The US Maternal Vulnerability Index: Detailed Definitions

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State-level Maternal Vulnerability Index (MVI) scores rank each state against all other states in the US. These scores are calculated using state-level data, as described in our methods. For each indicator in the index, data at the state level are percentile-ranked and aggregated into subthemes, themes, and finally an overall MVI score. The state-level MVI scores assign one value to each state, and do not take into account population sizes or variation in indicator values within states. They are used in the “Where are Mothers Vulnerable?” section, and can be seen using the “State” toggle button above the map; their primary purpose is to facilitate comparisons of MVI and theme scores between states. Raw data at the state level can be obtained from our Zenodo repository (mvi_raw_indicator_data_state.csv).

State MVI score averages measure the vulnerability to which the average woman in each state is exposed. These are calculated as a population-weighted average of county-level vulnerability scores. The state averages are primarily used in the “Why are Mothers Vulnerable?” section. In this section, the goal is not to compare MVI and theme scores between individual states, but rather to drill deeper into drivers of vulnerability in a specific county. We want to understand whether a woman in a given county is more or less vulnerable than the average woman in that county’s state. For this reason, a population-weighted average of county-level MVI scores is preferred, as it takes into account county population size and therefore is a better measure of the average woman’s vulnerability.

County-level MVI scores rank each county against all other counties in the US. These scores are calculated using county-level data (depending on data availability), as described in our methods. For each indicator in the index, data at the county level are percentile-ranked and aggregated into subthemes, themes, and finally an overall MVI score. The county-level MVI scores assign one value to each county, and do not take into account population sizes or variation in indicator values within counties. They are used in the “Where are Mothers Vulnerable?” section, and can be seen using the “County” toggle button above the map; their primary purpose is to facilitate comparisons of MVI and theme scores between counties. Raw data at the county level can be obtained from our Zenodo repository (mvi_raw_indicator_data_county.csv).
**Average MVI scores by race/ethnicity** show how vulnerability differs for each race/ethnicity. These are calculated as a population-weighted average of county-level vulnerability scores, where weights correspond to the size of the population of each race/ethnicity within the county. These are primarily used in the “Impact of Racism” section, and allow for a better understanding of whether an average woman of a given race or ethnicity is more or less vulnerable than an average woman of a different race or ethnicity.

**Region average MVI scores** measure the vulnerability that the average woman in each region is exposed to (similar to state MVI score averages, but for region). These are calculated as a population-weighted average of county-level vulnerability scores. These are primarily used in the “Impact of Racism” section. In this section, the goal is to understand whether a woman of a given race or ethnicity is more or less vulnerable than the average woman in that region. For this reason, a population-weighted average of county-level MVI scores is preferred, as it takes into account county population size and therefore is a better measure of the average woman’s vulnerability.