

New study investigates climate change—driven heat and suicide risk in Australia

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New Curtin University-led research has revealed that about 0.5%, or approximately 260, suicide deaths in Australia over a two-decade period were correlated with unusually higher temperatures caused by climate



change.

The increased risk was observed among men aged 55 and above, particularly during hotter months. The work is <u>published</u> in the journal *BMJ Mental Health*.

Lead researcher Dr. Lucas Hertzog from Curtin's World Health Organization Collaborating Center for Climate Change and Health Impact Assessment said the findings suggest <u>public health strategies</u> to address the <u>mental health</u> impacts of climate change may be needed if the results are replicated in other studies.

"Analyzing the differences in data from 2000 to 2019, compared to the previous five decades, there's evidence of increased suicide risk in older Australian males during high heat anomalies associated with climate change," Dr. Hertzog said.

"Our research shows heat anomalies during the study period were between 0.02°C to 2.2°C hotter than the historical period across Australia.

"Specifically, about 0.5% of the 50,733 suicides during this period were related to these heat anomalies.

"Future studies should investigate whether and how global warming affects mental health and suicide, especially considering the widespread effects of climate change on both nature and human societies."

Senior author Dr. Ivan Hanigan, Director of Curtin's World Health Organization Collaborating Center for Health Impact Assessment, said the study underscores the urgent need for climate mitigation and adaptation strategies in government planning.



"This includes creating support systems and services to help people cope with <u>extreme heat</u>, which is becoming more frequent and intense due to global warming," Dr. Hanigan said.

"This research is designed as a population-level analysis and does not delve into individual-level variables such as <u>socioeconomic status</u>, personal mental health history, access to services, or the contexts of each individual. Hence, this study does not definitively show that temperature anomalies cause an increase in suicide rates."

"Rather, our findings highlight the importance of considering environmental factors, alongside individual-level factors, in public health strategies and suicide prevention efforts."

More information: Lucas Hertzog et al, Suicide deaths associated with climate change-induced heat anomalies in Australia: a time series regression analysis, *BMJ Mental Health* (2024). <u>DOI:</u> 10.1136/bmjment-2024-301131

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