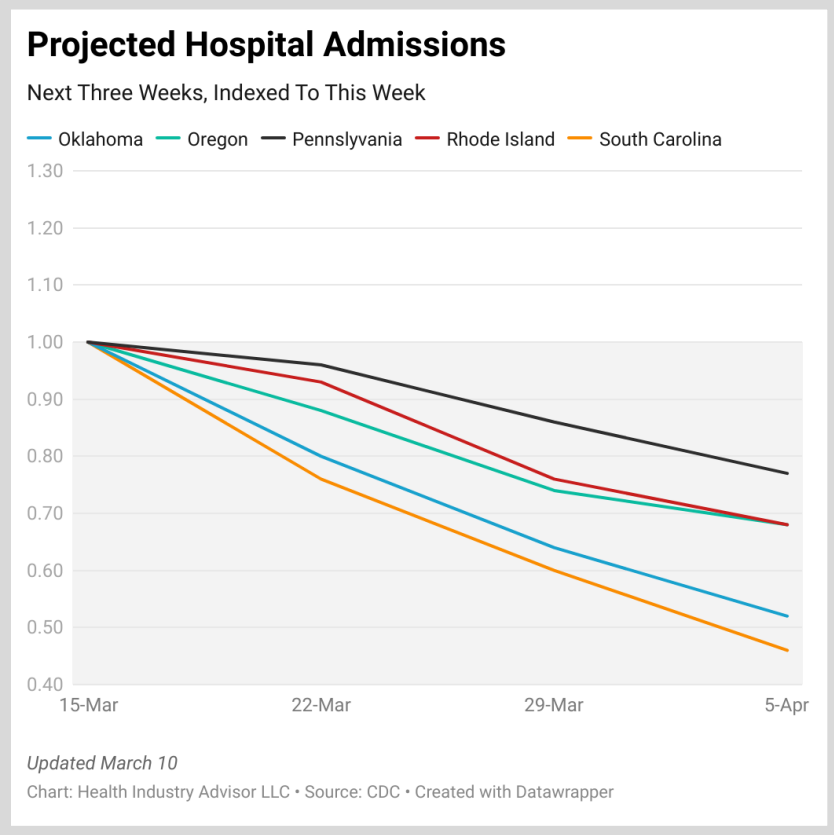
"Vital Signs"

Projections of Hospital Admissions (US) - 4 of 5

Projected hospital admissions decline over the next few weeks in in all except Maine, Michigan, and Vermont.





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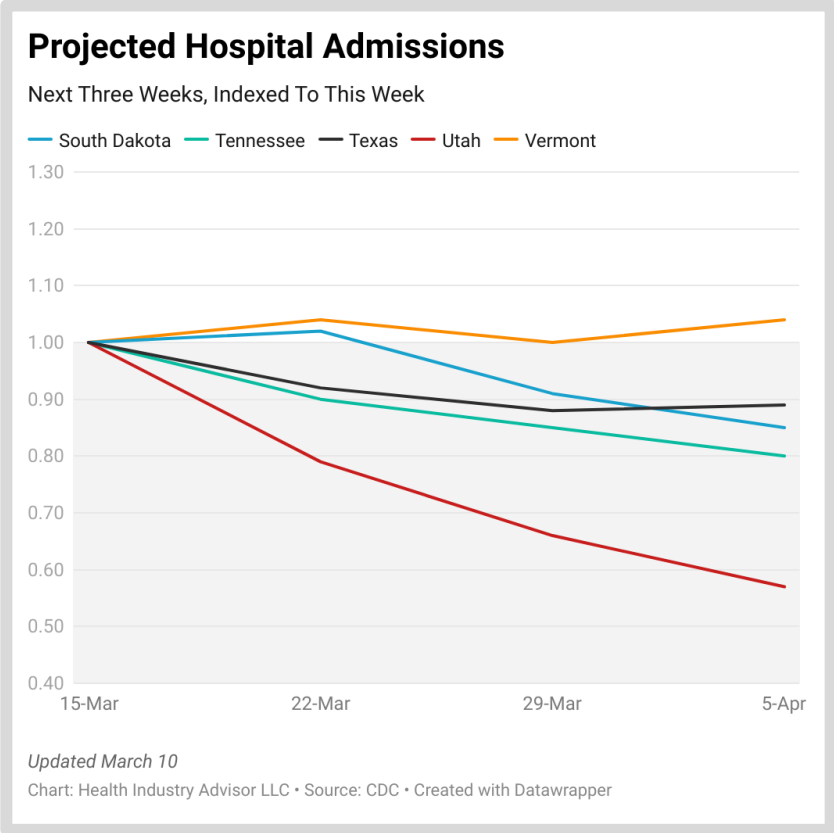
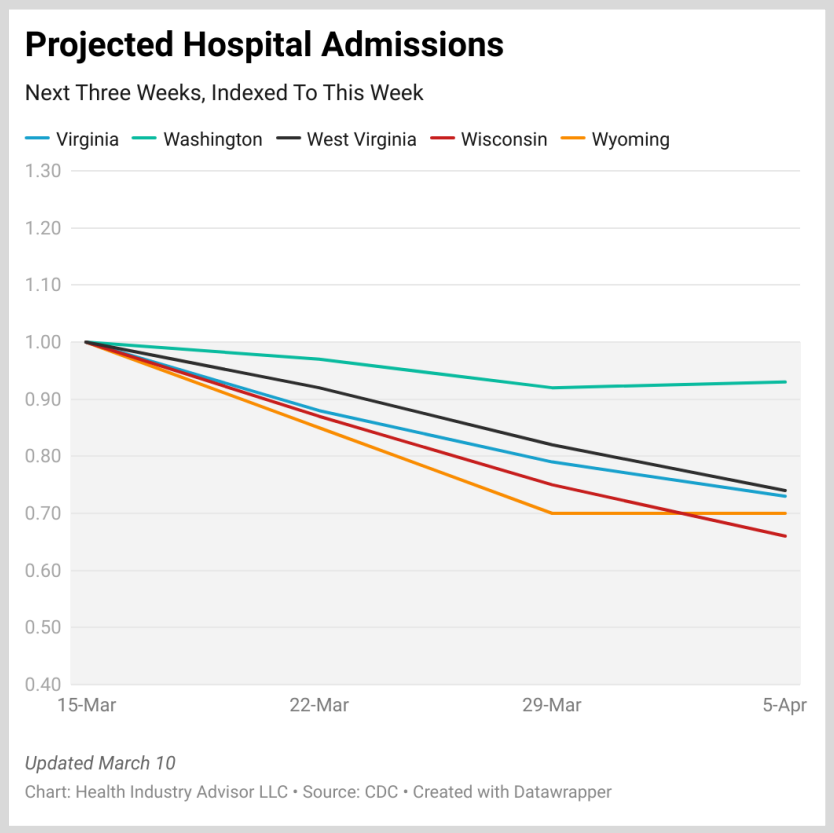
Projections of Hospital Admissions (US) – 5 of 5

Projected hospital admissions decline over the next few weeks in in all except Maine, Michigan, and Vermont.





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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	10.2%	2,095	1,641	5.7%	122	13	10%	27
Alaska	7.9%	411	8,523	2.1%	182	47	5%	2
Arizona	11.4%	2,262	2,833	4.7%	184	15	15%	26
Arkansas	10.8%	1,793	1,482	4.2%	108	14	7%	37
California	9.2%	1,395	3,127	2.1%	99	31	15%	41
Colorado	7.6%	1,046	4,177	3.3%	179	23	8%	6
Connecticut	8.1%	2,177	8,434	2.3%	196	43	26%	9
Delaware	9.2%	1,534	6,128	4.0%	299	21	14%	26
District Of Columbia	6.0%	1,469	8,631	2.6%	225	38	20%	16
Florida	9.1%	1,494	3,484	7.4%	216	16	18%	16
Georgia	9.7%	1,706	1,865	5.7%	171	11	23%	18
Hawaii	2.0%	316	2,733	1.3%	39	71	3%	20
Idaho	9.7%	1,064	2,032	5.6%	161	13	8%	15
Illinois	9.5%	1,825	4,102	2.4%	126	33	8%	18
Indiana	10.0%	1,902	3,348	2.9%	119	28	7%	20
Iowa	11.7%	1,782	2,285	5.4%	165	14	4%	21
Kansas	10.3%	1,669	2,197	3.7%	99	22	5%	13

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"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	9.3%	1,101	2,561	5.6%	182	14	9%		21
Louisiana	9.4%	2,114	3,345	3.0%	105	32	6%		24
Maine	3.5%	538	2,633	2.4%	129	20	8%		18
Maryland	6.5%	1,326	4,596	3.4%	135	34	26%		17
Massachusetts	8.6%	2,382	12,210	1.8%	221	55	13%		22
Michigan	6.7%	1,674	3,455	3.8%	180	19	9%		15
Minnesota	8.8%	1,204	7,135	3.3%	171	42	6%		37
Mississippi	10.1%	2,306	1,049	4.6%	143	7	7%		30
Missouri	8.6%	1,451	690	4.3%	69	10	11%		47
Montana	9.5%	1,301	2,937	4.0%	119	25	3%		12
Nebraska	10.5%	1,097	2,005	7.8%	142	14	4%		15
Nevada	9.7%	1,649	2,185	6.1%	125	17	17%		27
New Hampshire	5.7%	876	1,155	10.8%	167	7	9%		6
New Jersey	9.3%	2,681	4,768	7.8%	385	12	26%		16
New Mexico	9.0%	1,834	2,166	2.5%	107	20	8%		32
New York	9.0%	2,516	7,680	5.0%	370	21	44%		12
North Carolina	8.4%	1,108	2,961	4.8%	160	18	16%		11

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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	13.2%	1,908	3,346	1.7%	102		33	5%	10
Ohio	8.4%	1,511	2,719	3.1%	128		21	8%	21
Oklahoma	10.9%	1,188	619	6.1%	155		4	8%	29
Oregon	3.8%	549	4,087	2.0%	67		61	7%	11
Pennsylvania	7.5%	1,921	3,179	5.2%	191		17	13%	16
Rhode Island	12.3%	2,419	11,840	2.1%	323		37	24%	10
South Carolina	10.3%	1,713	1,912	6.2%	217		9	12%	10
South Dakota	12.9%	2,153	1,262	6.4%	177		7	3%	8
Tennessee	11.5%	1,701	1,584	5.7%	181		9	10%	13
Texas	9.4%	1,594	1,497	7.0%	162		9	18%	24
Utah	11.8%	629	2,586	5.3%	163		16	7%	10
Vermont	2.6%	338	13,919	2.2%	186		75	6%	6
Virginia	6.9%	1,160	2,315	5.8%	154		15	17%	42
Washington	4.6%	678	1,397	4.4%	80		17	8%	11
West Virginia	7.5%	1,308	3,406	4.3%	145		23	8%	14
Wisconsin	9.8%	1,120	4,234	2.3%	62		68	5%	12
Wyoming	9.5%	1,194	2,960	2.3%	105		28	2%	13

Table: Health Industry Advisor LLC • Created with Datawrapper

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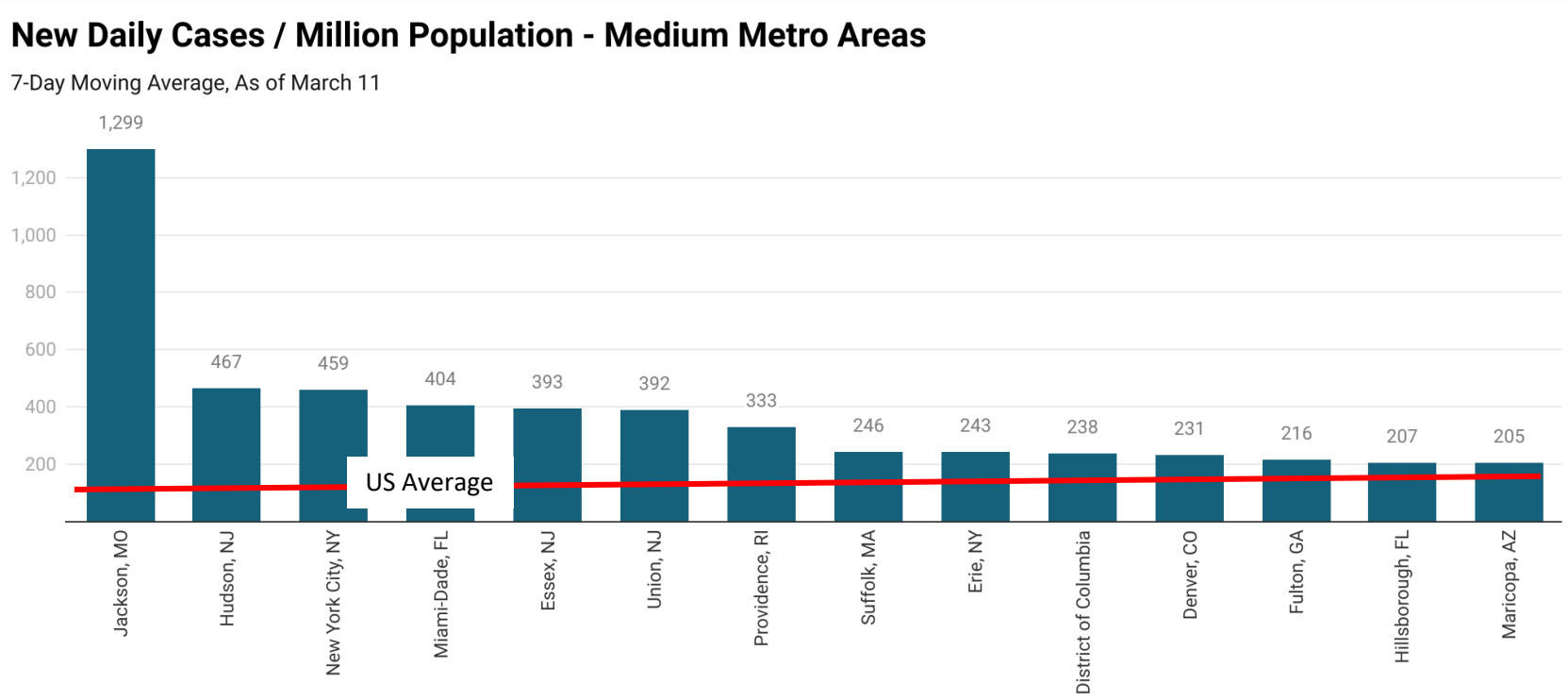
Covid-19
"Vital Signs"

Large Central Metro Areas

Hudson, New Jersey, Jackson, Missouri, Miami-Dade, Florida, New York City, and lead all Large Central Metro Areas in 7-day new cases per capita.



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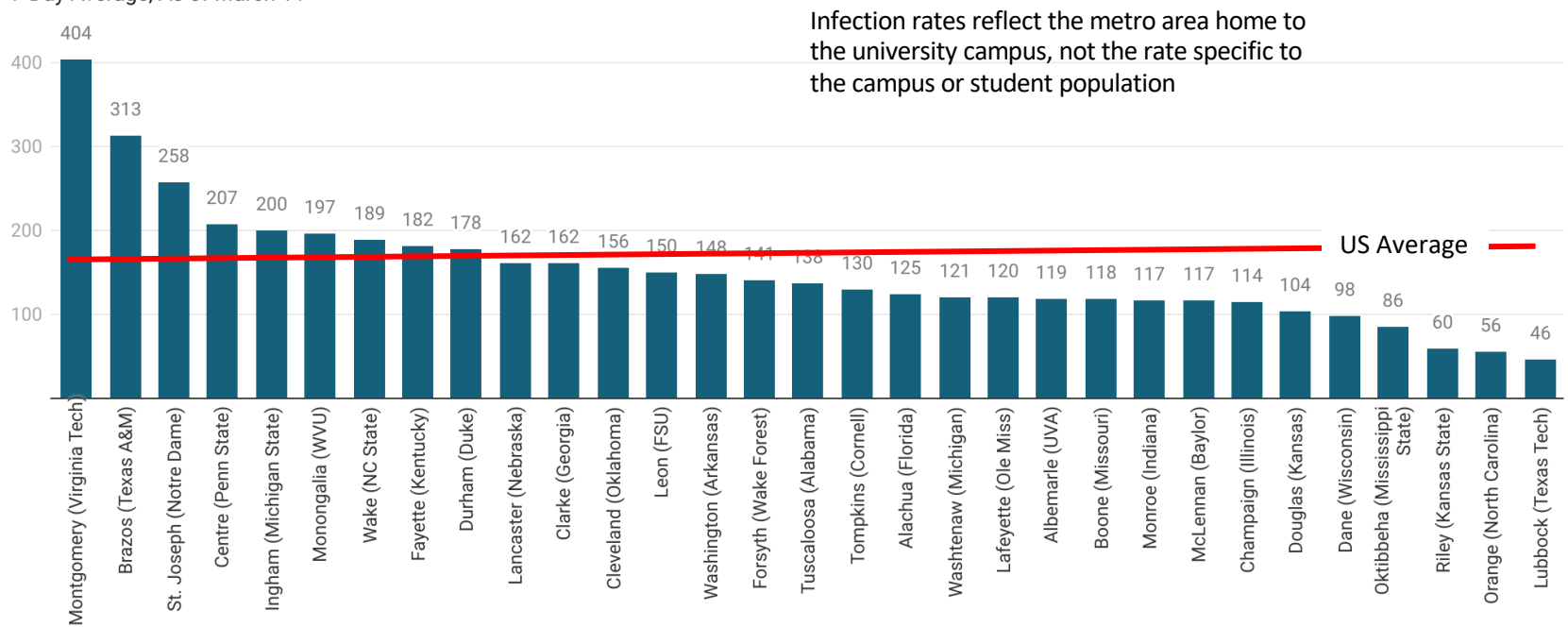
Metro Areas With Major Universities

Montgomery County County, home to Virginia Tech, reported the highest new case rate of the areas we track.



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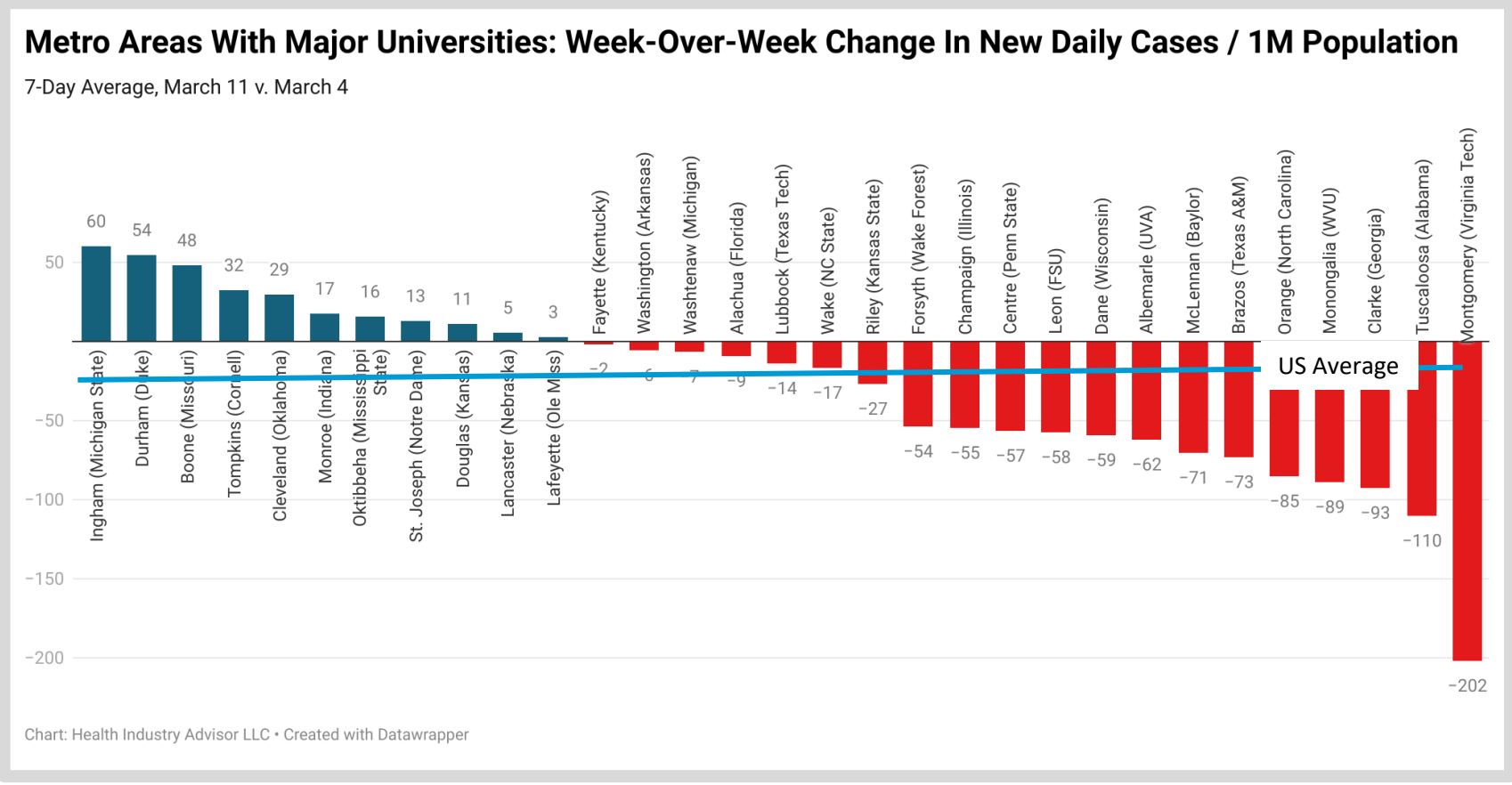
Covid-19
"Vital Signs"

Metro Areas With Major Universities

More University-based metro areas we track saw declining case rates over the past week. Than saw increasing rates.



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"Vital Signs"

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

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