



## How Do U.S. States Influence the Health and Longevity of Their Residents?

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Residents of some U.S. states suffer more illnesses and die sooner than their counterparts in other states – and such contrasts are large and growing. By the year 2000, differences in life expectancy across the U.S. states were larger than the difference across high-income countries such as Germany, Australia, and Japan.

Why do U.S. states differ so dramatically in their residents' health and longevity, and why have the differences grown since the early 1980s? Scholars have proposed two main explanations. One is that states are homes to different sorts of people. For instance, people living in Mississippi, which has relatively high mortality, are more likely to be Black and less educated than people living in Massachusetts, which has relatively low mortality. No matter where people live in the United States, these characteristics are associated with higher mortality. However, another explanation is that states make different investments in their populations' well-being. Unlike Massachusetts, for example, Mississippi does not offer a supplemental Earned Income Tax Credit to boost the income of poor families, and it imposes only a negligible sales tax on cigarettes. Mississippi also refused to expand Medicaid coverage under the 2010 Affordable Care Act, whereas Massachusetts had already done so even before the federal law.

To learn which of the two proposed explanations – people or states – actually explains differences in health and longevity, our team analyzed extensive recent data on both states and their residents, using the World Health Organization's Social Determinants of Health Framework as a guide. We recorded states' economic environment, income inequality, tobacco control policies, Medicaid coverage, and additional sociopolitical factors – such as age, sex, race, Hispanic ethnicity, educational levels, and the percent of the state that is rural. In some analyses, we also included employment, poverty, and marital status. Data came from two sources: the National Longitudinal Mortality Study and the American Community Survey.

### States Affect the Health and Longevity of Their Residents – Especially Women

We first examined mortality rates for adults aged 45 to 89 years old who were born in the United States. As expected, our study shows that mortality in some states is much higher than others. For instance, if the age distribution of women were identical across states, the probability that a woman died in a given year would be almost twice as large in Nevada as in Hawaii. But are these differences due to the characteristics of women or the states, or both? Our study reveals three important insights:

- **Mortality differs across states because both people and states differ.**
- **The characteristics of states themselves matter more for women than for men.** We first quantified how much mortality differs across all 50 states for men. We then separated this total quantity into two parts: the part due to men's characteristics and the part due to states' characteristics. We found that 34% of the total was due to men's attributes while 23% was due to states. We repeated the analysis for women. We found that 30% of the total was due to women's attributes while 53% was due to states. In other words, states were roughly twice as important in influencing women's mortality compared to men's mortality.
- **The reasons why states influence mortality differ for women and men.** The tobacco environment was the key factor influencing male mortality, but social and economic environments in the states mattered more for women's mortality. These findings make sense, because many kinds of state policies are relevant for women. Women are more likely than men to be living in poverty, raising children, caring for aging parents, and interacting with the medical care system. And women are more often employed

in unstable and low-paying jobs. State health, education, childcare, and workplace policies can ease any or all of these challenges – and these challenges can be more difficult for women to navigate if states do nothing or make matters worse. Consequently, state policies have the effect of either lengthening or shortening women's lives.

In a second study, we examined disability for adults aged 25-94 years, where data allowed us to focus on adults born in their state of residence and also account for their current residences. We find that the probability of having a disability differs dramatically across states. If all states had the same age distribution, the probability of having a disability would range from 12.9% in North Dakota and Minnesota to 23.5% in West Virginia. Again, we learned that disability rates differ both because of differences in people and variations in the states. However, for older adults, the state of residence matters more. Overall, even after taking into account people's characteristics and areas of residence, the probability of having a disability was lower in states with stronger economic output, more income equality, longer histories of state supplemental Earned Income Tax Credits, and (for middle-aged women) higher cigarette taxes.

## **Improving Health and Longevity for All Americans**

Our research nails down the advantages of living in a state that invests in residents' well-being. States with strong economies and more equally shared resources are especially salubrious. Unfortunately, state economies and policies have diverged since the late 1970s, during an era of deregulation and shifts of political authority from the federal to state levels. Yet the implication of our studies is clear: to improve American's health and longevity, both state and federal officials must invest more generously and evenly in people, no matter where they live. Three strategies can make a difference: Ensuring that residents have equal access to quality schooling and graduate from high school; using measures such as income credits, minimum wage laws, and affordable child care to close income gaps and help all residents earn a living wage; and, finally, promoting community health by fighting tobacco and drug use, reducing residential segregation by race and income, and ensuring access to gainful employment and safe spaces. The sooner Americans recognize the truth that social and economic circumstances matter, the sooner the nation will be able to reverse trends toward shorter, less healthy lives for many people.

**Read more in Jennifer Karas Montez, Mark D. Hayward, and Douglas A. Wolf, "Do U.S. States' Socioeconomic and Policy Contexts Shape Adult Disability?" *Social Science & Medicine* 178 (2017): 115-126; and Jennifer Karas Montez, Anna Zajacova, and Mark D. Hayward, "Explaining Inequalities in Women's Mortality between U.S. States." *SSM – Population Health* 2 (2016): 561-571.**