



"Strategic Advice in an Era of Unprecedented Change"

Issue #378

Monday, April 18, 2022

COVID19
VITAL SIGNS

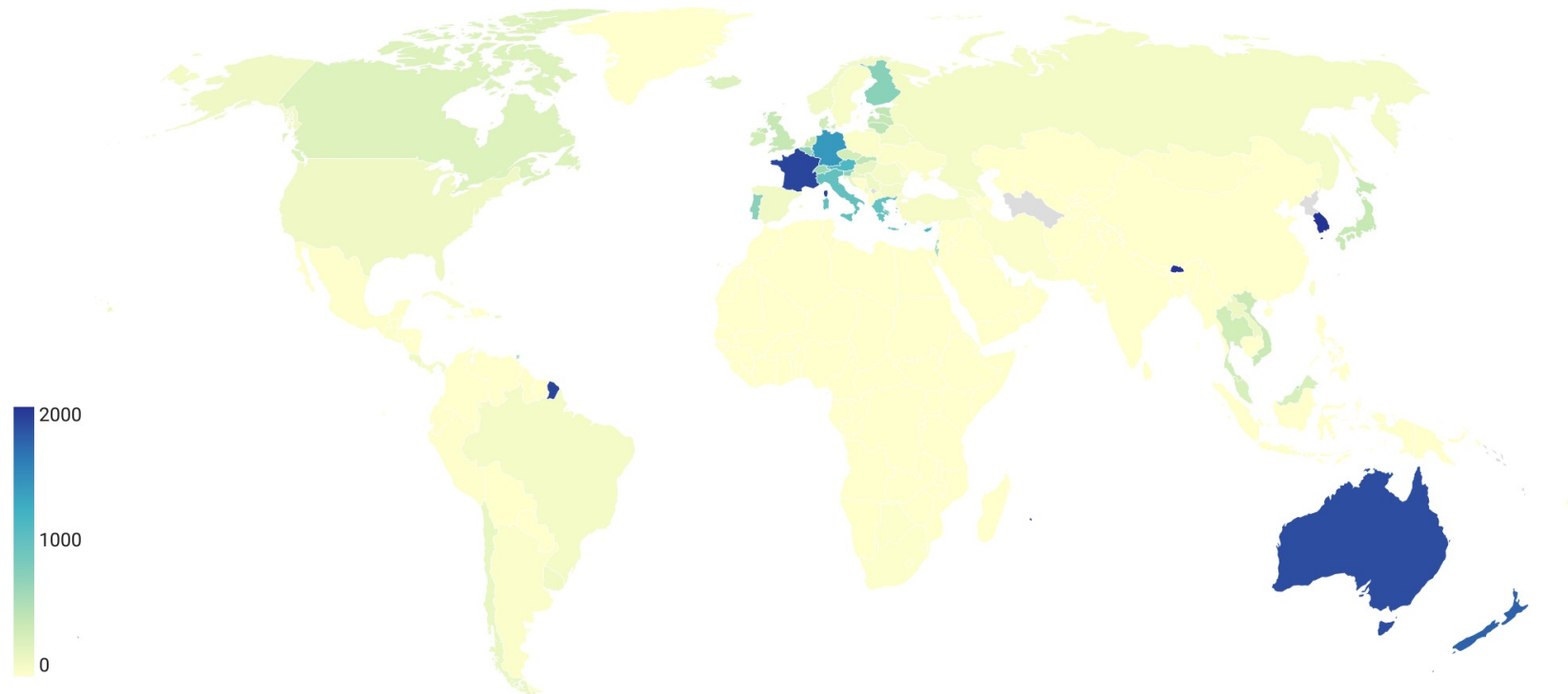
Highlights – As of April 15

- Worldwide, cases declined 21% from the prior week
- Among large countries, only ten reported more cases last week than a week earlier. However, most of these ten benefit from relatively low infection rates
- South Korea reported the highest case rates globally among large countries, followed by France, Austria, Germany, Australia, and Italy. However, rates fell in each country and plunged in hardest-hit South Korea and Austria
- Cases spiked in Taiwan recently, albeit from relatively low levels
- In the United States, surveillance measures indicate a modest rise in virus spread, Nonetheless, this spread remains relatively low versus earlier the year
 - The test-positive rate rose in recent days but remains within public health guidelines
 - The Centers for Disease Control and Prevention (CDC) reported a slight shift in Community Levels and Transmission rates. Nevertheless, the CDC rated more than nine-in-ten communities as “Low” in its Community Level rating
 - Wastewater monitoring detected increased virus levels in most sites. However, these virus levels mostly remain far below peak levels previously detected
- Cases in the United States rose 14% from the prior week. Most states posted increased case rates last week
- Case rates were highest generally in the Northeast, led by Vermont, Rhode Island, New York, and Massachusetts. Rates in each of these states are trending upward
- Despite the rise in cases, Covid hospitalizations remain low:
 - Covid admissions rose 3% last week, erasing the 3% decline posted a week earlier. Still, these remain near pandemic lows
 - Covid patient days declined 14% last week. These patient days set a new pandemic low last week
 - Covid patients occupy fewer than 10% of inpatient beds in every state. Only Maine, New York, and Vermont require more than 5% of beds to care for Covid patients
- Fewer people died with Covid last week than during any week since last July. Deaths have declined every week since late January
- Vaccines protect against infections and even more so, hospitalization from the latest subvariant. Data from New York state shows recent infections rates rising among unvaccinated persons
- Experts predicts cases will increase this week and next, before declining early in May. Deaths will decline each of the next three weeks, according to these projections

Europe and the Asia Pacific region remain as global Covid hotspots

New Daily Cases / Million

7-Day Average, As of April 15

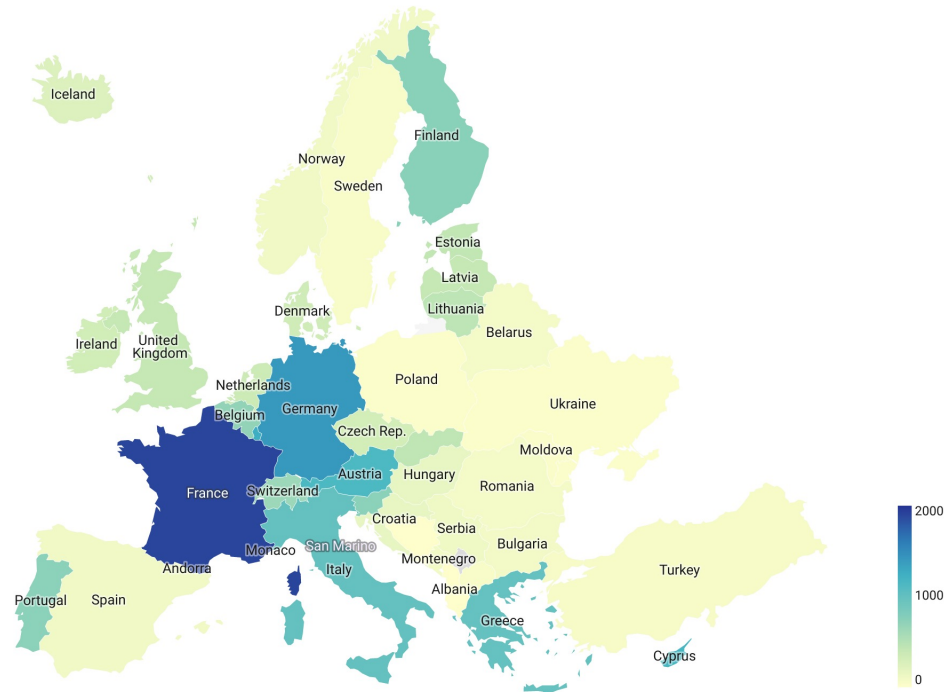


Map: Health Industry Advisor LLC • Source: worldometer.info • Created with Datawrapper

Australia, France, and New Zealand reported high infection rates for the past seven days

New Daily Cases / Million

7-Day Average, As of April 15



Map: Health Industry Advisor LLC • Source: worldometer.info • Created with Datawrapper

New Daily Infections / Million

7 Day Average, As of April 15

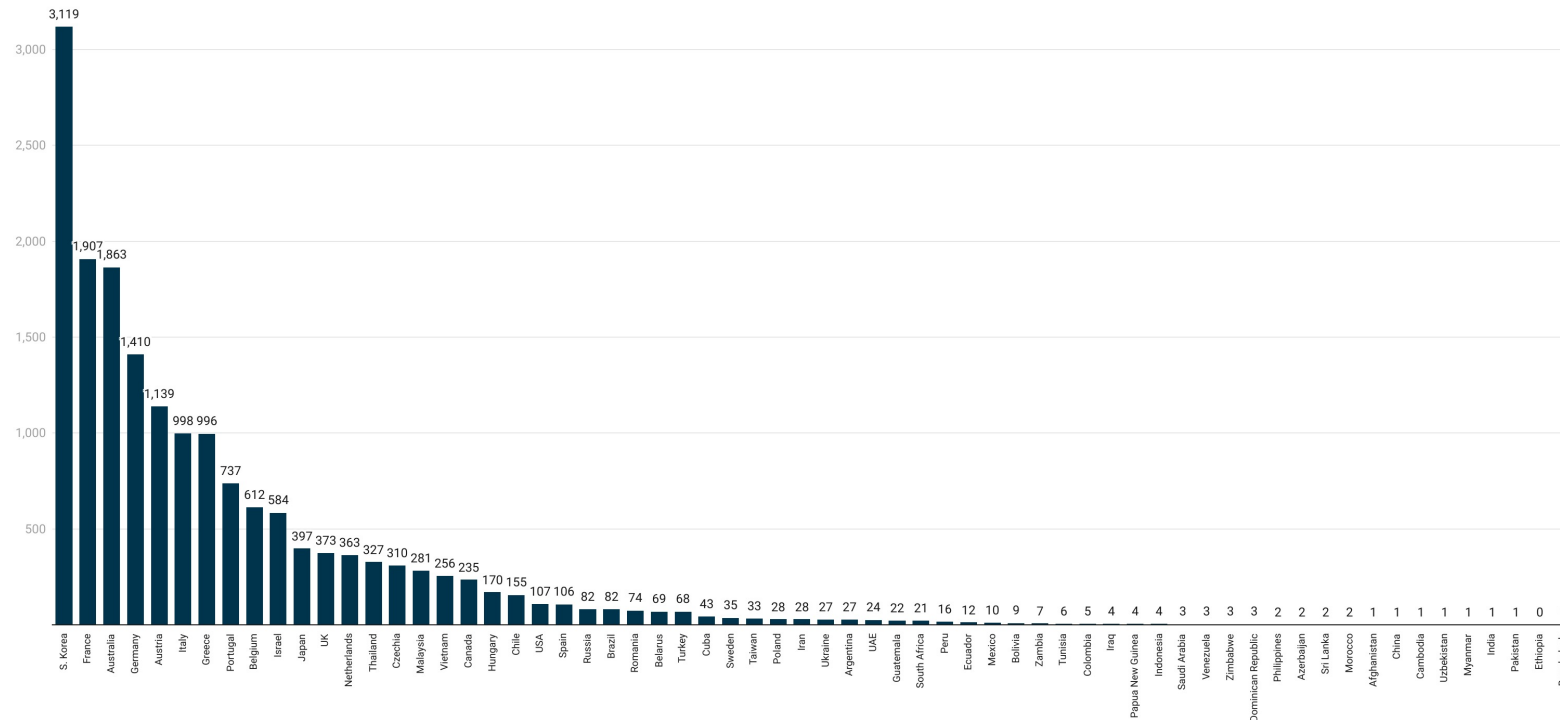


Map: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

South Korea suffered the highest infection rate among large countries. However, cases fell sharply there in the past month. Austria and Germany followed a similar declining pattern

New Daily Cases Per Million

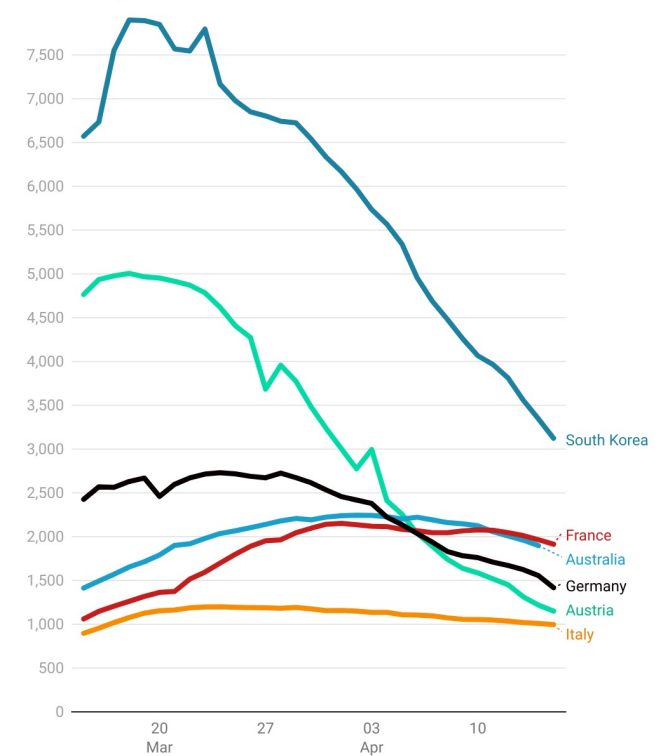
7-Day Average, As of April 15



Countries with minimum 9M population and at least 100 new cases last week and prior week
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Trend: New Daily Cases per Million

7-day average

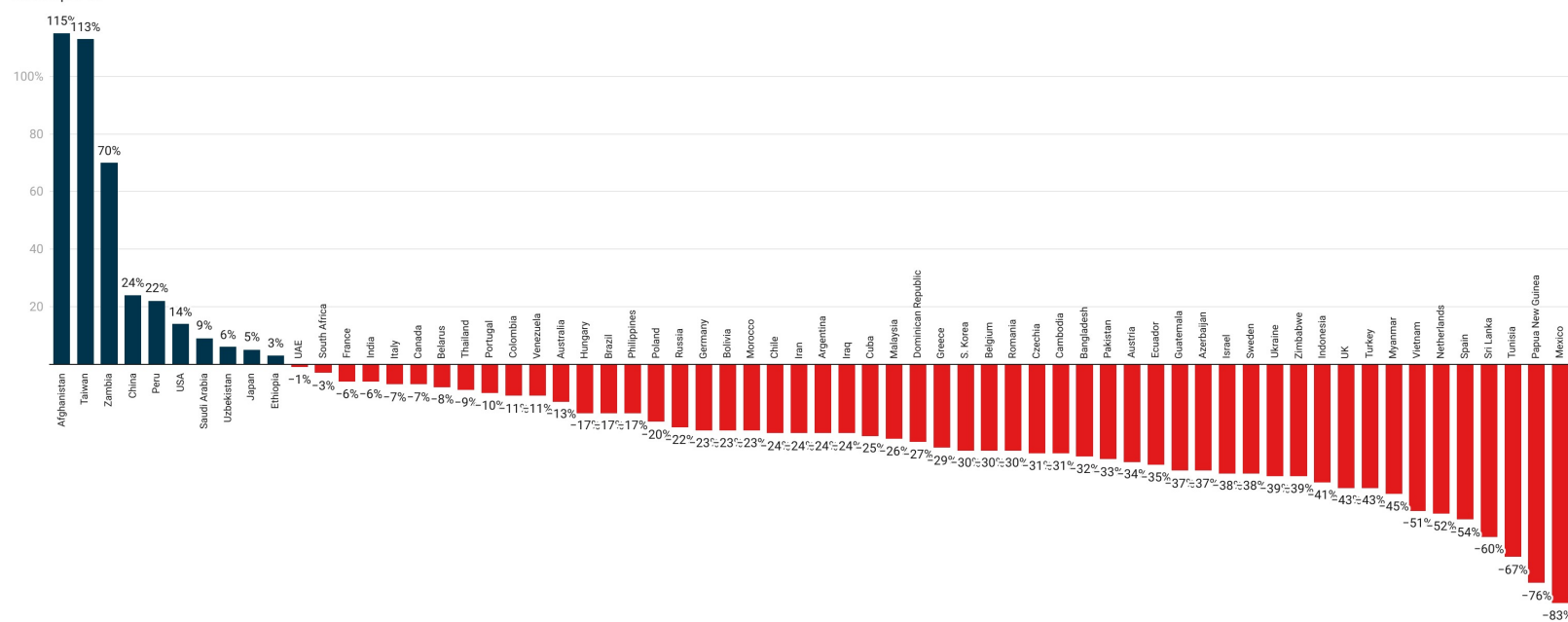


Countries with Highest Current Rates and at least 9M population
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Case rates dropped last week in most large countries. Those countries bucking this trend still report relatively low rates. Cases spiked in Taiwan over the last month

Week-over-Week Increase in Covid Cases

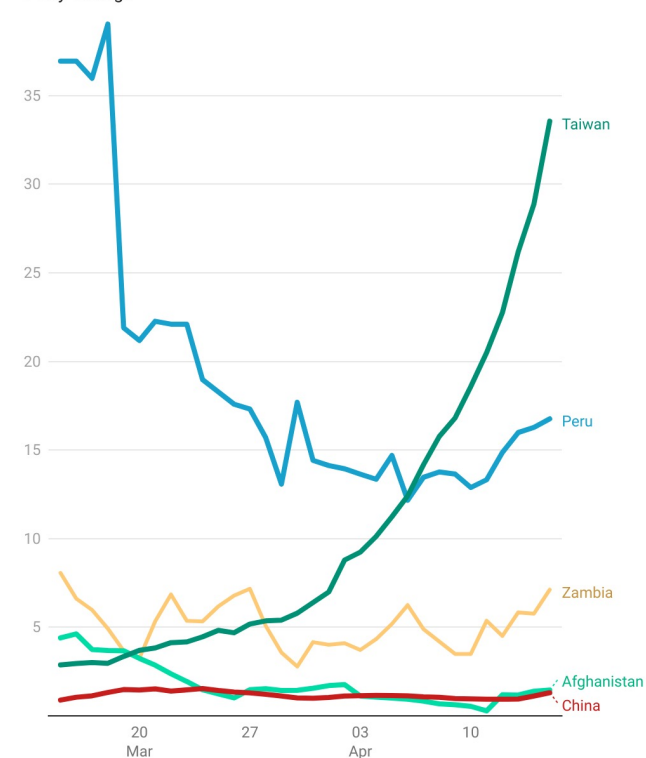
As of April 15



Countries with minimum 9M population and at least 100 cases each week
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Trend: New Daily Cases per Million

7-day average



Countries with Largest Week-over-Week % Increase and at least 10M population
Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

State Scorecard provides a snapshot of pandemic-to-date and recent Covid metrics by state

State Scorecard

	AL	AK	AZ	AR	CA	CO	CT	DE	FL	GE	HI	ID	IL	IN	IA	KS	LY	LA	ME	MD	MA	MI	MN	MS	MO	MT	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY
Pandemic-To-Date																																																		
Infection Rate (Reported Cases / Population)																																																		
% Full Vaccinated																																																		
% Boosted																																																		
Deaths / 1000 Population																																																		
Deaths / Reported Case																																																		
Recent Week																																																		
New Daily Infections / Million																																																		
Change in Infections Since Last Week																																																		
Test-Positive: 7-Day Run Rate																																																		
Covid Census / inpatient Beds																																																		
Change in Covid Census Since Last Week																																																		

Note: Uses a relative scale, from red being poorest among all states to green being best
Iowa only reporting positive test results

Although on the rise in recent weeks, the test-positive rate remains within public health guidelines

Test-Positivity Rate

7-Day Average, Through April 12

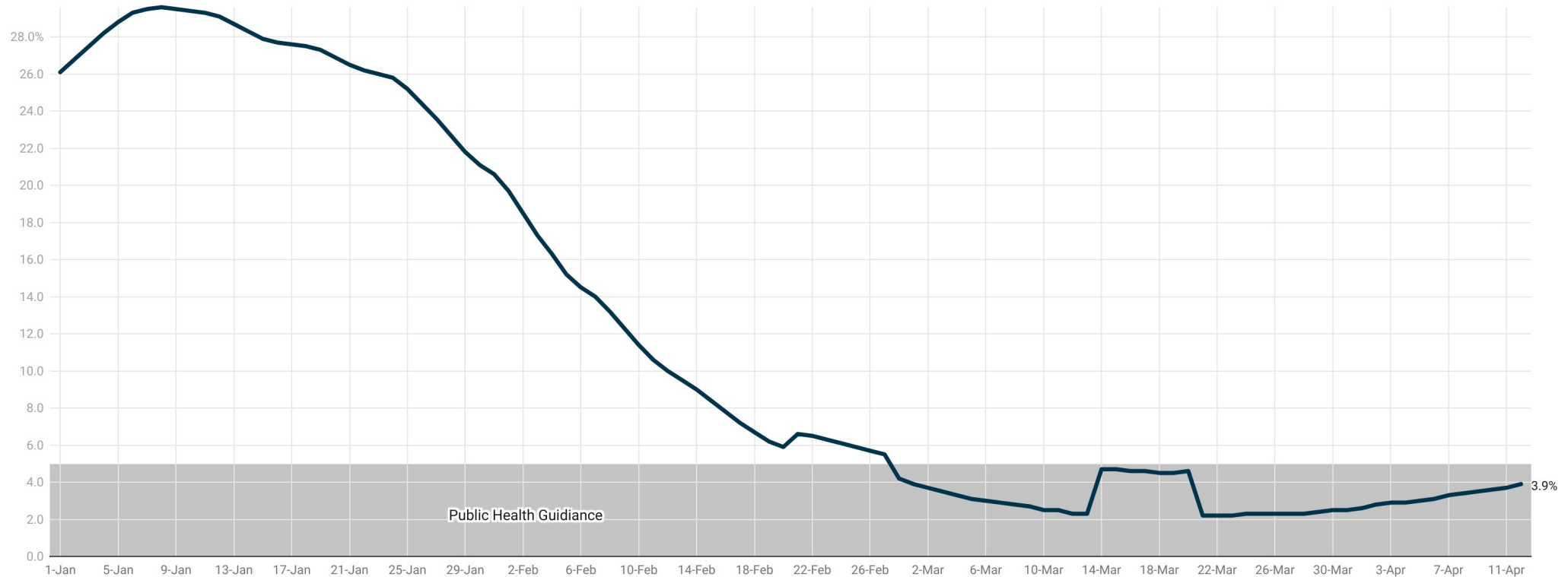
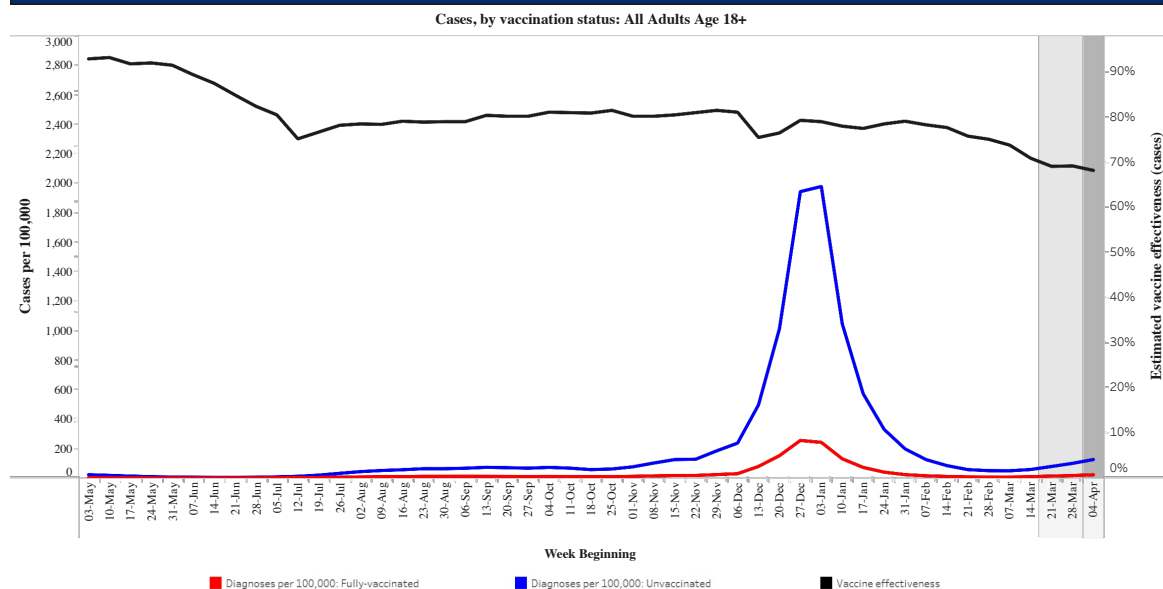


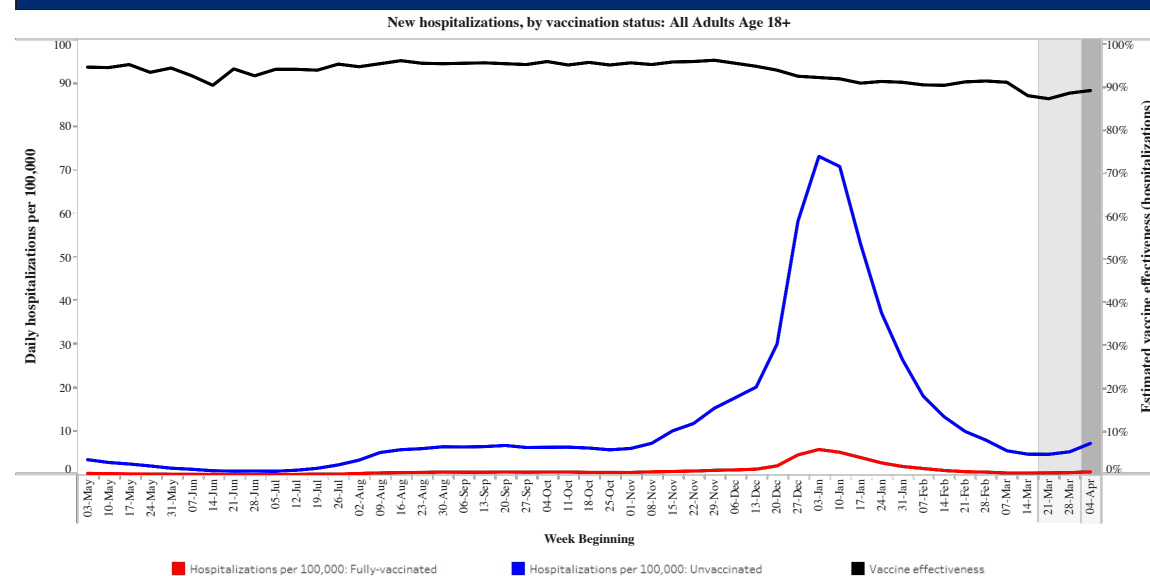
Chart: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Unvaccinated persons drove the recent rise in cases and hospitalizations in New York. Vaccines remain strong in protecting against hospitalization; protection against infections strong yet waning

New daily cases over time by vaccination status



Daily hospital admissions over time by vaccination status



Source: New York state, <https://coronavirus.health.ny.gov/covid-19-breakthrough-data>

NY state disclaimer: Please note that grey shading has been applied to recent weeks for which data are still accruing, with a darker grey representing data with the largest amount of uncertainty. Estimates in darker grey are likely an undercount and are subject to most change.

Virus levels in monitored wastewater sites remain lower than earlier peaks. However, most sites posted sizeable increases in the past fifteen days

Current Wastewater Virus Levels v. Peak

March 29 - April 12

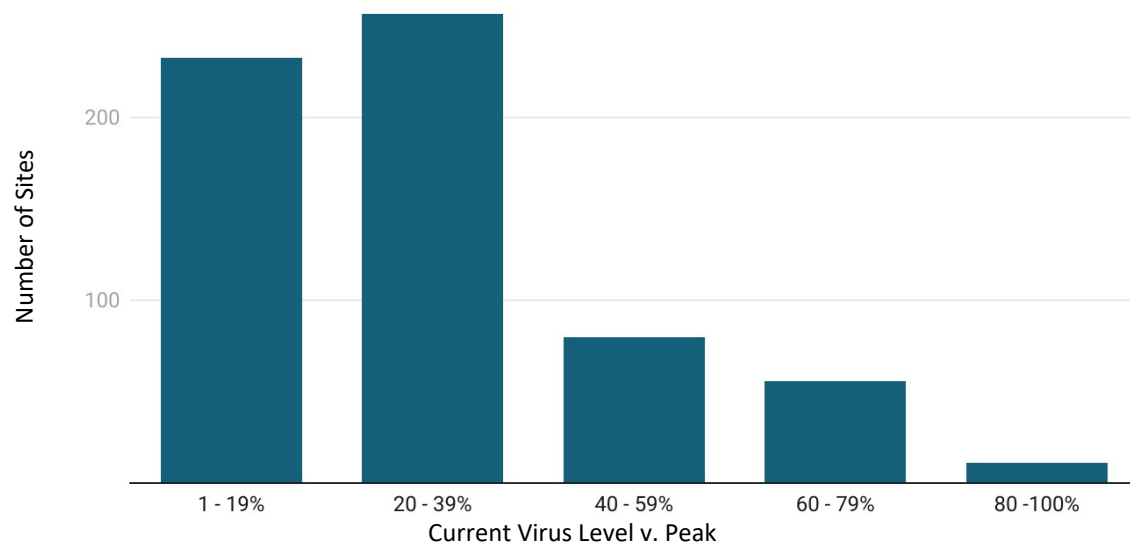


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Change (%) in Virus Levels Since Last Period

March 29 - April 12

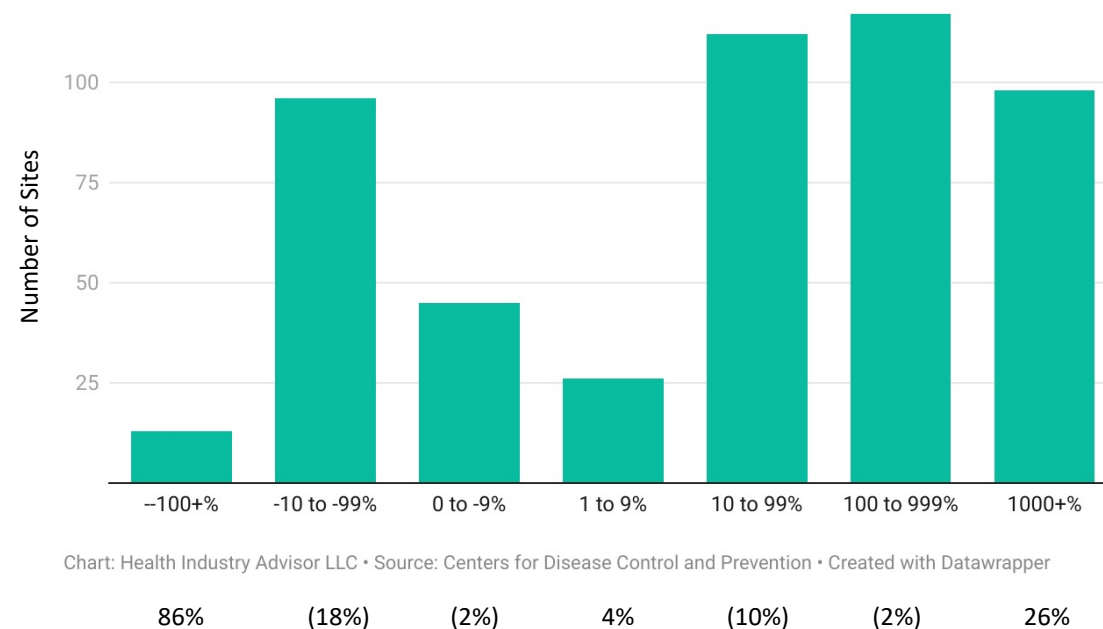


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Change since last reporting period

(12%)

(1%)

10%

107%

57%

86%

(18%)

(2%)

4%

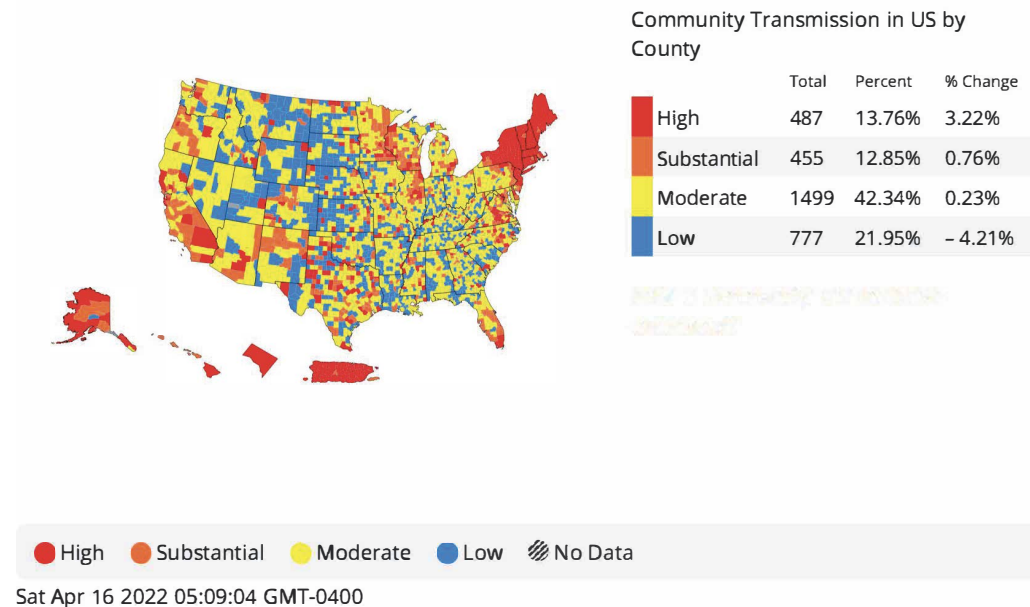
(10%)

(2%)

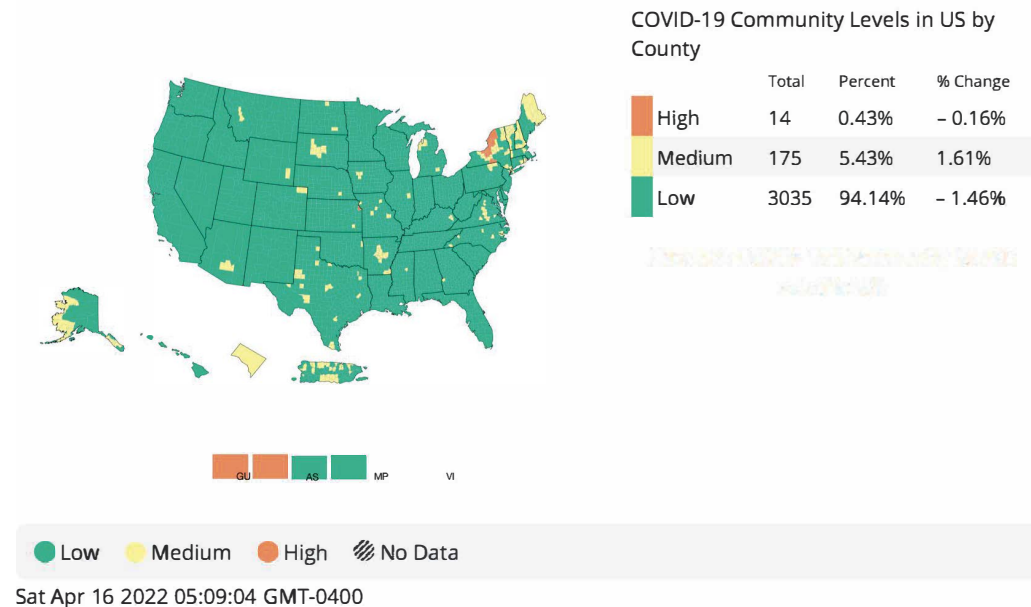
26%

CDC reports an increase in the number of communities with High or Substantial transmission. Similarly, it reported a slight shift from Low to Medium Community (Risk) Levels

Community Transmission of All Counties in US



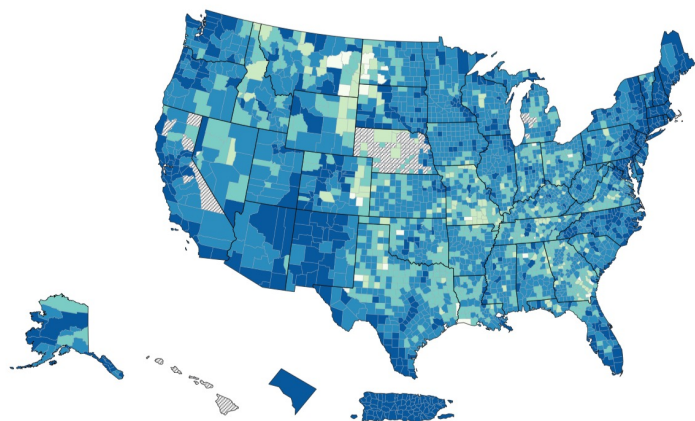
COVID-19 Community Levels of All Counties in US



Source: Centers for Disease Control and Prevention, https://covid.cdc.gov/covid-data-tracker/#county-view?list_select_state=all_states&list_select_county=all_counties&data-type=

Southern states lag the county in both single dose and full vaccination. Heartland states lag in full vaccination rates

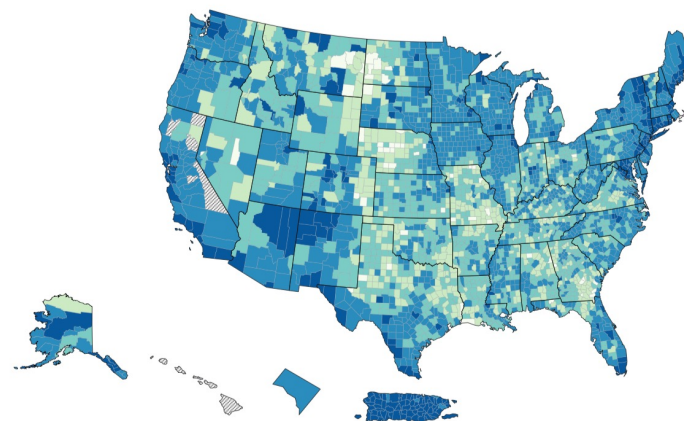
% of total population with at least one dose of All Counties in US



0-29.9% 30-39.9% 40-49.9% 50-69.9% 70%+ No Data

Sat Apr 16 2022 05:09:04 GMT-0400

% of total population fully vaccinated of All Counties in US



0-29.9% 30-39.9% 40-49.9% 50-69.9% 70%+ No Data

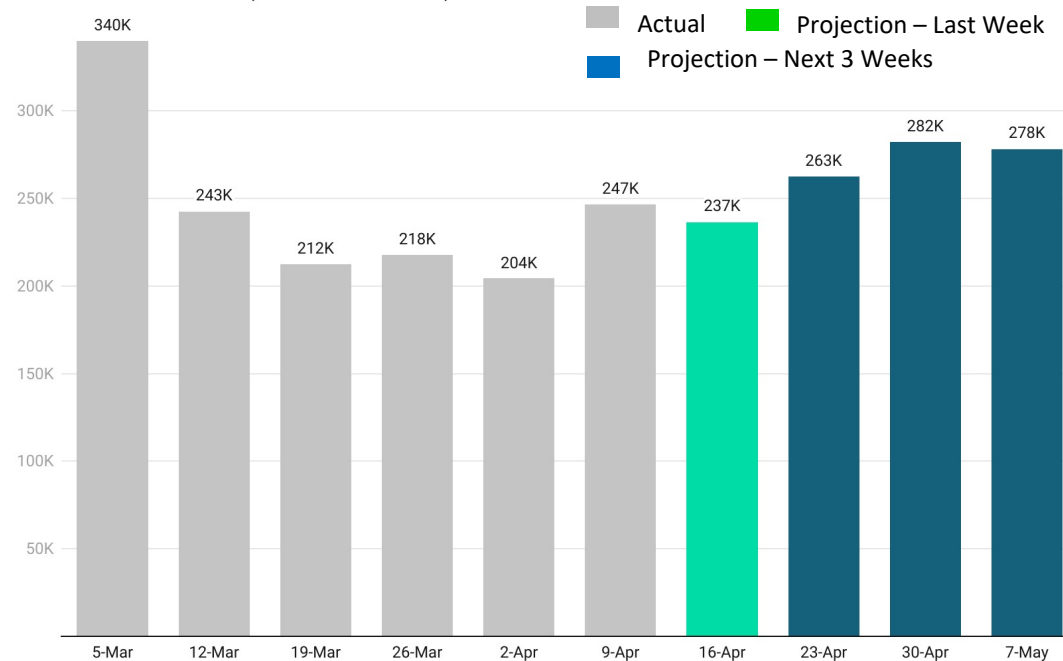
Sat Apr 16 2022 05:09:04 GMT-0400

Source: Centers for Disease Control and Prevention, https://covid.cdc.gov/covid-data-tracker/#county-view?list_select_state=all_states&list_select_county=all_counties&data-type=Vaccinations

An ensemble forecast predicts cases will increase while deaths will further decline over the next three weeks

Newly-Reported Cases Per Week

Covid-19 Forecast Hub, Composite Forecast As of April 9

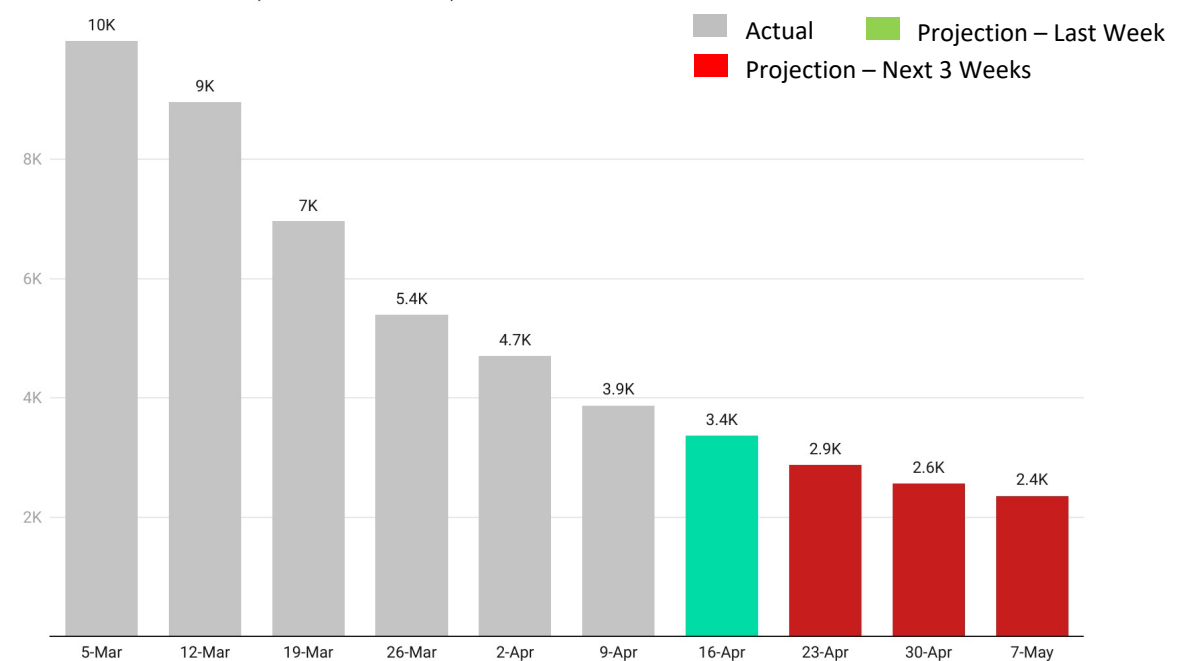


For the week ending on the date shown

Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

Newly-Reported Deaths Per Week

Covid-19 Forecast Hub, Composite Forecast As of April 9



For the week ending on the date shown

Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

New Covid cases in the United States rose by 14% in the past week

Week-Over-Week Change in Newly Reported Cases

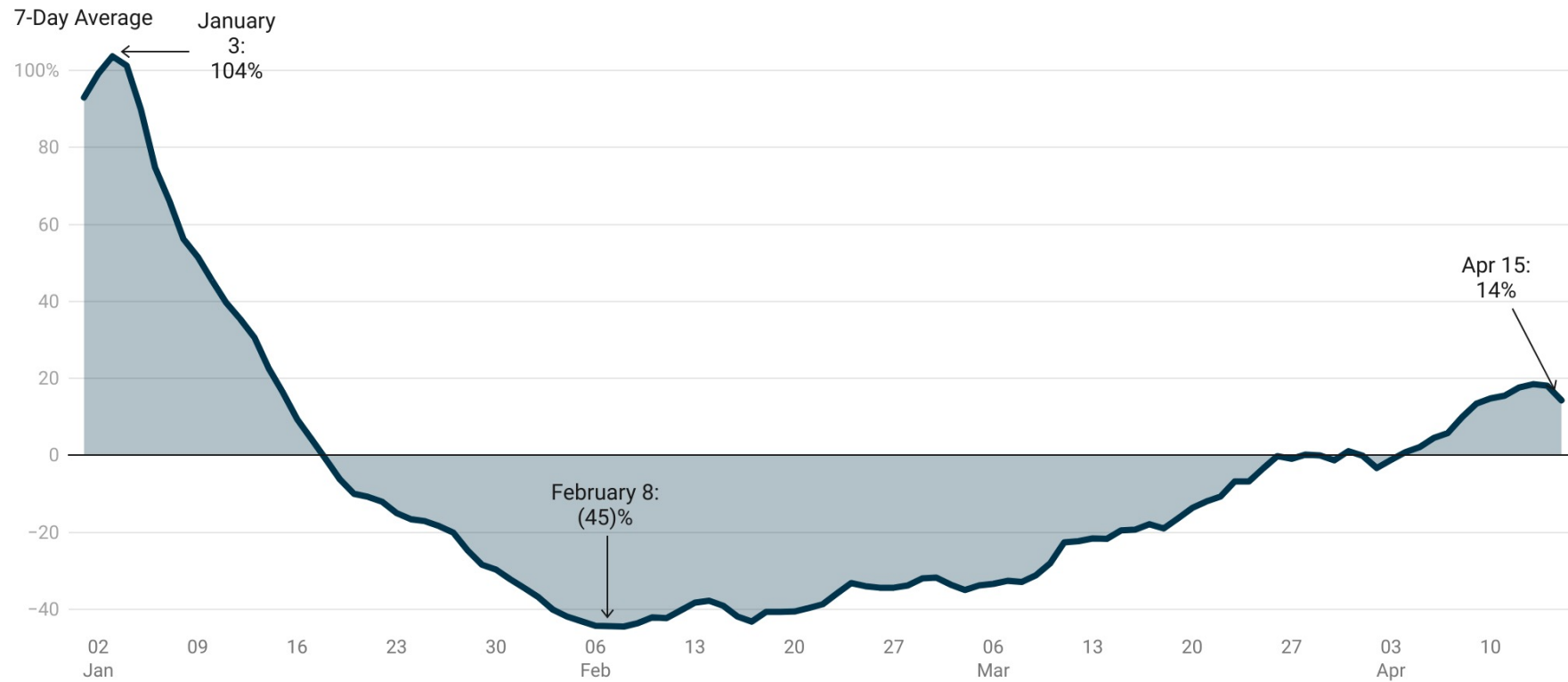
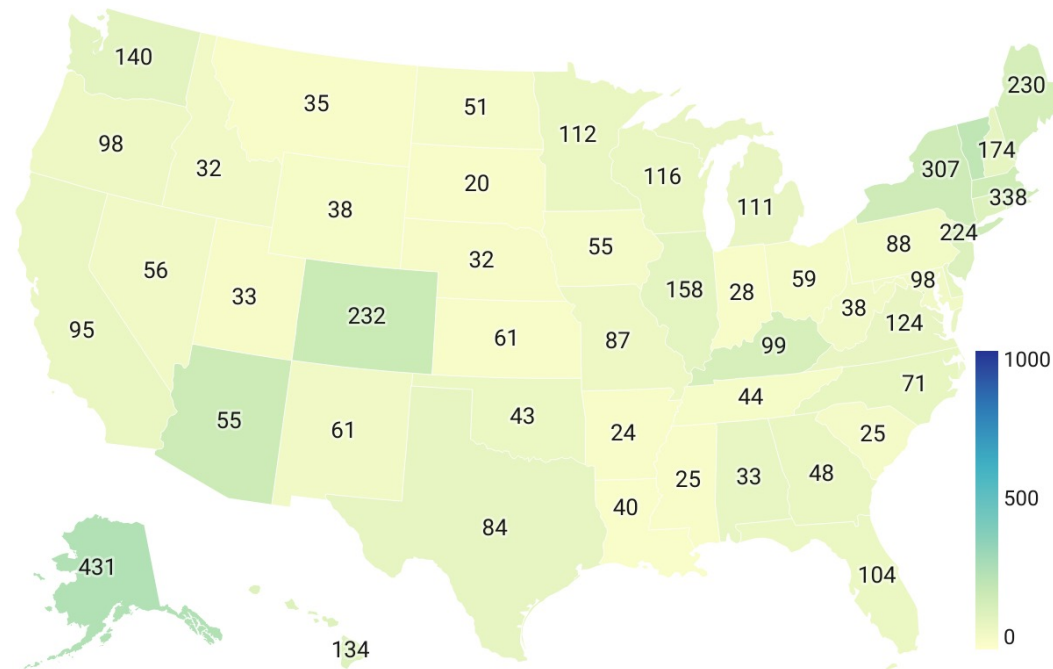


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Cases rates, while generally low in the United States, run highest and have increased recently in the Northeast

New Cases / Million / Day

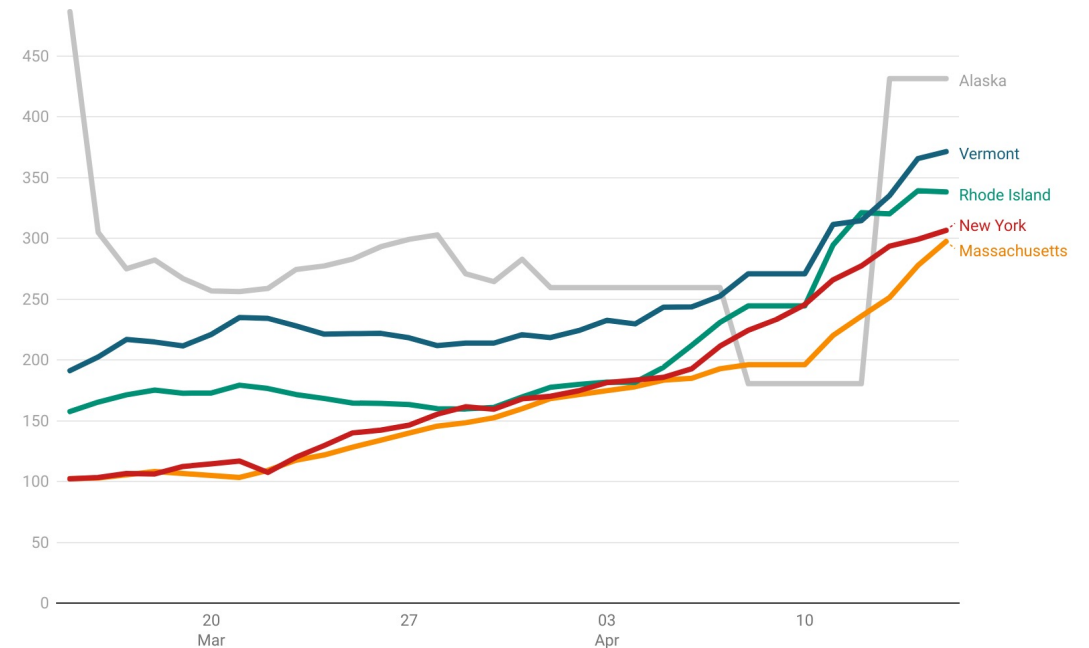
7-Day Average, As of April 15



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

Trend: New Daily Cases per Million

7-day average



States with Highest Current Rates

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

Covid cases increased last week in most states and the District of Columbia. Cases doubled in DC and Nebraska and increased by more than half in eight other states

Week-over-Week Increase in Covid Cases

As of April 15

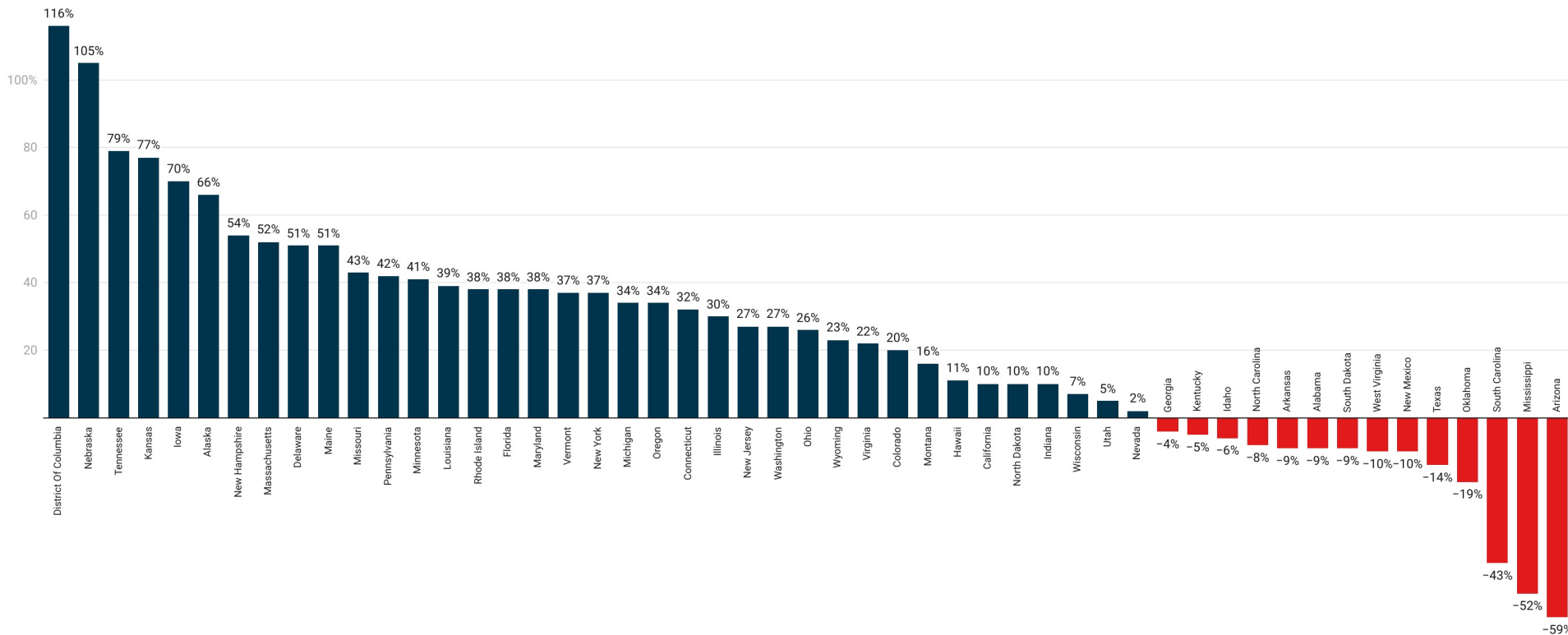
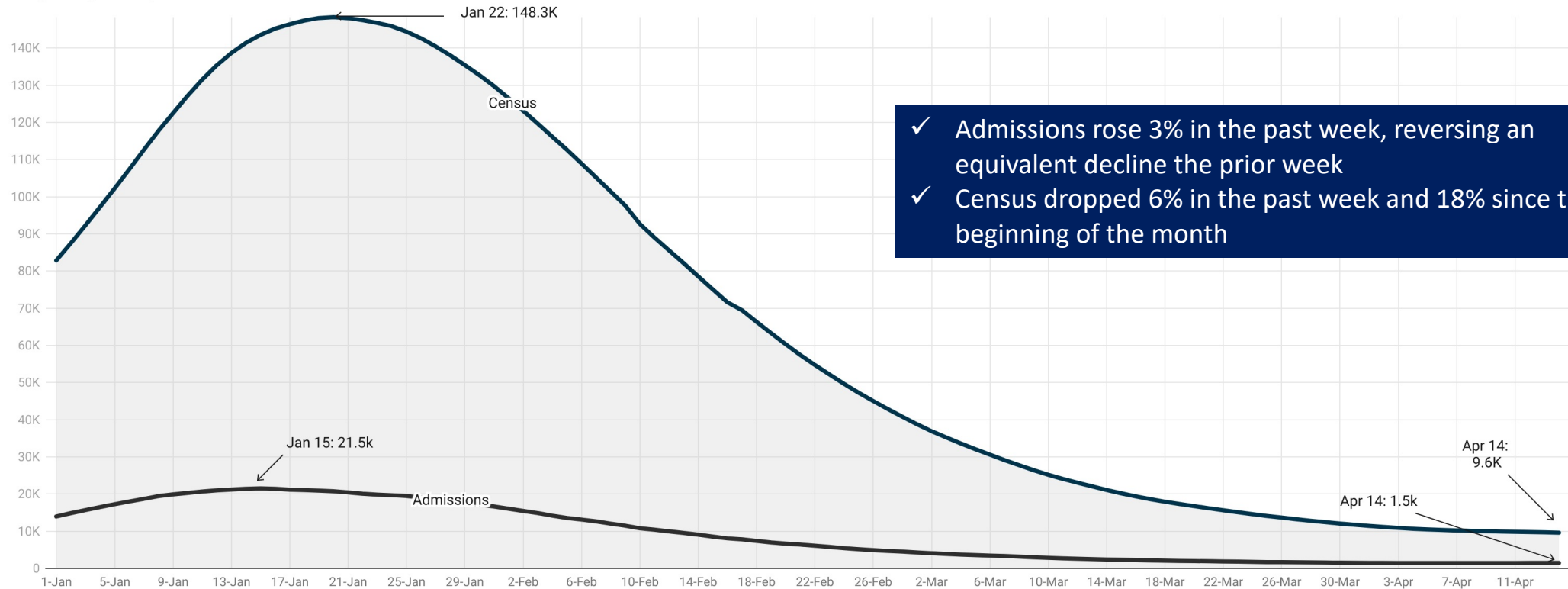


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Covid admissions increased slightly since last week, while patient days fell. Both measures remain at pandemic-low levels

Covid-19 Admissions & Census

7-Day Average Thru April 14



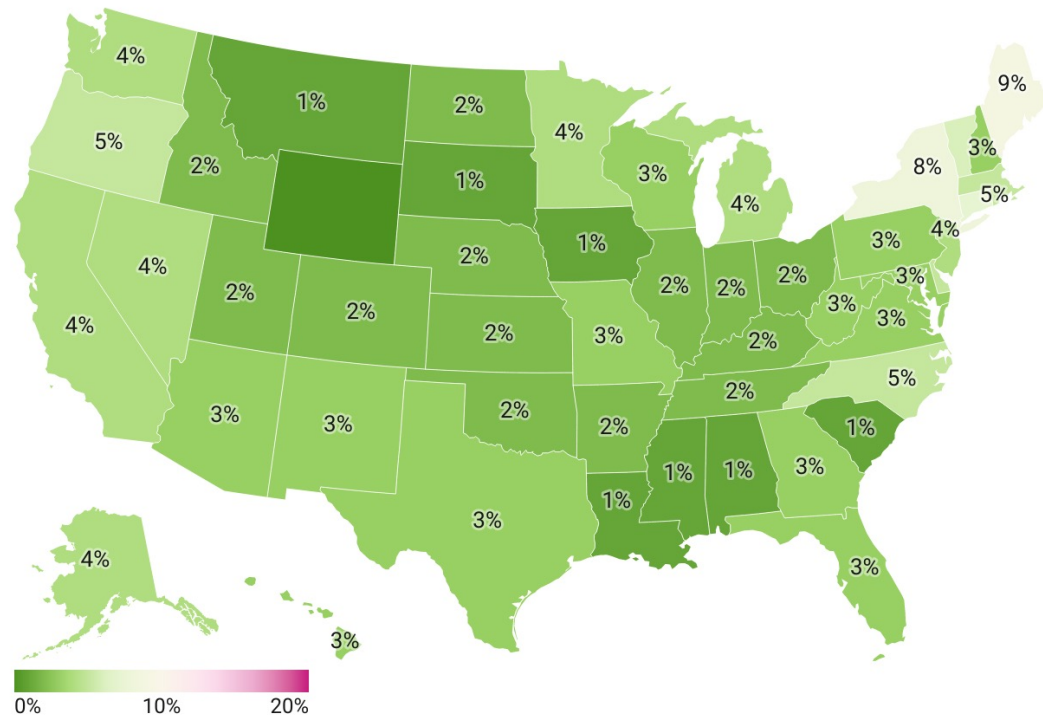
- ✓ Admissions rose 3% in the past week, reversing an equivalent decline the prior week
- ✓ Census dropped 6% in the past week and 18% since the beginning of the month

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

Hospitalizations with Covid remain low, representing fewer than 10% of inpatient beds in every state. Nonetheless, the number of Covid inpatients rose last week in several Northeastern states

Covid-19 Patients As % of All Inpatient Beds

As of April 14



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

Week-Over-Week Change in Covid Inpatients

7-Day Average

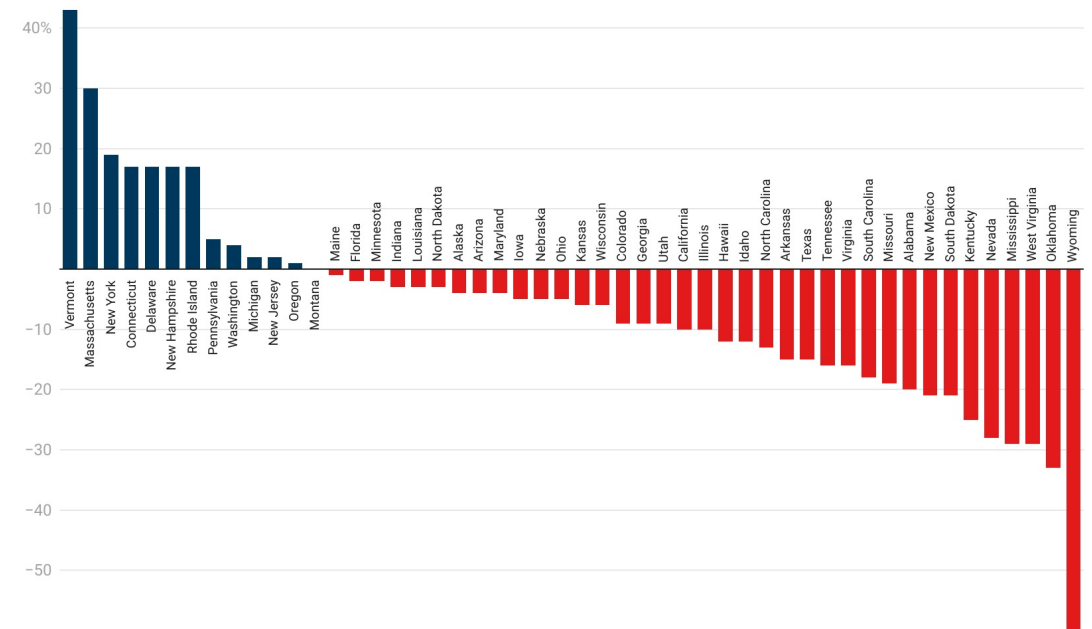
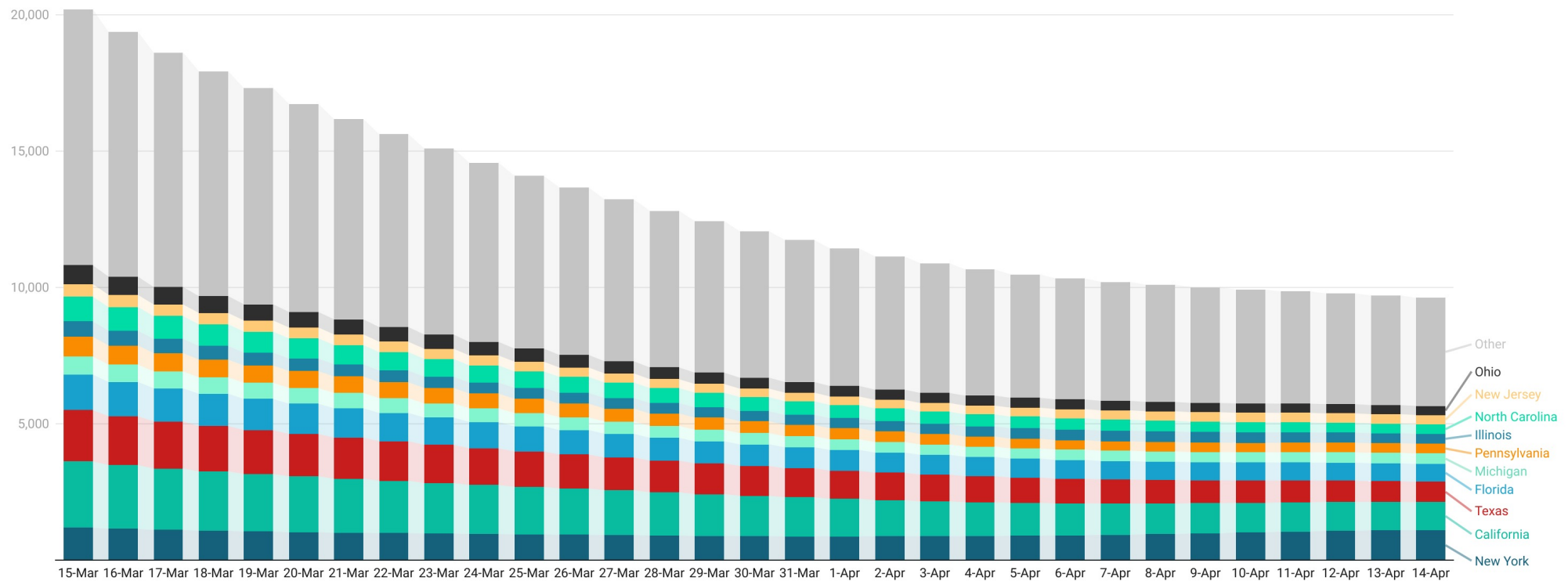


Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Ten states account for half of the Covid inpatients nationwide

Covid Inpatient Census

7-Day Average



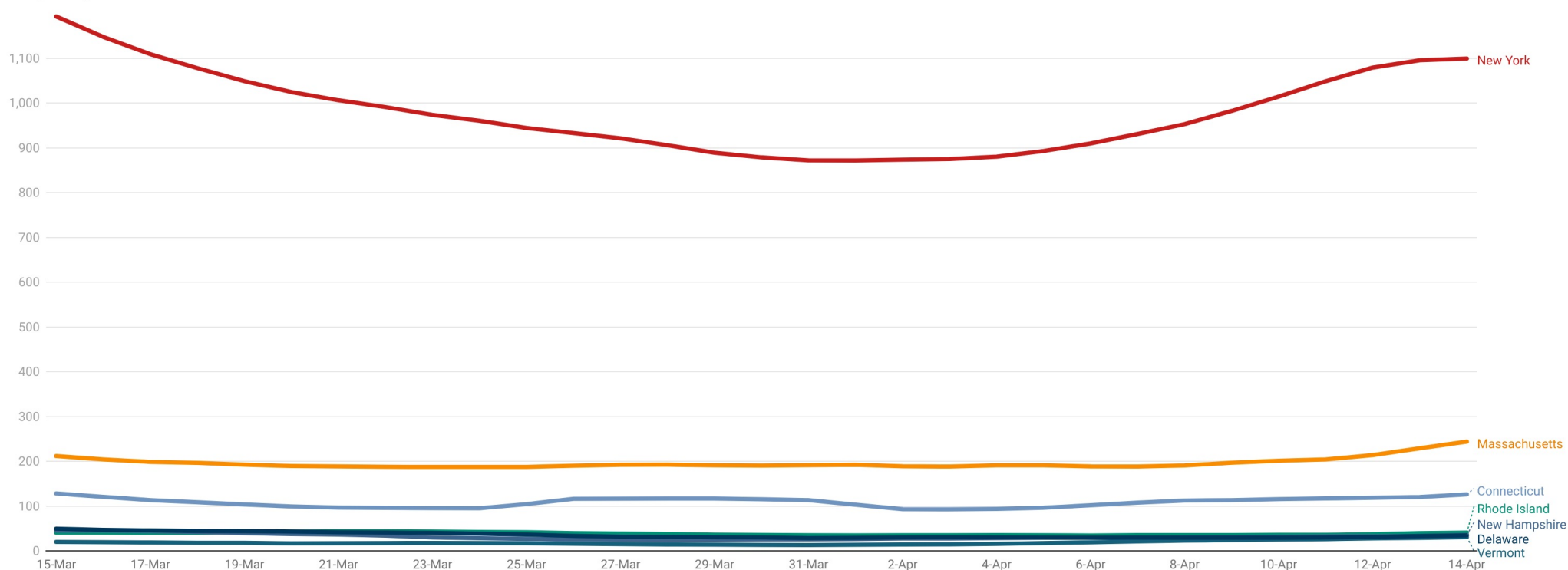
Ten States with highest census plus all others

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

New York's Covid inpatient census stabilized in the past few days, after rising since the beginning of April. Census in Connecticut and Massachusetts increased recently

Trend: Covid Inpatient Census

7-day average



States with Largest Increase (%) in Covid Patients in Last Week

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

Deaths with Covid declined again last week, continuing a pattern that started in late January

Deaths With Coronavirus

7-Day Average, Through April 15

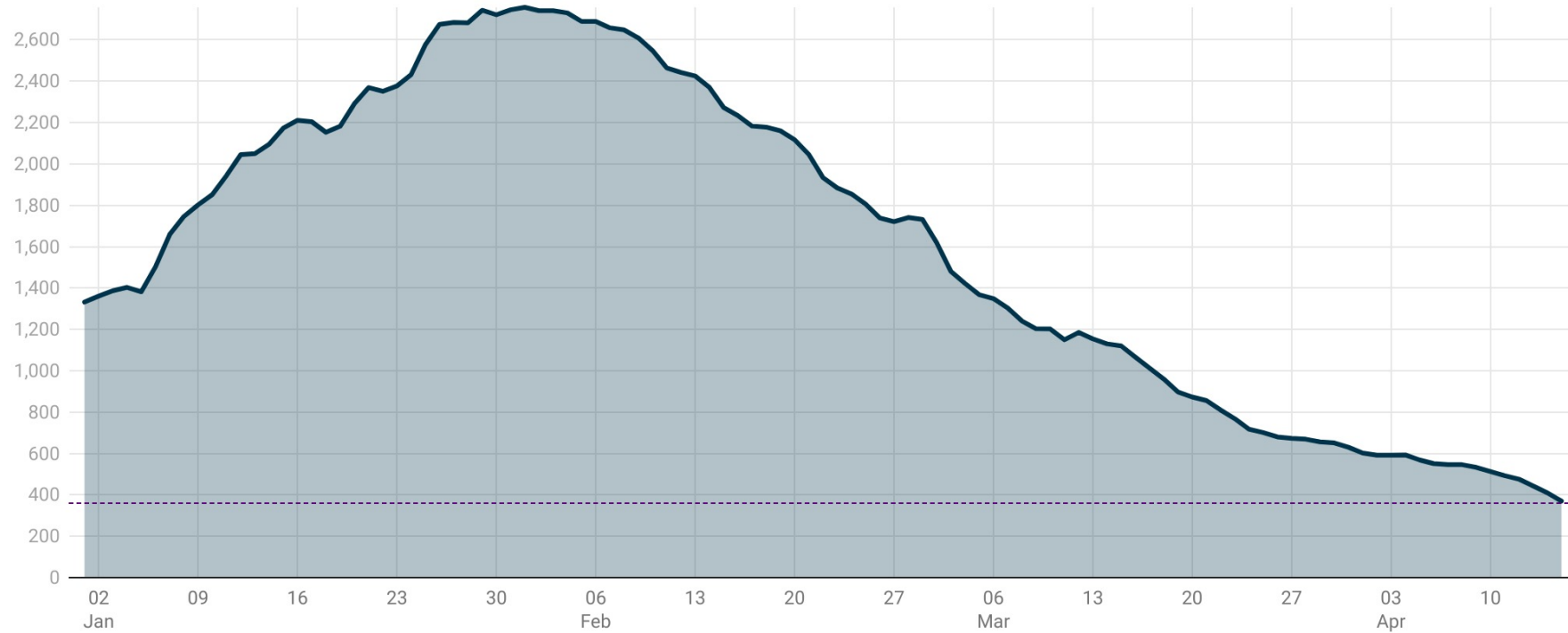


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Sources

- Bloomberg Vaccine Trackers, <https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/?sref=Z0b6TmH>
- 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, COVID-19 Laboratory-Confirmed Hospitalizations https://gis.cdc.gov/grasp/COVIDNet/COVID19_5.html
- 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, Vaccines, <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html>
- 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 Forecast Hub, <https://viz.covid19forecasthub.org>
- COVID-19 Projections Using Machine Learning, <https://covid19-projections.com>
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- New York Times, Covid-19 data <https://github.com/nytimes/covid-19-data>
- Our World In Data, <https://ourworldindata.org/covid-vaccinations>
- U.S. Department of Health & Human Services <https://beta.healthdata.gov/dataset/COVID-19-Diagnostic-Laboratory-Testing-PCR-Testing/j8mb-icvb>
- U.S. Department of Health & Human Services: <https://healthdata.gov/dataset/covid-19-estimated-patient-impact-and-hospital-capacity-state>
- Worldometers.info: <https://www.worldometers.info/coronavirus/>
- Yale School of Public Health & Harvard TH Chan School of Public Health, <https://covidestim.or>