

# People who see climate change as a health threat show more interest in cancer screening

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Brigham researchers' findings support developing public health interventions that incorporate components of environmental health literacy alongside cancer screening efforts.

The world's climate crisis has wide ranging implications for human [health](#). But how do our perceptions about [climate change](#) influence our intentions when it comes to personal health?

A new study by investigators from Brigham and Women's Hospital used the National Cancer Institute's annual [Health Information and National Trends Survey \(HINTS\)](#) to analyze adults' views on climate change and their interest in cancer screening.

The study found that individuals who saw climate change as a personal health threat were also more likely to endorse interest in cancer screening. The results are published in the *Journal of the National Cancer Institute*.

"Our findings suggest that individuals who are more aware of the potential health impacts of climate change may also be more overall health conscious, which may drive their interest in preventive health care measures, such as cancer screening," said senior author Alexander P. Cole, MD, assistant professor in the Department of Urology and the Center for Surgery and Public Health at Brigham and Women's Hospital.

"Awareness of climate change impacts could also prompt individuals to take more proactive steps to protect their health in the face of environmental threats."

Previous studies have uncovered both direct and indirect links between cancer and climate change. Certain climate change consequences, such as ozone depletion and the emergence of more environmental carcinogens, can cause cancer. And [extreme weather events](#) can disrupt [cancer care](#) as well as access to health care in general.

In the current study, Cole and colleagues analyzed responses from adults who completed the HINTS survey in 2021. Each respondent's perceived

risk of climate change to their personal health was categorized as "no harm" or "little harm" versus "some harm or "a lot of harm."

Researchers also assessed each respondent's interest in getting screened for cancer the following year, categorized as "not at all" and "a little" versus "somewhat" and "very."

The study found that 54% of survey respondents felt that climate change would cause "some" or "a lot" of harm to their health. Respondents also showed 73% higher odds of being interested in cancer screening when they felt that climate change posed "some" risk to their health and 84% higher odds when they perceived that climate change could harm their health "a lot."

Other findings showed that respondents who were younger, female, and more educated were more likely to perceive climate change as a health threat. And that non-Hispanic Black and Hispanic populations expressed a higher interest in [cancer screening](#) than non-Hispanic white populations.

"We see room for improvement in climate change awareness overall as well as some racial disparities underlying some of the differences in awareness," said first author Zhiyu Qian, MD, a urology resident in the Department of Urology and research fellow at the Center for Surgery and Public Health at Brigham and Women's Hospital.

"There are a lot of ways to interpret this and one could be that more vulnerable populations are already feeling more of the impacts from climate change."

The authors note that their study is retrospective and does not prove causation, but future studies could explore whether climate change awareness directly impacts screening behavior. The research team is continuing to investigate specific ways that cancer care can be impacted

by climate change, such as in the relationship between extreme weather events and cancer care. They are also working to improve sustainability in cancer care and adaptability of the health care system, such as by increasing the accessibility and quality of telehealth.

Moreover, addressing the root causes of [climate](#) change can yield advantages in lowering cancer risk. A prominent example is the reduction of meat consumption, which not only diminishes greenhouse gas emissions but also mitigates a significant cancer risk factor.

Additionally, lifestyle modifications like active commuting and preserving greenspace have been associated with decreased cancer risks, while also supporting environmental health.

"Cancer care is multidisciplinary and extremely complex. You need a well-functioning health care system for it to work," said Cole.

"Raising awareness is a big piece as is changing the health care system. There are so many exciting opportunities to do this through public awareness, health care delivery, and lifestyle and diet modifications where you can do things that are great for planetary health as well as for patients' health and [cancer](#) risk."

Additional authors include Edoardo Beatrici, Quoc-Dien Trinh, Adam S. Kibel, Stacy Loeb, and Hari S. Iyer.

**More information:** Alexander Putnam Cole et al, Climate Change Perception and Its Association with Cancer Screening Intent, *Journal of the National Cancer Institute* (2023). [DOI: 10.1093/jnci/djad237](https://doi.org/10.1093/jnci/djad237)

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