# **Covid-19 Community Explorer**

## The best and worst performing counties in the U.S.<sup>1</sup>

#### Key findings for November 2021:

There is no clear the overall "worst" performer anymore; while Community Profile Three continues to have the second-lowest average vaccination rate, its case rate growth was by far the lowest of all profiles (2.38% growth from the end of October to the end of November, compared to a nationwide county average of 7%). Its death rate growth over the same time is also the lowest of all profiles, 3.73% compared to 8.6% nationwide.

This attenuation of cases and deaths in what was previously the worst performing county profile despite relatively weak vaccination rates is perhaps an indication that the most vulnerable residents of counties in Community Profile Three have already been sickened by the virus. Counties in other profiles appear to be "catching up" to the dire situation already experienced by Community Profile Three.

Community Profile One remains the best performing of the county profiles on average. These counties represent larger urban areas with the most diverse population with high levels of income and education. This profile's average vaccination rate is the highest (at 64.40%, more than ten percentage points higher than the following highest profile at 52.77%), and its case rate is the lowest (12,317 cases per 100,000) as is its death rate (185 deaths per 100,000). Community Profile One represents 38 percent of the U.S. 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 Three remains arguably the worst performing of the county profiles on average, however relatively faster growth in case rates in other Community Profiles and slower vaccination growth in Community Profile Four mean that it is not necessarily the worst. These counties are concentrated in the deep South and have lower income levels and larger Black populations. This profile has the highest number of deaths per 100,000 people at 370. The number of cases per 100,000 people, however, has not increased as much in Profile Three as in other profiles, so this profile is third in case rate to Community Profiles Six and Five (16,876 compared to 17,811 and 17,064 respectively). Its average vaccination rate is higher than in Community Profile Four, however it is higher by only about two percentage points (44.89% versus 42.59%). Community Profile Three represents 12 percent of the U.S. population and has the largest Black population, with the lowest income of all the profiles. These counties are primarily concentrated in the Southeast.

Community Profiles Eight and Six demonstrate the most variation of the county profiles, containing several counties among the best and the worst performers. Of the 81 counties that appear in the best ten percent of counties along one metric while simultaneously appearing in the worst ten percent of counties along with another metric, 33 (40%) are in Community Profile Eight; 31 of these counties (38%) fall in Community Profile Six. Community Profile Eight represents 3 percent of the U.S. population and is the most rural cohort, consisting of an older White population with limited access to healthy food. The counties are mostly in the north part of the West, Midwest, and Northeast regions. Community Profile Six represents five percent of the U.S. population and is the youngest cohort of the profiles, with the largest Hispanic population, the lowest education level, and the least access to healthy food or health insurance. The counties are concentrated in the West and West South-Central regions.

<sup>&</sup>lt;sup>1</sup> Here, "best performing" means falling within the highest 10% of U.S. counties by vaccination rate or the lowest 10% of U.S. counties by case or death rate; "worst performing" means falling within the lowest tenth of U.S. counties by vaccination rate or the highest tenth of U.S. counties by case or death rate.

#### For the best performing counties -Top 10%:

- **By vaccination rate**: close to three quarters of the 277 counties with the highest vaccination rate are within Profiles Two (32%), Eight (21%), or One (20%), that is mostly White counties in metro areas and in rural areas and large metro areas that are more ethnically diverse and highly populated. <sup>2</sup>
  - Over 60% of counties in Community Profile One fall in the top tenth of U.S. counties by vaccination rate
  - New York has the largest number of highly vaccinated counties, 26 in total, and an average vaccination rate of 60.48% statewide (68.33% within these 26 counties).
  - o In both Hawaii and Rhode Island, every county falls in the "most vaccinated" tenth of U.S. counties.
- By number of cases per 100,000: almost 60% of the 315 counties with the least number of cases per 100,000 are within Profiles Eight (32%) and Two (28%).
  - Virginia has the largest number of counties or county-equivalents<sup>3</sup> with low case rates, 46 total, with an average county rate of 12,739 cases per 100,000 statewide (9,562 cases per 100,000 within these 46 county equivalents). Statewide, the case rate is 11,228 per 100,000.
  - Hawaii has the lowest state case rate, with 5,824 cases per 100,000 statewide and an average county case rate of 4,691 per 100,000.
- **By number of deaths per 100,000**: 26 counties have no recorded deaths from Covid-19; most of them (24) within Profile Eight.
  - o 31 counties within the U.S. have no recorded deaths; Nebraska contains eight of these counties, followed by Utah and Colorado, with 3 each.
  - Nebraska is the state with the most counties with low death rates (30); it has an average county death rate of 164 deaths per 100,000 (57 deaths per 100,000 for these 30 counties). Statewide, the death rate is 144 per 100,000.
  - Vermont has the lowest state death rate, with 64 deaths per 100,000; all of its counties fall within the best performing tenth of counties.
- Most of the 60 counties that perform the best on all three Covid-19 metrics are split between Profiles Eight (30%), Two (30%), and One (27%).
  - All four of Hawaii's counties are among the best performing 10% of counties by all three Covid-19 metrics, as are 10 of California's 58 counties; this makes California the state with the highest number of high performing counties and Hawaii the state with the highest percentage of its counties being considered high performing.

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<sup>&</sup>lt;sup>2</sup> Community Profile Two represents 25 percent of the U.S. population and consists of highly educated, economically prosperous, mostly White counties in metro areas. Community Profile Eight represents three percent of the U.S. 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. 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.

<sup>&</sup>lt;sup>3</sup> Five of the 39 Virginia counties in the bottom decile by case rate are actually independent cities; VA has 38 independent cities that are considered county equivalents.

#### For the worst performing counties - Bottom 10%:

- By vaccination rate: more than 60% of the 278 counties with the worst vaccination rates is split between Profiles Four (30%) and Eight (31%)<sup>4</sup>, that is White and Black population with the lowest income level of all the profiles and rural areas.
  - Missouri is the state with the highest number of poorly performing counties by vaccination rate, with 41 counties in the bottom tenth; statewide, the average county vaccination rate for Missouri is 37.59% (30.02% in those 41 counties). These 41 counties comprise more than one third of Missouri's 114 counties and one independent city (35.65%), making it the state with the highest percentage of its counties in the worst vaccinated tenth of U.S. counties, followed closely by Nebraska, with 34.41% (32 of its 93 counties).
- By number of cases per 100,000: almost one quarter of the 314 worst performing counties in terms of cases per 100,00 are captured by Profile Six (23.57%)<sup>5</sup>.
  - Tennessee has the largest number of counties with very high case. Almost half of Tennessee counties (44 of 95) have case rates in the highest tenth, for a county average of 20,053 cases per 100,000 across all counties in the state (21,968 cases per 100,000 on average in the worst 46 counties). Statewide, Tennessee's case rate is 18,620 per 100,000.
  - Arizona has the highest proportion of its counties with case rates in the top tenth, seven out of 15 counties. Arizona has an average county case rate of 18,695 cases per 100,000 people, and in those seven counties it is 21,597 per 100,000. Statewide, Arizona's case rate is 17,755 per 100,000.
  - Only two of the worst-performing counties by case rate fall in Profile One. Miami-Dade county in Florida remains in the bottom tenth, with a case rate of 25,139 per 100,000. Anchorage, Alaska also falls within the worst tenth, with a case rate of 20,925 per 100,000.
  - North Dakota has the highest state case rate, with 20,836 per 100,000.
- By number of deaths per 100,000: almost 70% of the worst-performing counties in terms of deaths per 100,000 are in Profiles Three (27%), Six (22%), and Eight (20%)
  - Almost 40% of the worst-performing counties by death rate are located in only two states: Texas (22%) and Georgia (17%).
  - o Georgia and Arizona are now tied for the state with the highest percentage of its counties falling in the worst tenth by death rate with one-third of counties in each of these states among the worst performing.
  - o 69 counties in Texas fall within the worst-performing tenth of counties by death rate; Texas' average county death rate is 397 deaths per 100,000 (in those 69 counties, the average death rate is 583 deaths per 100,000). Across the state of Texas, the death rate is 254 per 100,000.
  - o Mississippi has the highest state death rate, with 347 deaths per 100,000, much higher than the next highest state, Alabama, whose rate is 321 per 100,000.
- Once again, three of the seven counties that can be considered among the worst performing by vaccination, case, and death rates fall within community Profile Three.

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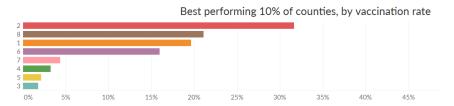
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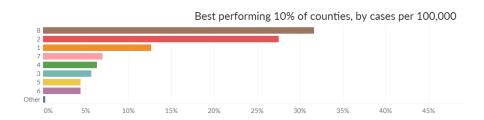
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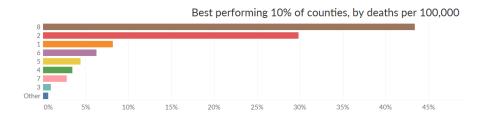
<sup>&</sup>lt;sup>4</sup> Community Profile Four represents seven percent of the U.S. population and has the largest White population. This population reports the lowest income of all the profiles. It encompasses mostly rural counties in the East North Central and Northeast regions. Community Profile Eight represents three percent of the U.S. 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.

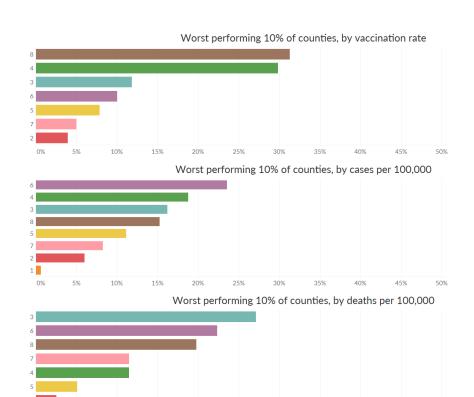
<sup>&</sup>lt;sup>5</sup> Community Profile Six represents five percent of the U.S. population and is the youngest cohort of the profiles, with the largest Hispanic population, the lowest education level, and the least access to healthy food or health insurance. The counties are concentrated in the West and West South-Central regions.

### Best and Worst Performing Counties Based on Three Covid-19 Measures



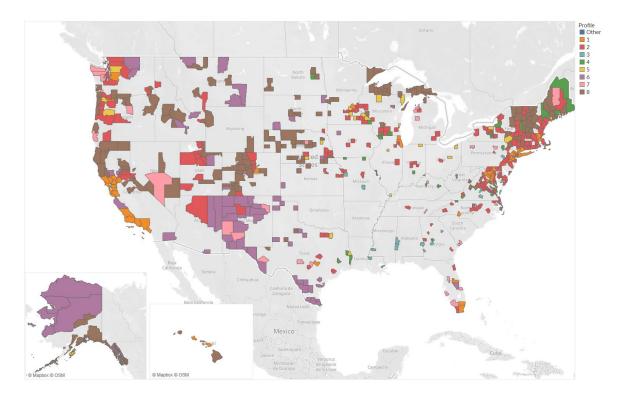




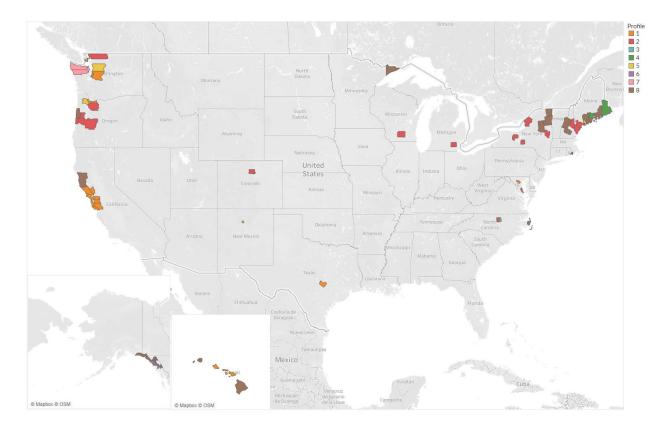


## Where are the best performing counties?

The following map shows the 624 counties that fall within the best performing tenth of counties along at least one of the three Covid-19 metrics:



The following map shows the 60 counties that fall within the best performing 10% of counties along with all three Covid-19 metrics:

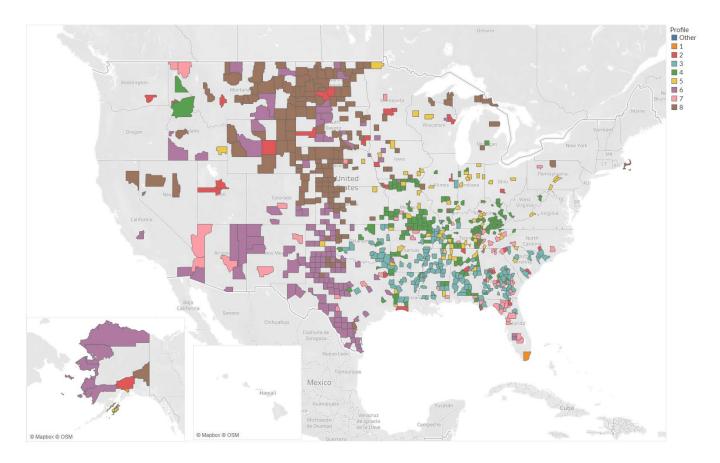


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## Where are the worst performing Counties?

The following map shows the 765 counties that fall within the worst performing tenth of counties along at least one of the three Covid-19 metrics:



The following map shows the seven counties that fall in the worst performing tenth of counties along with all three Covid-19 metrics:



	Average Vaccination Rate	Average Deaths per 100,000	Average Cases per 100,000
Profile 1	64.40%	185	12,317
Profile 2	52.77%	201	14,678
Profile 3	44.89%	370	16,876
Profile 4	42.59%	312	16,720
Profile 5	45.39%	285	17,064
Profile 6	47.18%	358	17,811
Profile 7	46.87%	338	15,755
Profile 8	46.68%	247	15,318
Total	47.19%	288	16,076