

# Incarceration is strongly linked with premature death in US

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An analysis of U.S. county-level data found a strong association between jail incarceration and death rates from infectious diseases, chronic lower respiratory disease, drug use, and suicide, in a new study by Columbia University Mailman School of Public Health. The researchers found this was the case to a lesser extent for heart disease and cancer. The study is the first to examine the link between the expansion of the jail population and multiple specific causes of death at the county level, and adds to the growing body of evidence suggesting that decarceration strategies would improve public health. Findings are published online in the journal *Lancet Public Health*.

"Our findings underscore public health benefits of reducing jail [incarceration](#) and the importance of interventions to mitigate the harmful effects of mass imprisonment on [community health](#) including community-based treatment for substance use disorder and greater investment in social services," said Sandhya Kajeepeta, Ph.D. candidate in Columbia Mailman School of Public Health's Department of Epidemiology, who led the research.

Using county jail incarceration rates and county-level mortality data in the U.S. across 1,094 counties between 1987 and 2017 the researchers estimated that every 1 per 1,000 [population increase](#) in the local jail incarceration rate was associated with a 6.5 percent and 5 percent increase in death rates from [infectious diseases](#) and chronic lower respiratory [disease](#) respectively, and around a 2.5 percent rise in mortality from drug use and suicide, in the county population (aged 75

years or younger) during the following year—after accounting for the effects of county-level factors such as crime, poverty, racial demographics, and unemployment.

Increases in county-level incarceration were also associated with smaller increases in county [death rates](#) from [heart disease](#) (2.1 percent increase), unintentional injury (1.5 percent, cancer (1.4 percent), diabetes (1.3 percent), and cerebrovascular disease (1 percent) over the subsequent year.

"As we anticipate the Biden administration's plans to address persistent mass criminalization and incarceration, our findings underscore the role of local jail incarceration as an important independent contributor to all major causes of premature death in the counties in which they are located," said Kajeepeeta. "Our findings provide further evidence of the population-level public health harms of mass incarceration. With U.S. correctional facilities reporting some of the highest COVID-19 infection rates in the nation, the pandemic highlights the immediate need for decarceral strategies to massively reduce the number of people held in our nation's jails and prisons to protect the lives of incarcerated people and control infectious disease spread in the community."

The U.S. has the highest incarceration rate in the world. At any given time, county jails across the nation house more than 730,000 inmates that are typically serving less than a year or awaiting trial. However, many more people (over 11 million) enter jail every year (most awaiting trial)—with generally 200,000 people passing in and out every week. Evidence indicates that Black Americans are incarcerated in local jails at four times the rate of white Americans.

In the study, the authors used data from the U.S. National Vital Statistics System together with jail incarceration data for 1,094 counties (36 percent) of all U.S. counties) from the Vera Institute of Justice between

1987 and 2017, to model associations between jail incarceration and nine common causes of death—cerebrovascular disease, chronic lower respiratory disease (e.g., emphysema, chronic obstructive pulmonary disease), diabetes, heart disease, infectious disease, cancer, drug use, suicide, and unintentional injury—for county residents aged younger than 75 years. The median increase in county jail incarceration rate over the study period was 1.9 per 1,000 population, with some counties experiencing an increase of more than 20 per 1,000 population.

The researchers hypothesized that the impact on a community from causes of death with longer latency periods, such as heart disease and cancer, are felt over time, so they assessed the medium- (5-year) and long-term (10-year) effects of jail incarceration as well as the short-term (1-year) impact. They adjusted for county-level characteristics and changes over time that might affect the relationship between incarceration and mortality, including local poverty and crime rates, unemployment levels, percentage of county residents who were Black, and state political party control.

While increases in the county jail incarceration rate were linked with increases in mortality rates for all causes of death during the subsequent year, these associations weakened over time, particularly for infectious disease and suicide—with a 5 percent and 2.5 percent decline in county mortality respectively after 10 years. The decline was less pronounced for causes of death with generally longer latency periods including cancer.

"Not only do county jails operate as revolving doors facilitating the spread of infectious disease in the community, but they are often dangerously overcrowded, with poor ventilation and substandard healthcare," said co-author Dr. Abdul El-Sayed from Detroit's Wayne State University, who is also the city's former health director.

"Incarceration takes working-age people out of their local communities,

separates families, and disrupts social ties and support networks. When combining that economic hardship with the money government spends on incarcerating people instead of investing in social services to support them, [jail](#) systems ultimately hurt the people the system thinks it's 'correcting'."

The authors say that racial disparities in the nation's criminal justice system compound existing socioeconomic and racial health disparities. "Responses to the most pressing public health challenges, including the COVID-19 pandemic and opioid epidemic, require public health to reckon with mass criminalization and mass incarceration," noted Seth J. Prins, Ph.D., assistant professor of epidemiology at Columbia Mailman School, the study's senior author. "We need to disinvest from the carceral systems that have displaced public health and social infrastructures. Decarceration policies, like investments in community-based substance use treatment, housing, education, and jobs, can produce broad mortality benefits and potentially save thousands of lives."

**More information:** Sandhya Kajeepeta et al, Association between county jail incarceration and cause-specific county mortality in the USA, 1987–2017: a retrospective, longitudinal study, *Lancet Public Health*, [DOI: 10.1016/S2468-2667\(20\)30283-8](https://doi.org/10.1016/S2468-2667(20)30283-8)

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