Study identifies 'marked disparities' in federal cancer research funding

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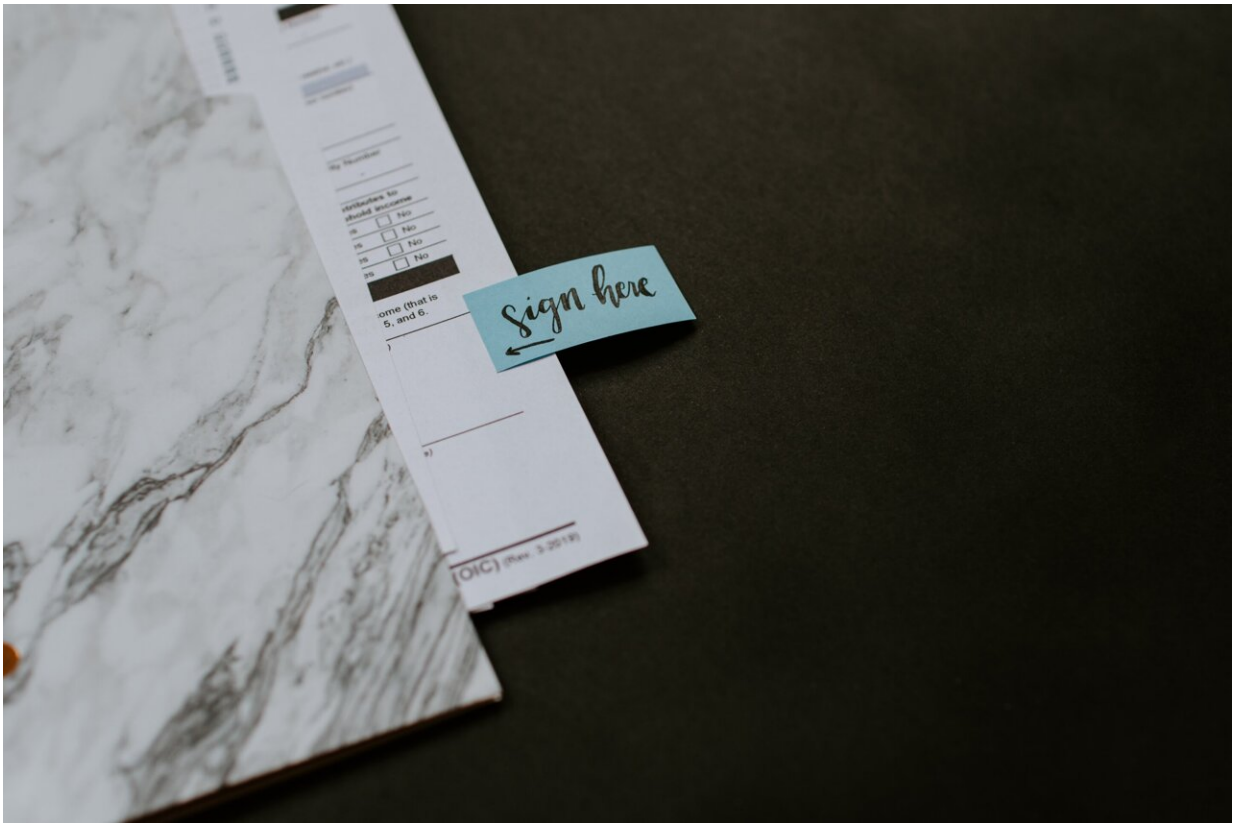

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A research team at Sylvester Comprehensive Cancer Center at the University of Miami Miller School of Medicine compiled and analyzed statistics from federal cancer research funding sources and found that

funds tend to be allocated more heavily toward cancers that occur more often in non-Hispanic white people than in other racial and ethnic groups.

The study found that funding across cancer sites is not concordant with lethality and that cancers with high incidence among racial/ethnic minorities receive lower funding, but the study's authors say addressing these inequities could make a difference in cancer research disparities within a short time.

"The results of this study are immediately actionable," said Dr. Shria Kumar, a Sylvester gastroenterologist and the senior author of a paper in the June 8 *Journal of the National Cancer Institute*. "Agencies can evaluate their own recent funding distributions and those for upcoming cycles, then they can prioritize funding for cancers that disproportionately impact minorities to mitigate disparities and reduce cancer burden."

The authors analyzed federal funding data to determine correlations between funding directed to cancer incidence and funding aimed at cancer mortality. They focused on National Cancer Institute funding for the 19 most common cancers, considering their respective "public health burdens," a term that includes the incidence rate of the disease, the mortality rate, and person-years of life lost.

Although previous studies of funding distribution have evaluated these three factors separately, the Sylvester team evaluated funding using a validated measure—funding-to-lethality (FTL) scores—that incorporates all three metrics and provides a composite, objective perspective on disease burden.

"We were very surprised that correlation was stronger for incidence than mortality. It shows how complex and multifaceted funding allocation is,

but it really underlines the need to look at it objectively, as we did here, and use it as a tool to mitigate cancer disparities, a common goal," Kumar said.

Breast and prostate cancer had the highest and second-highest FTL scores, while esophagus and stomach cancer ranked 18th and 19th. Kumar and colleagues noted that breast cancer research received approximately 50 times more funding than stomach cancer in 2018, even though estimated breast cancer deaths were only four times those of stomach cancer deaths.

The authors also cited previously published statistics showing that cancers more frequently affecting non-Hispanic white people—such as breast cancer, leukemia and lymphoma—receive more funding than cancers with high incidence rates among racial and ethnic minorities—such as stomach, uterine and liver cancers.

"In my research and in clinical practice, disparities in cancer are an unfortunate but well-known entity. I'm a gastroenterologist, and disparities are of paramount concern in my areas of expertise—stomach and colorectal cancer," Kumar said. "Racial and ethnic disparities are well documented across the spectrum of cancer types, and this is of utmost importance. The White House's Cancer Moonshot initiative has a focus on mitigating cancer disparities, and the NCI is very attuned to the impact that disparities have on our quest to improve cancer burden."

Specifics from the study:

- There was a stronger correlation between FTL scores and race/ethnicity-specific cancer incidence, rather than mortality.
- There was strong correlation between a cancer's incidence among non-Hispanic white people and its FTL score, but this was not the case for other racial/ethnic groups, where there was only a weak

to moderate correlation.
- There was a moderate to strong correlation between a cancer's mortality among non-Hispanic white people and its FTL score, but there was only a weak correlation for all other racial/ethnic groups.

For the study, Kumar and her team obtained data from the NCI's Surveillance, Epidemiology and End Results (SEER) database, the United States Cancer Statistics (USCS) database, and Funding Statistics between 2014 and 2018. For each year, they identified the incidence rate and mortality rate—both overall and by race/ethnicity—per 100,000 people for the 19 most common cancer sites, as well as NCI funding for each cancer.

"Despite initiatives to bolster cancer research funding and to mitigate disparities in cancer outcomes, there are marked disparities in federally funded cancer research that do not correlate with lethality," the authors said. "Our paper identifies discrepancies in funding by demographic groups and highlights the need to ensure that federal funds are equitably distributed. This is especially important given the discrepancies in cancer outcomes for minorities, particularly in the more underfunded cancers."

More information: Shida Haghighat, Urgent Need to Mitigate Disparities in Federal Funding for Cancer Research, *Journal of the National Cancer Institute* (2023). DOI: 10.1093/jnci/djad097

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