

CBME resources and assessment tools developed and aggregated by the task force.

Mary Theobald, MBA

References

1. Newton WP, Mitchell KB. Shaping the future of family medicine: reenvisioning family medicine residency education. *Fam Med*. 2021;53(7):490-498. [10.22454/FamMed.2021.207197](https://doi.org/10.22454/FamMed.2021.207197)
2. ACGME. ACGME program requirements for graduate medical education in family medicine. Accessed Feb 7, 2023. https://www.acgme.org/globalassets/pfassets/programrequirements/120_familymedicine_2023.pdf



Ann Fam Med 2023;21:195-197. <https://doi.org/10.1370/afm.2973>

CLIMATE CHANGE AS A THREAT TO HEALTH: FAMILY MEDICINE CALL TO ACTION AND RESPONSE

Problem

Climate change presents existential threats to human health and the sustainability of life on earth.^{1,2} Increased global temperatures have resulted in more frequent and extreme weather events, widespread fires, and catastrophic flooding, which in turn affect food production, air quality, access to clean drinking water, safe shelter, vector-borne diseases, and essential infrastructure; thus threatening the health of people, animals, and ecosystems (Figure 1).²

The United States (US) Centers for Disease Control and Prevention (CDC) have identified a multitude of health effects resulting from climate disruptions including increased respiratory and cardiovascular diseases; injuries and premature deaths related to extreme weather events; changes in the prevalence and geographical distribution of food- and water-borne illnesses and other infectious diseases; and threats to mental health.³⁻⁴ Moreover, climate change disproportionately affects vulnerable populations who have minimally contributed to causing these climate problems including people living on low incomes, some communities of color, immigrants including those with limited English proficiency, Indigenous peoples, pregnant people and children, older adults, at-risk occupational groups, persons with disabilities, and persons with preexisting or chronic medical conditions.^{2,5} In fact, countries ranked as highly vulnerable to climate change have a 10-times higher mortality rate from hazardous climate events compared to those less vulnerable.⁶ The number of climate refugees will continue to increase due to diminished access to food and essential resources. Social unrest triggered by climate changes provokes conflicts and threatens community, national, and international security.⁷

The US National Institutes of Health (NIH) has recently launched a Climate Change and Health Strategic Framework to foster research to address urgent threats of climate change organized around 4 core elements: health effects research; intervention science; health equity and training; and capacity building.⁸

Relevance to Family Medicine, Patients, and Communities

Family physicians are well positioned to leverage trusting relationships with individuals, families, and communities, and to provide education and resources to promote health and prevent diseases precipitated or exacerbated by climate change. While two-thirds of physicians surveyed believe climate change is relevant to primary care, less than one-third believed they should take active roles in discussing climate change with patients.⁹ Family physicians can seek best evidence to inform patients about the health impacts of climate change. They can leverage their knowledge and power in partnerships with other leaders, businesses, governmental and public agencies, and community organizations to co-create policies, solutions, and resources to mitigate catastrophic individual and planetary health outcomes.⁹⁻¹⁰

Response

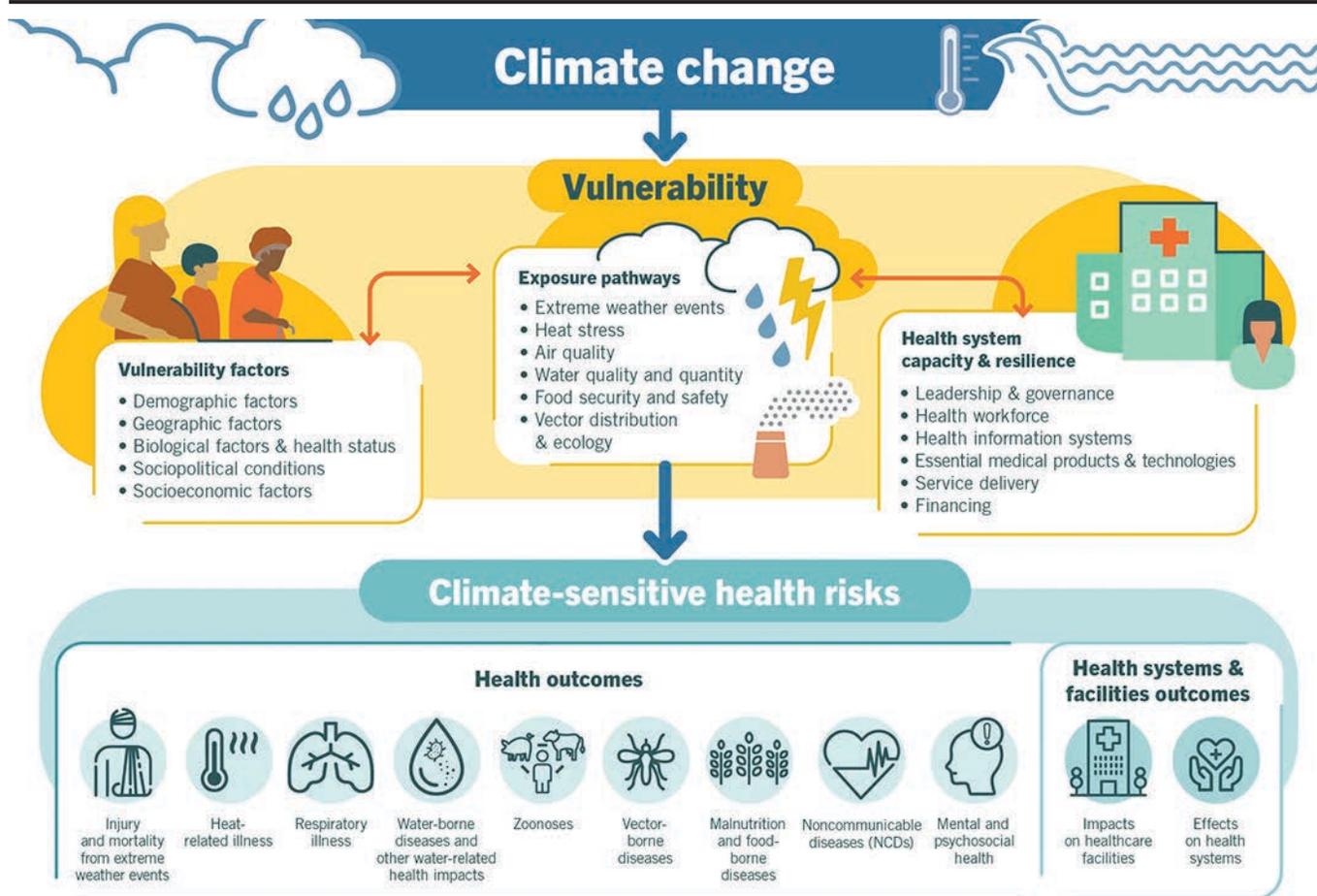
Physicians are ethically bound to address the issues that affect the health of our patients and communities.¹¹ Many efforts are already underway within family medicine to address the health effects of climate change.

The American Academy of Family Physicians (AAFP) joined with medical organizations and associations to form the Medical Society Consortium on Climate and Health (MSCCH) in 2017. The MSCCH created a platform representing organizations with over 600,000 physicians to collectively advocate for climate solutions. The AAFP joined over 100 organizations and individuals to call on government and business stakeholders to recognize climate change as a health emergency and to create a Climate, Health and Equity Policy Action Agenda in 2019.¹² The AAFP provides a climate change module within their *Health Equity Curricular Toolkit*, which includes tools to counsel patients and materials to use during advocacy efforts with legislators.¹³⁻¹⁷

NAPCRG, an international primary care research organization, has supported dissemination of research on how climate change impacts health and potential solutions. Their 2022 annual meeting featured a plenary on Climate Change, multiple poster presentations, and the Climate Change interest group providing networking opportunities for researchers.¹⁸

The Association of Departments of Family Medicine (ADFM) featured climate change as the theme of their 2022 annual meeting. Dr Jonathan Patz emphasized that academic leaders are ideally positioned to train the next generation of physicians to address this problem through education and advocacy.¹⁹ The ADFM's Advocacy Committee provides resources for academic departments of family medicine to create and share best practices.²⁰

Figure 1. Climate change and health risks.



Note. An overview of climate-sensitive health risks, their exposure pathways and vulnerability factors. Climate change impacts health both directly and indirectly, and is strongly mediated by environmental, social, and public health determinants.¹

Reprinted from World Health Organization (WHO). Climate change and health. Accessed Feb 17, 2023. <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

DeMasi and colleagues have outlined an action plan for academic medicine to address this issue through education, patient care (eg, switching metered-dose inhalers [MDI] for dry powder versions), practice transformation (creating a more climate-friendly practice) and advocacy.²¹⁻²² The STFM website includes information on developing and implementing curricula on climate change to inform family medicine training.²³ STFM members have recently formed a Planetary Health Collaborative to support family medicine educators in education, research, and systems change related to planetary health, climate change, and sustainability.

Call to Action

The profound effects of climate changes call for widespread and coordinated actions among family physicians, their practices, and communities, and across family medicine departments and organizations. Family physicians can select priorities for action at the individual, community, regional, state, national or global levels. Effective responses will require changes in education, clinical services, research, community outreach, and

coalition building. Physicians are more likely to be effective by building coalitions or joining organizations to promote widespread collective efforts. We invite all family physicians and departments of family medicine to join these vital efforts!

Cynthia Haq, Tochi Iroku-Malize, Jennifer Edgoose, Jacob Prunuske, Allen Perkins, Wayne Altman, Sam Elwood

References

1. Climate change and health. World Health Organization. Updated Oct 30, 2021. Accessed Nov 15, 2022. <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>
2. Climate change 2022: impacts, adaptation and vulnerability. IPCC Sixth Assessment Report. Published 2022. Accessed Nov 15, 2022. <https://www.ipcc.ch/report/ar6/wg2/>
3. Climate effects on health. Centers for Disease Control and Prevention. Updated Apr 25, 2022. Accessed Nov 15, 2022. <https://www.cdc.gov/climateandhealth/effects/>
4. Centers for Disease Control and Prevention; National Center for Environmental Health. Preparing for the Regional Health Impacts of Climate Change in the United States. Published Jul 2020. Updated Jul 2022. Accessed Nov 15, 2022. https://www.cdc.gov/climateandhealth/docs/Health_Impacts_Climate_Change-508_final.pdf

5. Justice, equity, diversity, and inclusion in climate adaptation planning. Centers for Disease Control and Prevention. Updated Apr 13, 2022. Accessed Nov 15, 2022. <https://www.cdc.gov/climateandhealth/JEDI.htm>
6. Birkmann J, Jamshed A, McMillan JM, et al. Understanding human vulnerability to climate change: a global perspective on index validation for adaptation planning. *Sci Total Environ*. 2022;803:150065. [10.1016/J.SCITOTENV.2021.150065](https://doi.org/10.1016/j.scitotenv.2021.150065)
7. von Uexkull N, Buhaug H. Security implications of climate change: a decade of scientific progress. *J Peace Res*. 2021;58(1):3-17. [10.1177/0022343320984210](https://doi.org/10.1177/0022343320984210)
8. Woychik RP, Bianchi DW, Gibbons GH, et al. The NIH Climate Change and Health Initiative and Strategic Framework: addressing the threat of climate change to health. *Lancet*. 2022;400(10366):1831-1833. [10.1016/S0140-6736\(22\)02163-8](https://doi.org/10.1016/S0140-6736(22)02163-8)
9. Boland TM, Temte JL. Family medicine patient and physician attitudes toward climate change and health in Wisconsin. *Wilderness Environ Med*. 2019;30(4):386-393. [10.1016/j.wem.2019.08.005](https://doi.org/10.1016/j.wem.2019.08.005)
10. Singh C, Iyer S, New MG, et al. Interrogating 'effectiveness' in climate change adaptation: 11 guiding principles for adaptation research and practice. *Clim Dev*. 2022;14(7):650-664. [10.1080/17565529.2021.1964937](https://doi.org/10.1080/17565529.2021.1964937)
11. Peters JL. Mitigating the impact of climate change on human health: the role of the medical community. *AMA J Ethics*. 2017;19(12):1153-1156. [10.1001/journalofethics.2017.19.12.fred1-1712](https://doi.org/10.1001/journalofethics.2017.19.12.fred1-1712)
12. US call to action on climate health and equity: a policy action agenda. Published 2019. Accessed Nov 29th, 2022. <https://climatehealthaction.org/cta/climate-health-equity-policy/>
13. Hansmann K, Bumol J, Newman N. AAFP Health Equity Curriculum Toolkit Climate Change. Climate Change Module. Accessed Nov 30, 2022. https://www.aafp.org/dam/AAFP/documents/patient_care/everyone_project/health-equity-toolkit/climate-change-module.pdf
14. AAFP. Health equity: leading the change. Accessed Jan 17, 2023. <https://www.aafp.org/cme/all/online/health-equity-leading-the-change.html>
15. Wellbery CE, Lewandowski A, Holder C. Climate change and the local environment: communicating with your patients about health impacts. *Am Fam Physician*. 2021;104(5):526-530.
16. American Academy of Family Physicians. Environmental health and climate change. Updated Sep 2019. Accessed Nov 30, 2022. <https://www.aafp.org/dam/AAFP/documents/advocacy/prevention/environmental/BKG-EnvironmentalHealthClimateChange.pdf>
17. Hansmann K, Bumol J, Newman N. AAFP Health Equity Curriculum Toolkit Climate Change. Climate Change, Health and Health Equity. Accessed Jan 27, 2023. <https://www.fammed.wisc.edu/files/webfm-uploads/documents/diversity/climate-change-health-equity.pdf>
18. Pacheco S. Climate change & impact on healthcare. Oral presentation at: NAPCRG Annual Meeting; November 21, 2022; Phoenix, Arizona.
19. Patz J. The climate crisis and our health: roles and opportunities in primary care. Oral presentation at: ADFM Annual Conference; June 9, 2022; Denver, Colorado.
20. Advocacy Committee. Association of Departments of Family Medicine. Updated Jun 2022. Accessed Jan 27, 2023. <https://www.adfm.org/resources/advocacy/>
21. DeMasi M, Chekuri B, Paladine HL, Kenyon T. Climate change: a crisis for family medicine educators. *Fam Med*. 2022;54(9):683-687. [10.22454/FamMed.2022.827476](https://doi.org/10.22454/FamMed.2022.827476)
22. Family & Community Medicine, University of Toronto. Climate change and health – what can family doctors do? Published Apr 22, 2021. Accessed Nov 29, 2022. <https://www.dfcu.utoronto.ca/news/climate-change-and-health-what-can-family-doctors-do>
23. Mondragon R, et al. Developing & implementing curricula on climate change in family medicine training. Oral presentation at: STFM Annual Conference; April 26-May 1 2019; Toronto, Ontario, Canada.



Ann Fam Med 2023;21:197-198. <https://doi.org/10.1370/afm.2974>

SOARING TO NEW HEIGHTS: STRENGTHENING OUTCOMES AND ASSESSMENT IN RESIDENCY

Preparing family medicine physicians to meet the needs of their patients is a fundamental goal of residency training. These needs shift, and so training must also adapt. The revised Accreditation Council for Graduate Medical Education (ACGME) requirements for GME in family medicine call on residency programs to become increasingly sophisticated at measuring trainee outcomes with patient experience data, population health metrics, Milestones and/or ITE scores.¹ Increasingly, stakeholders recognize that true outcome measures must also incorporate performance *after* residency to evaluate whether training goals are actually accomplished as graduates enter their practice. Further, in the absence of a formal knowledge-sharing system, a wealth of experiential wisdom is siloed rather than shared between program directors (PDs).² A rising tide raises all ships! So, we might ask: in what novel ways can PDs measure and take pride in describing their program's strengths and outcomes? Or: how can PDs whose alumni consistently perform well in one or more areas of family medicine practice share with other PDs how to prepare their residents for the same?

In 2023, the Strengthening Outcomes and Assessments in Residency (SOAR) project, a new community of practice established by the Association of Family Medicine Residency Directors (AFMRD) and the American Board of Family Medicine (ABFM), will aid residency programs in understanding their outcomes, sharing what works, and supporting self-study and improvement efforts. SOAR builds upon prior AFMRD efforts, such as the Residency Performance Index (RPI), and expands upon the ABFM National Graduate Survey (NGS).³⁻⁵ It will augment existing forums and events where program directors and faculty gather to reflect and swap bright spots by featuring outcomes data and information. It will provide opportunities for PDs to engage in educational scholarship and GME innovation that will shape the future of new program requirements and family medicine care delivery.

SOAR recognizes the importance of imprinting during residency as the foundation to post-graduate practice.⁶⁻⁸ To achieve socially accountable outcomes as a specialty, PDs must carefully consider the influence of their programs on their residents' actual post-graduate practice. Examples might include whether graduates of rural residencies ultimately practice in rural areas or if programs that emphasize training in substance use disorder treatment produce alumni who continue to provide that care. SOAR aims to connect family