

# Mass Incarceration as a Factor in the US Mortality Disadvantage

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Two unique health and survival phenomena have been observed in the United States of America. On the one hand, while the United States spends significantly more money on health care than any other country, Americans die sooner and experience more illness than residents in other economically developed countries. And while the length of life in the United States has improved over recent decades, this change has been slower compared to other nations. Multiple explanations for the so-called American health disadvantage have been discussed, including deficiencies in the health system, high levels of unhealthy behaviors, adverse social conditions, and unhealthy environments (Institute of Medicine and National Research Council 2013).

The second distinctive phenomenon is that the United States' penal population of 2.2 million adults is the largest in the world. The growth in incarceration rates in the United States over the past 40 years has been unprecedented and exceptional in its size and scope, especially among the most economically marginalized groups (National Research Council 2014). Furthermore, research has shown that incarceration is negatively associated with a host of outcomes for individuals themselves as well as their kin and close relationships, including in employment and wages, union stability, and children's health, behavior and development. An emerging line of research has also considered the consequences of incarceration for individuals' health and well-being.

In Daza et al. (2020), we explore the link between these two exceptional facts in the United States by asking if some of the recent increase in the adult health and mortality gap between the United States and West European countries can be attributed to shifts in U.S. incarceration policies. To answer this question, we first estimate the long-term association between incarceration and adult mortality using two long-running data sets: the Panel Study of Income Dynamics (PSID) and the National Longitudinal Survey of Youth 1979 (NLSY79). Secondly, we generate preliminary estimates of the influence of excess mortality among formerly incarcerated adults on the U.S. mortality disadvantage relative to peer countries in Western Europe (the United Kingdom). We hypothesize that owing to the relative size of the population of interest in the United States and its expected excess mortality, post-prison mortality patterns will have non-trivial impacts of roughly the same order of magnitude as that of other candidate mechanisms.

Using different longitudinal datasets, we first find a moderate association between incarceration and subsequent mortality, with relative risks ranging from 1.7 to 2.7. These mortality excesses translate into losses of life expectancy at age 45 of about four to five years or 13% of current U.S. life expectancy at age 45.

Secondly, we estimate the contribution of differential composition by imprisonment to the mortality gap in the age group 20–70. This ranges between 4% and 10%, depending on which estimate of mortality effects we choose. The main takeaway from this exercise should not be about precise magnitudes of target parameters but rather about the order of magnitudes. Although they do not

High and rising levels of incarceration and a positive association between incarceration and adult mortality might explain an important part of the overall US health disadvantage compared to other Western nations.

translate into massive contributions to the U.S.–U.K. disadvantage, the estimates of effects we compute are nontrivial and of roughly the same order of magnitude as contributions attributable to other factors routinely considered relevant for adult mortality disparities, such as race, health care and education.

Our work represents a first step in a more comprehensive assessment of the consequences of the recent U.S. expansion of the criminal justice system. Our estimates rely on the highly conservative assumption that excess mortality risks due to past imprisonment are the same in the United Kingdom and the United States. This may misrepresent differences in the social and economic environments for post-prison life in the United Kingdom and the United States. Thus, we may underestimate the contribution of U.S. incarcerations to its mortality disadvantage. Future research in this area should focus on obtaining more precise and nuanced estimates of excess adult health and mortality due to incarceration experiences, including assessments by gender, race, and specific age groups; and to investigate the implications of such estimates for some of the most startling features of modern U.S. mortality patterns, such as recent time trends of disparities between adult White and Black male mortality.

The current COVID-19 pandemic may further increase health gaps, given the new challenges the epidemic poses for the criminal justice system. The large number of people incarcerated in the United States, the increase of the average age of the prison population in recent decades, the fact that many incarcerated people older than 55 years have chronic conditions, plus the practical difficulties of social distancing in prisons and jails, require bold and urgent policy changes to minimize the potentially catastrophic consequences of the COVID-19 pandemic for the inmate population (Hawks, Woolhandler and McCormick, 2020).

Future scholarship should assess the short and longer-term impacts of COVID-19 among prisoners and their families in the context of mass incarceration.

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