

Gender disparities in heat wave mortality in India

June 27 2024, by Sonia Mishra



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Are heat waves more deadly for women? This question initiated a [study](#) now published in "Significance Magazine" analyzing how extreme temperatures affect mortality differently for men and women, focusing on India.

The research team, including Yi-Ting Lin, a University of Michigan doctoral student in biostatistics, and Bhramar Mukherjee, professor and chair of the Department of Biostatistics at U-M School of Public Health, examined 30 years of gender-stratified [mortality](#) data related to [extreme temperatures](#) in India.

"After reviewing several existing studies, we find that studies from the Global North consistently show [gender disparities](#) in temperature-related mortality," Mukherjee said.

"However, such clarity is not the case for the Global South. The natural question is, is this disproportionate effect on women present there, too? If so, how can we quantify this mortality difference between genders? This initial analysis is just the tip of the iceberg of what we have worked on for the last 10 months."

The team, which includes researchers Ramit Debnath and Ronita Bardhan of Cambridge University, believes enriching the data will allow us to employ more sophisticated analytic tools to uncover the truth.

"Clarity on vulnerable subgroups more susceptible to heat-related deaths will enable policymakers to design effective intervention strategies targeted to these subgroups," Ling said. "Downstream, this will ensure greater climate action equity."

The study provides initial evidence from analyzing yearly extreme weather-related mortality data that women bear a more significant adversarial burden from [extreme weather events](#) than men.

The team identified that gender is crucial in climate studies because of the biological and physiological differences between the sexes and the significant sociocultural distinctions that influence how individuals experience and respond to climate impacts.

Understanding gender-specific differences in the temperature-mortality relationship is crucial, the researchers say. Gender roles, deeply rooted in society, often disadvantage women in terms of their daily activities (such as cooking and expected clothing practices) and their lack of economic and social agency to access cooling resources that require energy expenditures, they say.

"Women in the Global South are disproportionately affected by extreme temperatures," the team wrote. "Rigid cultural norms and societal expectations restrict their ability to cope with and respond to increasing temperatures. These disparities are not just a matter of physical health but are compounded by social inequities that heighten the risks faced by [women](#) during extreme weather events."

More information: Long read: Are heatwaves more deadly for women? significancemagazine.com/long-...re-deadly-for-women/

Provided by University of Michigan

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