



"Strategic Advice in an Era of Unprecedented Change"

COVID19 VITAL SIGNS

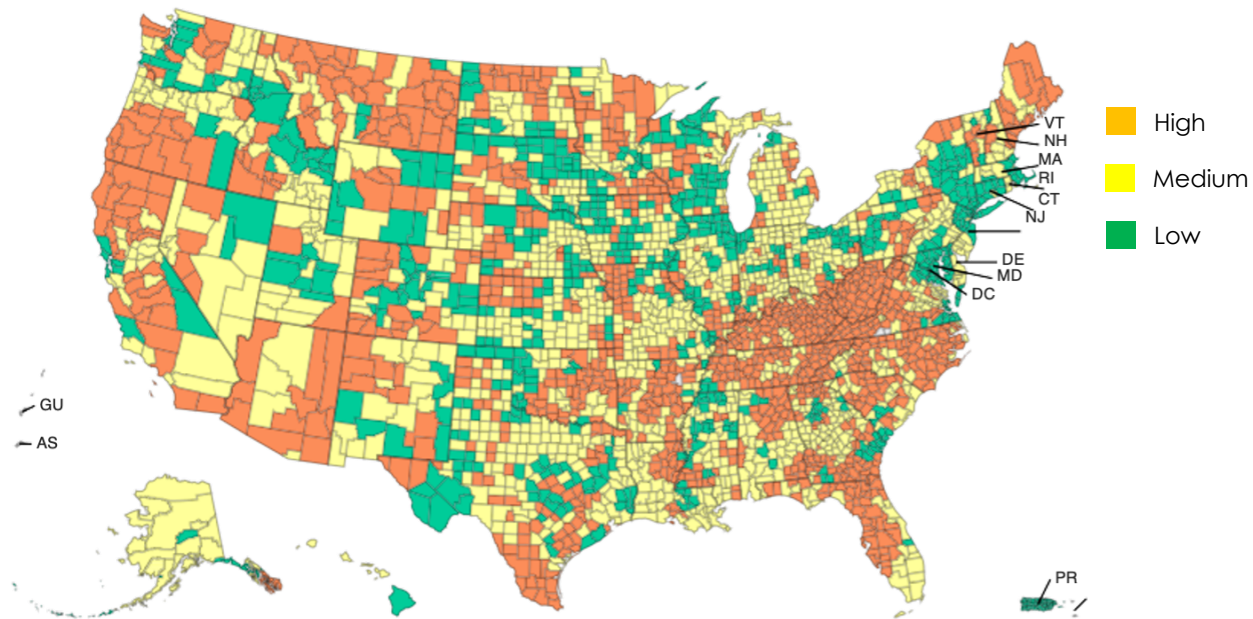
ISSUE #371

MONDAY, FEBRUARY 28, 2022

Highlights – As of February 25

- On Friday, the Centers for Disease Control and Prevention released new mask guidance
 - 70% of the U.S. population gained relaxed measures, including eliminating the need for indoor masking for uncompromised individuals. Previously, nearly all areas were under strict masking guidance
 - The new guidance recognizes severity measures, including hospital admission and patient occupancy rates. Previously, the CDC only recognized community transmission rates
 - Airline travelers continue to face masking requirements
- In the United States, the 7-day new case rate dropped to its lowest level in seven months (since July 28)
 - This rate plunged 90% in the last six weeks
 - An ensemble forecast predicts another 65% decline in the next three weeks
 - The U.S. fell to 87th globally in the 7-day new case rate per capita
- Vaccines proved effective at the peak of the Omicron wave:
 - Full vaccination lowered the risk of infection by 2.4x and the risk of death by 14x
 - Full vaccination plus a booster shot lowered the risk of infection by 3.2x and the risk of death by 41x
- Covid imposed lower demands on the U.S. healthcare system again last week
 - Covid admissions last week fell to one-fourth the rate seen in mid-January
 - Admissions dropped to the lowest level since mid-November
 - Covid patient census fell to one-third of its level of a month ago
 - This census dropped to the lowest level since Thanksgiving week
 - Hospitals witnessed fewer flu-related visits for this point in the season than during fourteen of the past fifteen years. Only last year's mild season saw fewer visits
- Deaths with Covid declined nearly 40% in the past four weeks
 - Fewer persons died with Covid last week than any week since December 31-January 6
 - An ensemble forecast predicts deaths will recede another 30% in the next three weeks

CDC New Masking Guidance



Source: CDC, As of February 24, 2022
<https://www.cdc.gov/coronavirus/2019-ncov/your-health/covid-by-county.html>

CDC's COVID-19 Community Levels and Indicators

New Cases (per 100,000 population in the last 7 days)	Indicators	Low	Medium	High
Fewer than 200	New COVID-19 admissions per 100,000 population (7-day total)	<10.0	10.0-19.9	≥20.0
	Percent of staffed inpatient beds occupied by COVID-19 patients (7-day average)	<10.0%	10.0-14.9%	≥15.0%
200 or more	New COVID-19 admissions per 100,000 population (7-day total)	NA	<10.0	≥10.0
	Percent of staffed inpatient beds occupied by COVID-19 patients (7-day average)	NA	<10.0%	≥10.0%

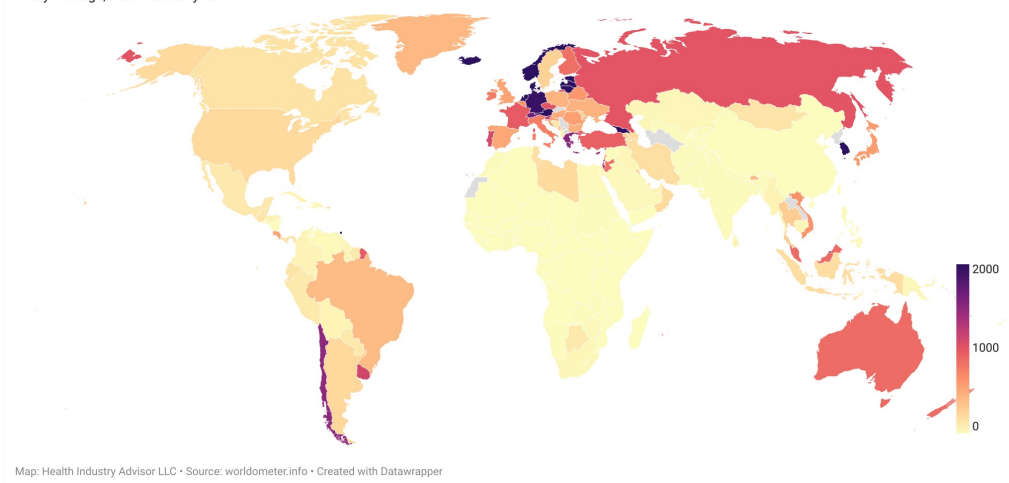
The COVID-19 community level is determined by the higher of the inpatient beds and new admissions indicators, based on the current level of new cases per 100,000 population in the past 7 days

Source: Vinay Prasad, MD, MPH
 @VPrasadMDMPH

Iceland posted the highest case rate globally. The U.S. rate fell to 87th in the world

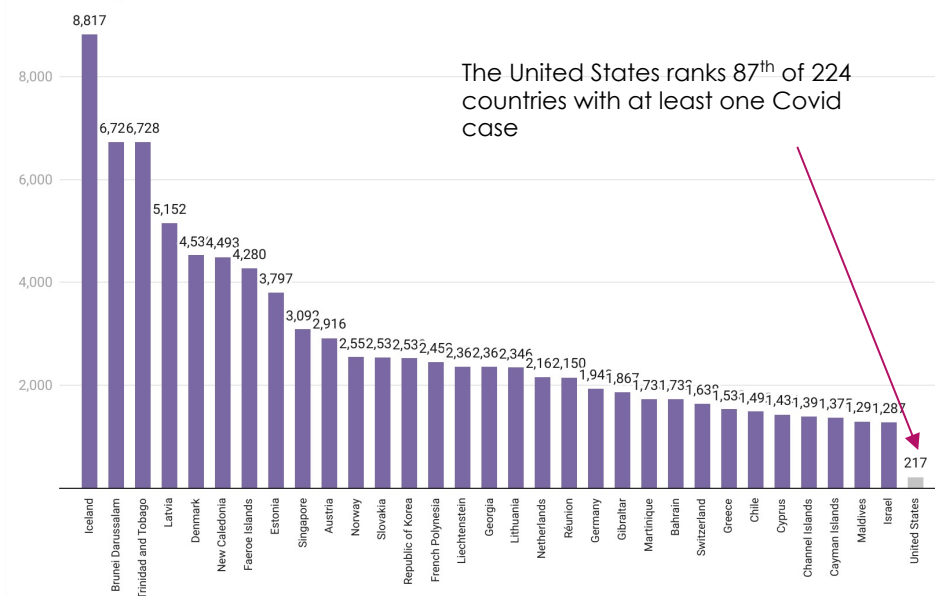
New Daily Cases / Million

7-Day Average, As of February 25



Highest Current Rates: Daily New Cases / Million

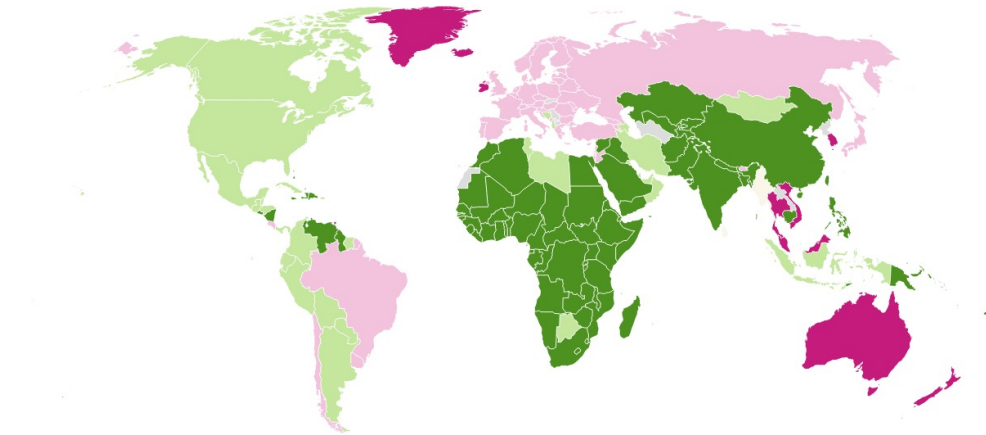
As of February 25



The virus spread last week in Australia, Hong Kong, Iceland, Ireland, Korea, Luxemburg, Malaysia, New Zealand, Singapore, Thailand, and Vietnam

Virus Spread

Cases per Capita and Case Growth Past Week



As of February 25

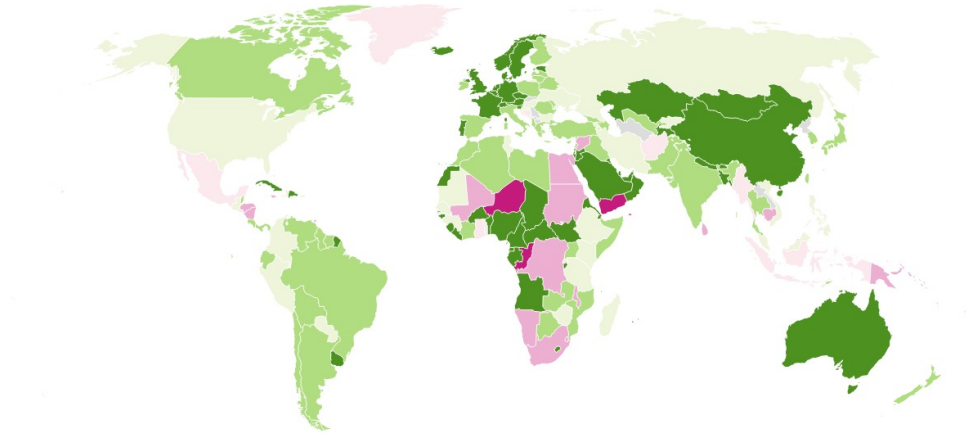
Map: Health Industry Advisor LLC • Source: Worldometers.info • Created with Datawrapper

Scale	Cases / 100k	Week-over-Week Case Growth
Green	< 5 Cases / 100k	
Light Green	<25	Declining
Beige	<25	Increasing
Light Red	>25	Declining
Red	>25	Increasing

Death rates run highest in the Democratic Republic of Congo, Egypt, Honduras, Nicaragua, South Africa, and Sudan

Deaths / Case

Deaths past week / cases three weeks ago



As of February 25

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

Scale	Death / Case
Red	> 5%
Medium Red	1.5 – 5%
Light Red	1.0 – 1.5%
Light Green	0.5- 1.0%
Medium Green	0.15 – 0.5%
Green	<0.015%

Deaths with Covid19 peaked four weeks ago, declining 38% thereafter. Forecasted deaths recede 31% in the next three weeks

Actual Rate

Deaths With Coronavirus

7-Day Average, Through February 25

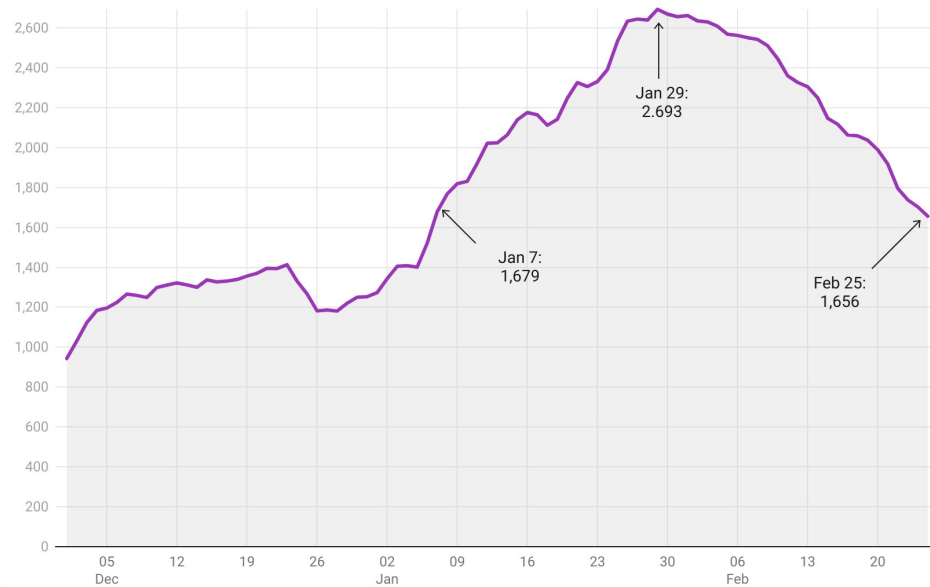
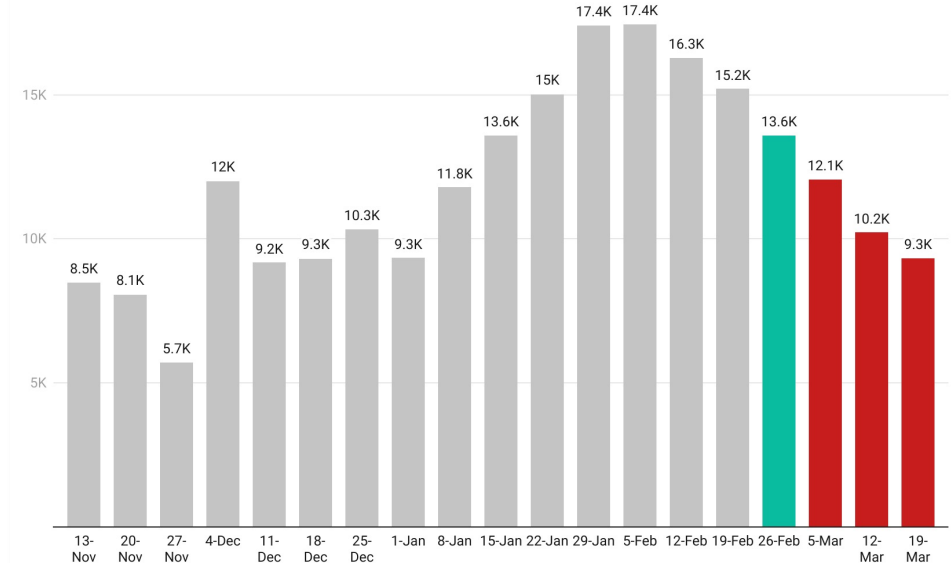


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Ensemble Forecast

Newly-Reported Deaths Per Week

Covid-19 Forecast Hub, Composite Forecast As of February 19



For the week ending on the date shown

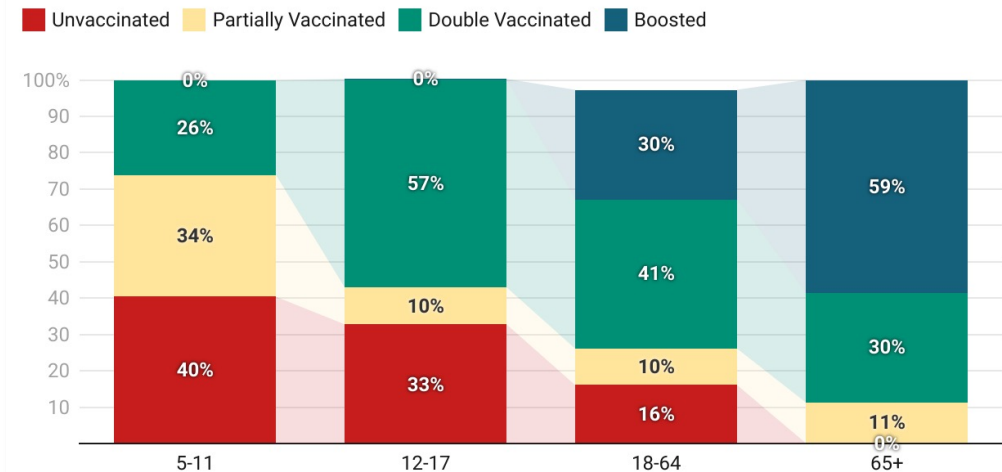
Chart: Health Industry Advisor LLC • Source: Covid-19 Forecast Hub • Created with Datawrapper

Vaccination status by age parallels expected risk of severe illness from Covid – increases with age

- ▶ Senior citizens:
 - ▶ 9 in 10 are fully vaccinated or boosted
 - ▶ 6 in 10 are boosted
- ▶ Working aged adults:
 - ▶ 7 in 10 are fully vaccinated or boosted
 - ▶ 3 in 10 are boosted
- ▶ Teenaged minors:
 - ▶ 6 in 10 are fully vaccinated
 - ▶ One-third are unvaccinated
- ▶ Eligible children:
 - ▶ 4 in 10 are unvaccinated
 - ▶ 1 fourth are fully vaccinated

Vaccination Status By Age

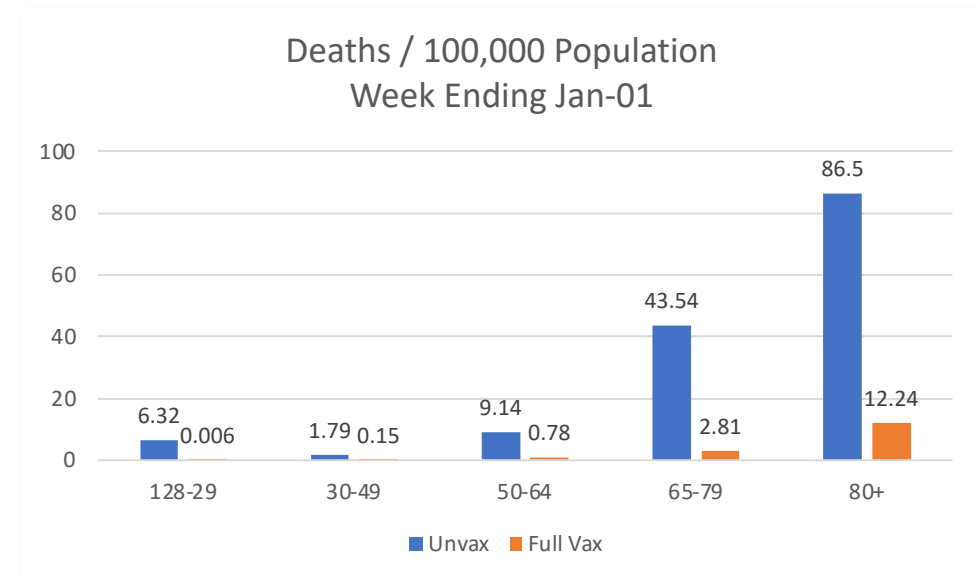
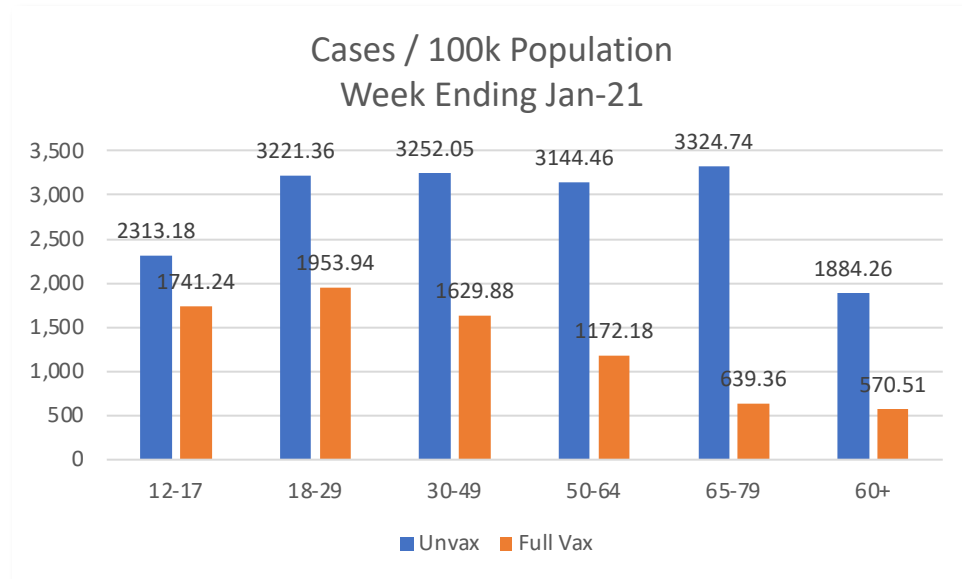
As of February 25



CDC reports more first doses for 65+ year olds than the population of this age group

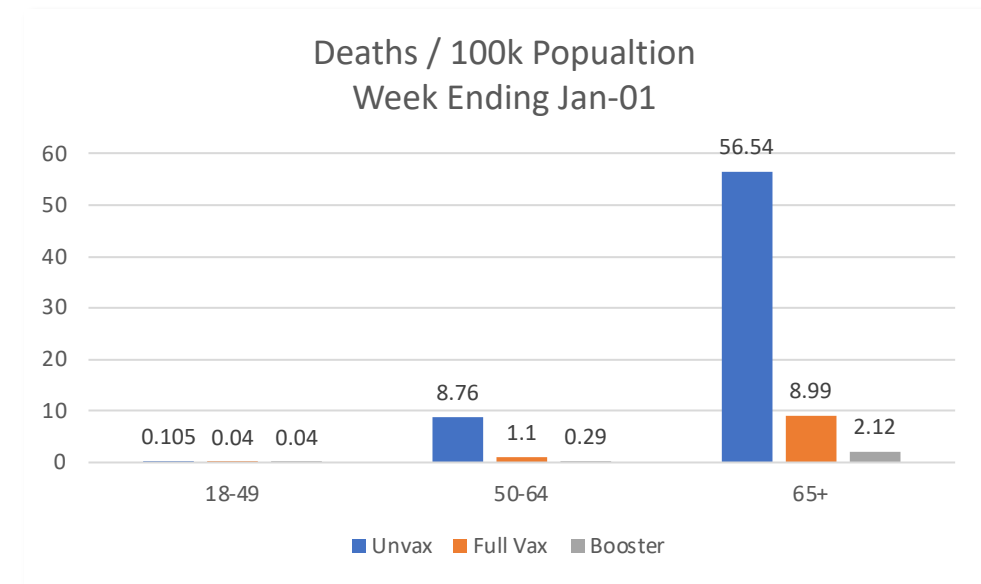
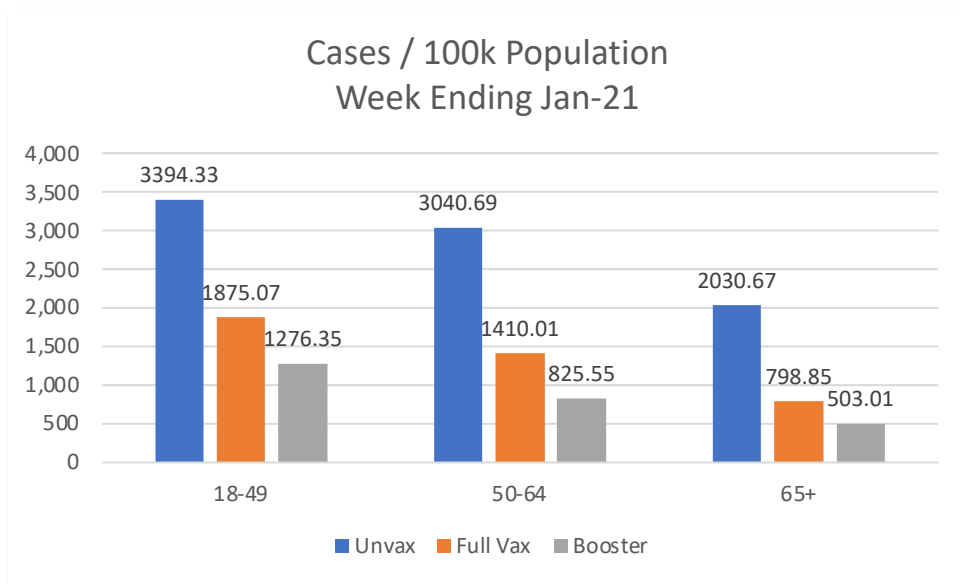
Chart: Health Industry Advisor LLC • Source: CDC • Created with Datawrapper

Vaccination lowered the risk of infection by 2.4-2.6x and the risk of death by 14x



Source: Centers of Disease Control and Prevention, <https://covid.cdc.gov/covid-data-tracker/#rates-by-vaccine-status>

Boosters lowered the risk of infection by 3.2x and the risk of death by 41x, compared to being unvaccinated



Source: Centers of Disease Control and Prevention, <https://covid.cdc.gov/covid-data-tracker/#rates-by-vaccine-status>

Nationwide, Covid admissions sank by three-fourths in the peaking in mid-January. Census plummeted by two-thirds since its recent peak

Covid-19 Admissions & Census

7-Day Average, As of February 24

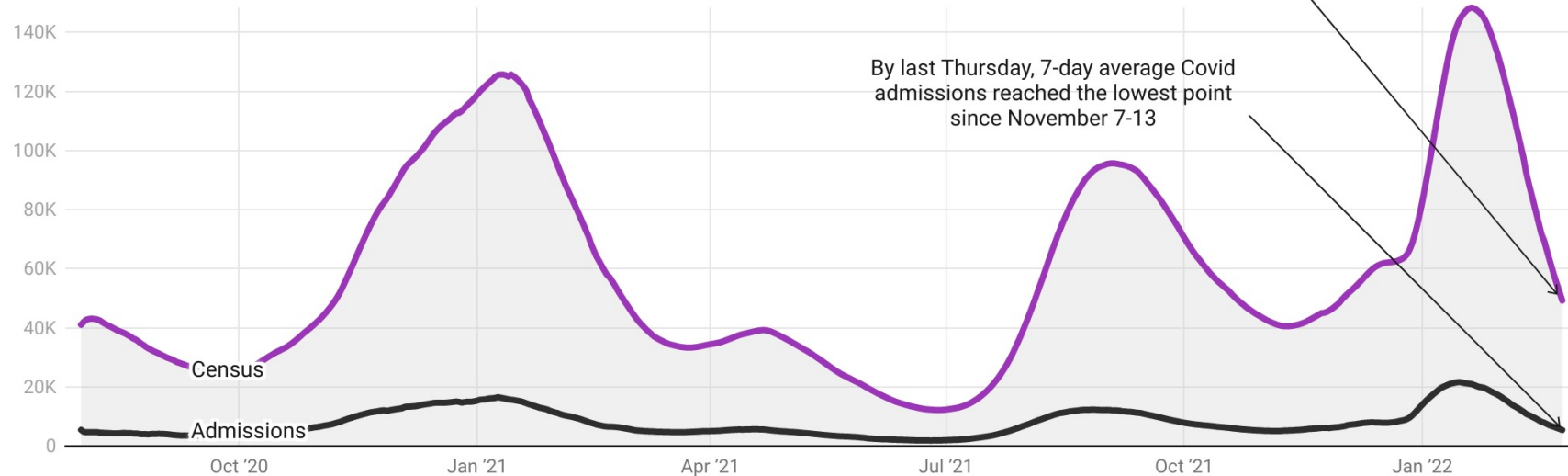


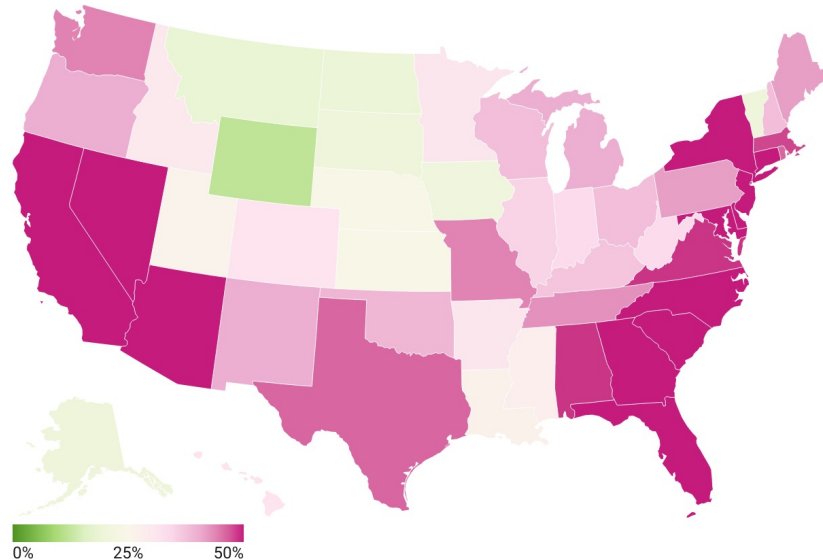
Chart: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Covid patients occupied one of every 2 beds in the United States a month ago. By last week, this rate plunged to less than 1 of every 6.5 beds

As of January 27

Covid-19 Patients As % of All Inpatient Beds

As of January 27

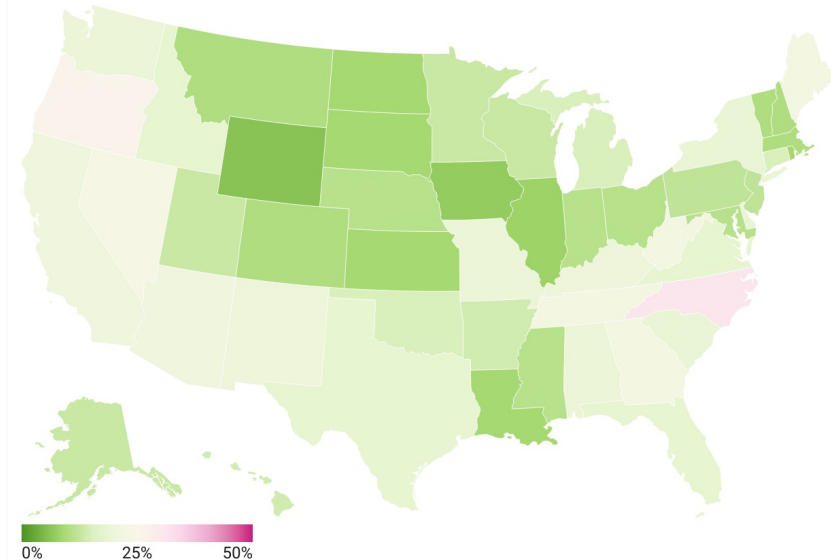


Map: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

As of February 24

Covid-19 Patients As % of All Inpatient Beds

As of February 24

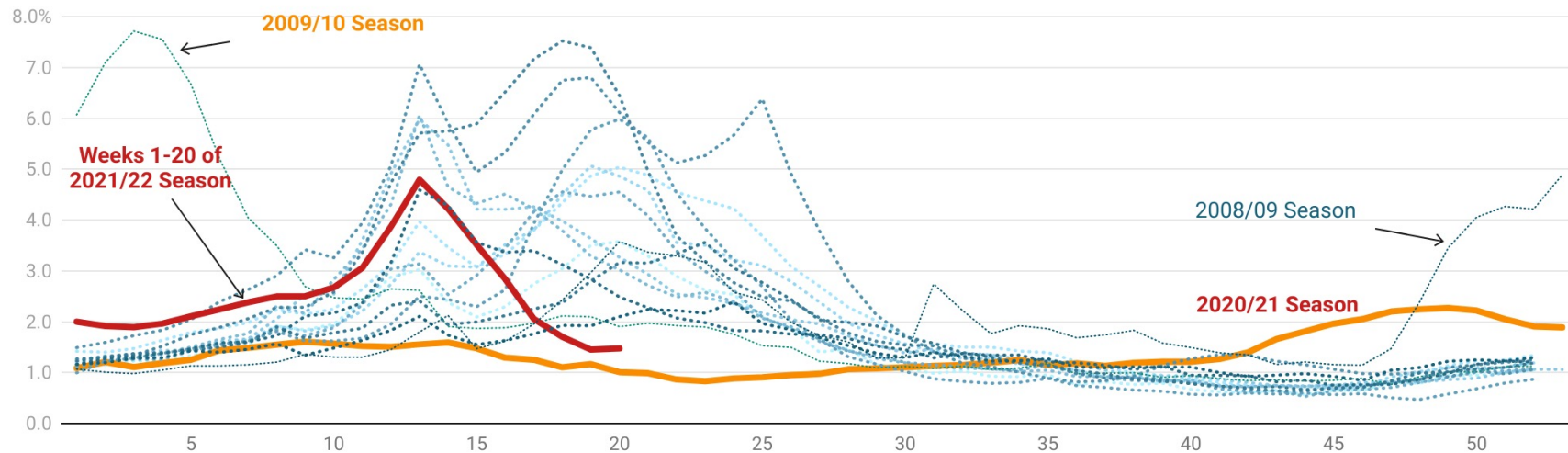


Map: Health Industry Advisor LLC • Source: Centers for Disease Control and Prevention • Created with Datawrapper

Flu visits plunged over the past seven weeks. Only one season in the past fifteen years witnessed lower flu visit rates

Percentage Visits for Influenza-Like Illness, National Summary

Comparison of Last Fifteen Seasons



Reported by: U.S. WHO/NREVSS Collaborating Laboratories and ILINet

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

The test-positive rate dropped to its lowest level since a week prior to Thanksgiving.

Test-Positivity Rate

7-Day Average, Through February 19

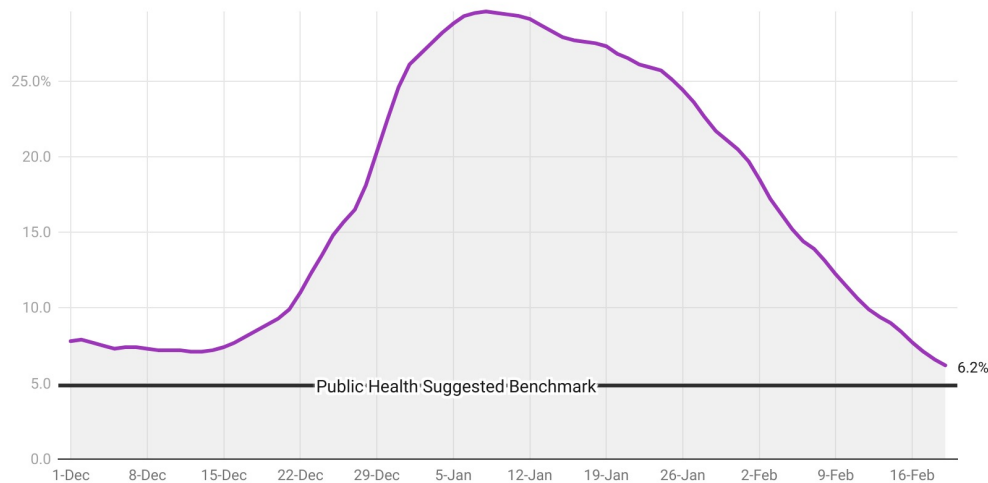
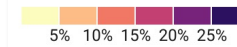


Chart: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

Test Positivity %

7-Day Average, As of February 19



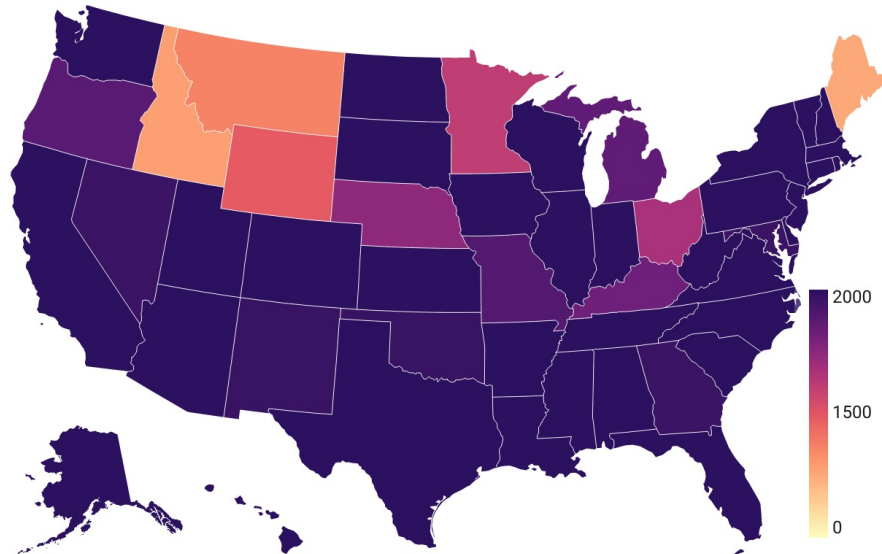
Map: Health Industry Advisor LLC • Source: U.S. Department of Health & Human Services • Created with Datawrapper

New case rates plummeted across much of the country.
Maine reported the highest case rate of all states

As of January 13

New Cases / Million

7-Day Average, As of January 13

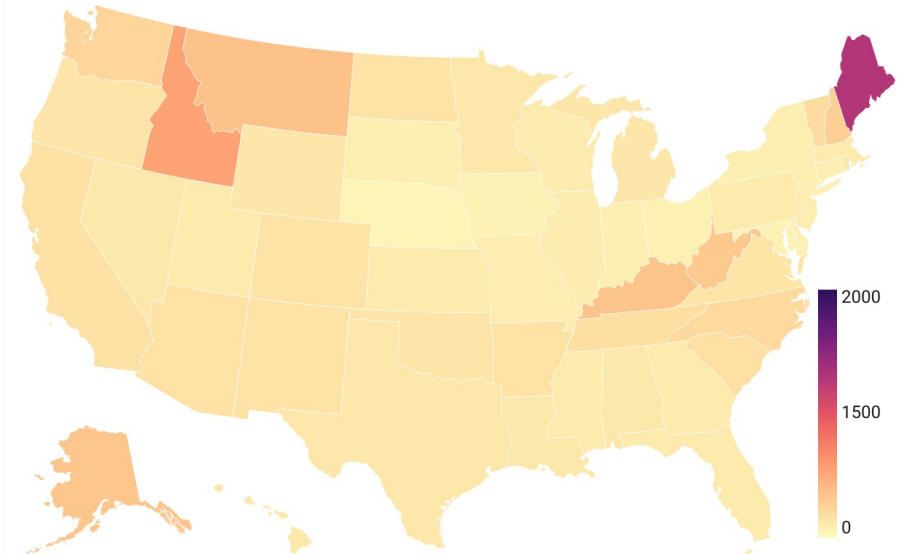


Map: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

As of February 25

New Cases / Million

7-Day Average, As of February 25



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

Cases tumbled 91% in the past five weeks. The ensemble forecast predicts infections will retreat another 65% in the next three weeks. Already the case rate is lower than anytime since last July

New Daily Cases / Million

7-Day Average

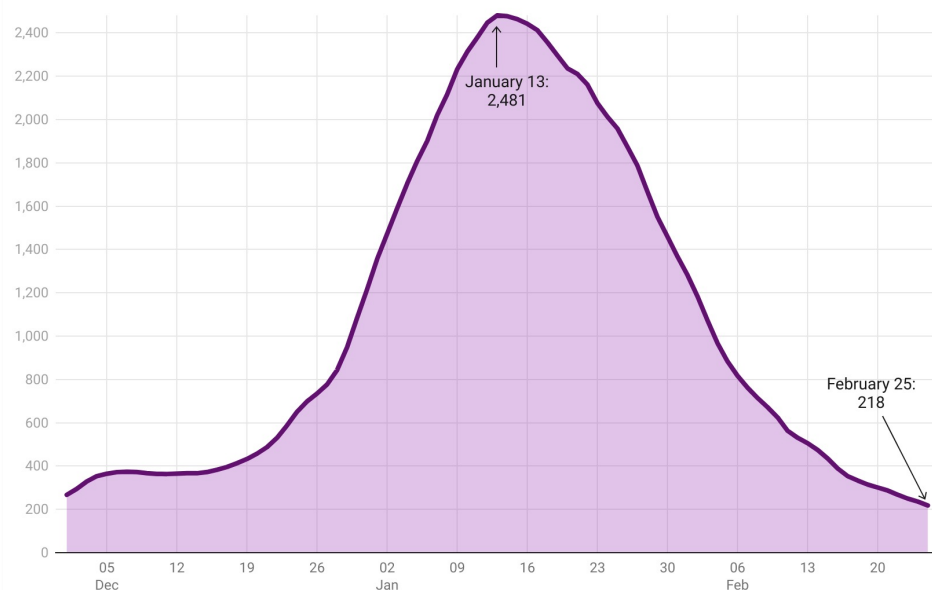
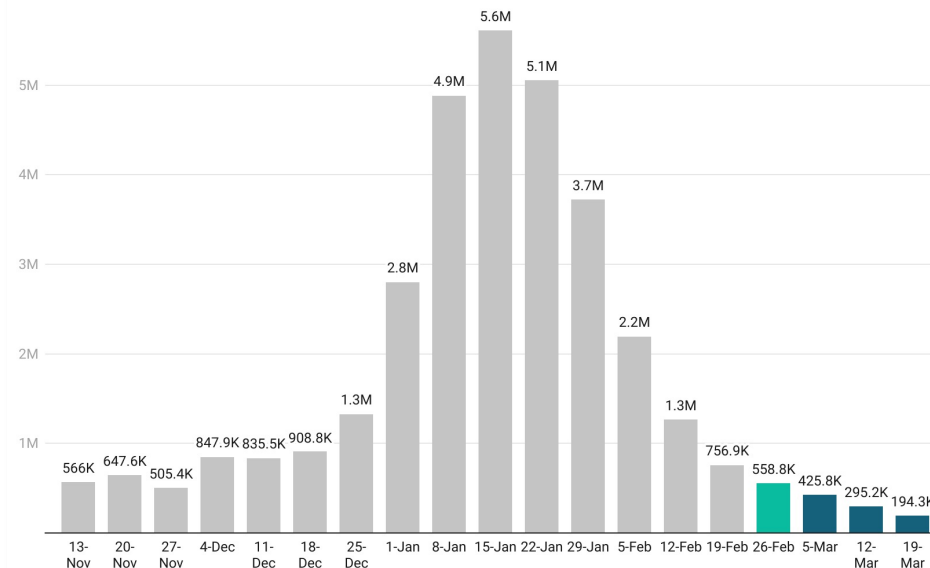


Chart: Health Industry Advisor LLC • Source: worldometers.info • Created with Datawrapper

Newly-Reported Cases Per Week

Covid-19 Forecast Hub, Composite Forecast As of February 19



For the week ending on the date shown

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

Source: Covid-19 Forecast Hub

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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- ▶ 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.org>