COVID-19 Community Explorer:

The Best- and Worst-Performing Counties in the US

Key Findings for January 2022

1) Community Profile Perspective

Community Profile One continues to outperform all others (see Table 1; for explanations of terminology and Community Profile summaries, see Notes at the end of this document). We still see case rates rising rapidly relative to death rates; unlike in December, there are no profiles where death rates are rising faster than case rates (see Figure 1). As case rates have increased dramatically across all community profiles, two clusters of community profiles have emerged (see Figure 2). The first cluster of profiles with higher case rates includes Community Profiles Three, Four, Five, and Six. These communities are mostly located in the Midwest and the South and are made up of Black, Hispanic, and rural populations. The average case rate for all counties falling within one of these four profiles is 23,979 cases per 100,000 people.

The growth in cases in Community Profile One was the highest at 45.46 percent (more than 10 percentage points higher than the next highest growth rate of 35.16 percent in Profile Three; see Figure 1). Its case rate is no longer significantly lower than that of any other profile; now, it clusters with Community Profiles Two, Seven, and Eight (see Figure 2).

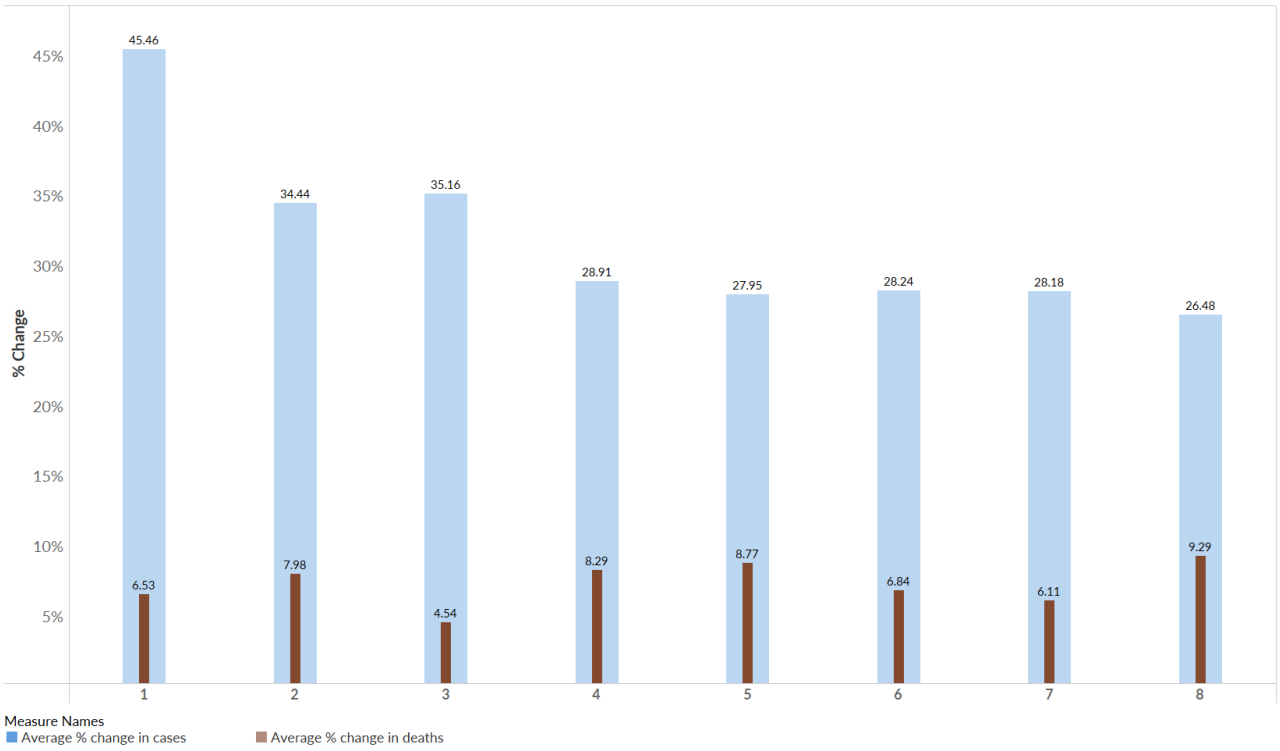
These communities are located in the Northeast, West, and urban centers across the country. With the exception of Profile One's ethnically diverse urban areas, these communities are largely White and often older. The average county case rate in these four community profiles is 21,236 cases per 100,000 residents.

Table 1. Average Vaccination Rate, Booster Rate, Cases per 100,000, Deaths per 100,000, and Fatality Rate by Community Profile (January 2022)

Community Profile	Vaccination Rate (%)	Booster Rate (%)	Cases per 100,000	Deaths per 100,000	Fatality Rate (%)
Profile 1	67.27	28.39	20,288	205	1.07
Profile 2	55.17	22.58	21,697	231	1.09
Profile 3	47.47	15.88	24,166	397	1.65
Profile 4	45.90	18.64	23,741	367	1.55
Profile 5	47.61	21.23	24,097	342	1.45
Profile 6	51.03	18.37	24,024	398	1.74
Profile 7	47.67	18.98	21,368	384	1.82
Profile 8	49.70	23.63	20,967	289	1.39
All Counties	49.97	20.47	22,716	330	1.47

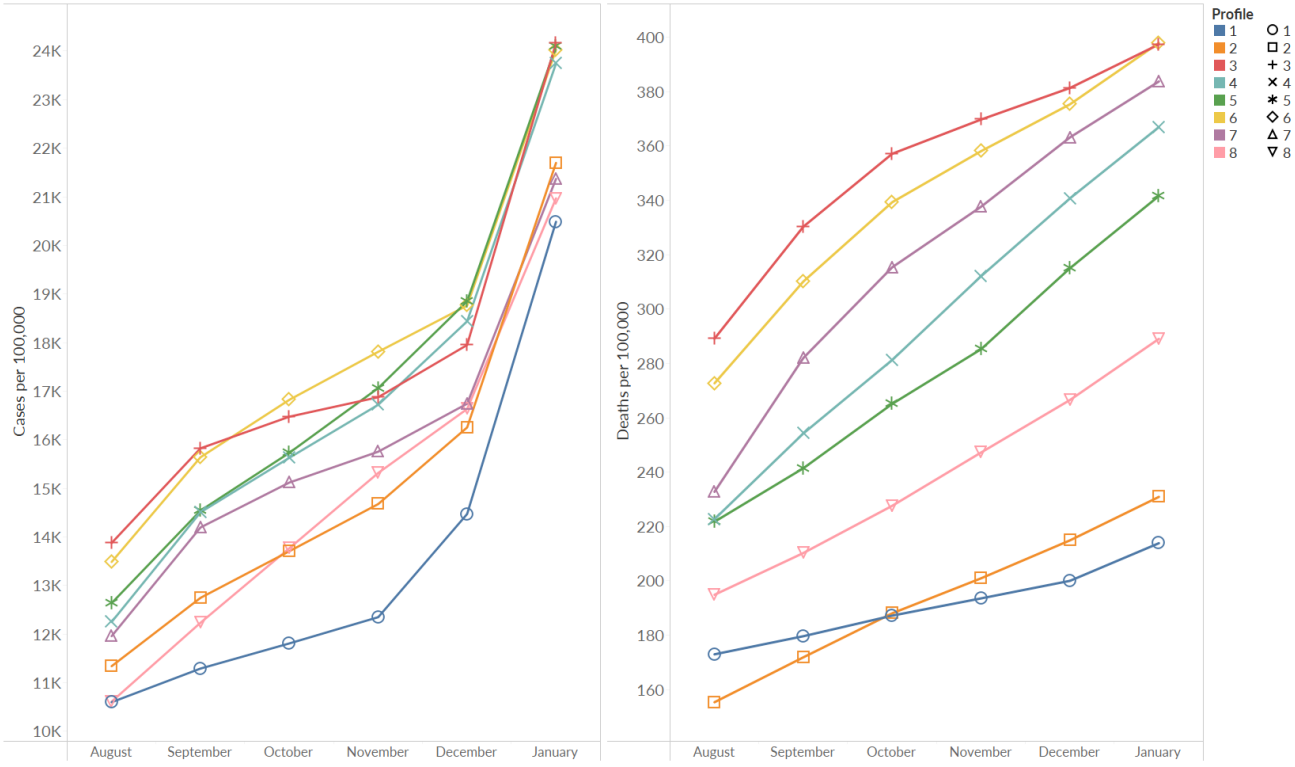
Source: Milken Institute (2022)

Figure 1. Increases in Cases versus Deaths per 100,000 (December 2021 to January 2022), by Community Profile



Source: Milken Institute (2022)

Figure 2. Six-Month Trends by Community Profile (August 2021 to January 2022)
2A. Six-Month Trends in Cases per 100,000 **2B. Six-Month Trends in Deaths per 100,000**



Source: Milken Institute (2022) *Source: Milken Institute (2022)*

2) State- and County-Specific Perspective

Best-Performing Counties: Top 10 Percent (see Figure 3)

- **Vaccination rate**: Four community profiles (One, Two, Six, and Eight) make up 86 percent of the best-performing 10 percent of US counties.
    - In Community Profile One, over 60 percent of counties fall in the top tenth.
    - In both Hawaii[1] and Rhode Island, every county falls in the "most vaccinated" tenth of US counties.
    - Connecticut has the next highest percentage of its counties falling in the top tenth nationwide (seven of eight counties, or 87.5 percent). The average vaccination rate for those seven counties is 74.24 percent, while a typical county in Connecticut would have a vaccination rate of approximately 72.76 percent. Statewide, the vaccination rate is 75.74 percent.
    - Vermont has the highest statewide vaccination rate at 77.04 percent.
- **Number of cases per 100,000**: Counties in Community Profile Eight (38 percent) and Profile Two (23 percent) comprise over 60 percent of the 315 counties with the fewest number of cases per 100,000.
    - In Maine, every county falls in the best-performing tenth of US counties.
    - Maine also has the lowest state case rate, with 12,788 cases per 100,000 statewide; a typical county in Maine would have a case rate of 12,434 per 100,000.
    - Hawaii has the next highest proportion of its counties (80 percent, or four of five) falling in the best-performing tenth of counties by case rate. The average rate in those counties is 10,356 per 100,000, and a typical county in Hawaii would have a case rate of 11,612 per 100,000. Statewide, the case rate is 14,722 per 100,000.
- **Number of deaths per 100,000**[2]
    - Nebraska contains five of the counties with no reported deaths (30 of its 93 counties also fall in the best-performing tenth of counties). It is followed by Utah and Colorado, with three counties each with no deaths.
    - Of the 315 counties with low death rates, almost three-quarters fall within Community Profile Two (32 percent) and Profile Eight (42 percent).
    - All five counties in Hawaii fall in the best-performing tenth of US counties. Statewide, its death rate is the lowest at 81 per 100,000. A typical county in Hawaii could expect a rate of 53 deaths per 100,000.
- **Vaccination, case, and death rates**
    - Six hundred seventy-six counties fall in the best-performing decile for at least one of the three Covid-19 metrics (see Figure 4).
    - Every county in Hawaii,[1] Maine, and Rhode Island is among the best-performing 10 percent of counties on at least one of the three COVID-19 metrics.
    - Ninety percent of the best-performing 52 counties on all three Covid-19 metrics are split between Community Profiles One (35 percent), Profile Two (27 percent), and Profile Eight (29 percent) (see Figure 5).
    - Nine of Washington's 24 counties (23 percent) are among the best-performing tenth for all three COVID-19 metrics.

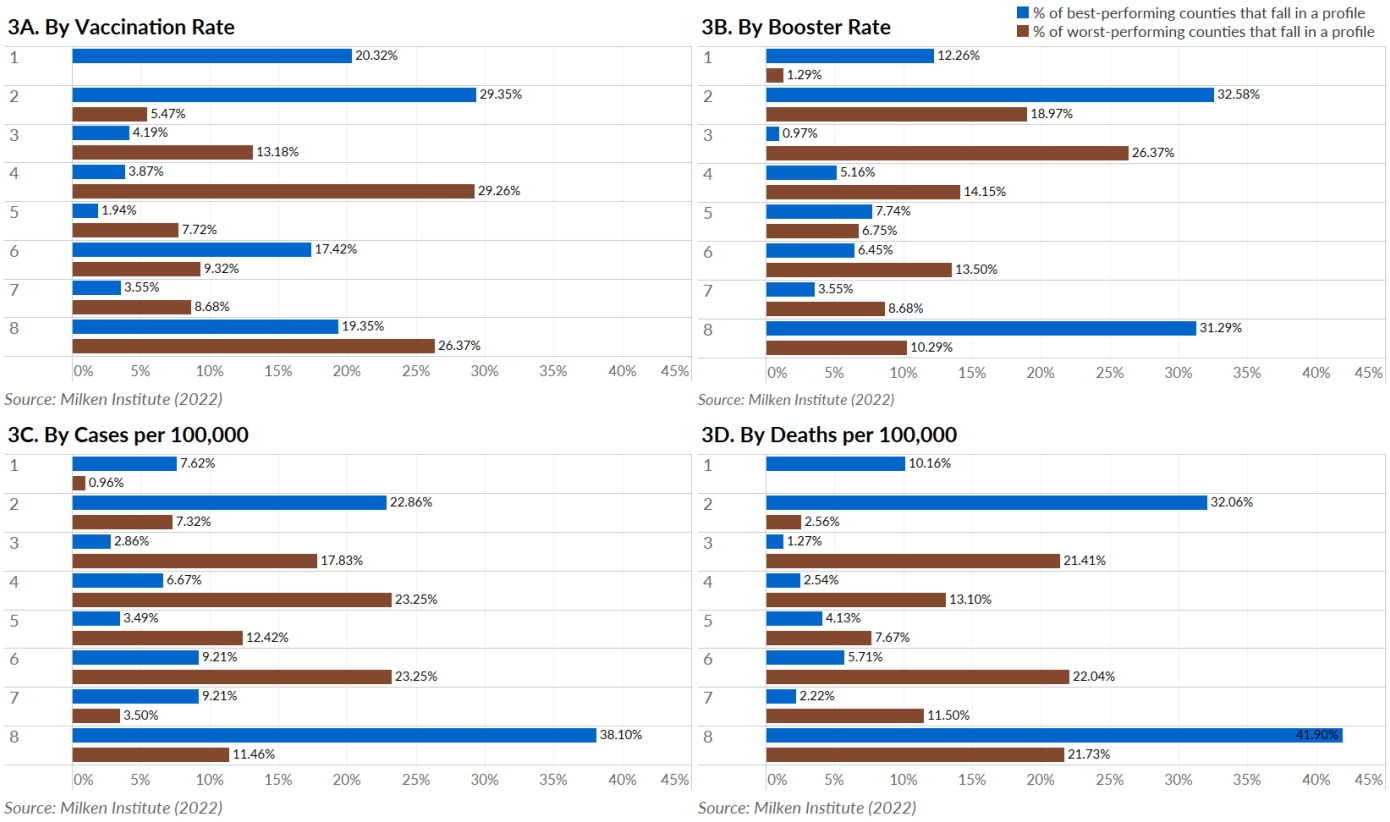
Worst-Performing Counties: Bottom 10 Percent (see Figure 3):

- **Vaccination rate**: Over half of the worst-performing tenth of counties fall in Community Profiles Four (29 percent) and Eight (26 percent), largely rural counties with a large White and Black population with the lowest income level of all the profiles.
    - Nebraska is the state with the highest proportion of poorly performing counties at 34 percent (32 of its 93 counties). The average vaccination rate is 30.62 percent within those 32 counties. A typical county in Nebraska

would have a vaccination rate of 40.92 percent, but the statewide vaccination rate is much higher at 60.62 percent.

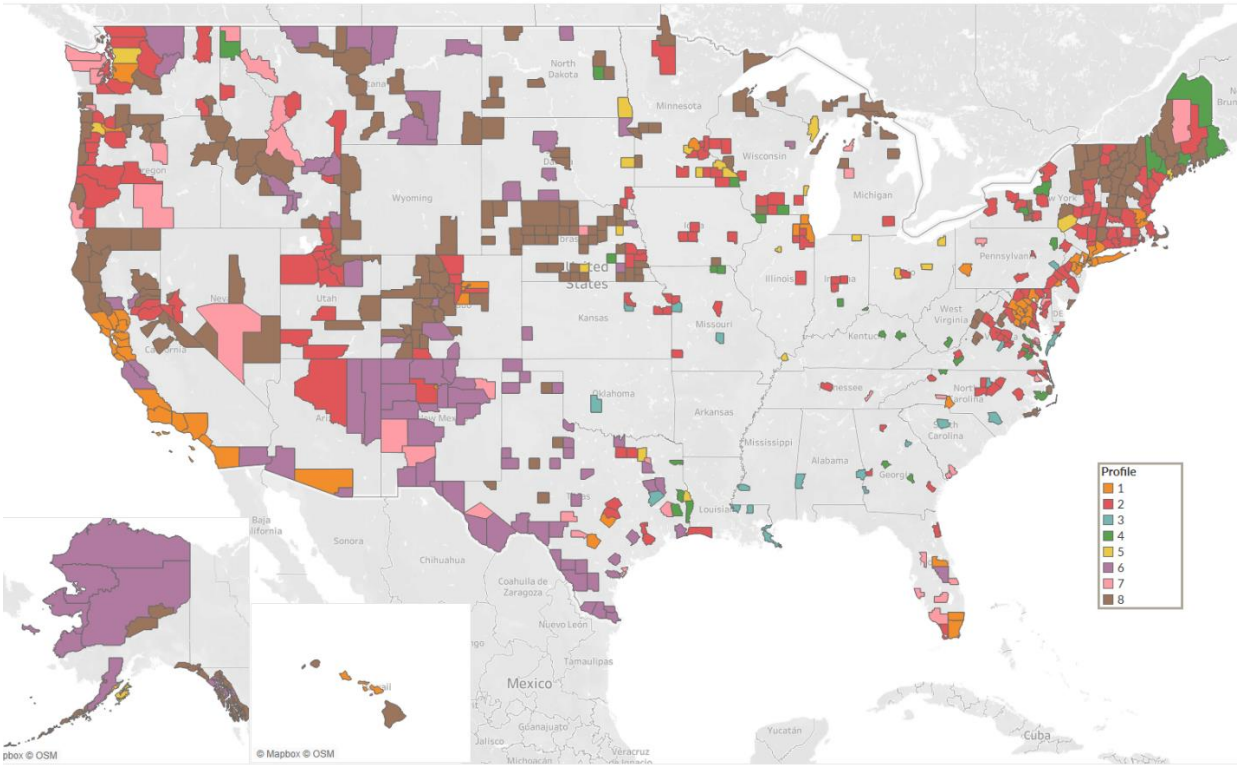
- **Number of cases per 100,000**: Over 40 percent of the 314 worst-performing counties in terms of cases per 100,00 falls in Community Profiles Four (23.25 percent) or Six (23.25 percent).
    - Arizona has the highest proportion of counties with case rates in the top tenth, with seven out of 15 counties. In those seven counties, the average case rate is 30,463 per 100,000 people, while a typical Arizona county would have a rate of 27,138 cases per 100,000. Statewide, Arizona's case rate is 26,157 per 100,000.
    - Only three of the worst-performing counties by case rate fall in Community Profile One: Anchorage Municipality in Alaska has a case rate of 31,752 per 100,000; Broward County, Florida, has a case rate of 29,486; and Miami-Dade County, Florida, has a rate of 41,509. Miami-Dade has the tenth-worst case rate of all counties nationwide.
- **Number of deaths per 100,000**: Sixty-five percent of the worst-performing counties in terms of deaths per 100,000 are in Community Profiles Three (21 percent), Six (22 percent), and Eight (22 percent).
    - Thirty-six percent of the worst-performing counties by death rate fall in just two states: Texas (20 percent, or 63 counties) and Georgia (16 percent, or 49 counties).
    - Arizona is the state with the highest percentage of its counties falling in the worst tenth by death rate with one-third of its 15 counties among the worst-performing. In these five counties, the death rate is 712 per 100,000 people, and a typical county in Arizona would have a rate of 495 per 100,000. Statewide, the rate is 366 deaths per 100,000 people, second only to Mississippi (369 deaths per 100,000).
- **Vaccination, case, and death rates**
    - Seven hundred ninety-four counties fall within the worst-performing decile for at least one of the three COVID-19 metrics (see Figure 6).
    - Only seven counties can be considered among the worst-performing by vaccination, case, *and* death rates: three in Community Profile Three, two in Profile Six, and one each in Profiles Five and Eight (see Figure 7).

Figure 3. Distribution of Best- and Worst-Performing Counties by Community Profile (January 2022)



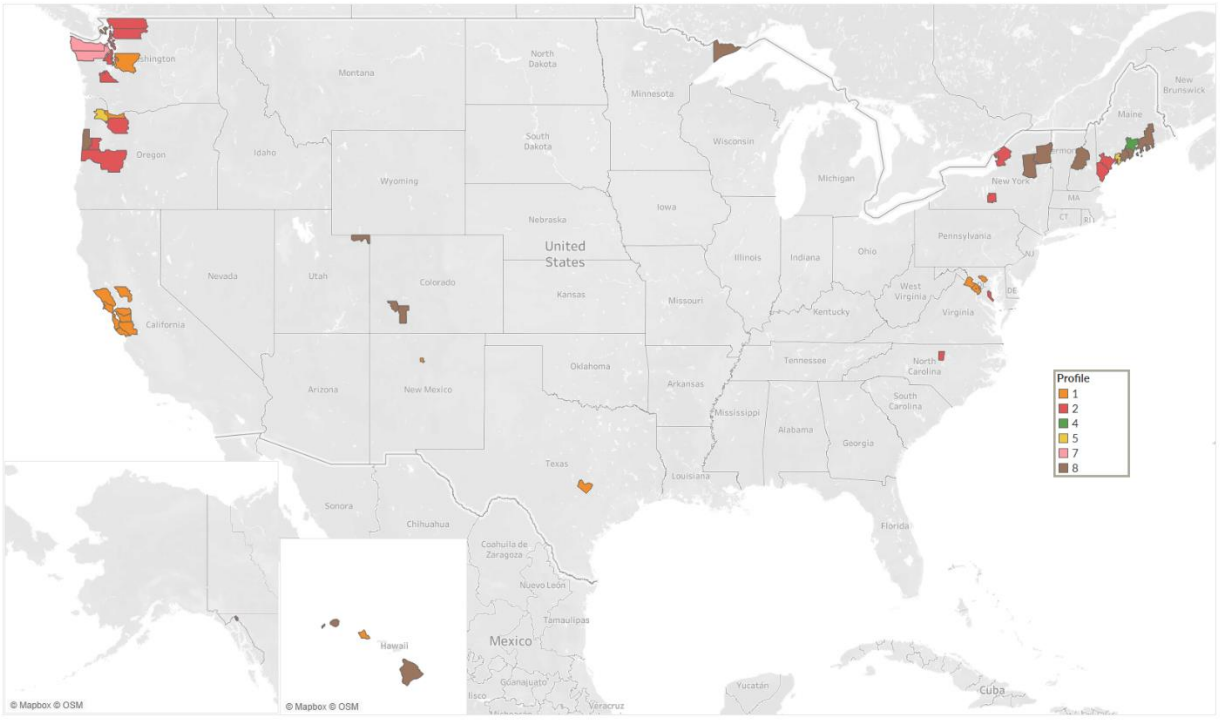
3) Where are the Best-Performing Counties?

Figure 4. The Best-Performing Tenth of Counties Based on At Least One of the Three COVID-19 Metrics (January 2022)[3]



Source: Milken Institute (2022)

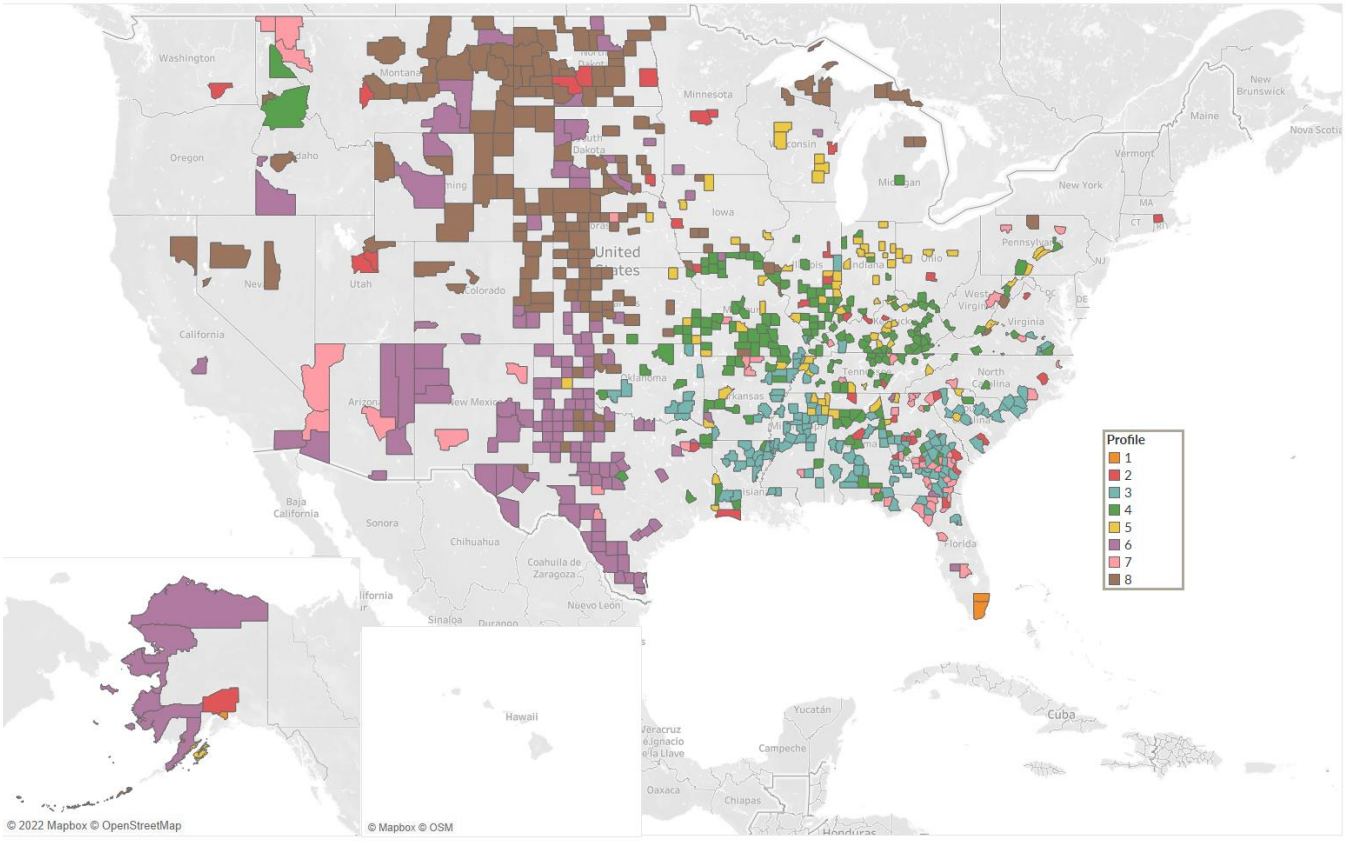
Figure 5. The Best-Performing Tenth of Counties Based on All Three COVID-19 Metrics (January 2022)



Source: Milken Institute (2022)

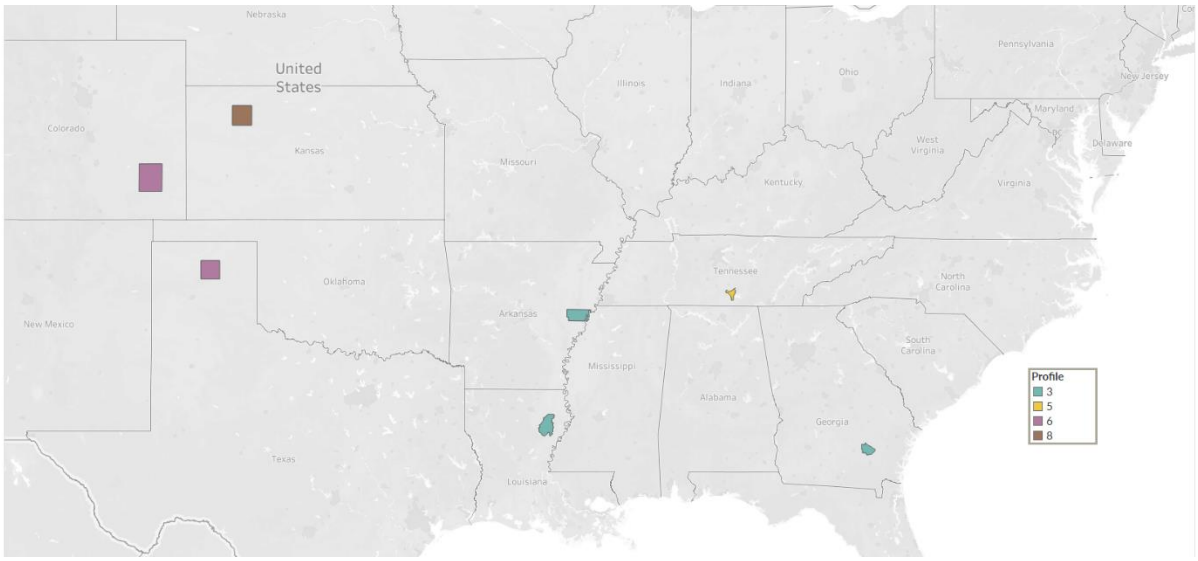
4) Where Are the Worst-Performing Counties?

Figure 6. The Worst-Performing Tenth of Counties Based on At Least One of the Three COVID-19 Metrics (January 2022)



Source: Milken Institute (2022)

Figure 7. The Worst-Performing Tenth of Counties Based on All Three COVID-19 Metrics (January 2022)



Source: Milken Institute (2022)

Table 2. Cutoff Points for Best- and Worst-Performing Deciles (January 2022)

		Vaccination Rate (%)	Booster Rate (%)	Cases per 100,000	Deaths per 100,000	Fatality Rate (%)
Best-Performing Decile	Maximum	95.00[4]	52.91	16,602	143	0.72
	Minimum	65.00	31.05	1,220	0	0.00
	Average	**72.96**	**35.85**	**14,073**	**95**	**0.50**
Worst-Performing Decile	Maximum	36.68	11.99	61,288[5]	1,333	6.59
	Minimum	17.67	0.11	28,545	518	2.31
	Average	**32.38**	**8.94**	**32,029**	**625**	**2.90**

Source: Milken Institute (2022)

Table 3. Best- and Worst-Performing Counties and States in the United States (January 2022)

		Vaccination Rate	Booster Rate	Cases per 100,000	Deaths per 100,000	Fatality Rate
Counties	**Best**	N/A[6]	San Francisco County, CA	Kalawao County, HI	N/A[2]	N/A[2]
	Profile		1	7		
	Worst	Slope County, ND	Danville City, VA[7]	Dimmit County, TX[5]	McMullen County, TX	Sabine County, TX
	Profile	8	3	6	6	5
States	**Best**	Vermont[8]	Vermont[8]	Maine	Hawaii	Utah
	Value	77.04%	43.93%	12,788	81	0.46%
	Worst	Alabama	New Hampshire	Rhode Island	Mississippi	Pennsylvania
	Value	48.27%	13.14%	31,327	369	1.52%

Source: Milken Institute (2022)

[1] Vaccination data are not available for Kalawao County, which is the smallest of Hawaii's counties, but its case rate and death rate are within the best-performing 10 percent of counties nationwide.

[2] Twenty-two counties have no recorded deaths from COVID-19; most of them (19) fall within Community Profile Eight.

[3] Booster rates are not included among these metrics because it is such a recent development.

[4] The Centers for Disease Control and Prevention (CDC) caps its own estimates of county vaccination rates at 95 percent; five counties are estimated at the 95 percent threshold, and eight counties have vaccination rates higher than 95 percent when estimated using Census 2020 figures.

[5] Two counties have higher reported case rates, but one (Loving, TX) has more reported cases than residents, and the other (Chattahoochee, GA) has a census population figure that does not account for a large military population (Ft. Benning).

[6] Five of the eight counties with vaccination rates above 95 percent fall in Community Profile Six, two in Profile Eight, and one in Profile Two.

[7] Many county-equivalents in Virginia have rates lower than those estimated by the state, whose data were used for December, which is why Danville City's booster rate for January now appears lower than for December.

[8] While Vermont is not included in county vaccination data due to the relative incompleteness of its records, statewide totals for vaccinations are reliable.

Notes on Terminology and Community Profiles

Throughout this report, counties are divided by deciles. If a county is referred to as "highly vaccinated" or having a low case or death rate, it is considered "well performing" or among the "best performers" nationwide. This means it has a vaccination rate that puts it in the top 10 percent of US counties (the highest decile) or a case or death rate that puts it in the bottom 10 percent of US counties (the lowest decile). Counties referred to as having a low vaccination rate or a high case or death rate, those deemed "poorly performing" or the "worst performers," are those within the 10 percent of US counties with the lowest vaccination rates (lowest decile) or the highest case or death rates (highest deciles). Current figures for the 90th and 10th percentiles, along each of these metrics, are available in Table 2.

State-level analyses provide metrics for a "typical" county in a given state: This metric represents the "numerical average" of that metric by the number of counties in the state. Statewide metrics, by contrast, do not represent an average but instead are calculated using every recorded instance of that metric in the state as a fraction of the entire state population (for incidence rates, this is then multiplied by 100,000). For states with a heavy population concentration in a few counties, the statewide metrics will likely differ from the value for a "typical" county; statewide rates in these instances will be much closer to the rate in highly populous counties than to the mean county rate.

Community Profile One represents 38 percent of the US population and is the most ethnically diverse community with the highest income level. It is a highly educated cohort that resides in large metro areas.

Community Profile Two represents 25 percent of the US population and consists of highly educated, economically prosperous, mostly White counties in metro areas.

Community Profile Three represents 12 percent of the US population and has the largest Black population. It is the lowest Black population income across all the profiles. These counties are primarily concentrated in the Southeast.

Community Profile Four represents 7 percent of the US population and has the largest White population. This population reports the lowest income of all the profiles. It encompasses mostly rural counties in the East North Central and Northeast regions.

Community Profile Five represents 6 percent of the US population and consists of predominantly White counties whose economies depend mostly on manufacturing and are located around the Midwest region.

Community Profile Six represents 5 percent of the US population. It captures the youngest cohort of the profiles, with the largest Hispanic population and the lowest education level, access to healthy food, and health insurance. The counties are concentrated in the West and South-Central regions.

Community Profile Seven represents 4 percent of the US population. Its cohort is the oldest of the profiles and consists of mostly White, elderly retirement communities.

Community Profile Eight represents 3 percent of the US population and is the most rural cohort, consisting of an older White population with the most limited access to healthy food. The counties are mostly in the north part of the West, Midwest, and Northeast regions.

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