Poverty and Inequality in Mortality Over the Life Course:
Is it Really Increasing and for Whom?

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Over the past twenty years, mortality has decreased strongly in the U.S. both for men and women. Importantly, this development has not been driven solely by improvements in old age. Particularly pronounced improvements occurred at younger ages---an age range at which deaths occur predominantly among the poor. In light of these improvements, it is surprising that there has been a great deal of recent publicity about increasing inequality in mortality. In particular, recent studies investigating mortality trends across educational groups and geographic areas find that mortality gaps are not only widening, but that overall life expectancy is falling for the most disadvantaged subgroups. However, it is difficult to follow the mortality of comparable socio-economic subgroups over time, given changes in their size and composition. Furthermore, a focus on certain age groups might overshadow important developments at other ages.

In this paper, we develop an approach based on dynamic county groups that allows us to examine age-specific mortality across the income spectrum. More specifically, we rank individual counties by the percentage of their population living in poverty and group them into quantiles of equal population shares. This approach enables us to compare mortality in the poorest and wealthiest counties while holding population shares constant. Using this methodology, we find strong improvements across the entire poverty spectrum for life expectancy over the past twenty years. We observe slight increases in disparities in life expectancy among females, although there is no evidence of growing disparities in life expectancy among males.

The analysis of age-specific mortality rates shows a pronounced heterogeneity in mortality trends that is not visible when focusing on overall life expectancy alone. For young ages, mortality has decreased substantially across all groups. However, improvements have been strongest among poor counties, implying a convergence in mortality rates. While these reductions in disparities can be observed throughout young adulthood, overall improvements in mortality have been less pronounced during middle age. At older ages, a divergence in life expectancy reemerges, with reductions in mortality being somewhat more pronounced among richer counties.

To put our new measure in context, we consider alternative measurements of mortality gaps defined by education, location of residence, and race. We first show that life expectancy trends across educational groups are difficult to interpret, given the dramatic compositional changes in these groups over time. Furthermore, while complications arise from the fact that reporting of education has changed over time, focusing on individuals with completed education does not allow an analysis of mortality at younger ages. On the other hand, we show that analyzing mortality across individual counties is problematic, since migration may have strong effects on the composition of a county’s population. Finally, when attempting to compare disparities in mortality across different racial and ethnic groups over time, it is important to understand the limitations in how a respondent’s race and ethnicity have been collected. In particular, we find that changes in the reporting of Hispanic origin have confounding effects on disparities in mortality, while changes in reporting of black and white seem to have relatively minor effects.