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"Strategic Advice in an Era of Unprecedented Change"

Covid-19 "Vital Signs"

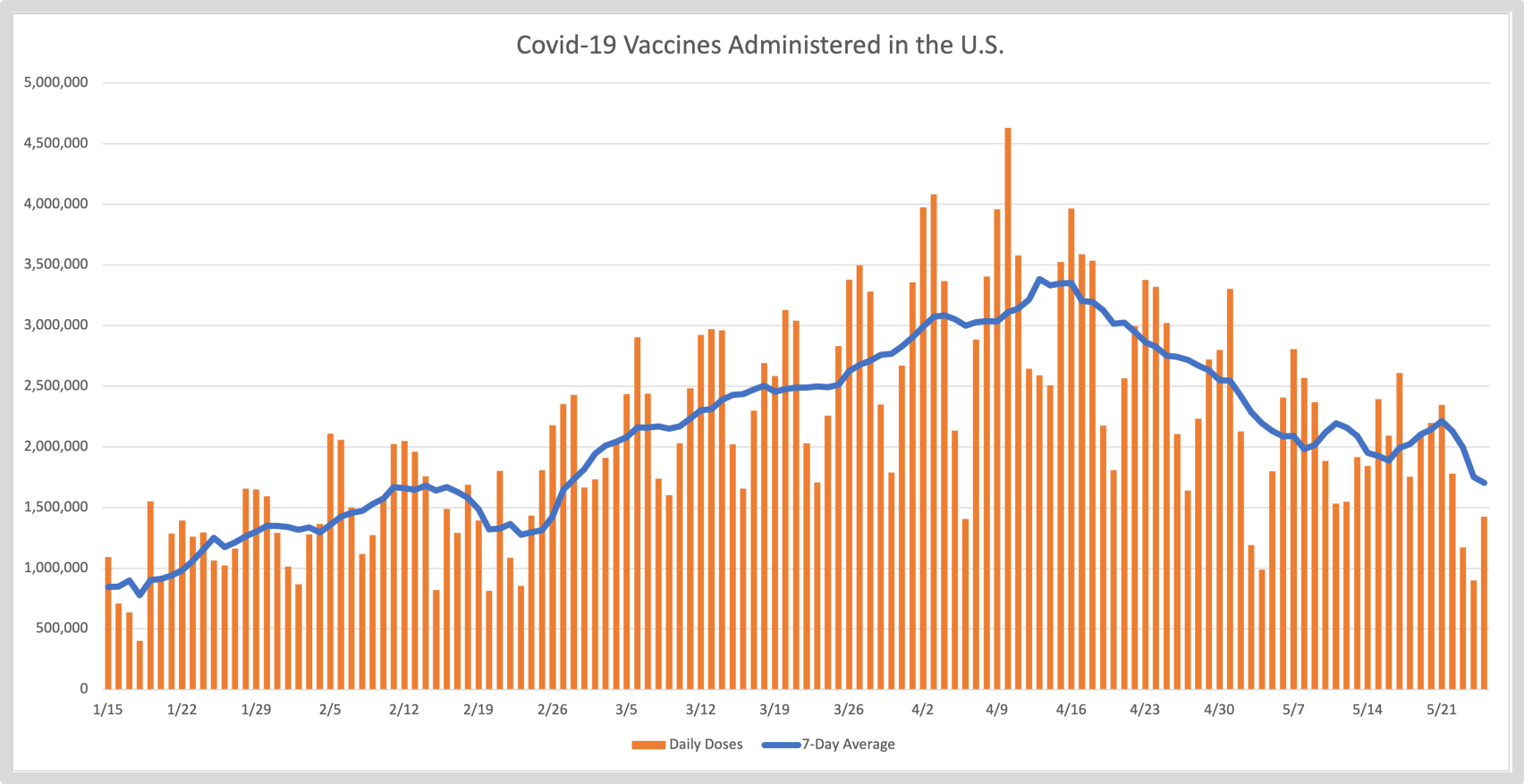
Issue # 339

May 27, 2021

Covid-19
"Vital Signs"

Pace of Vaccinations

The 7-day average vaccination rate fell to 1.7 million, the lowest point since February 27



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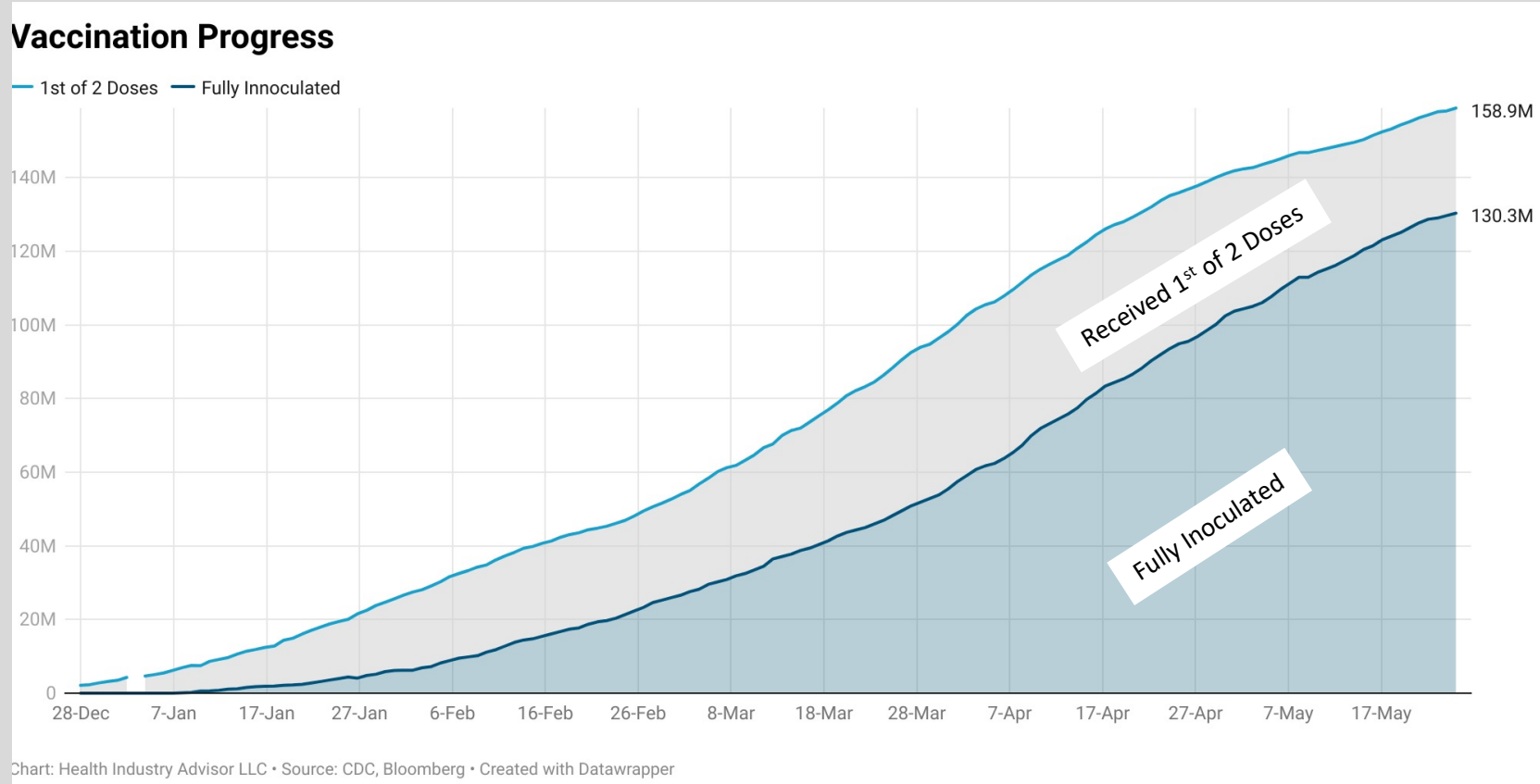
Vaccine Tracking

To date, the US has distributed 360 million doses - more than one dose per resident. We have administered 280 million doses. 130 million people are fully inoculated.



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

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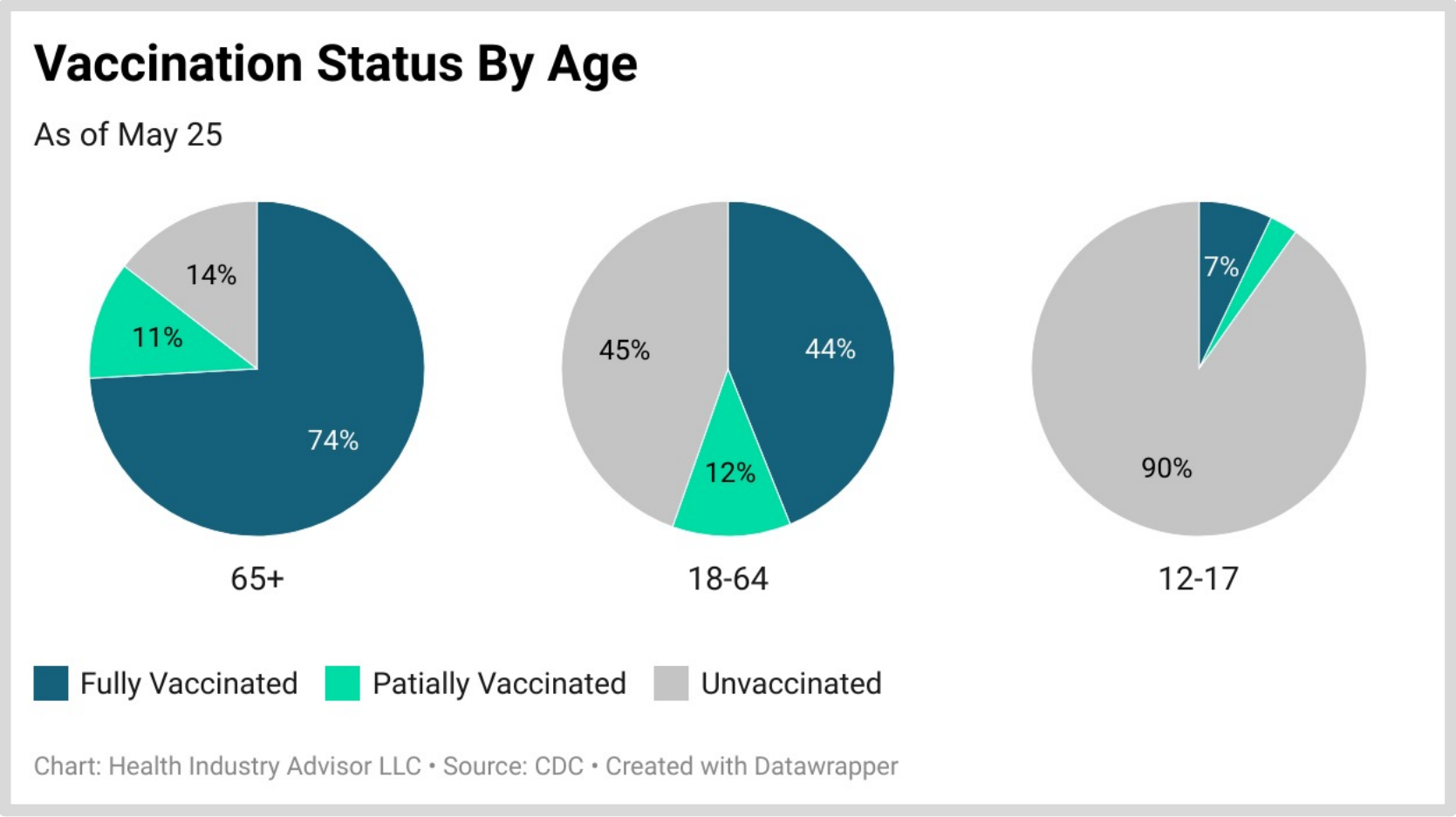
Vaccination Status By Age

86% of seniors are participating in the vaccination process; 74% are fully vaccinated. 55% of younger adults have received at least one shot; 434% are fully vaccinated. Ten percent of 12-to-17-year-olds have started vaccinations.



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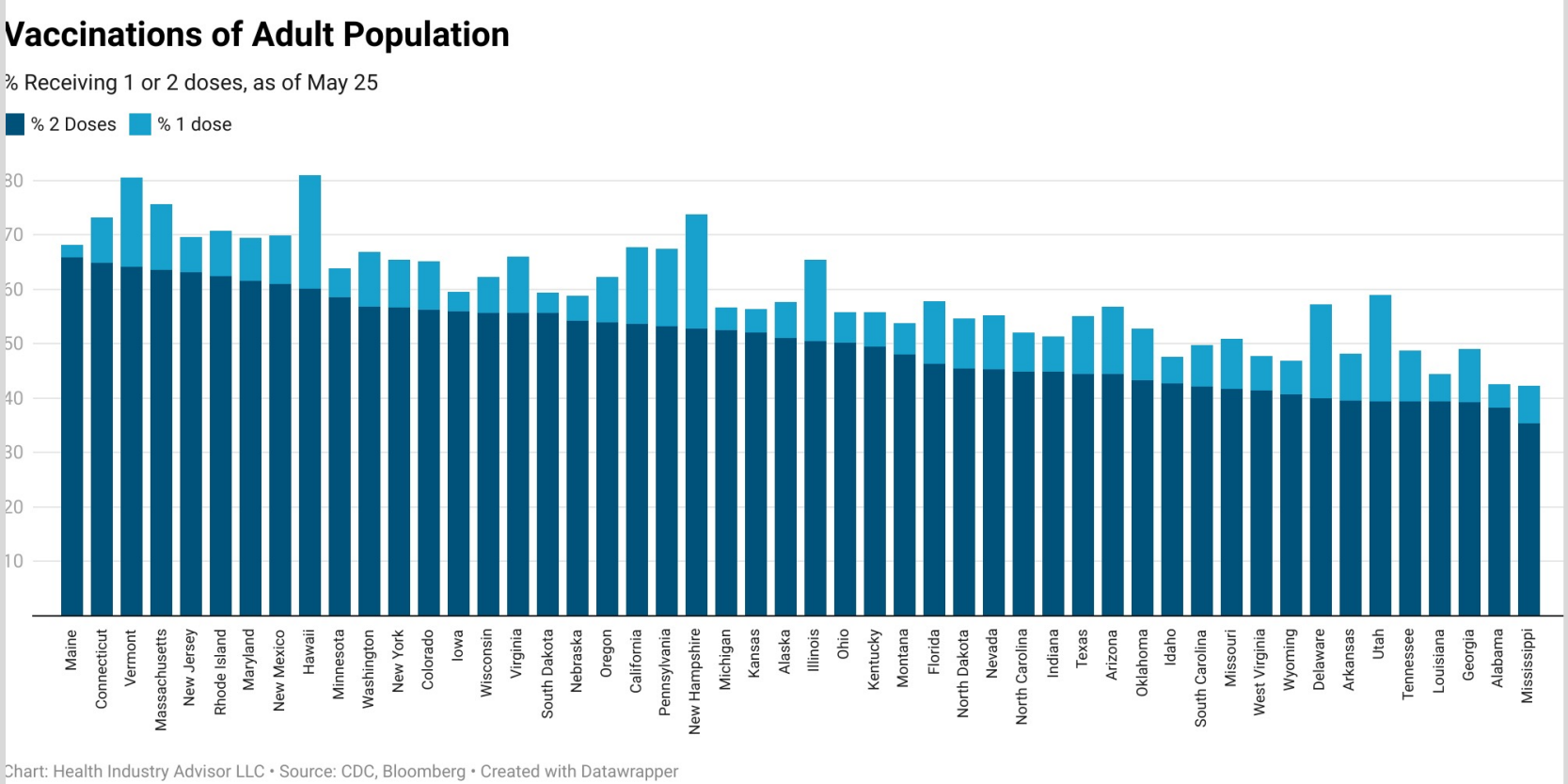
Vaccine Tracking - % of Adult Population Vaccinated

Hawaii and Vermont are the first states to have begun vaccinating 80% of the adult population.



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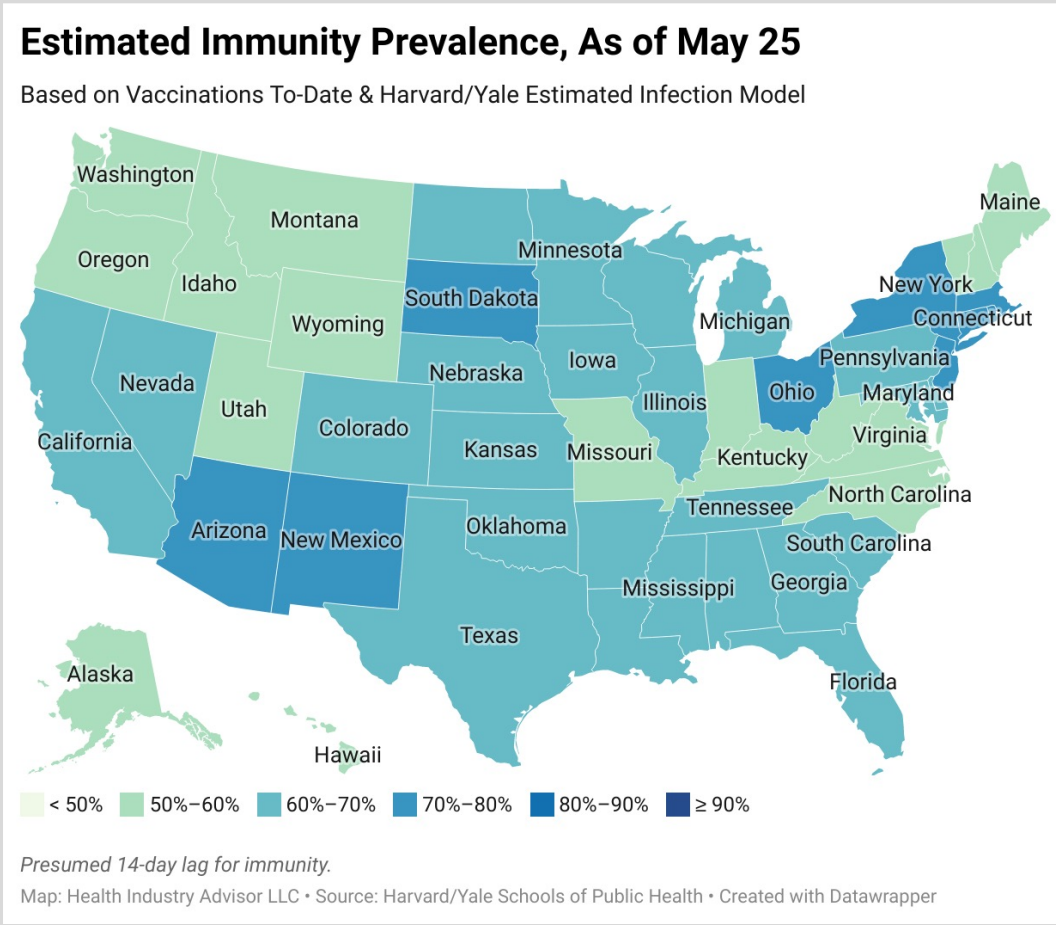
Estimated Immunity By State

Estimated immunity is highest in Arizona, Connecticut, Massachusetts, New Jersey, New Mexico, New York, Ohio, Rhode Island, and South Dakota.

- 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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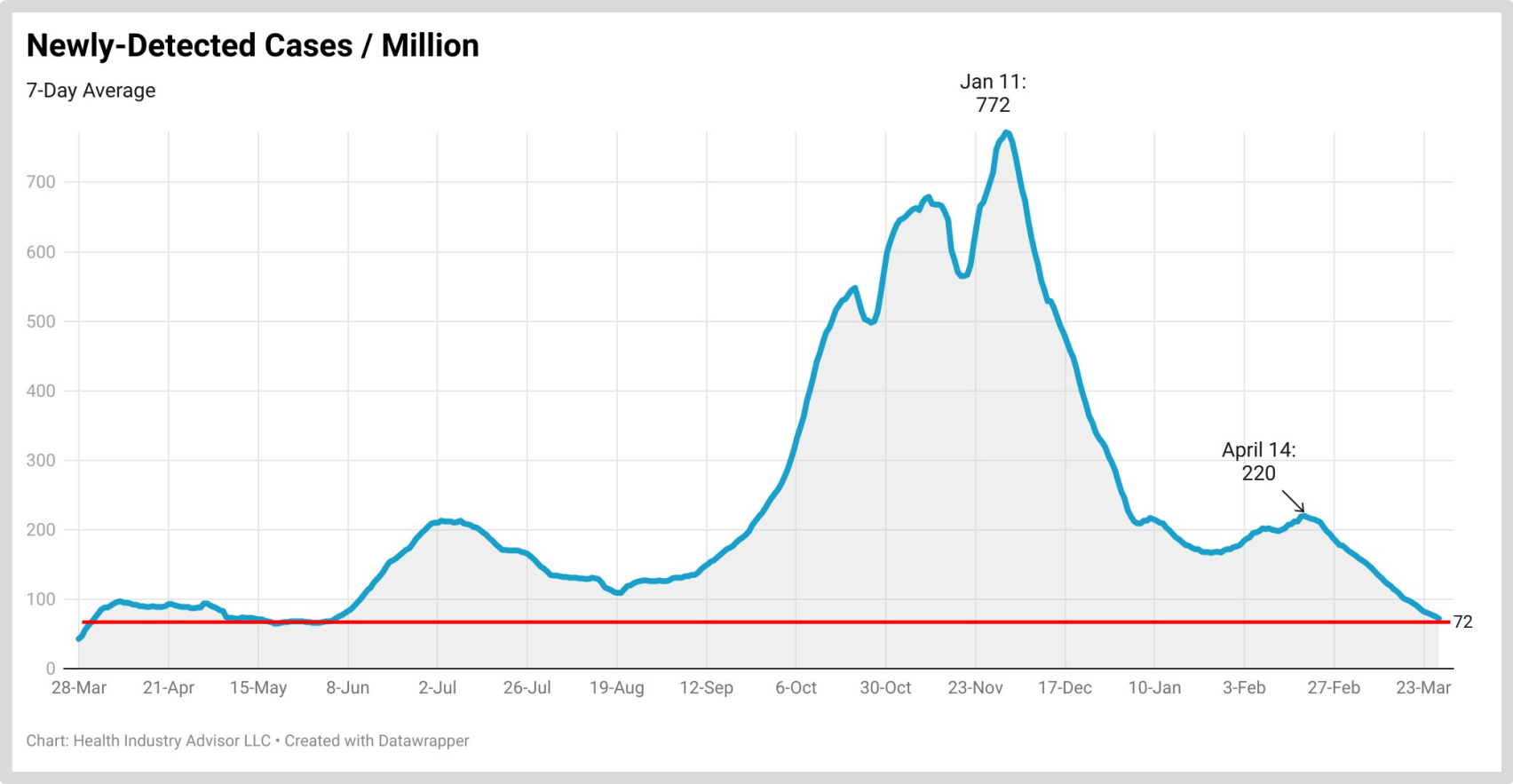
Newly Detected Cases

New cases declined last week, falling to the lowest point in 344 days.



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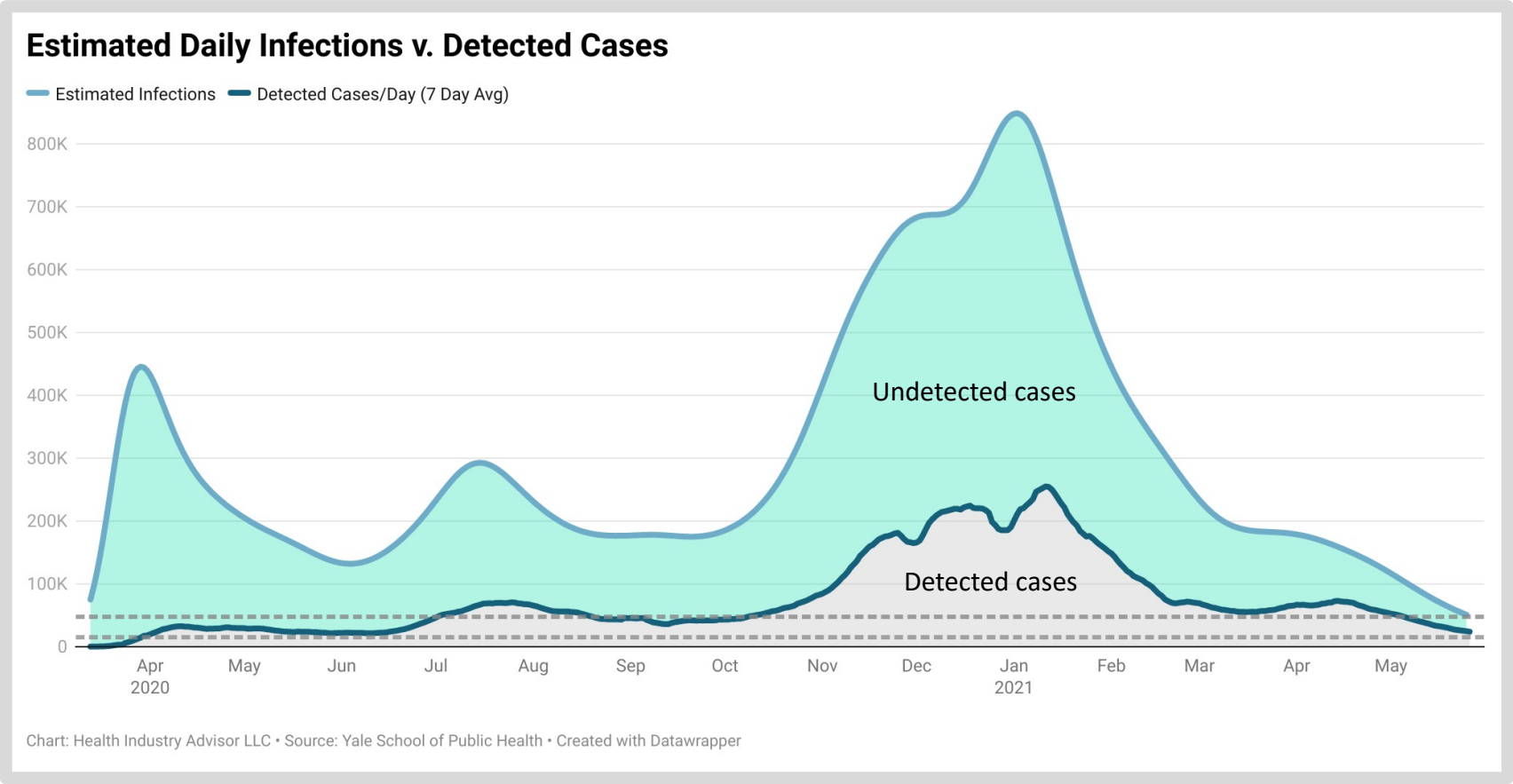
Estimated Daily Infections & New Case Rates

Estimated infections have dropped to the lowest level since March 11, 2020 – two days before the national emergency was declared.



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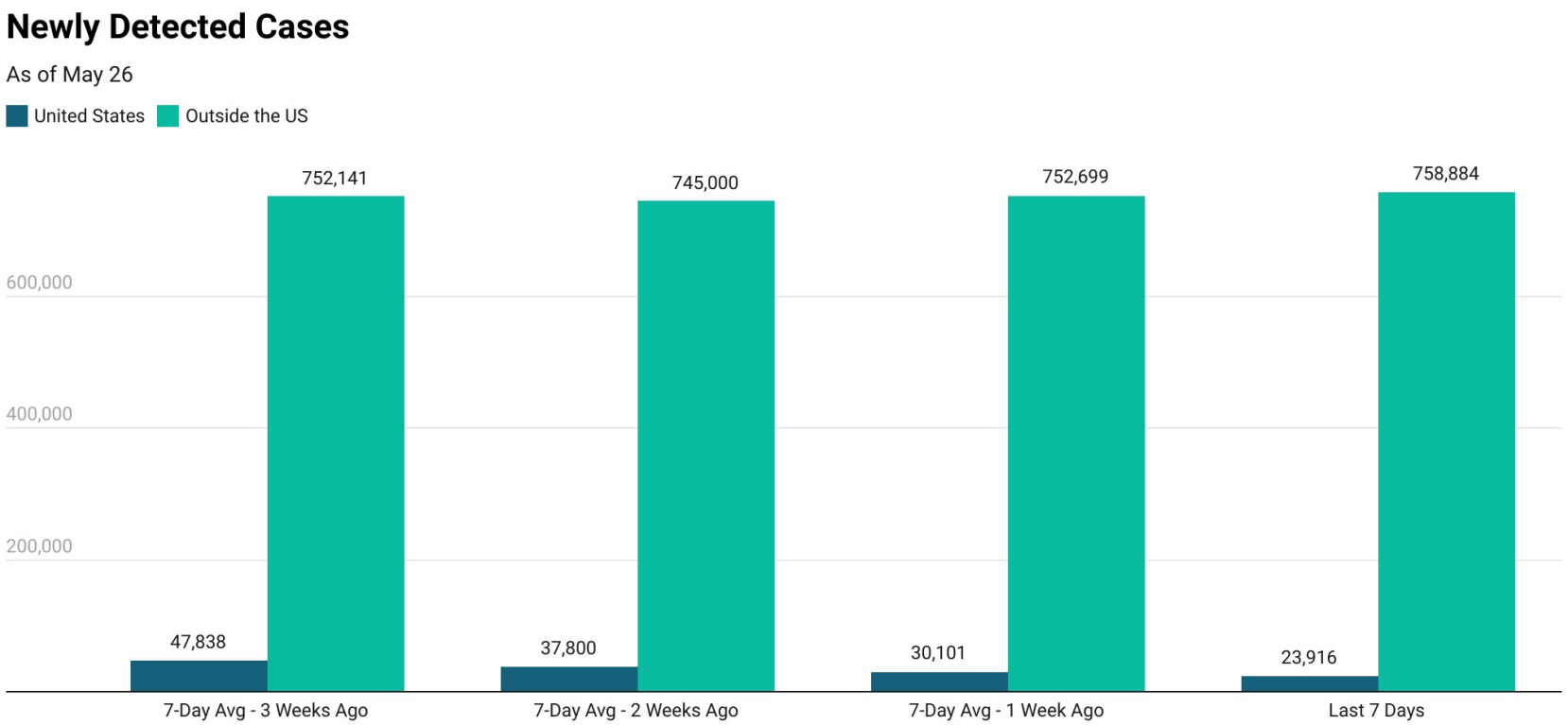
Newly Detected Cases Per Day

In the US, 7-day new case rate have been halved in the past three weeks. Outside the U.S., new cases have increased each of the last two weeks.



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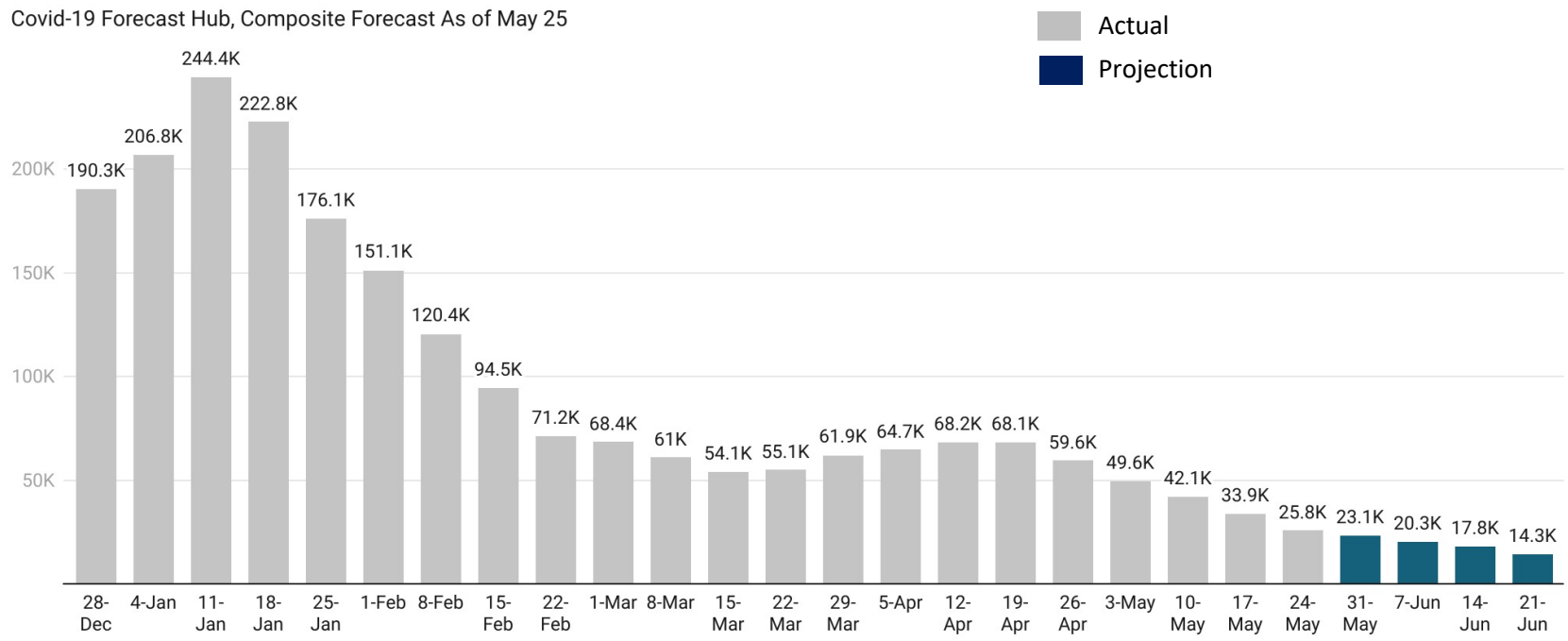
Covid-19 Cases: Ensemble Forecast

The most recent ensemble forecast projects that new daily cases decline 14% per week over the next four weeks.



https://viz.covid19forecasthub.org

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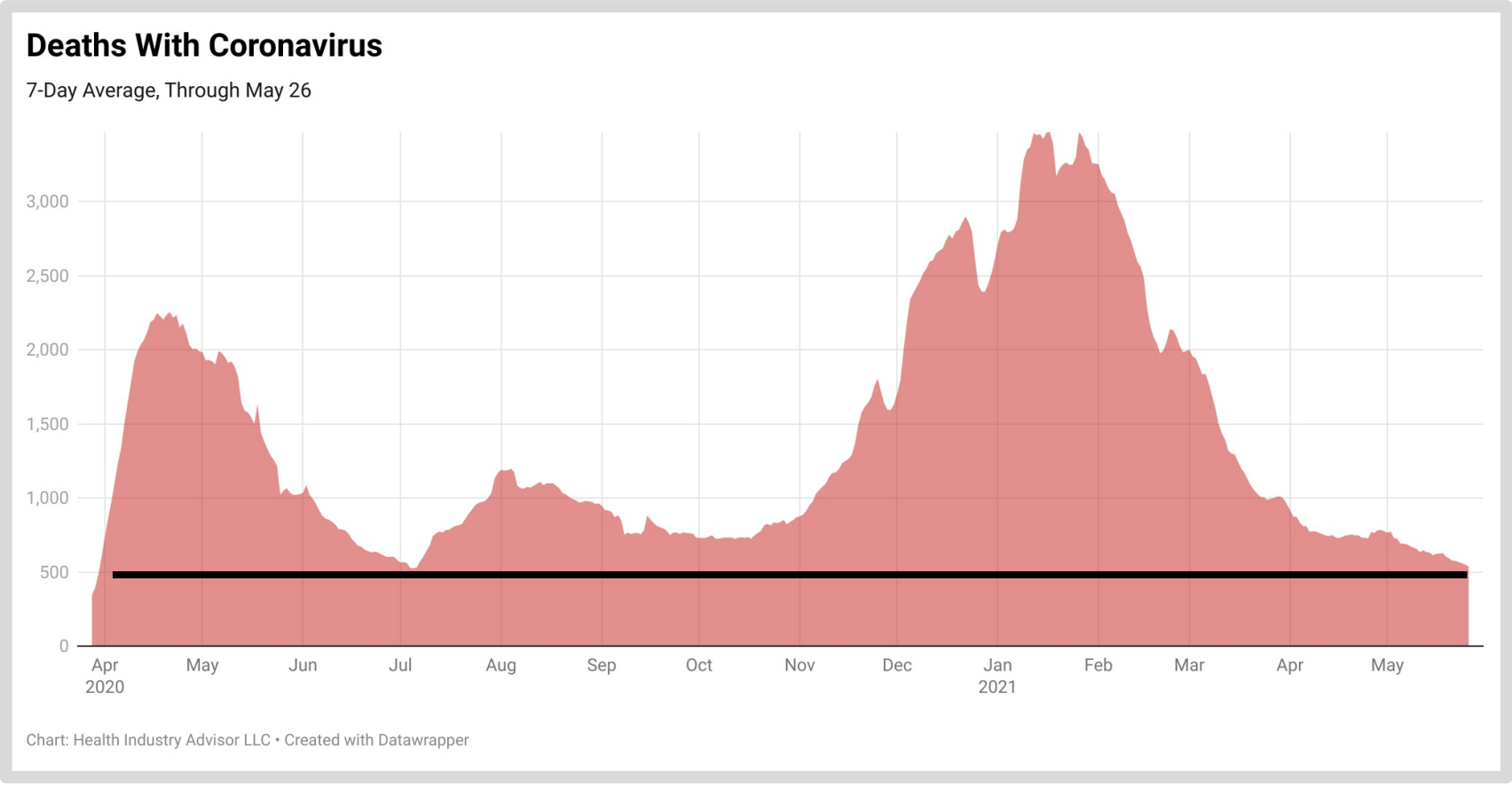
Deaths With Coronavirus

The U.S. is reporting fewer deaths with coronavirus (7-day average) than all but three days since March 2020.



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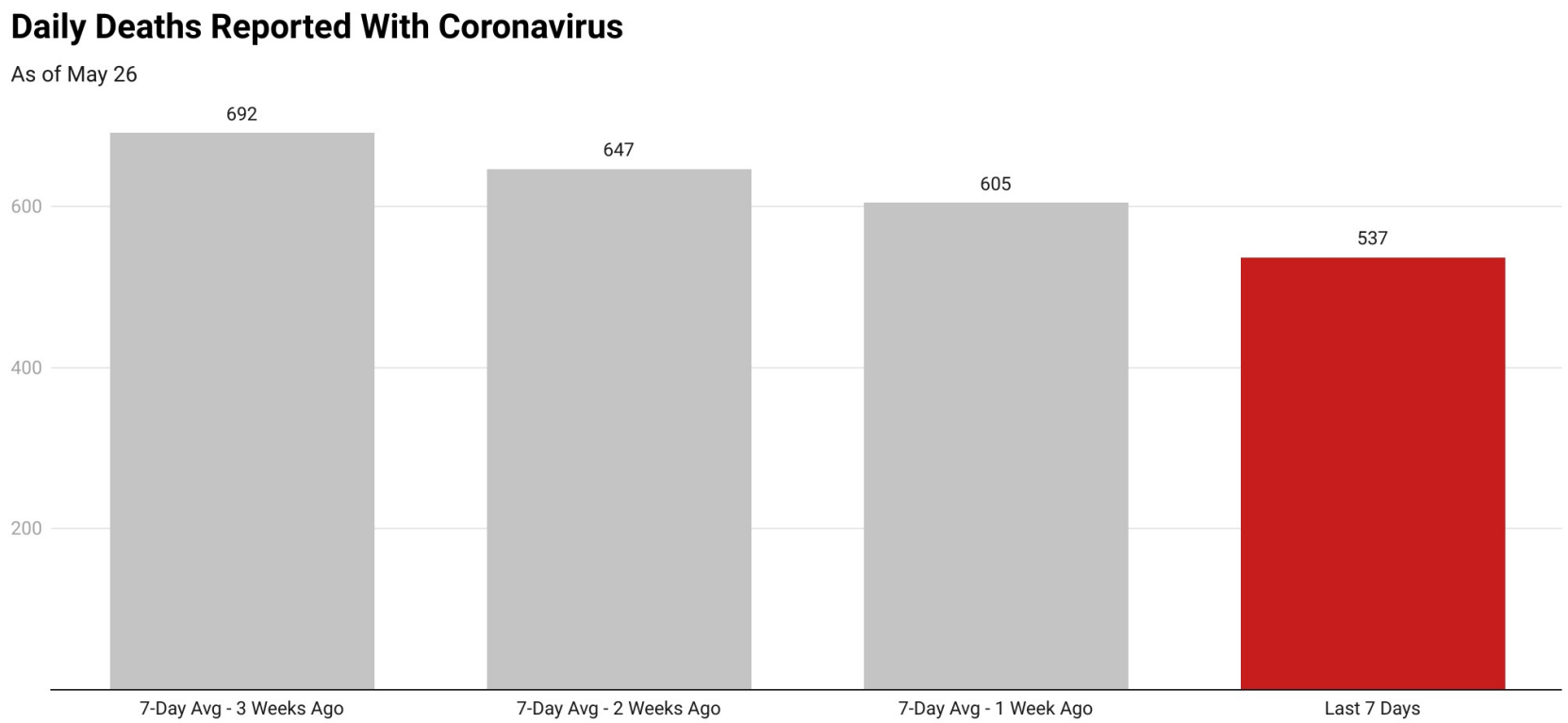
Deaths Reported With Coronavirus

The 7-day death rate declined 11% week-over-week and 22% in the last three weeks.



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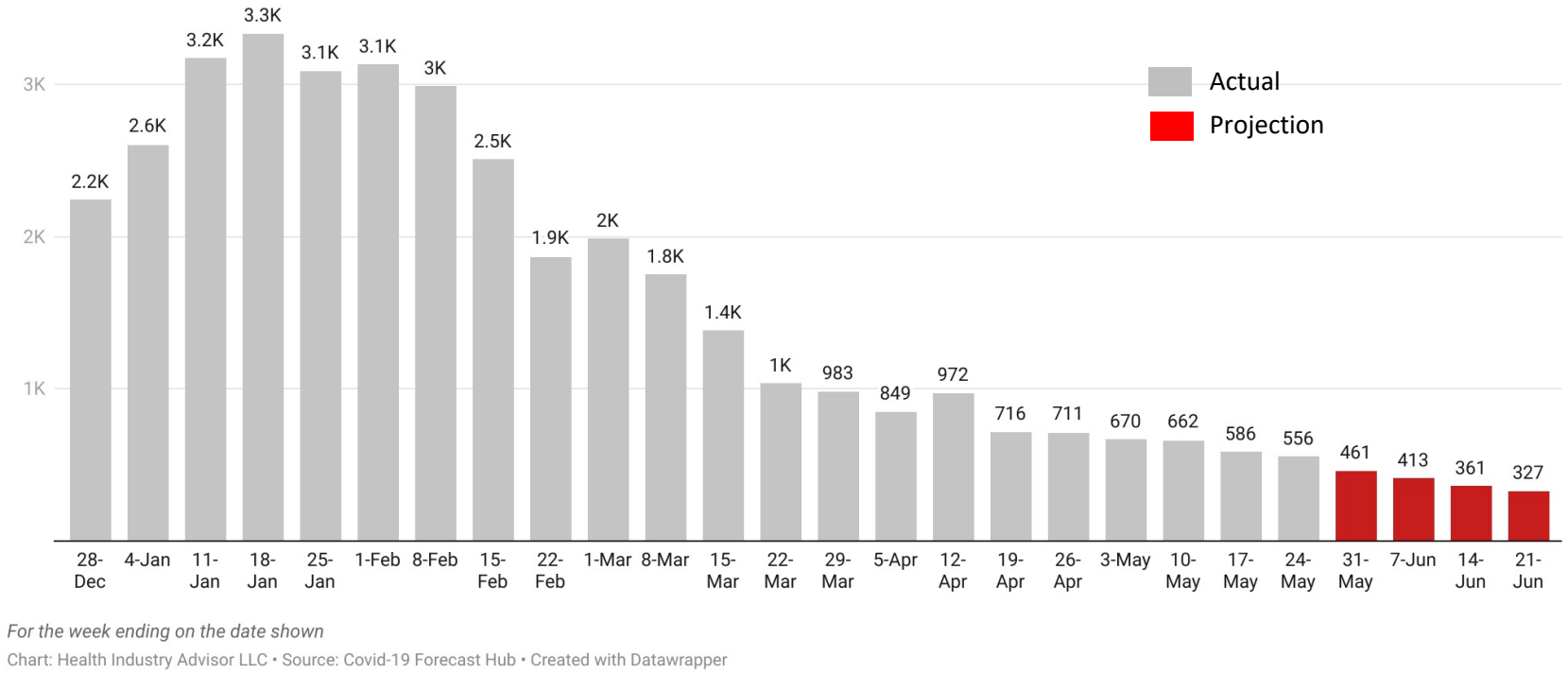
Death Projections – Ensemble Forecast

The most recent ensemble forecast projects that deaths decline 12% per week over the next four weeks.



https://viz.covid19forecasthub.org

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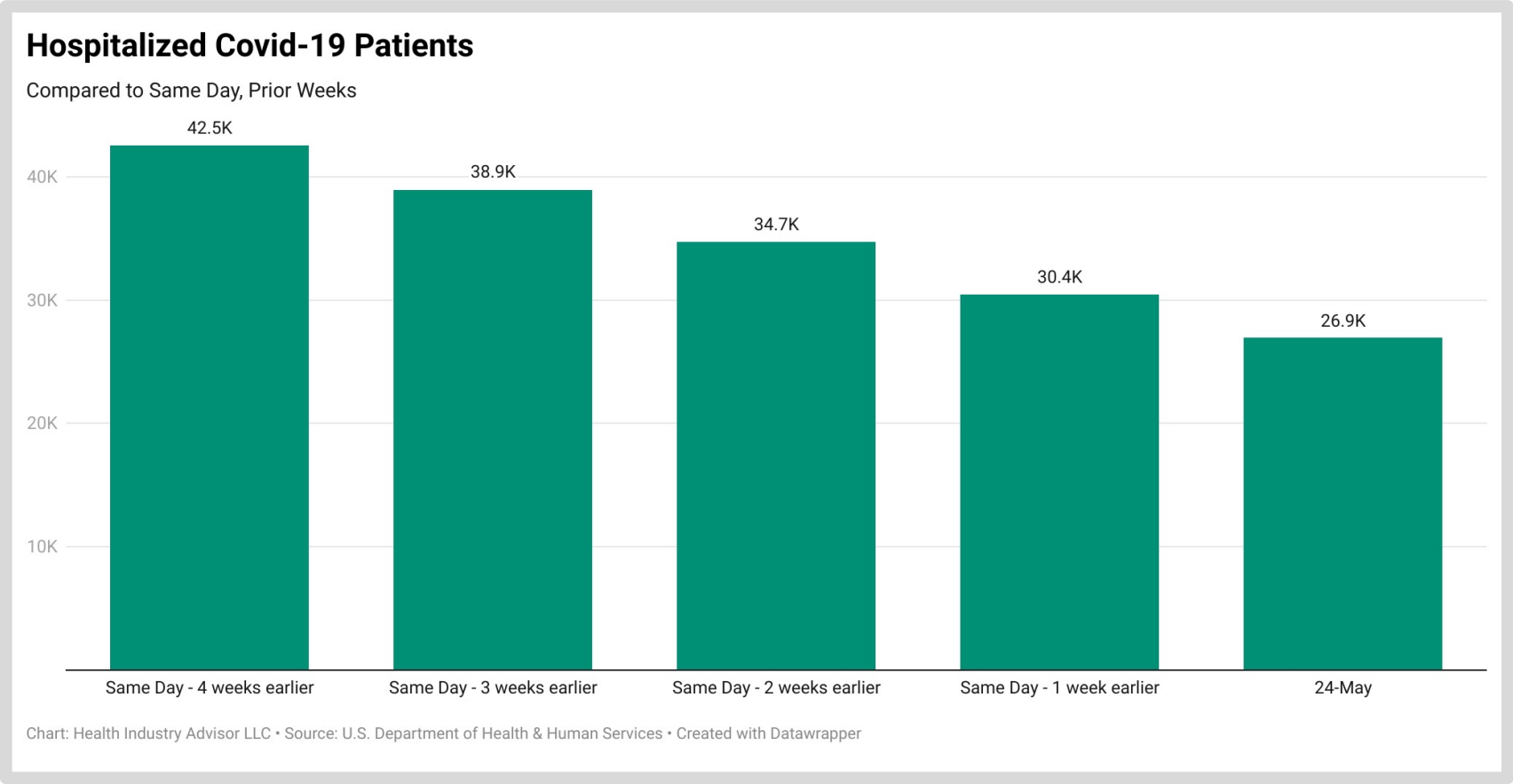
Covid-19 Inpatient Census

Covid-19 inpatient census has declined 11% in the last week and 37% in the last four weeks.



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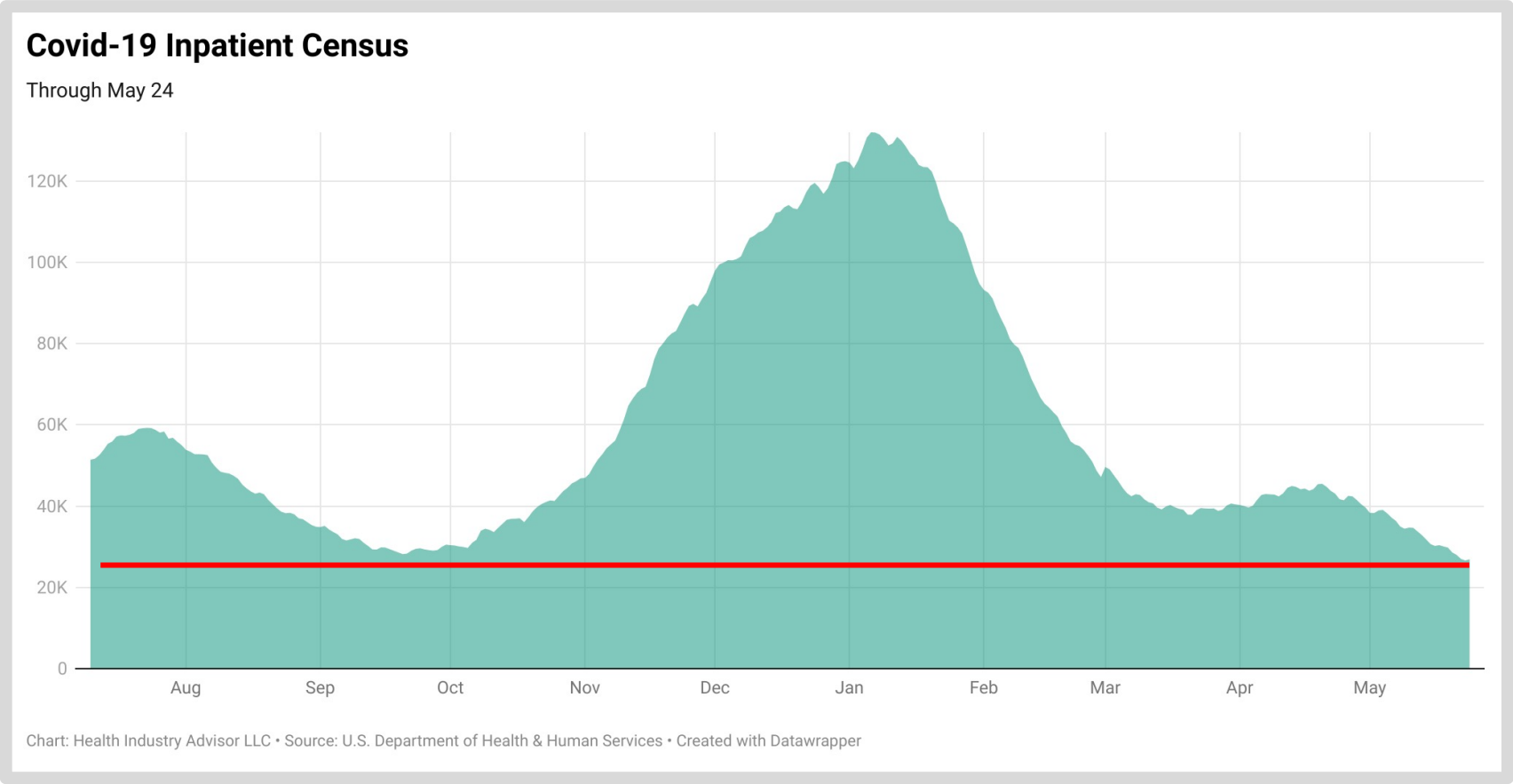
Covid-19 Inpatient Census

Covid-19 inpatient census has dropped to levels unseen since these data were reported back in July 2020.



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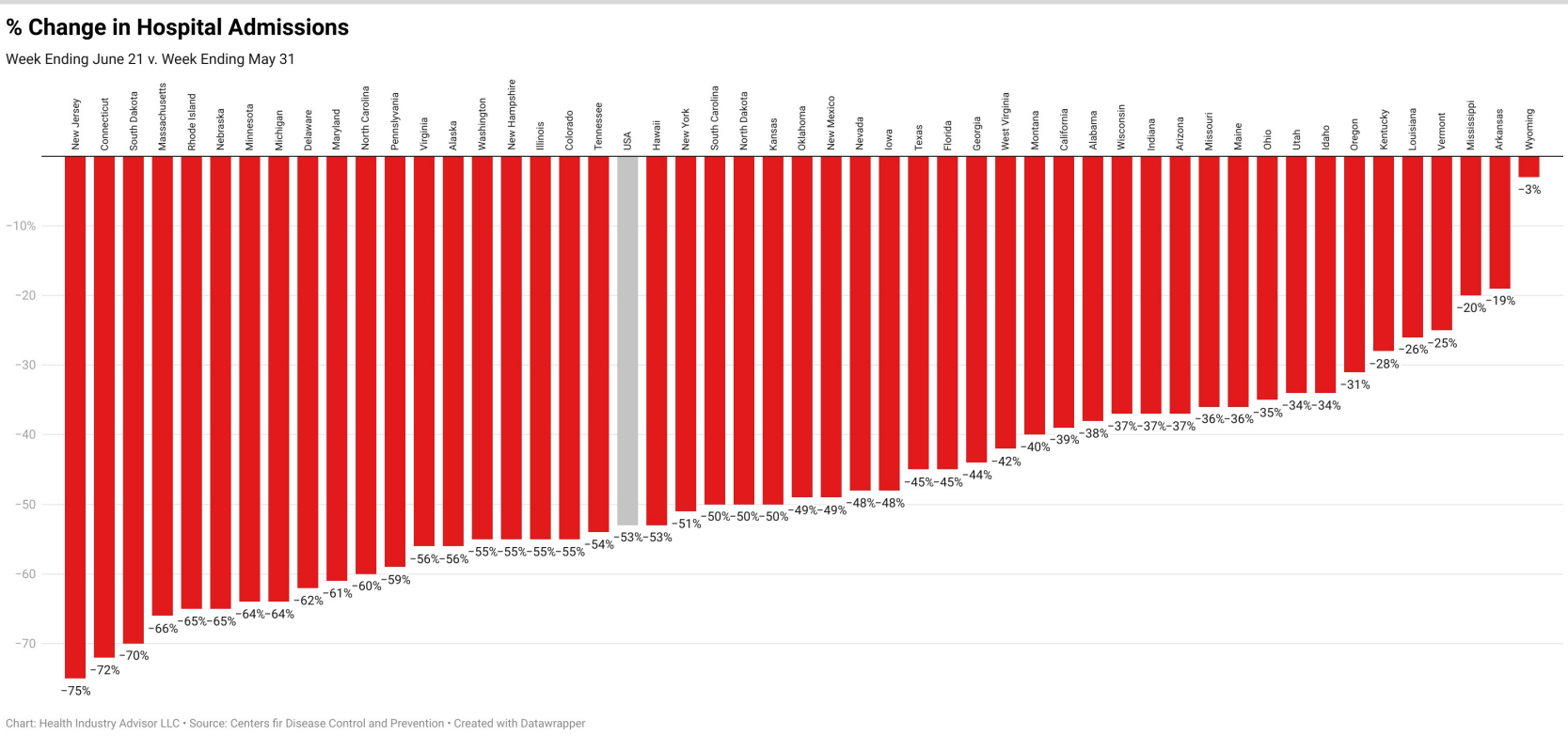
Projected Covid-19 Admission Trends

For the U.S. overall, projected Covid-19 admissions drop 53%in the next three weeks. Several states – Connecticut, New Jersey, and South Dakota – are expected to see 70+% declines.



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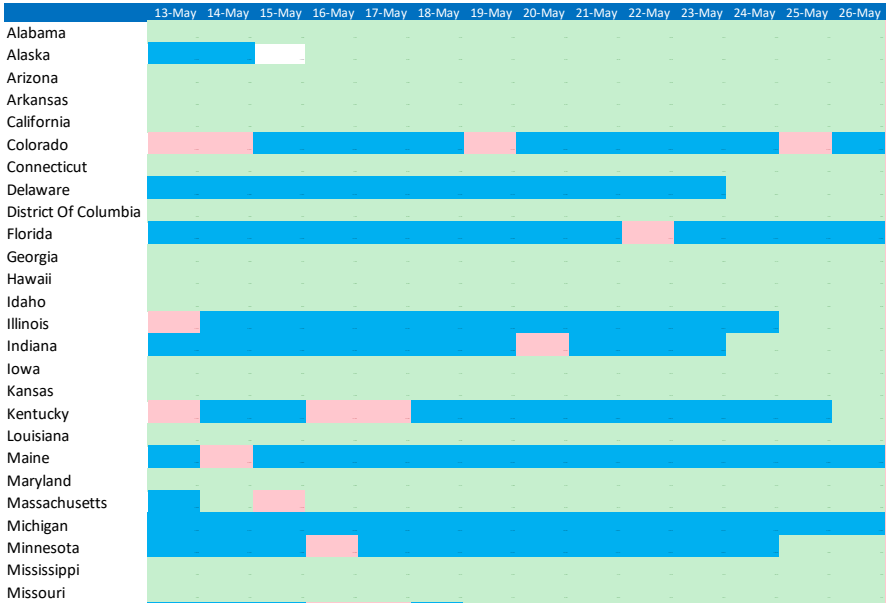
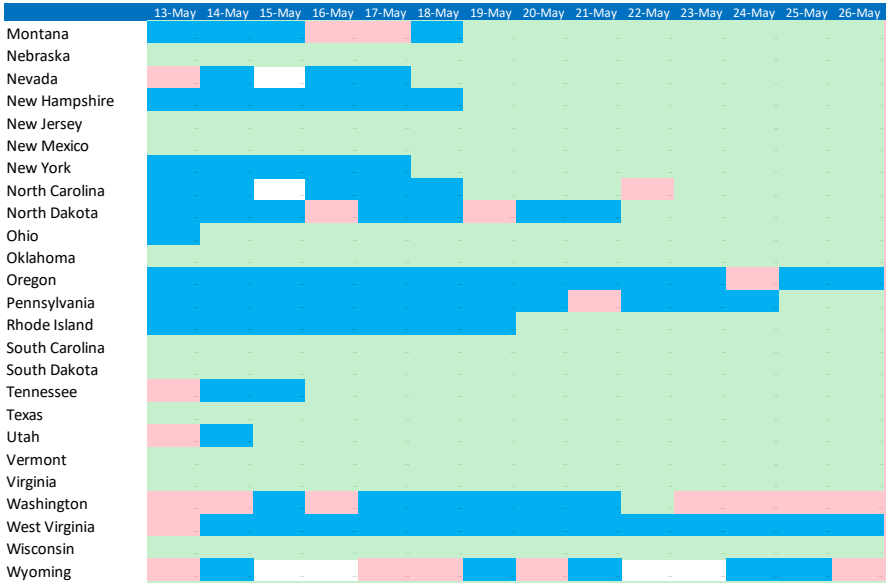
Trends in New Case Rates

Only nine states have rates <100 per million per day. Yet, eight of these states report that rates are declining. Washington is the sole exception.





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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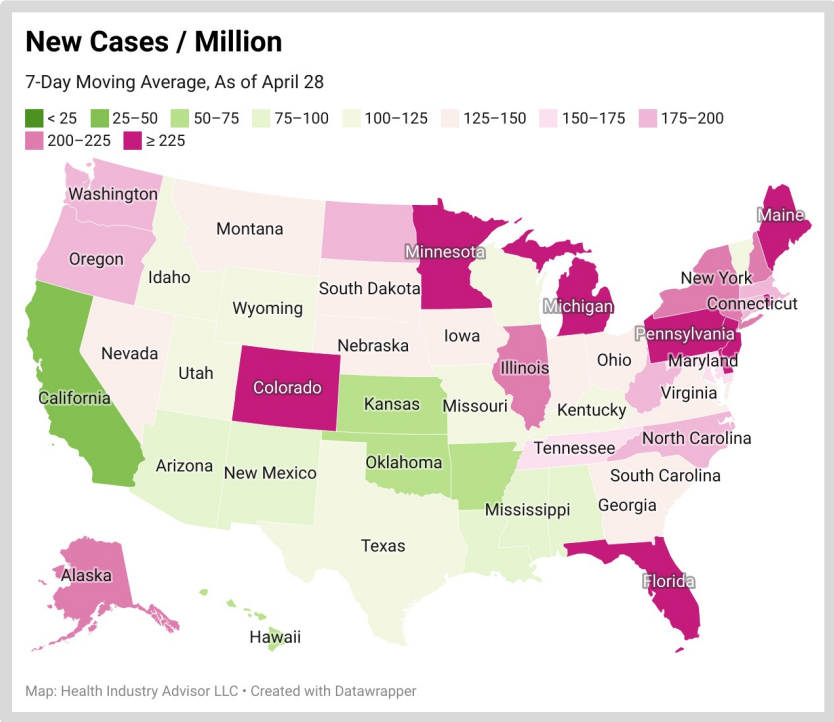
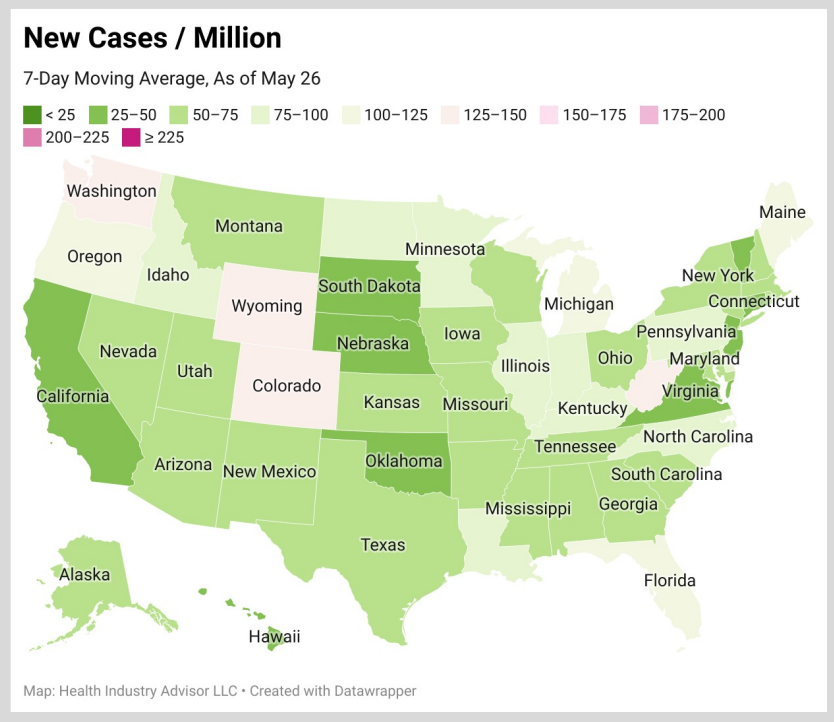
New Cases / Million

New daily case rates have plummeted across the country in the past month.

April 28	May 26





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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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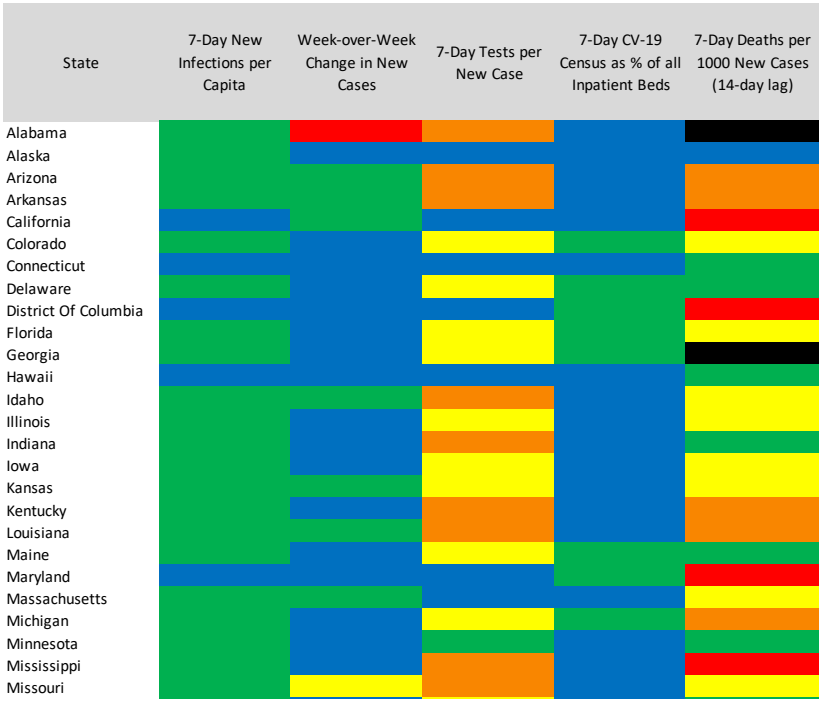
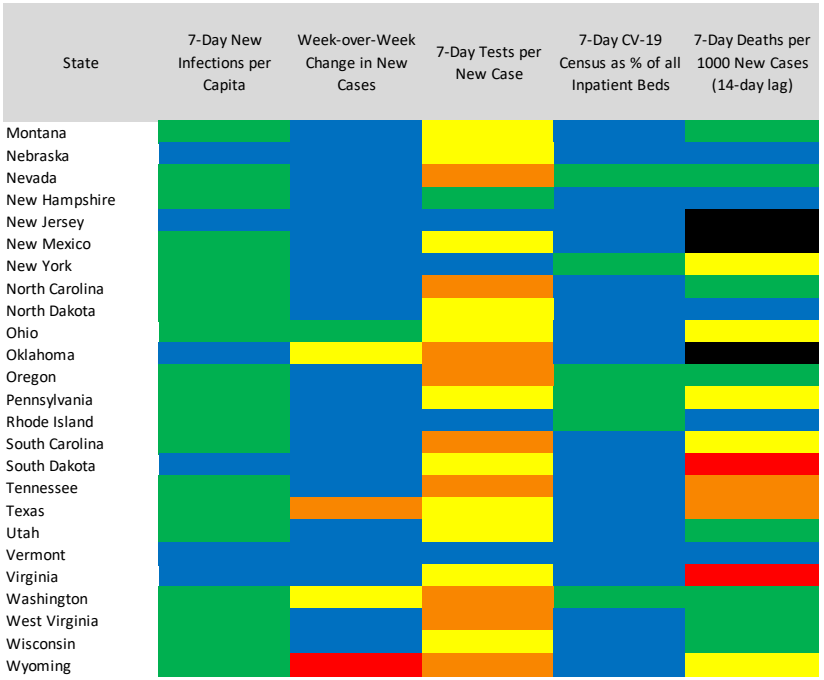
State-By-State Scorecard

New case rates dropped below 50 per million per day in ten states, including California and New Jersey. Further, rates declined week-over-week in every state except Alabama, Missouri, Oklahoma, Texas, Washington, and Wyoming.





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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	11.1%	2,272	1,179	6.6%	57	21	7%	48
Alaska	9.2%	495	6,424	2.0%	69	93	2%	-
Arizona	12.1%	2,415	1,758	4.8%	73	24	10%	17
Arkansas	11.3%	1,931	850	3.4%	61	14	4%	17
California	9.6%	1,595	4,107	1.1%	30	136	5%	21
Colorado	9.4%	1,162	3,649	5.0%	142	26	12%	11
Connecticut	9.7%	2,308	5,638	1.6%	41	136	10%	9
Delaware	11.1%	1,705	4,295	3.7%	89	48	12%	8
District Of Columbia	6.9%	1,603	6,512	1.4%	38	171	11%	24
Florida	10.8%	1,706	3,033	6.3%	110	28	13%	15
Georgia	10.6%	1,953	1,357	4.4%	54	25	13%	26
Hawaii	2.5%	350	3,753	1.5%	39	96	6%	7
Idaho	10.7%	1,165	1,525	4.4%	82	19	6%	12
Illinois	10.9%	1,977	4,236	3.2%	91	47	10%	14
Indiana	11.0%	2,016	1,997	5.6%	94	21	9%	8
Iowa	12.7%	1,916	1,715	4.9%	53	32	5%	12
Kansas	10.8%	1,739	1,451	3.7%	55	26	3%	11

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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	7-Day Deaths /1000 New Cases , 14-Day Lag
Kentucky	10.2%	1,510	1,979	4.2%	97	21	6%	18
Louisiana	10.1%	2,272	1,949	3.0%	86	23	3%	17
Maine	5.0%	614	4,404	2.5%	104	42	11%	10
Maryland	7.6%	1,495	4,133	4.0%	50	83	16%	22
Massachusetts	10.2%	2,567	7,816	1.4%	67	117	5%	11
Michigan	9.9%	2,027	3,039	7.9%	109	28	14%	17
Minnesota	10.6%	1,325	5,538	5.4%	94	59	9%	9
Mississippi	10.7%	2,454	565	4.3%	56	10	4%	23
Missouri	9.7%	1,568	1,727	4.3%	71	24	8%	11
Montana	10.4%	1,504	1,590	4.8%	62	26	4%	6
Nebraska	11.5%	1,163	1,205	7.5%	38	31	3%	4
Nevada	10.5%	1,808	1,759	4.9%	71	25	12%	10
New Hampshire	7.2%	990	3,492	2.9%	52	68	5%	5
New Jersey	11.4%	2,945	3,759	3.6%	45	84	9%	28
New Mexico	9.7%	2,029	2,312	2.9%	74	31	8%	91
New York	11.0%	2,751	6,163	2.1%	69	90	15%	11
North Carolina	9.5%	1,242	2,029	5.2%	82	25	10%	10

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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	7-Day Deaths /1000 New Cases , 14-Day Lag
North Dakota	14.4%	1,980	2,060	2.6%	78	26	6%	4
Ohio	9.4%	1,690	2,055	3.7%	74	28	8%	12
Oklahoma	11.4%	1,843	701	6.0%	37	19	4%	292
Oregon	4.7%	626	2,430	5.3%	102	24	12%	8
Pennsylvania	9.4%	2,127	2,597	5.5%	95	27	10%	13
Rhode Island	14.3%	2,556	7,412	1.4%	65	114	15%	5
South Carolina	11.5%	1,886	1,544	4.1%	66	23	6%	11
South Dakota	14.0%	2,265	1,094	7.9%	40	27	2%	22
Tennessee	12.6%	1,816	1,111	5.8%	64	17	8%	15
Texas	10.2%	1,779	1,543	4.4%	60	26	9%	17
Utah	12.6%	715	1,897	4.3%	74	26	5%	7
Vermont	3.9%	409	7,499	1.7%	40	188	2%	-
Virginia	7.9%	1,305	1,496	4.2%	46	32	8%	21
Washington	5.7%	761	2,934	4.3%	136	22	12%	8
West Virginia	9.0%	1,560	2,604	6.6%	130	20	8%	9
Wisconsin	10.5%	1,203	2,610	3.4%	53	49	5%	8
Wyoming	10.4%	1,242	1,867	3.8%	144	13	5%	13

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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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