



Letter to the editor

Improving literacy in climate and health



To the editor:—In their survey of 449 German patients of general practitioners and gynecologists, Reismann et al. (2021) [1] reported that the climate crisis was more often viewed as a global health threat than a risk to personal health. The authors suggest that improved “climate-specific health literacy” could help to bolster climate change advocacy amongst patients and advance both personal and planetary health in the process. We agree, and our team has taken efforts to develop a set of climate and health literacy elements in a recent analysis [2].

We defined climate and health literacy as the degree to which an individual understands the complex effects of climate change on human health; a climate health-literate individual can recognize direct and indirect linkages between climate change and health, communicate risks, assess data, interpret levels of certainty, make informed and responsible personal decisions, and advocate for broader policies that protect health. Our effort was targeted specifically at improving education on the health consequences of the climate crisis in K-12 and undergraduate settings in the United States, but our findings are also applicable to other geographic settings and contexts, including doctor-patient consultations.

Reismann and colleagues reported that, when asked about the most challenging aspects of the climate problem, most patients tended to report ecosystem impacts including glacial ice melt, sea level rise, and rising temperatures. Similarly, our analysis of existing climate change and health research relating to education found that climate literacy content is largely focused on climate change effects on Earth system(s), rather than the profound impacts of these environmental changes on the physical and mental health of humans. The climate and health literacy elements we propose are based on the established US Global Change Research Program climate literacy principles [3]. Building curricula around these key elements can support improved student understanding of the health impacts of climate change by engaging not only with underlying Earth system functions altered by fossil fuel combustion, but also the corresponding health implications of these changes, and opportunities for policy responses. Those policies should address root causes and prioritize health equity in the face of unprecedented and worsening climate hazards.

Centering human health in climate change education can help to make this problem more salient and actionable for students and their teachers as well as patients and their healthcare providers—and help to equip concerned individuals around the world with knowledge to shape climate change mitigation and adaptation measures that protect people.

References

- [1] Reismann L, Weber A, Leitzmann M, Jochem C. Climate-specific health literacy and medical advice: the potential for health co-benefits and climate change mitigation. an exploratory study. *The J Climate Change and Health* Oct. 2021:100072. doi: [10.1016/j.joclim.2021.100072](https://doi.org/10.1016/j.joclim.2021.100072).
- [2] Limaye VS, Grabow ML, Stull VJ, Patz JA. Developing a definition of climate and health literacy. *Health Affairs* 2020;39(12):2182–8. doi: [10.1377/hlthaff.2020.01116](https://doi.org/10.1377/hlthaff.2020.01116).
- [3] U.S. Global change Research Program. Climate literacy: the essential principles of climate science. Washington, DC: U.S. Global Change Research Program; 2009. [Online]. Available: https://gpm.nasa.gov/education/sites/default/files/article_images/Climate%20Literacy%20Booklet%20Hi-Res.pdf.

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