

New Study Finds Higher County-Level Jail and State-Level Prison Incarceration Rates Associated With Higher County- and State-Level Cancer Mortality Rates

American Cancer Society researchers stress programs to address adverse health effects of mass incarceration are needed to decrease cancer disparities

ATLANTA, September 17, 2024 — A new nationwide study led by [American Cancer Society](#) (ACS) researchers finds that higher county-level jail and state-level prison incarceration rates in the United States were associated with higher county- and state-level cancer mortality rates, especially for liver and lung cancers. The findings are published today in the [Journal of the National Cancer Institute \(JNCI\)](#).

“These results aren’t surprising. Incarceration in the U.S. is recognized as a key element of social determinants of health and is linked to a wide range of adverse health outcomes,” said [Dr. Jingxuan Zhao](#), senior scientist, health services research at the American Cancer Society and lead author of the study. “We conducted this study to better understand the associations of incarceration and cancer mortality at the community level.”

For the study, researchers analyzed incarceration data from 1995-2018 sourced from national jail and prison data at the county- and state-levels, respectively, and categorized them into quartiles. County- and state-level mortality rates with invasive cancer as the underlying cause of death were obtained from the National Vital Statistics System.

A total of 3,062 U.S. counties, 50 states, and Washington, D.C, were included in the analysis. After adjusting for county-level factors, researchers found that higher county-level jail incarceration rates were associated with higher cancer mortality rates – compared to the lowest incarceration rate (Quartile (Q)1, Q2, Q3, and Q4 (highest incarceration rate) had 1.3%, 2.3%, and 3.9% higher cancer mortality rates, respectively. Similarly, they also found that higher state-level prison incarceration rates were associated with higher cancer mortality rates – compared to Q1, Q2, Q3, and Q4 of state-level prison incarceration rates had 1.7%, 2.5%, and 3.9% higher cancer mortality rates, respectively. The magnitude of the associations of county-level jail and state-level prison incarceration and cancer mortality were similar for people racialized as White or Black, as well as males and females. Associations were more pronounced for liver and lung cancers.

“Our findings from this study suggest that programs to address adverse health effects of mass incarceration are warranted, particularly for populations that suffer from inequities in cancer care and outcomes and are disproportionately incarcerated in the U.S.,” Zhao added. “Populations in areas with high incarceration rates may have limited access to cancer prevention, early detection, and treatment. Furthermore, incarceration may disrupt local economies and labor markets and increase strain on social service systems. Multilevel efforts to address these challenges may help decrease cancer disparities at the community level.”

“Having comprehensive health insurance is a critical factor for survivorship against cancer,” said [Lisa A. Lacasse](#), president of ACS CAN. “Medicaid is an important source of health insurance for people who would not otherwise have access to care, including those who are transitioning back to their communities following incarceration. We urge lawmakers in the 10 states that have not expanded Medicaid to do so to improve health outcomes and reduce the burden of cancer.”

[Dr. Robin Yabroff](#) is senior author of the study. Other ACS scientists contributing to the research include [Dr. Xuesong Han](#), [Dr. Leticia Nogueira](#), [Dr. Jason Zheng](#), [Dr. Qinjin Fan](#), and [Sylvia Shi](#).

An accompanying editorial can be found [here](#).


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as the only organization combating cancer through advocacy, research, and patient support. We are committed to ensuring everyone has an opportunity to prevent, detect, treat, and survive cancer. To learn more, visit cancer.org or call our 24/7 helpline at 1-800-227-2345. Connect with us on [Facebook](#), [X](#), and [Instagram](#).

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