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"Strategic Advice in an Era of Unprecedented Change"

Covid-19 "Vital Signs"

Issue # 319

April 16, 2021

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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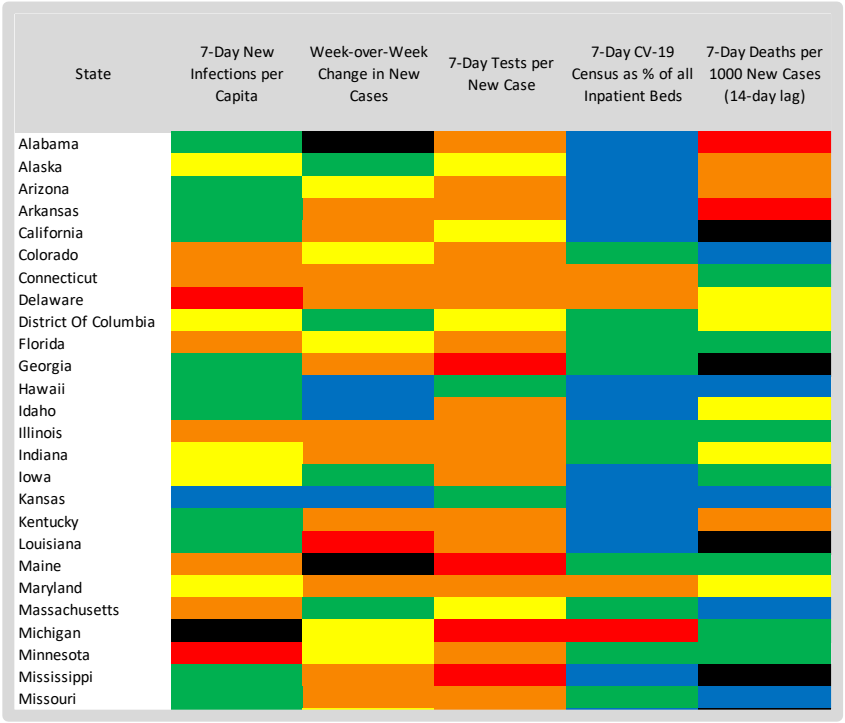
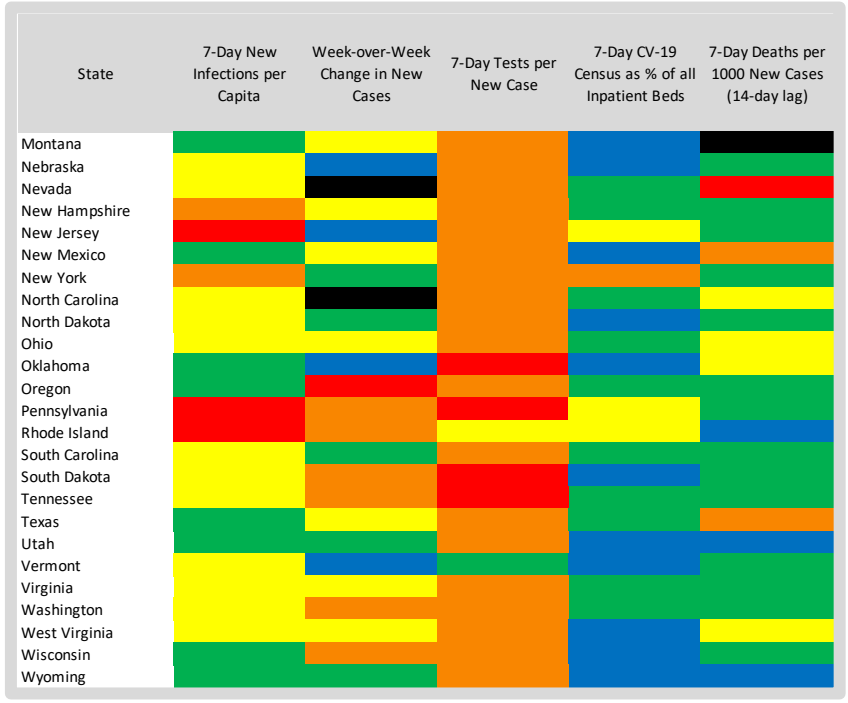
State-By-State Scorecard:

New case rates of of concern in Colorado, Connecticut, Delaware, Florida, Illinois, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, and Rhode Island. Hospital use is of concern in Connecticut, Delaware, Maryland, Michigan, and New York.





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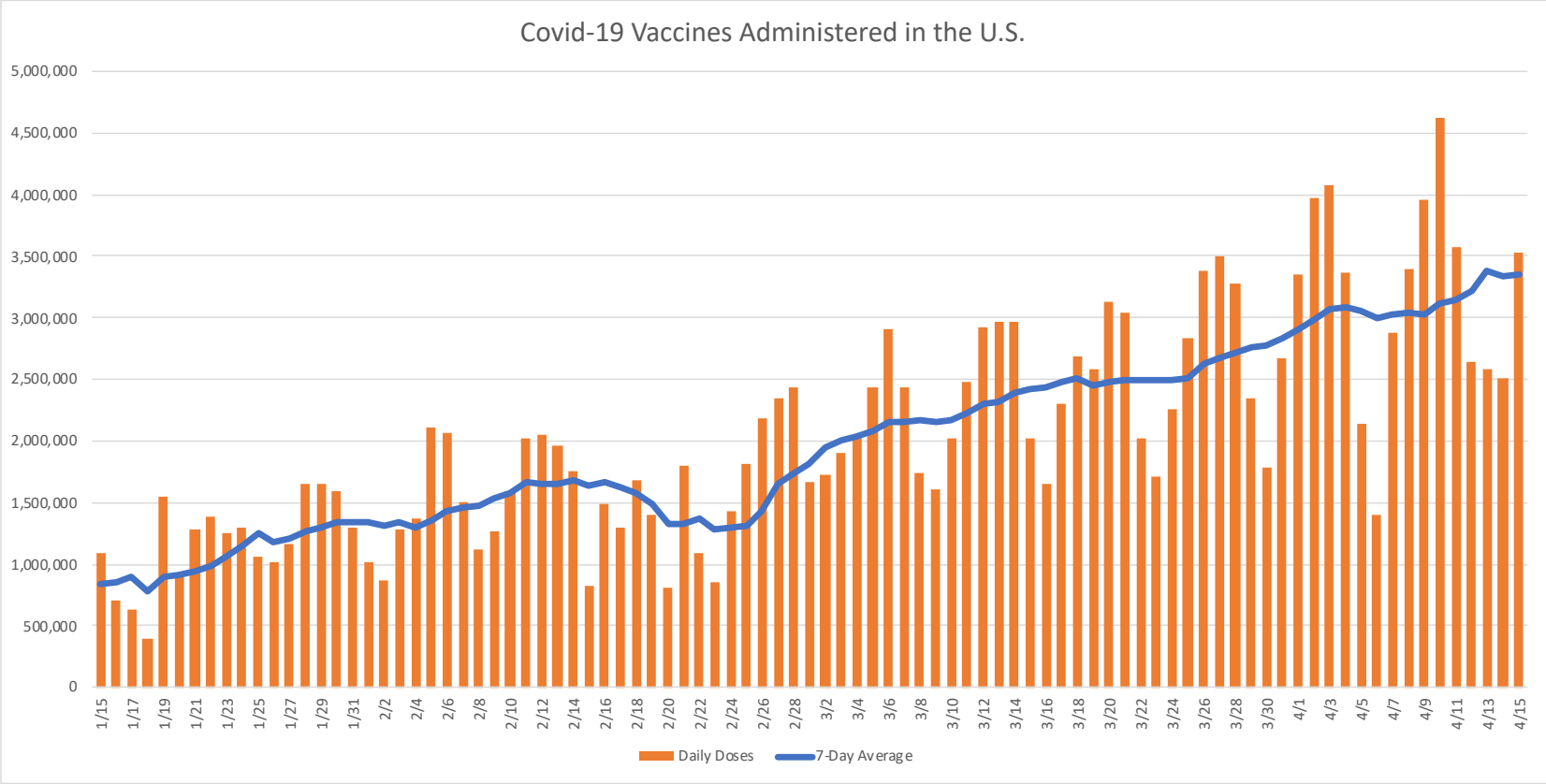
Pace of Vaccinations

The 7-day average remains high, at 3.3 million daily doses.



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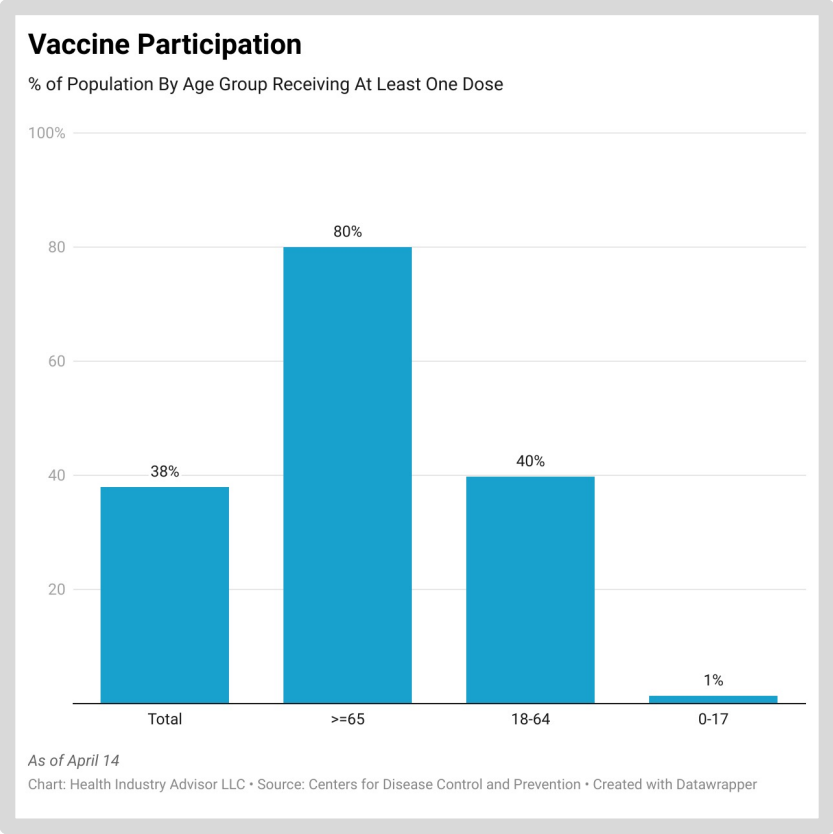
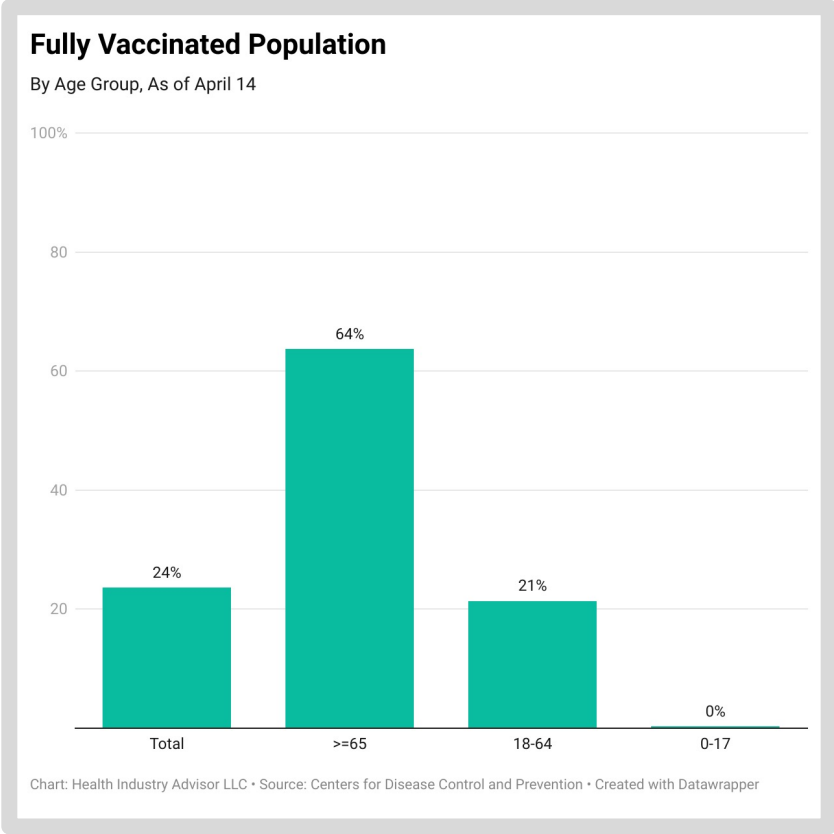
Vaccine Uptake and Immunity

Vaccine uptake among seniors reached 80% and among younger adults, 40%. Nearly two-thirds of senior citizens have completed vaccination. Only one-in-five younger adutls are finished.





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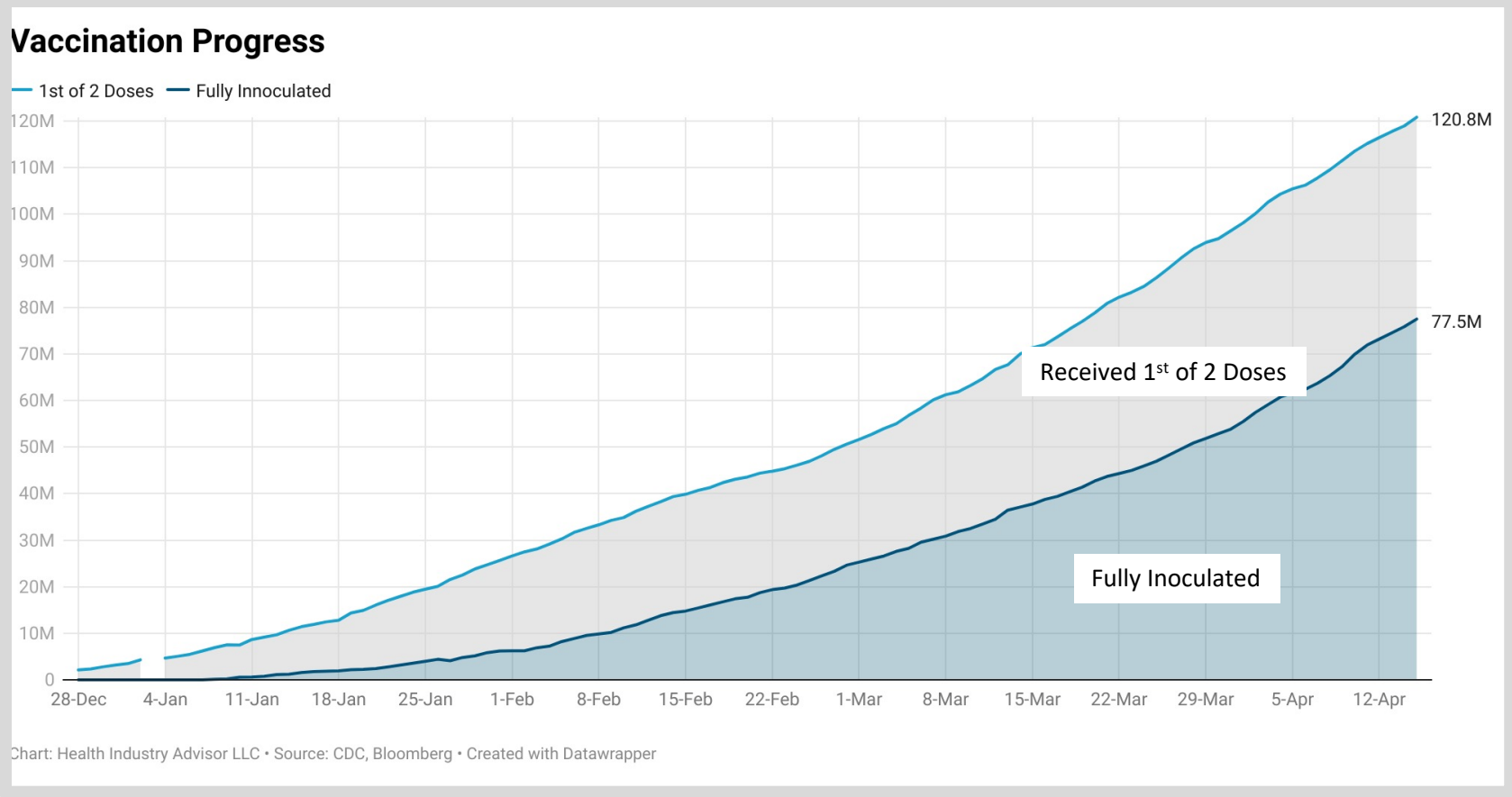
Vaccine Tracking

To date, the US has distributed 256 million doses and administered nearly 200 million. 77.5 million people are fully inoculated – 30.4% of the adult population. Another 43 million people have received the first of two required doses.



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

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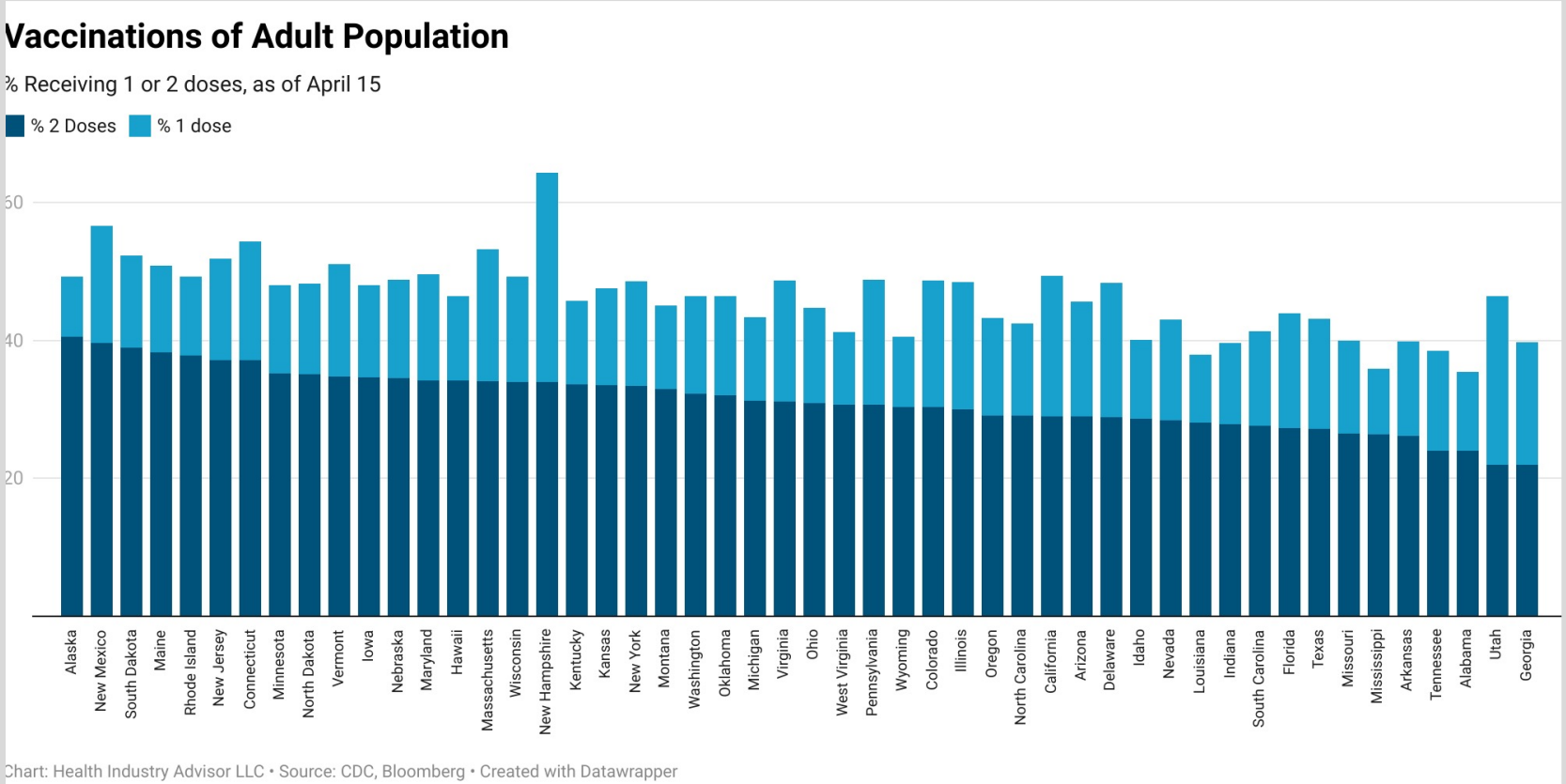
Vaccine Tracking - % of Adult Population Vaccinated

Alaska has fully inoculated more than 2-in-5 of its residents. New Mexico and South Dakota are right behind Alaska. Ne Hampshire have administered at least one dose to more than half its residents..



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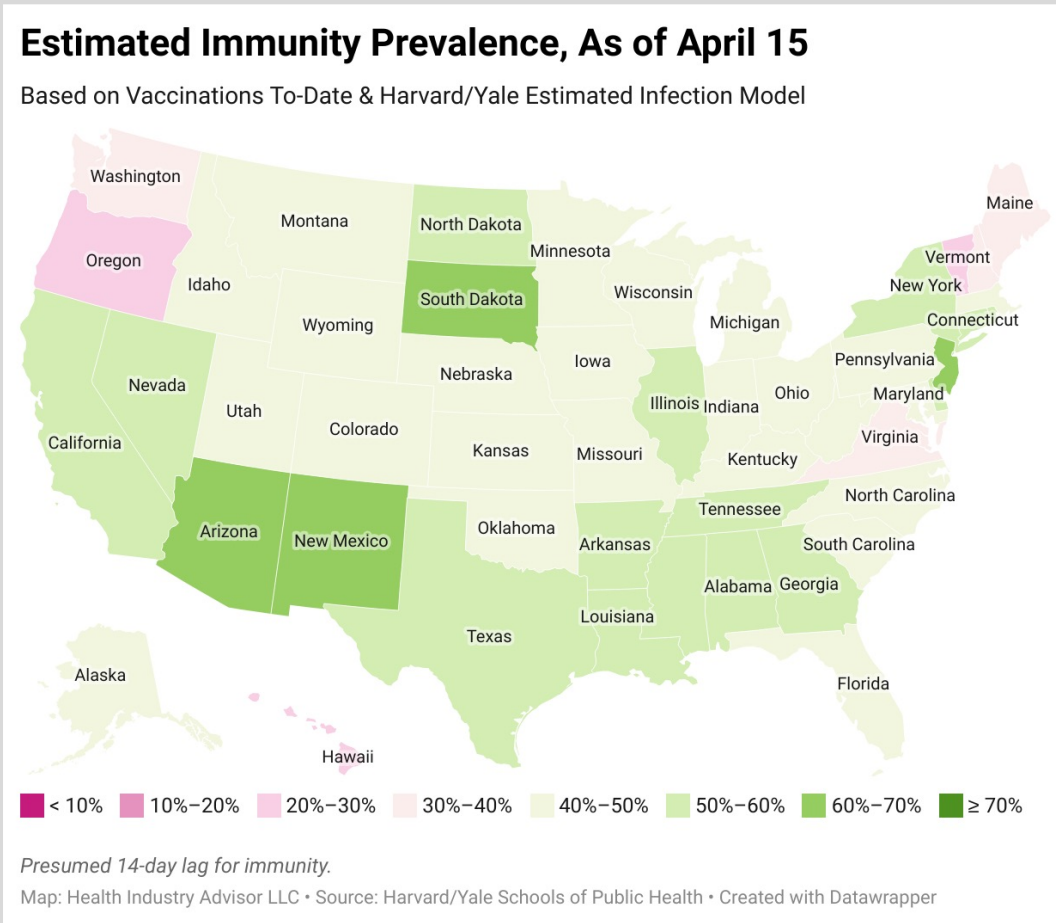
Estimated Immunity By State

Estimated immunity is highest in Arizona, New Jersey, New Mexico,, and South Dakota. It is lowest in Oregon, Vermont, and Virginia.

- Public health experts have suggested that 60-80% of the population would need immunity, for herd immunity to be reached
- Immunity could result from an infection or via vaccination
- It is not established how long immunity, from either infection of vaccination, will last
- For purposes of this illustration, we use both reported vaccination rates and the Yale/Harvard* mean estimates of true infections

* https://covidestim.org



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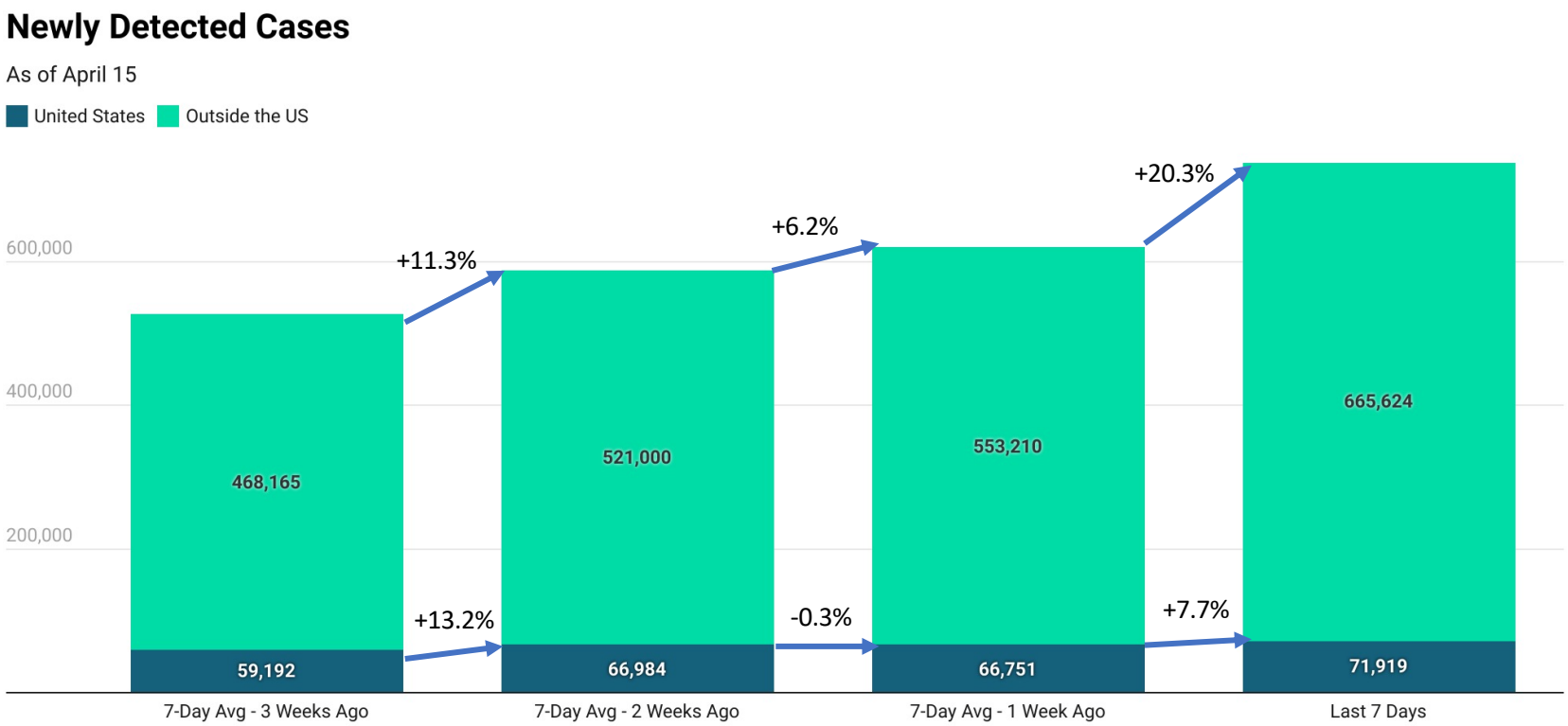
Newly Detected Cases Per Day

In the US, 7-day new case rates increased nearly 8% week-over-week, after declining slightly the prior week and more than 12% a week earlier. Outside the U.S., cases increased 20% week-over-week after increasing 6% the week prior and 11% two weeks earlier.



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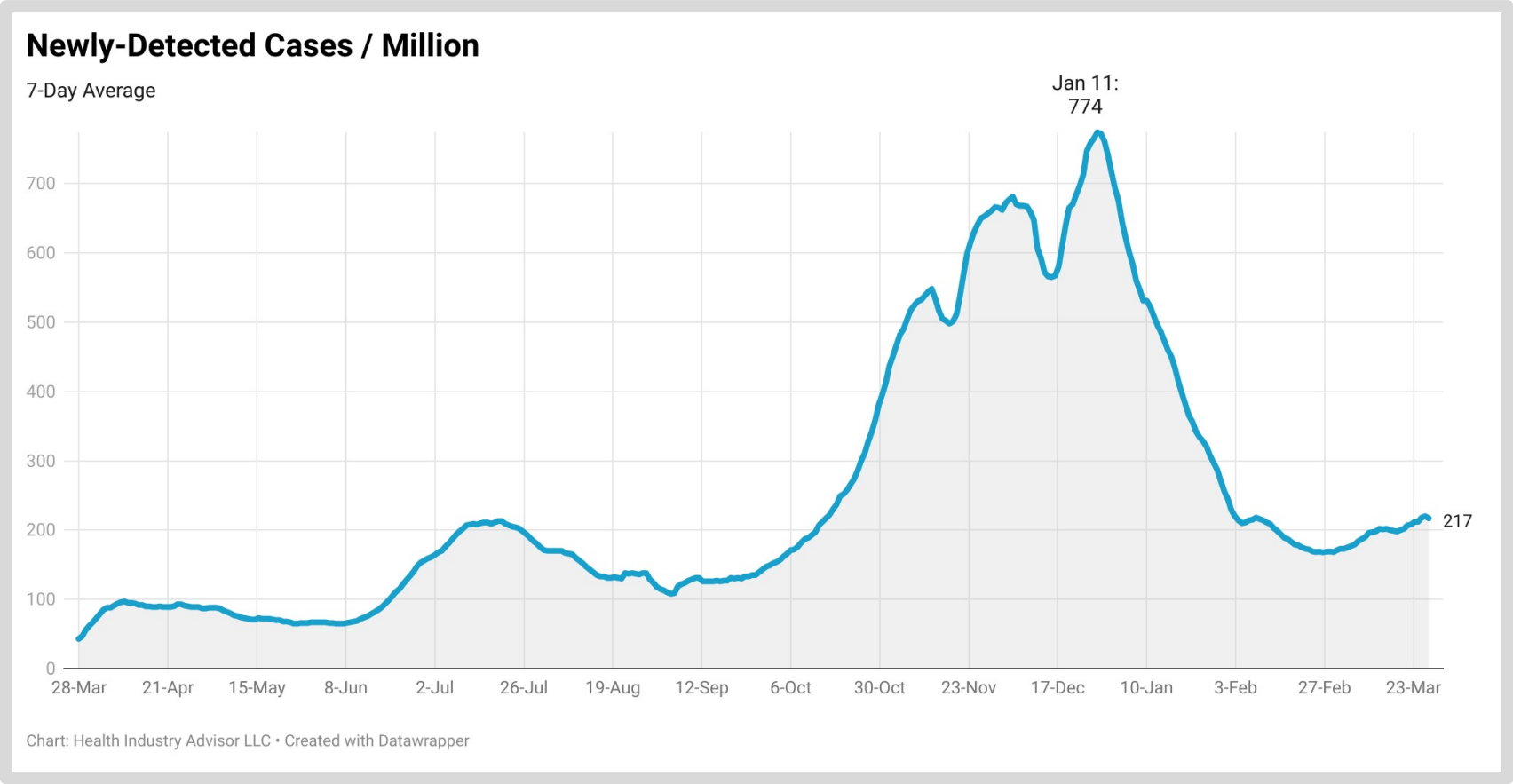
Newly Detected Cases / Million - US

The U.S. 7-day new case rate has been rising for the past month.



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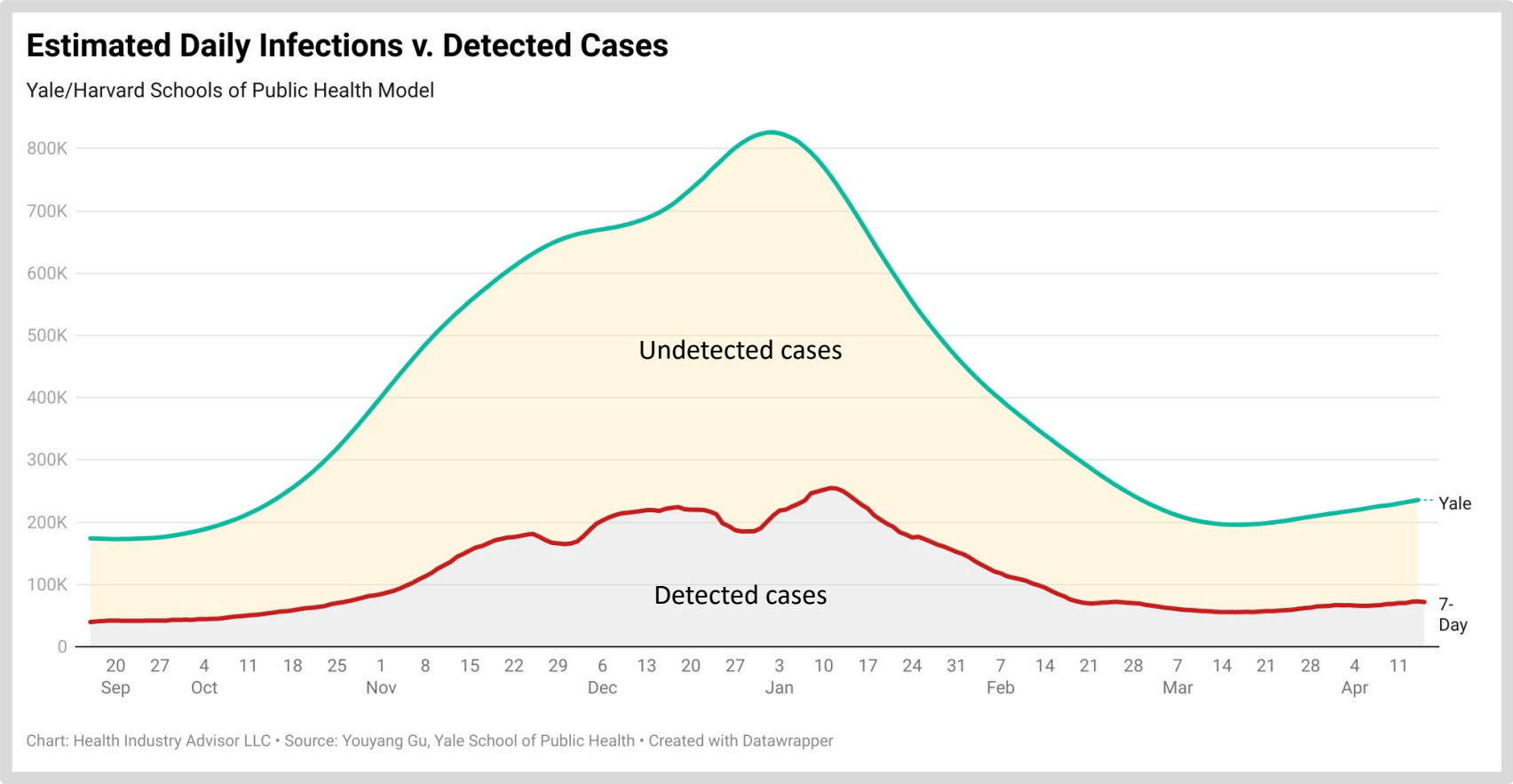
Estimated Daily Infections & New Case Rates

Both detected cases and estimated infections have been rising lately. These remain lower than between mid-October and late-February .



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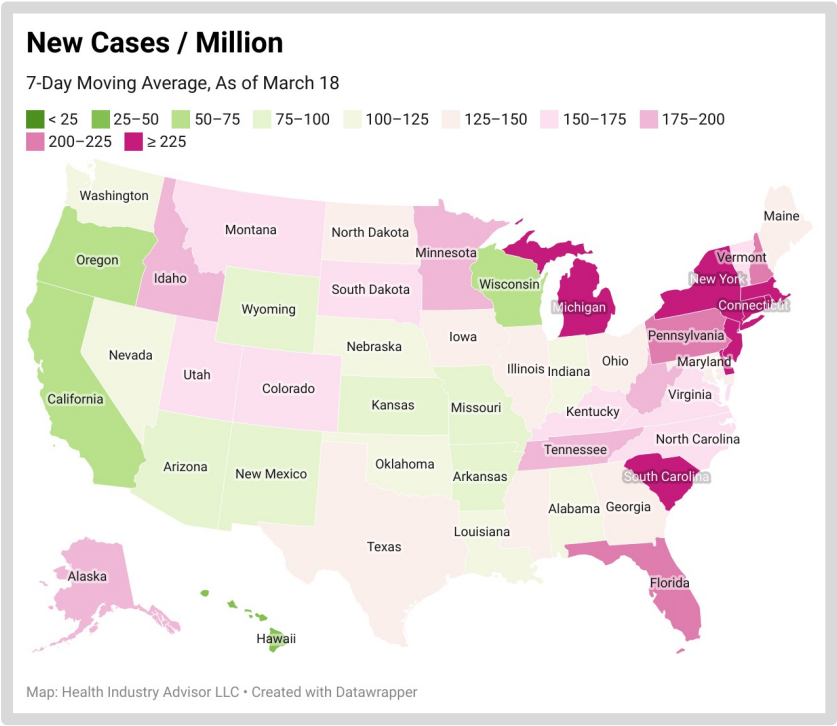
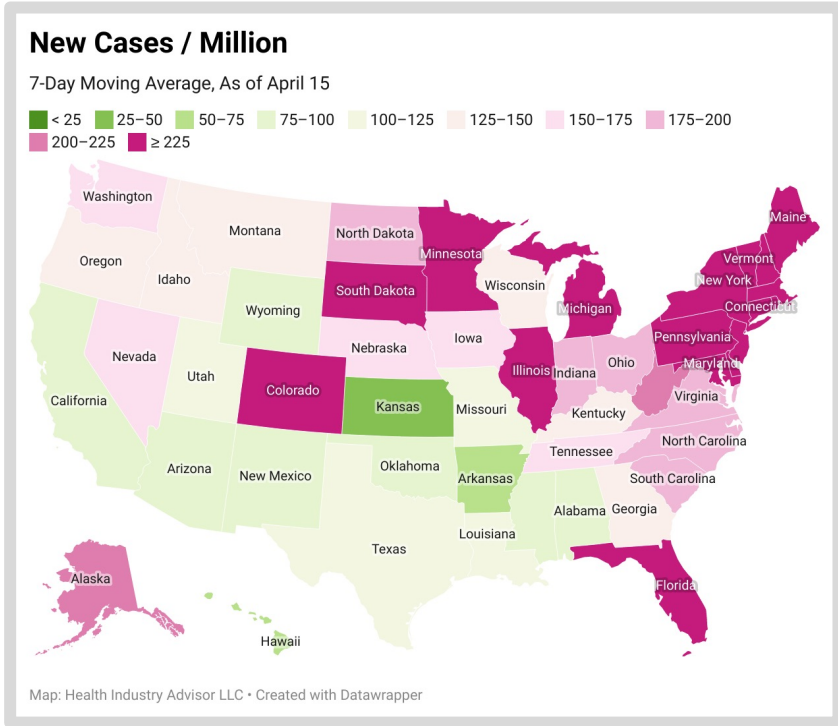
New Cases / Million

In the past month, new daily case rates increased in the Midwest, the Northeast, Alaska, Colorado, and Florida.

March 18	April 15





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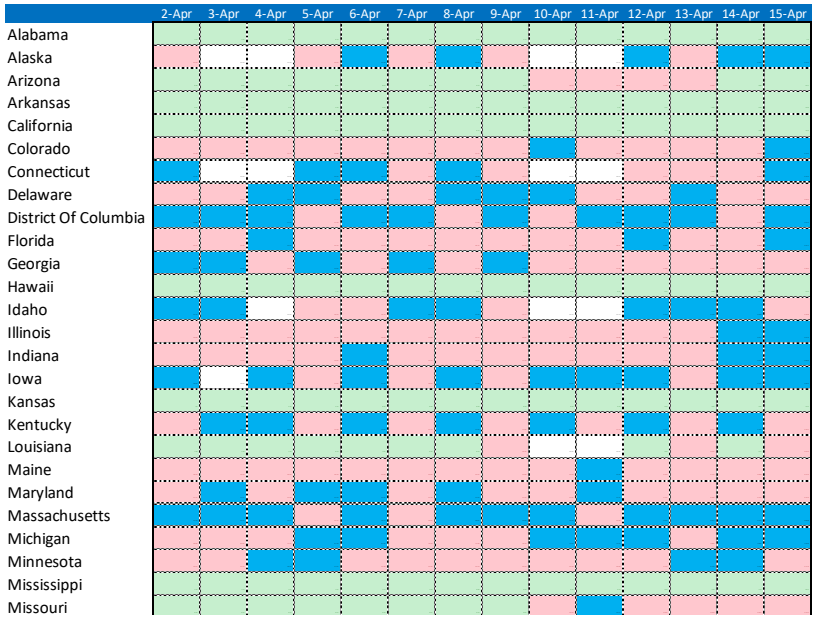
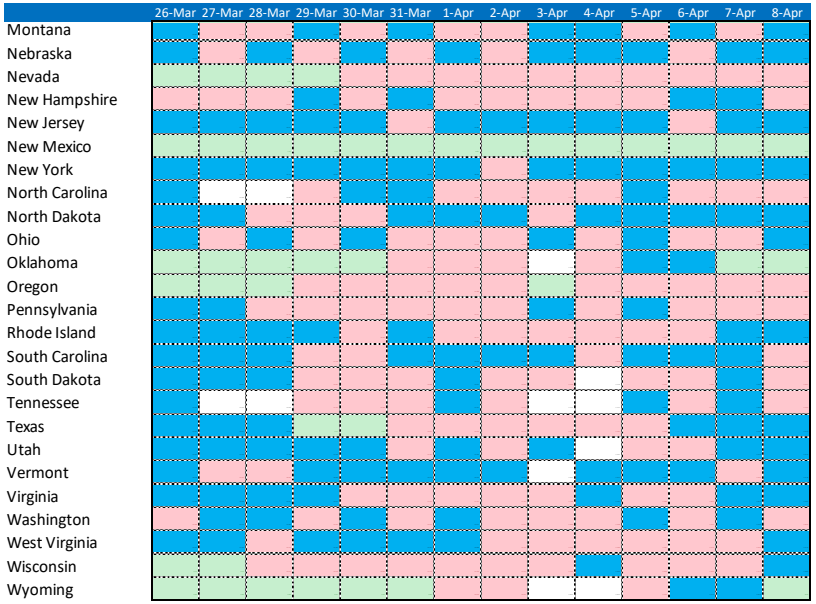
Trends in New Case Rates

Colorado, Georgia, Illinois, Maine, Maryland, Missouri, Nevada, North Carolina, Oklahoma, Oregon, Pennsylvania, and Wisconsin are riding streaks increasing new case rates. Michigan may be seeing signs of a respite, with declining rates on five of the past six days.





New cases/M <100
Case Rate declined day-over-day
Case Rate steady day-over-day
Case Rate Increased day-over-day

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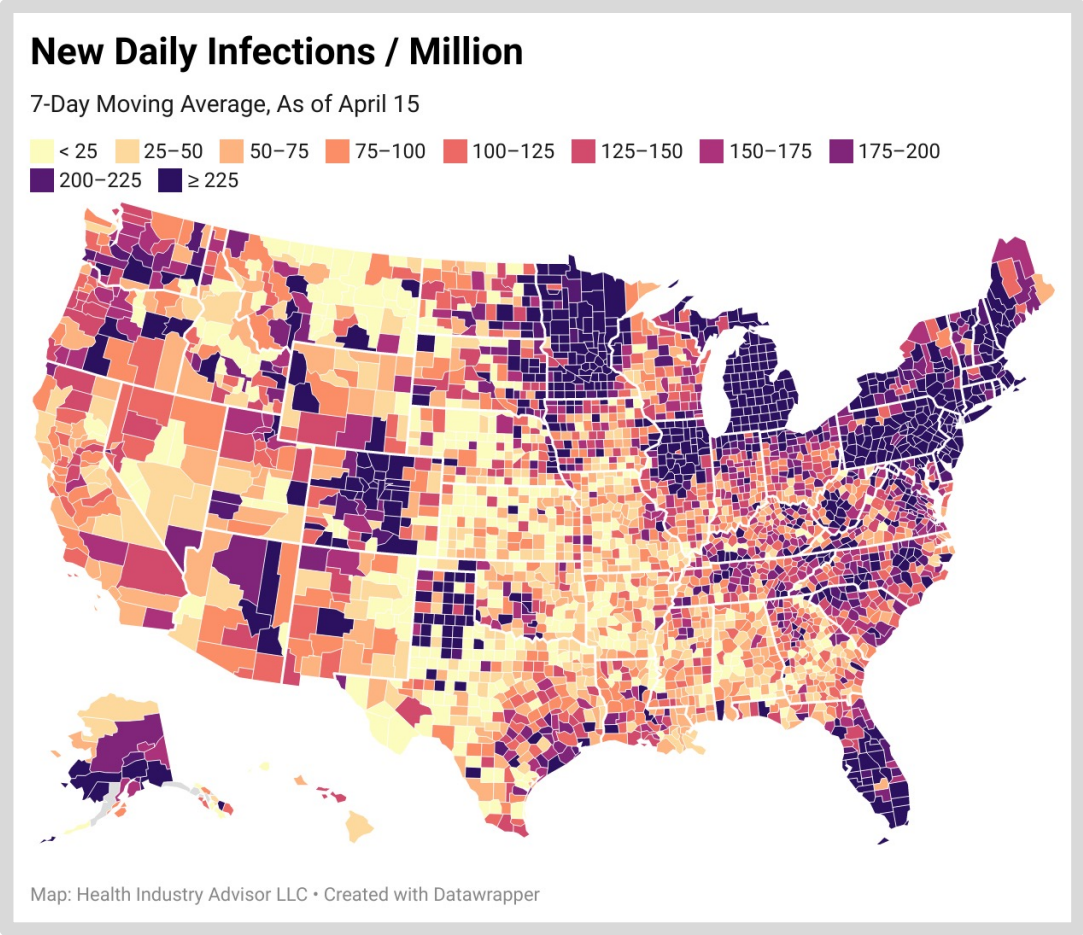
Metro Areas in the US

New case rates are high across the states of Florida, Michigan, Minnesota and in the Northeast over the past two weeks.



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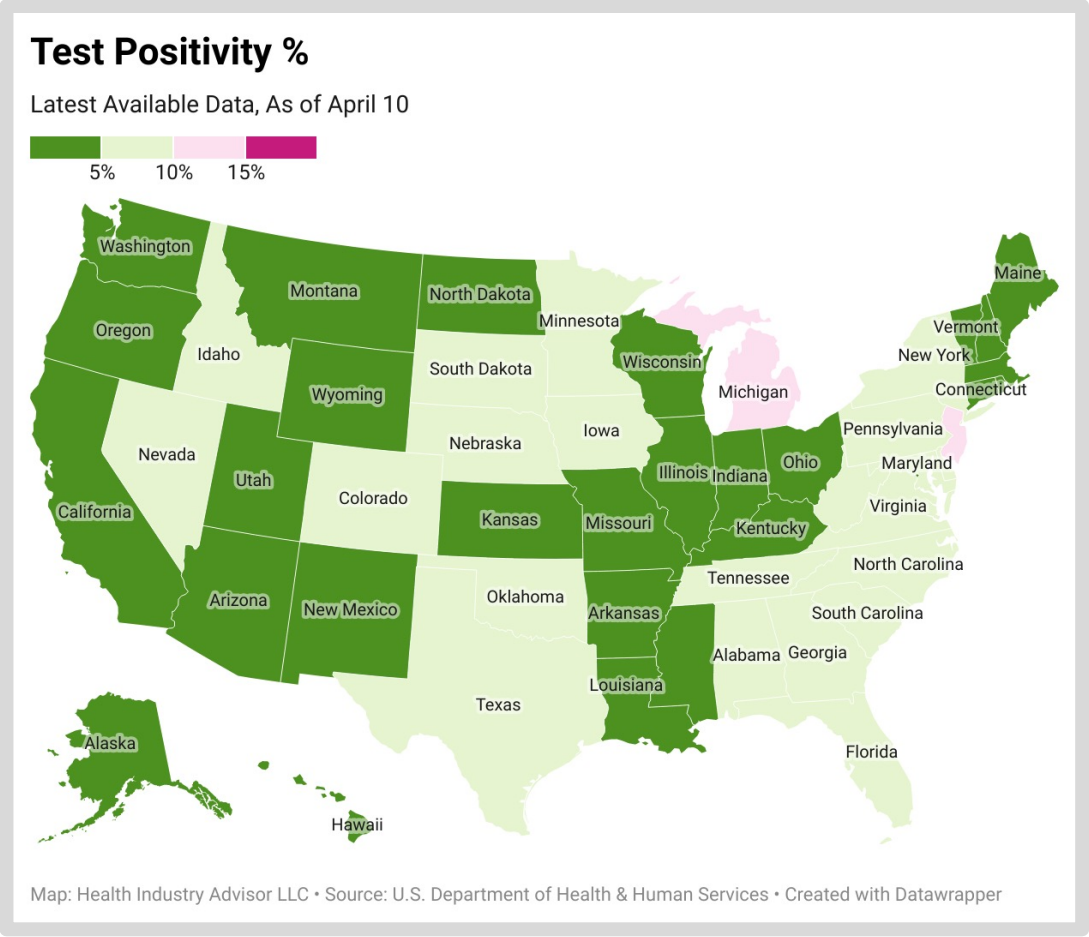
Test-Positivity %

Michigan and New Jersey are the only state where test-positivity exceeds 10%



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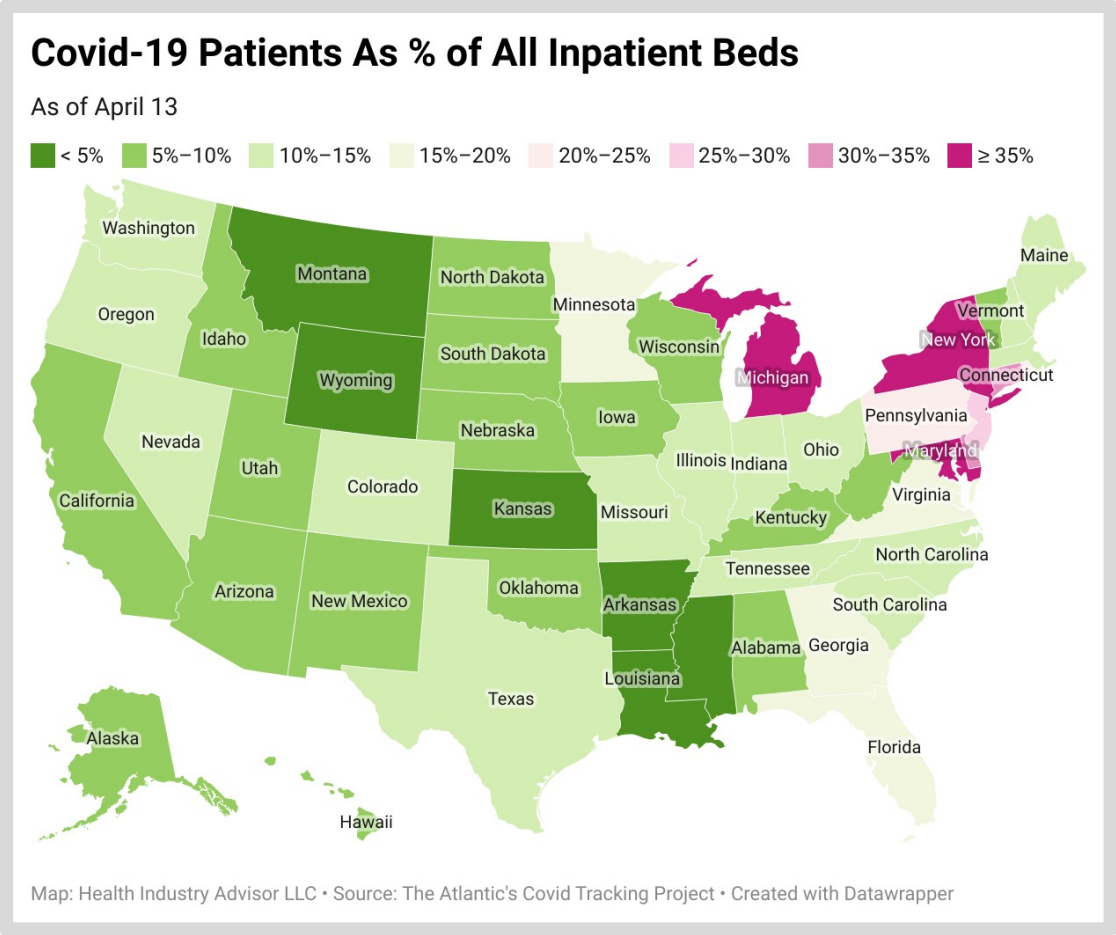
Covid-19 Hospitalizations

Covid-19 hospital census is of concern in Connecticut, Delaware, Maryland, Michigan, and New York.



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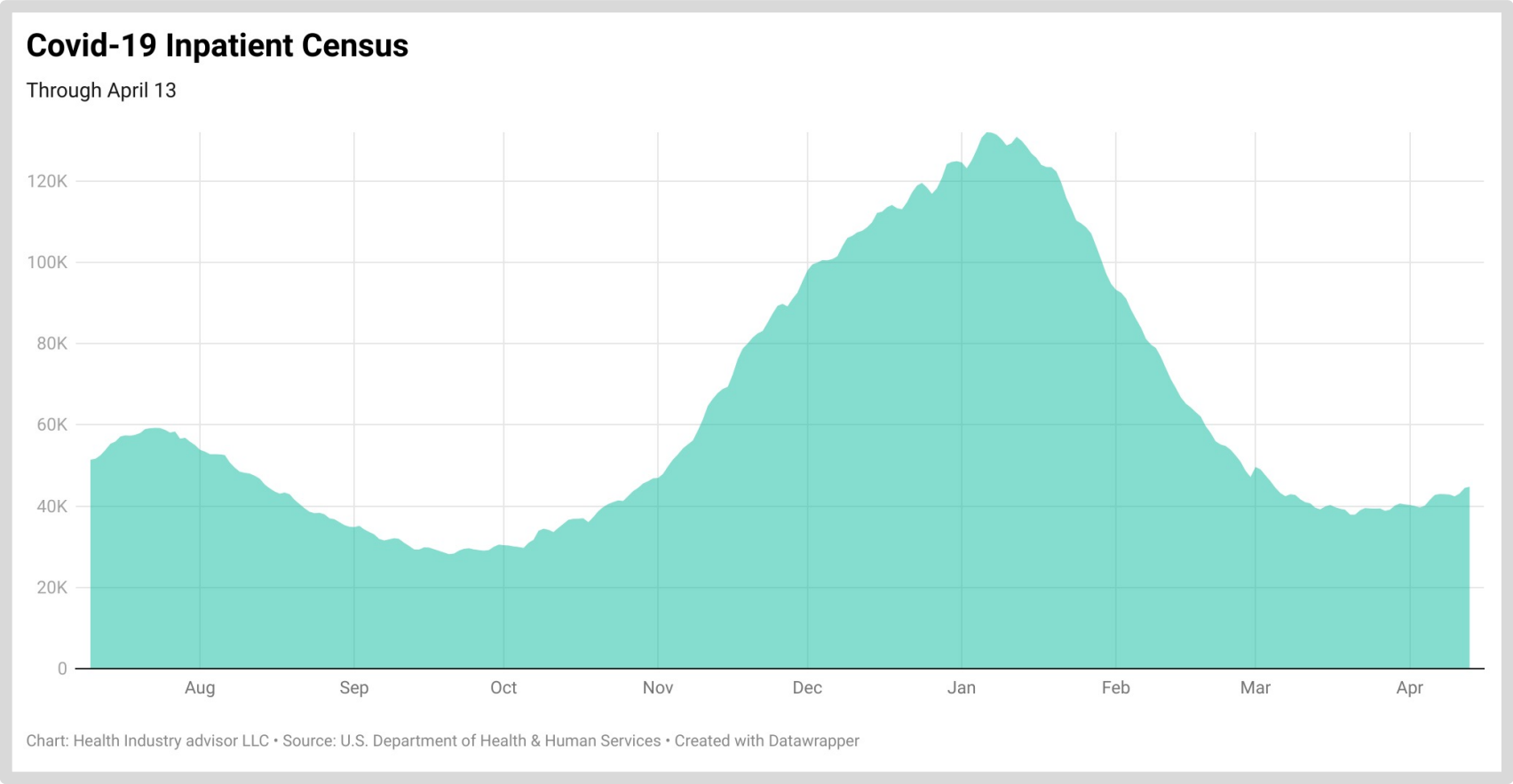
Covid-19 Inpatient Census

Covid-19 inpatient census has moved up somewhat since mid-March yet remains substantially lower than it was in January and February.



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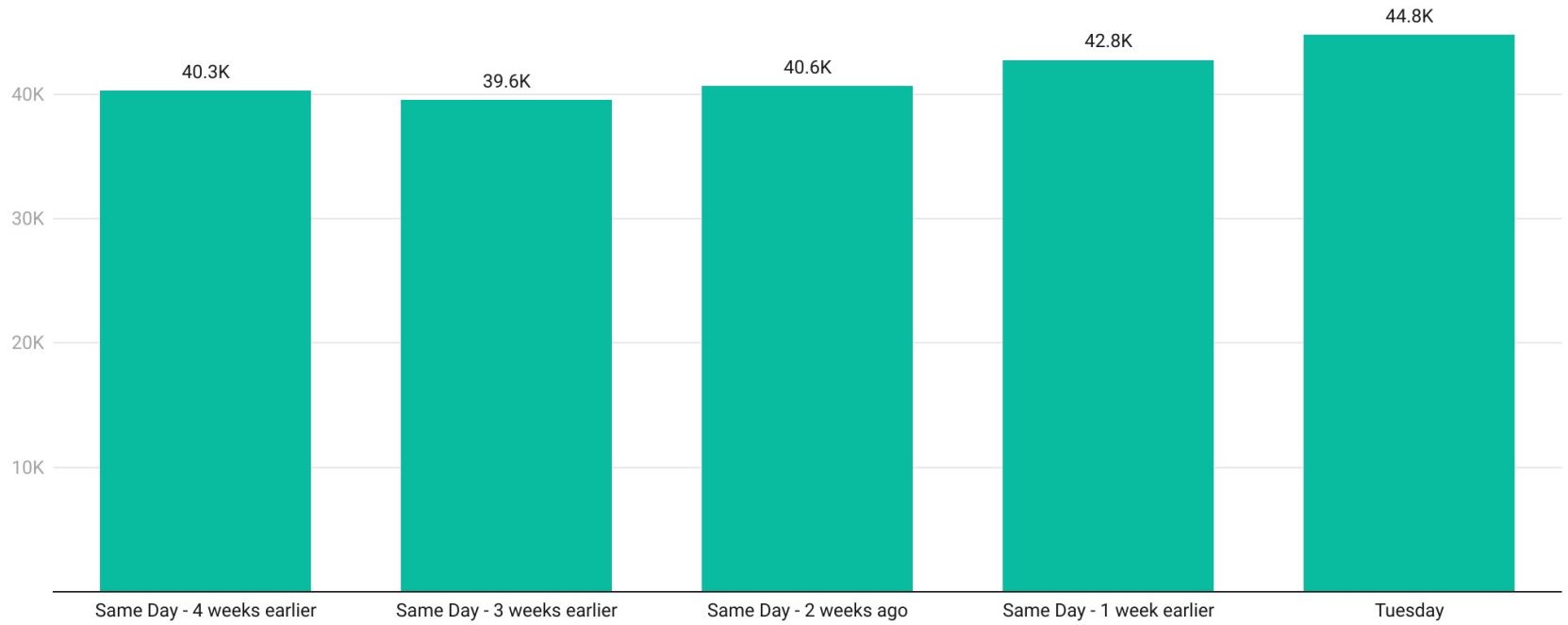
Covid-19 Inpatient Census

Covid-19 inpatient census increased each of the past three Tuesdays on a week-over-week basis.



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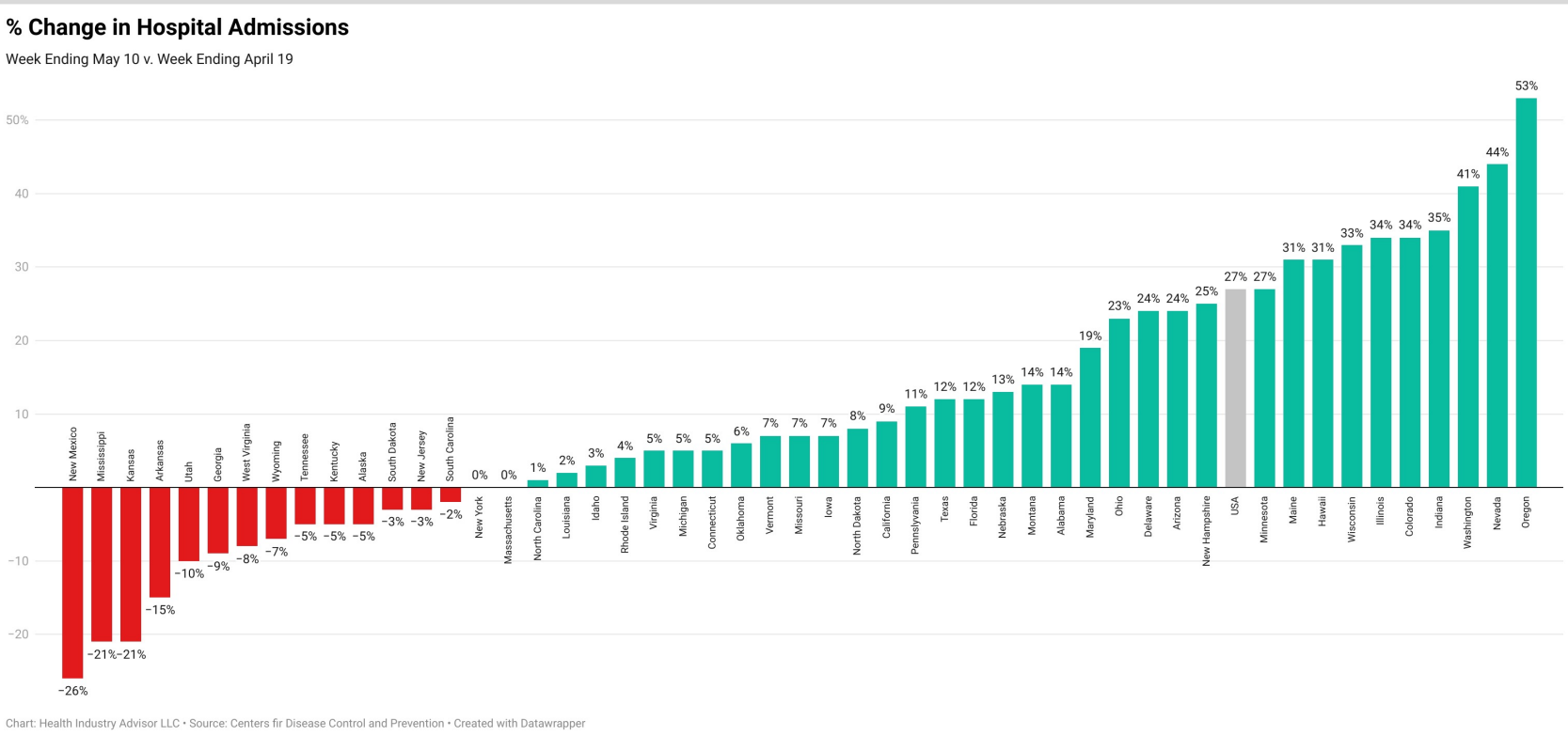
Projected Covid-19 Admission Trends

Projected Covid-19 admissions rise sharply in Nevada, Oregon, and Washington. For the U.S. overall, projected Covid-19 admissions increase 27% in this time.



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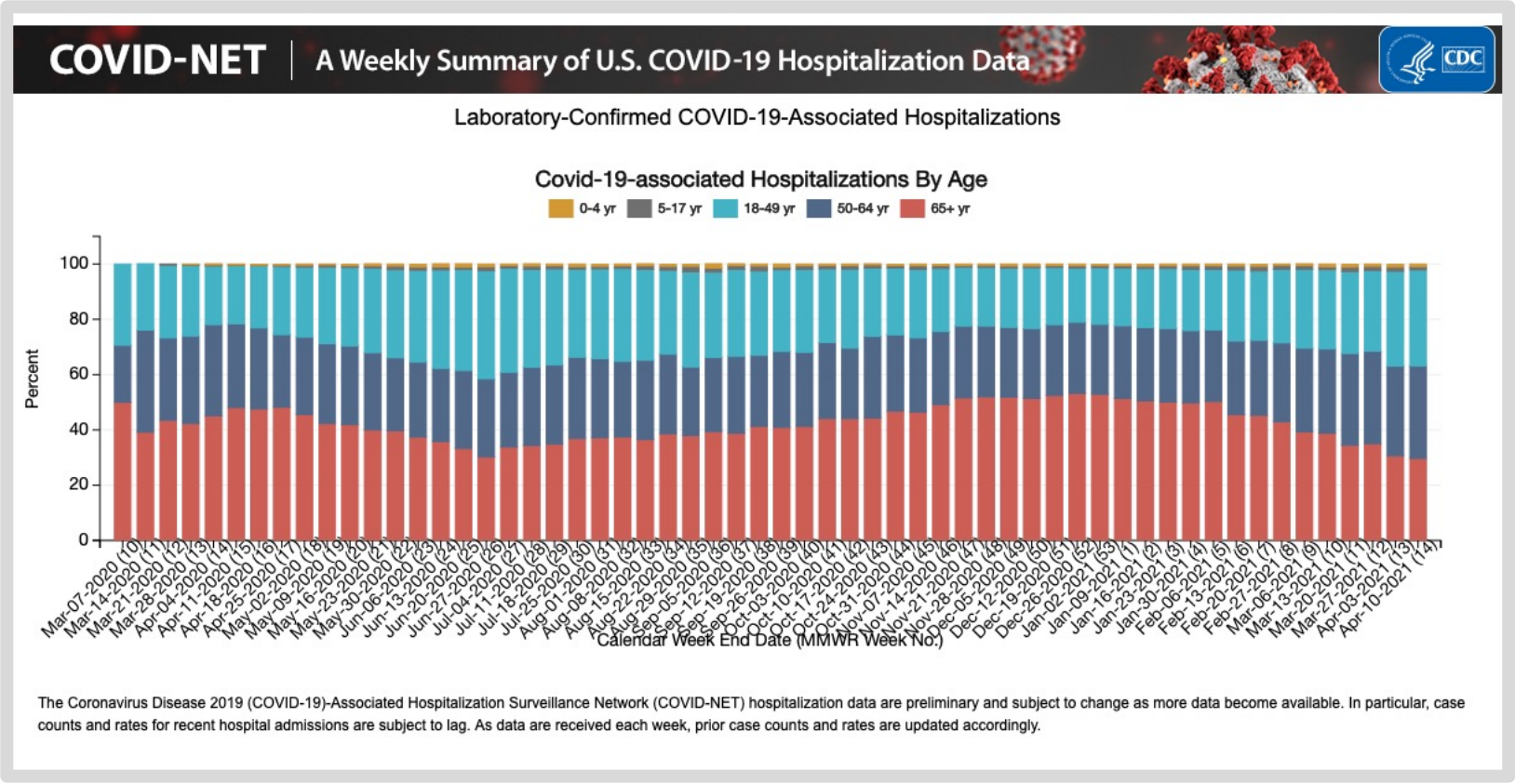
Covid-19 Hospitalizations By Age

Hospitalized Covid-19 patients have shifted younger in the past two months, particularly to 18–49-year-olds. Responding to vaccinations efforts, the mix of senior citizens has fallen sharply.



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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	10.6%	2,190	1,193	5.4%	1	1,193	7%	22
Alaska	8.6%	450	8,539	3.0%	223	38	7%	17
Arizona	11.7%	2,352	2,260	3.7%	95	24	8%	16
Arkansas	11.0%	1,884	1,357	2.0%	59	23	4%	22
California	9.4%	1,539	3,904	1.8%	78	50	8%	37
Colorado	8.4%	1,097	4,029	5.4%	279	14	11%	3
Connecticut	9.2%	2,241	8,071	4.1%	329	25	34%	6
Delaware	10.3%	1,638	6,110	5.2%	368	17	30%	13
District Of Columbia	6.6%	1,544	7,712	2.9%	165	47	17%	13
Florida	10.0%	1,594	3,494	8.2%	291	12	18%	9
Georgia	10.2%	1,852	1,374	5.0%	138	10	17%	30
Hawaii	2.2%	334	4,145	1.9%	60	70	6%	4
Idaho	10.3%	1,124	1,919	5.7%	137	14	8%	13
Illinois	10.2%	1,886	4,467	4.2%	263	17	14%	9
Indiana	10.4%	1,960	2,877	4.8%	181	16	10%	12
Iowa	12.3%	1,860	2,163	6.7%	169	13	5%	6
Kansas	10.5%	1,705	1,821	3.1%	29	62	4%	4

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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
Missouri	9.6%	1,501	1,651	4.7%	110	15	10%	4	
Montana	10.0%	1,430	2,204	4.2%	143	15	3%		
Nebraska	11.1%	1,151	2,017	8.6%	162	12	6%	7	
Nevada	10.1%	1,740	1,879	6.6%	157	12	14%	24	
New Hampshire	6.7%	930	5,293	4.0%	324	16	13%	5	
New Jersey	10.9%	2,821	5,189	10.0%	404	13	29%	8	
New Mexico	9.3%	1,906	1,982	2.4%	93	21	7%	16	
New York	10.4%	2,656	7,102	5.8%	347	20	37%	8	
North Carolina	9.0%	1,178	2,466	5.5%	195	13	15%	11	
North Dakota	13.8%	1,936	2,747	3.4%	190	14	6%	6	
Ohio	9.0%	1,618	2,506	4.3%	177	14	13%	13	
Oklahoma	11.2%	1,692	790	6.9%	79	10	5%	12	
Oregon	4.1%	582	2,622	4.0%	140	19	11%	6	
Pennsylvania	8.6%	2,006	3,392	9.0%	380	9	21%	8	
Rhode Island	13.6%	2,498	13,108	2.3%	406	32	23%	3	
South Carolina	11.0%	1,808	2,721	5.2%	178	15	12%	9	
South Dakota	13.6%	2,202	1,523	9.6%	229	7	6%	7	

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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	13.8%	1,936	2,747	3.4%	190	14	6%	6	
Ohio	9.0%	1,618	2,506	4.3%	177	14	13%	13	
Oklahoma	11.2%	1,692	790	6.9%	79	10	5%	12	
Oregon	4.1%	582	2,622	4.0%	140	19	11%	6	
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South Carolina	11.0%	1,808	2,721	5.2%	178	15	12%	9	
South Dakota	13.6%	2,202	1,523	9.6%	229	7	6%	7	
Tennessee	12.1%	1,762	1,029	7.3%	170	6	11%	6	
Texas	9.8%	1,713	1,895	5.6%	111	17	12%	18	
Utah	12.2%	674	2,647	3.8%	121	22	5%	5	
Vermont	3.5%	385	14,484	2.8%	228	64	6%	8	
Virginia	7.5%	1,234	2,246	6.8%	176	13	15%	9	
Washington	5.0%	711	3,124	3.6%	161	19	15%	7	
West Virginia	8.3%	1,551	3,514	6.9%	222	16	8%	12	
Wisconsin	10.1%	1,150	3,454	3.7%	139	25	7%	9	
Wyoming	9.9%	1,215	2,159	3.7%	99	22	2%	4	

Table: Health Industry Advisor LLC • Created with Datawrapper

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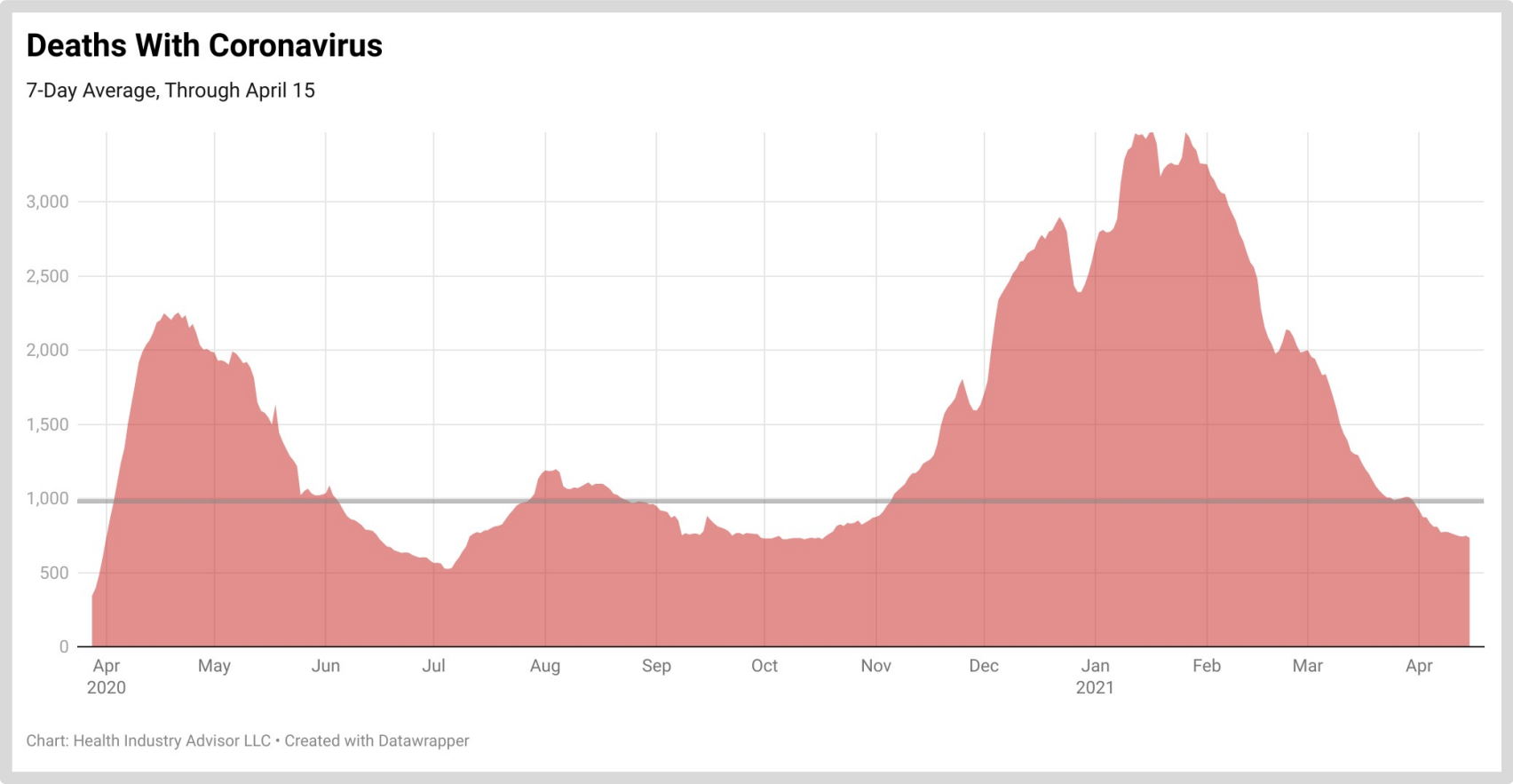
Deaths With Coronavirus

Deaths with coronavirus (7-day average) have declined nearly 80% since a peak in late January. This rate is lower than it has been in nearly six months.



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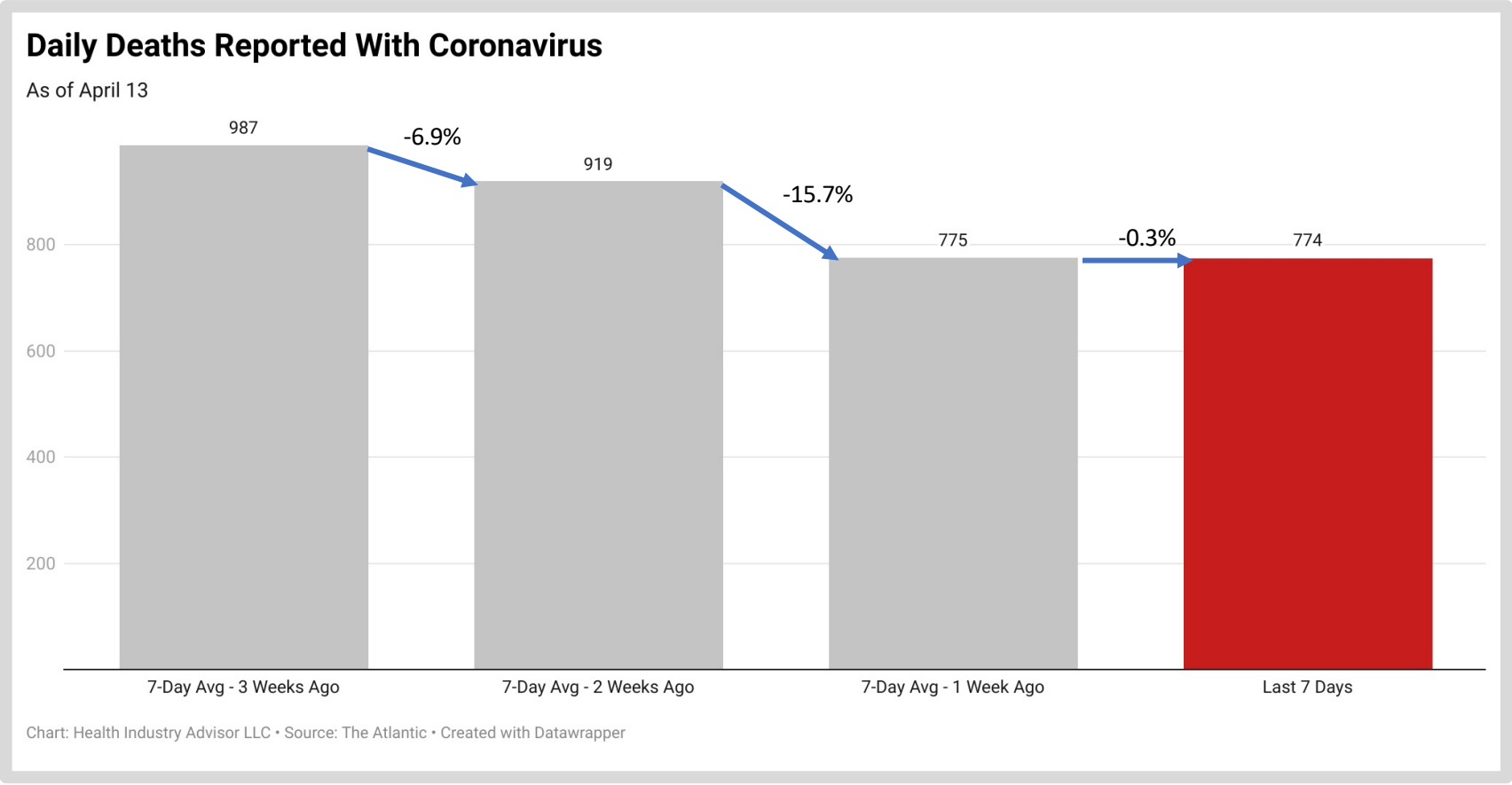
Deaths Reported With Coronavirus

Deaths declined slightly week-over-week, falling 16% and 7% declines the prior two weeks.



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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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