

Taking Action on Planetary Health: A Call to Action for Naturopathic Doctors

Leslie Solomonian,¹ ND, MPH (FCM)



THE CLIMATE CRISIS IS A HEALTH CRISIS

The World Health Organization has called climate change one of the biggest health threats of the 21st century.¹ Climate destabilization has myriad direct and indirect physical and mental health impacts, including extreme heat-related illness; flood- and wildfire-related deaths, displacement, and evacuations; droughts; wildfire-related asthma, COPD, and cardiovascular disease; tick-borne disease; seasonal allergies; anxiety, depression, increased food insecurity, and conflict.² Climate destruction poses higher risks for Indigenous people, people who are racially marginalized, people living in poverty, people living with disabilities, the elderly, people experiencing homelessness, and people who work outdoors.³ The climate crisis is a *health* crisis, resulting in a tremendous burden on healthcare providers and systems, driving the need to adapt to these changing determinants of health.

“Climate change,” however, is but one element of the broader planetary health crisis. The discipline of planetary health represents an integrative approach to understanding the reciprocal relationship between human beings and the planet. Whitmee et al. characterized planetary health as “the health of human civilization and the state of the natural systems on which it depends.”⁴ At its core, planetary health acknowledges the indispensable role of flourishing ecosystems in sustaining human societies; the well-being of individuals and communities is inexorably linked to healthy natural systems. Breakdown in these systems is generally understood to be due to human activity, yielding the term “anthropocene,” which defines the current geological epoch as marked by human-induced alterations to the Earth’s geology and ecosystems.⁵ The term acknowledges humanity’s pivotal role in driving environmental transformations, including industrialization, deforestation, nuclear waste deposition, *and* climate change, leaving distinct imprints in the geological record.

The causes of the anthropocene and the planetary health crisis are complex. Myers encapsulated the societal, economic, and political drivers and mediators that have led to such mass ecological disruption and the consequential impacts on human health.⁶ White supremacy, capitalism, colonialism, and patriarchy are considered by many to be central to the evolution and perpetuation

of the planetary health crisis.⁷ Proposed principles of planetary health emphasize the need to challenge these dominant systems in the process of recreating a more sustainable and just society.⁸

THE ROLE OF HEALTHCARE PROVIDERS, AND THE OPPORTUNITY FOR NATUROPATHIC MEDICINE

This audience won’t be surprised by the fact that the healthcare sector contributes substantially to the problem. According to the 2023 report of the Lancet Countdown on Health and Climate Change, the carbon footprint of the healthcare system is estimated to be 4% to 6% of all global emissions, equivalent to the fifth-largest emitter if the health sector was a country.⁹ Canada is a top emitter, with healthcare being 5.2% of our carbon emissions. Most greenhouse gas emissions (71%) come from the healthcare supply chain (production, transport, and disposal of goods and services such as pharmaceuticals, chemical reagents, food and agricultural products, medical devices, equipment, and instruments).¹⁰

There are a number of evidence-informed strategies healthcare providers can implement to improve sustainability. A new Canadian guide, *Planetary Health for Primary Care*, identifies four principles: reducing unnecessary care, empowering patients, emphasizing health promotion and prevention, and choosing lower-impact treatment options.¹¹ It appears that naturopathic practice, in theory, is more likely to align with these strategies. Leaning on approaches that are preventive, health-promoting, and minimally invasive inherently reduces waste;¹² lifestyle strategies such as a whole-foods plant-based diet,¹³ physical activity,¹⁴ and nature immersion have benefits for both individuals and the environment.¹⁵ Naturopathic philosophy also seems to inherently align with principles of planetary health.^{8,16} An emphasis on prevention, optimizing conditions for health, pluralism, and holistic thinking, are clear connections between the two frameworks.

What appears to be an inherent alignment between naturopathic medicine and planetary health does not exempt practitioners from the need to be vigilant of the ways in which practice may benefit or harm the planet and all who share it. It may, in fact, be an argument for *greater* efforts to mitigate harm. Natural health products

Correspondence to: Leslie Solomonian, 152 Manor Rd. East, Toronto, ON, M4S 1R6, Canada. E-mail: lesliend@gmail.com

To cite: Solomonian L. Taking action on planetary health: a call to action for naturopathic doctors. *CAND Journal*. 2024;31(4):11-15. <https://doi.org/10.54434/candj.191>

Received: 29 August 2024; Accepted: 17 September 2024; Published: 12 December 2024

© 2024 Canadian Association of Naturopathic Doctors. For permissions, please contact candj@cand.ca.

and medical devices and equipment used in practice, for example, contribute to the environmental footprint of practice. Promoting planetary health must also go beyond convenient co-benefits or clinical practice. It is in our oath to protect the health of the planet “for ourselves and future generations.” Our avowed commitment to treating the whole requires us to view the health of the individuals we see in practice—and those we don’t—as an extension of the health of the world in which we live and take tangible action to promote planetary health on a larger scale.

All healthcare providers—and perhaps NDs especially, given our principles—have a responsibility to adapt to treat the downstream effects of the climate crisis. We also have a responsibility to act to improve social and ecological determinants of health – the root cause of the majority of health outcomes and health inequities.¹⁷ There is a significant body of literature arguing that healthcare providers must act to reduce our personal and collective contributions and use our influence to affect policies, systems, and individual behaviours to improve population health and the health of the natural environment of which we are a part.¹⁸

CHALLENGES AND BARRIERS

Despite the clear role for healthcare professionals in taking action on the planetary health crisis, most will have had no education on these topics in their undergraduate or postgraduate curriculum.¹⁹ There is a unique set of barriers with respect to acting on planetary health, largely related to psychological and cognitive dissonance and the vast complexity of the problem.²⁰ One barrier to anyone taking action on a complicated problem is lack of institutional support. This author has encountered numerous barriers to shifting practices within the profession, particularly at the only institution for naturopathic medical education in Canada. From years of discouragement in efforts to create a meaningful sustainability strategy for the institution, to resistance to a critique of excessive personal protective equipment use in the teaching clinic,^{21,22} to an unwillingness to consider a system to advise patients of the impacts of poor air quality or excessive heat on health,^{23,24} this author has floundered in her attempts. There has been some movement on the part of professional associations incorporating planetary health content into conference proceedings and publications; however, this author has experienced numerous occasions of having this content rejected by regulators for naturopathic continuing education (CE) credits. The argument is often made that taking action on the planetary health crisis is not “relevant” to naturopathic practice, or an outright conflict of interest. Given the alignment between stated naturopathic principles and what experts say is needed for planetary health, our institutions should be *leaders* in this work.

TAKING ACTION ON PLANETARY HEALTH

There are other institutions and voices that are prioritizing this work. Along with Samantha Green—a family physician, adjunct faculty at the University of Toronto, and president elect for the Canadian Association of Physicians for the Environment—I approached the Department of Continuing Professional

Development in the school of Family & Community Medicine at the University of Toronto with a proposal. They were immediately supportive, indicating that our idea fulfilled a key strategic goal. Together, we designed and offered a 40-hour CE certificate program to build capacity among healthcare providers to take action on the planetary health crisis.²⁵ The first iteration of the program was offered in 2023; the second in fall 2024. A variant of the program is now being considered for the general public by the School of Continuing Studies.

The program is grounded in adult learning theory and planetary health principles, including the critical centering of justice. It is team-based, community-oriented, and interdisciplinary. The program is first and foremost action-oriented; we know that knowledge is rarely sufficient for change. The primary outcome of the program is the application of knowledge, attitude, and skills to create an intervention to adapt to and/or mitigate the planetary health crisis. Program objectives and intended outcomes are listed in Figure 1.

All components of the program are grounded in principles of planetary health, including systems thinking, multimodal ways of knowing, ethics, spirituality, cognitive psychology, and the humanities. Collaborative learning is critical; as facilitators, we emphasize that we are co-creating skills and knowledge with participants. We use the program itself as an example of an intervention, using its development as a model for the step-by-step plan creation. Participants are encouraged to register in teams, and we help individual registrants create affinity groups within the cohort. Sessions are heavily interactive, with deliberate space for supported self-direction and choice. The schedule alternates between full-cohort gatherings (online), and structured team meetings to work on the intervention strategy. There is a significant amount of independent learning to prepare for each session, consisting of relevant reading, viewing, reflections, and prompts to connect with the natural world; engagement in the online discussion forum is encouraged to build community between sessions and between teams. Purposeful feedback loops are built into the design to encourage cross-pollination of ideas between groups (Figure 2).

Twenty-four participants enrolled in the first iteration, including physicians, nurses, naturopathic doctors, registered dietitians, and other healthcare professionals. A micro (clinical), meso (institutional/community), macro (policy) framework is used in the program to define various types of advocacy actions that a healthcare provider might take on within their role;²⁶ arguably, all are collectively necessary for meaningful change to occur. As such, an array of action plans emerged from this first cohort (Table 1).

Four months after the end of the first cohort, we hosted a reunion gathering to hear how alumni continued to take action. We heard of tangible movements towards embedding planetary health principles in various professional spaces, such as associations, conferences, and local health units/authorities. We heard of organized campaigns for policy change on climate. Two participants are currently running for election. We heard of initiatives to weave planetary health concepts and competencies into pre-existing health education curricula. The program deliberately incorporates strategies and mechanisms for effectively coping with the strong emotions that often arise when working to promote

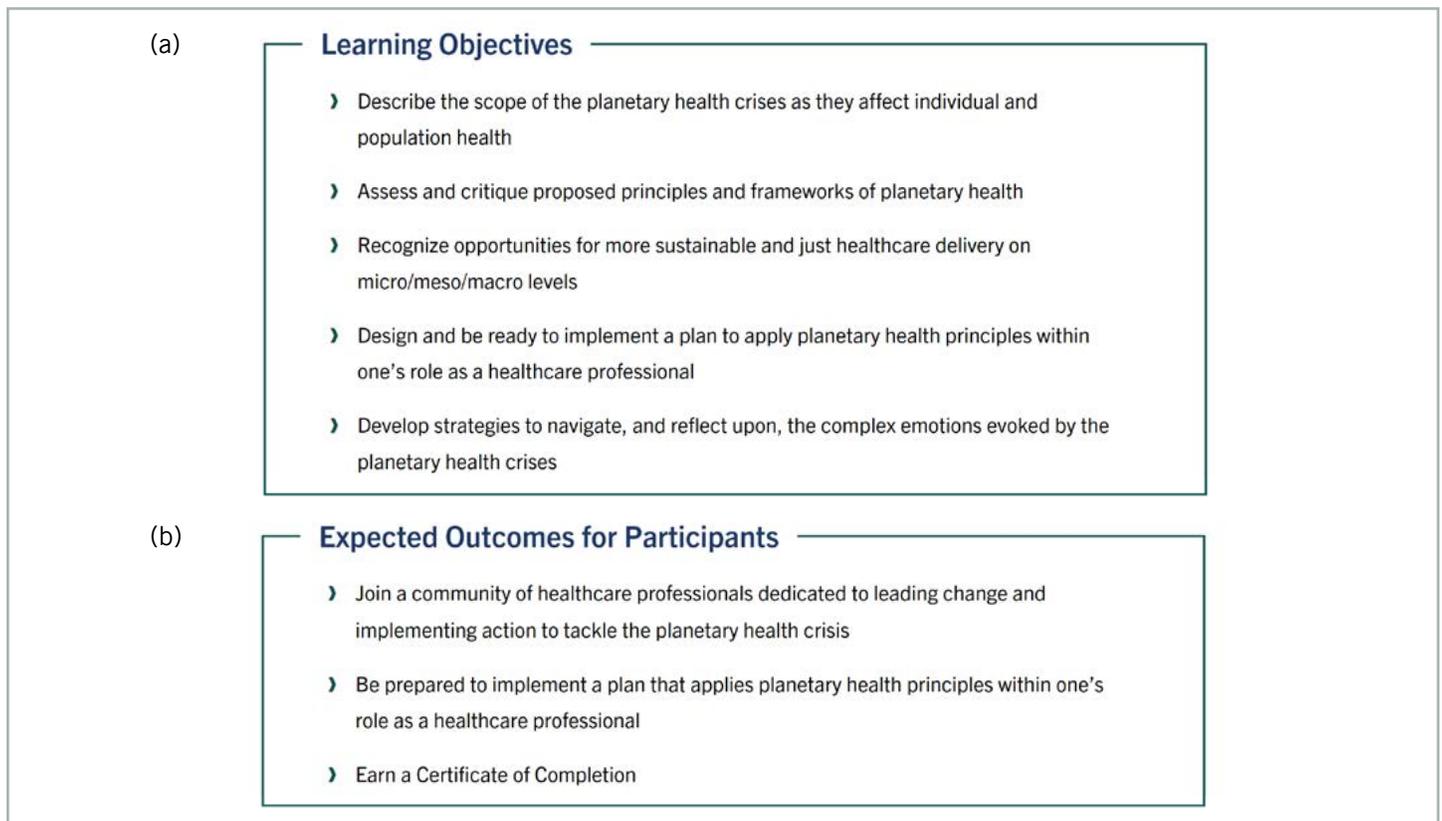


FIGURE 1 (a) Program Objectives and (b) Outcomes. Source: Taking action on planetary health – building community to advance planetary health. <https://planetaryhealthaction.ca/>

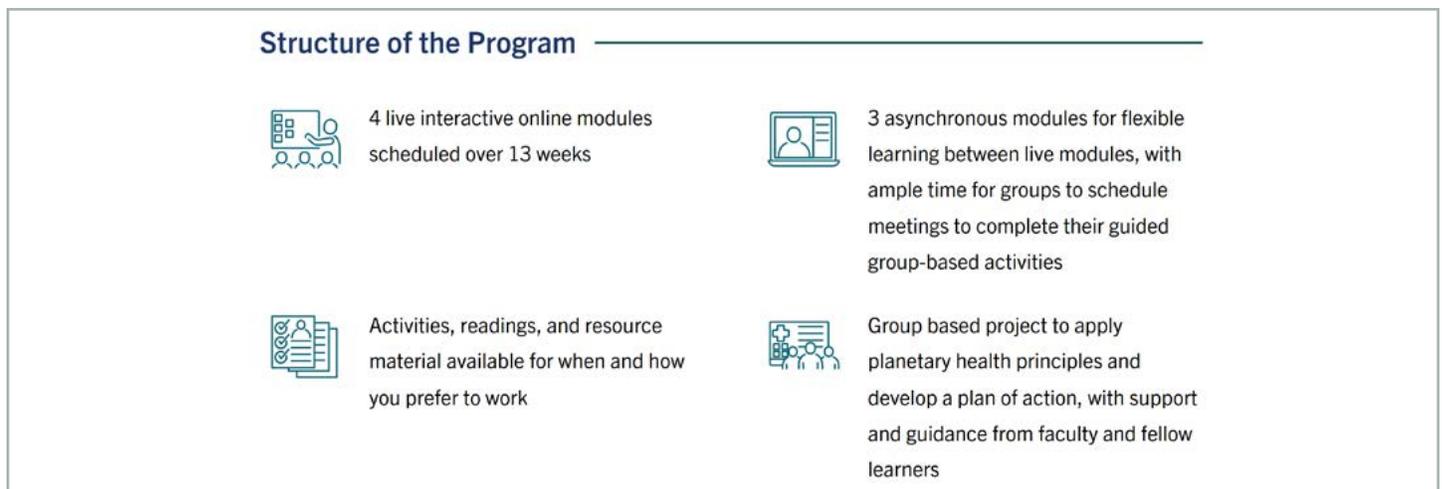


FIGURE 2 Structure of the Taking Action on Planetary Health Certificate Program. Source: Taking action on planetary health – building community to advance planetary health. <https://planetaryhealthaction.ca/>

TABLE 1 Action Plans from “Taking Action on Planetary Health” Cohort 1

• Creation of a clinical personalizable prescription template with prompts and local resources for individuals to “take for your physical and mental health, for your community, and for our living world” (micro with possible meso outcomes)
• Creation of a rubric by which healthcare institutions can prioritize and embed planetary health principles in their operations (meso with possible micro outcomes)
• Development of a digital interface to support youth in coping with eco-distress (micro with possible meso outcomes)
• Creation of a guide for healthcare leaders to develop and present modules/workshops on planetary health to other healthcare workers or students (meso with possible micro and macro outcomes)
• Design of a strategy for an organizational response to heat-related vulnerability, including a screening tool for homebound populations at risk, creation of a process/paradigm/care plan for mobilizing during heat emergencies, and advocacy around apartment buildings that ban unit air conditioners (micro, meso and macro outcomes)

planetary health; alumni reflected on the importance of this in their work. We also talked about the power of personal stories; the group reflected that stories (more than data) and compassion are what helps “bring others along,” normalizes difficult feelings, and reduces overwhelm, all critical for maintaining optimism in this work. We also reminded ourselves of the collective impact of consistent efforts to shift narratives, behaviours and policies, no matter how small each shift might feel.

Thirteen of the first cohort consented to participate in an evaluation of the pilot. These participants completed a pre-program survey assessing knowledge, attitudes, behaviours, and barriers towards taking action on planetary health from their position as a healthcare provider. Eleven completed a second identical survey immediately after the program completed. There was a trend to improved self-perceived knowledge of the causes and consequences of the planetary health crisis, as well as increased agreement that healthcare providers have a responsibility to take action. There was an increase in participants acting on planetary health, especially in clinical practice. Most respondents found the program feasible and effective, particularly the team-based approach. These preliminary results were presented as part of a panel on climate and health education at the 2023 Conference for Climate and Health in New York.²⁷ Qualitative feedback was used to reiterate the program for the next cohort.

MOVING FORWARD; A CALL TO ACTION FOR NDS

As articulated in our article published in *CANDJ* in 2019, there are a number of strategies NDs can consider, ranging from “micro” clinical steps to “macro” advocacy for policy change:²⁸

- Make explicit the reciprocal connections between individual health goals and the health of the planet.
- Consider environmental harms (or benefits) of different therapeutic approaches in the process of obtaining informed consent.
- “Nature” is embedded in the name of our profession; keeping nature central in practice and lifestyle helps to cultivate a sense of stewardship in ourselves and our patients, and has myriad benefits.

- Establish personal and professional habits which minimize your environmental footprint. Make your choices and reasons explicit.
- Be an agent of change and make it public; illustrate the links to our commitment to optimizing conditions for health.

All of these strategies benefit from deliberate learning to improve effectiveness. We invite you to consider registering for our next iteration! As the sole naturopathic doctor in this cohort indicated:

This was the first course I have taken that directly and practically addressed an emerging issue in the healthcare landscape—the increasing prevalence of symptoms and illnesses that are related, directly or indirectly, to climate change. For me this has already led to important changes in my work with patients. I believe that naturopathy, with its heightened emphasis on the connection between environment and health, is particularly well suited to take a leading role in this field over the next few decades. My hope is that, in the future, naturopaths will engage more fully and directly with issues related to climate change, climate anxiety, and planetary health. (Christopher Sowton, ND, email communication, September 5, 2024).

However, our program is far from the only one available to support the competence of healthcare providers in taking meaningful action on planetary health. Table 2 lists a number more to explore.

Consider this our collective call to action.

AUTHOR AFFILIATIONS

¹ Canadian College of Naturopathic Medicine, Toronto, ON, Canada.

ACKNOWLEDGEMENTS

Not applicable

CONFLICTS OF INTEREST DISCLOSURE

I am the co-developer and facilitator of the program described. I am financially compensated by the University of Toronto to do this work.

FUNDING

This research did not receive any funding.

TABLE 2 Educational Opportunities for Taking Action on Planetary Health

Taking Action on Planetary Health	https://planetaryhealthaction.ca/
Centre for Sustainable Healthcare: short courses in sustainability, health, and healthcare	https://sustainablehealthcare.org.uk/courses
Cascades Canada: continuing professional development training programs for individuals in health systems working towards environmentally sustainable healthcare	https://cascadescanada.ca/training/
TelessaúdeRS-UFRGS: Massive Open Online Course (self-directed, asynchronous):	https://www.ufrgs.br/telessaunders/saude-planetaria/
Planetary Health for Nurses: continuing education	https://nursing.yale.edu/planetary-health-nurses
Climate Health Organizing Fellows Program	https://www.healthequity.challiance.org/climate-health-2023-24
Climate Change and Human Health ECHO Program	https://hsc.unm.edu/echo/partner-portal/programs/global/climate-change/
World Organization of Family Doctors (WONCA) Air Health Train the Trainer Program	https://www.globalfamilydoctor.com/News/WONCAirHealthTraintheTrainerProgram.aspx
Planetary health academy	https://planetary-health-academy.de/

REFERENCES

1. Ghebreyesus TA, Al Jaber SA, Kerry V. We must fight one of the world's biggest health threats: climate change. World Health Organization, 2023.
2. Haines A, Scheelbeek P. The health case for urgent action on climate change. *BMJ*. 2020;368:m1103. <https://doi.org/10.1136/bmj.m1103>
3. Moser AM, Stigler FL, Haditsch B. Physicians' responsibility for planetary health. *Lancet Planet Health*. 2017;1(2):e56. [https://doi.org/10.1016/s2542-5196\(17\)30023-2](https://doi.org/10.1016/s2542-5196(17)30023-2)
4. Whitmee S, Haines A, Beyrer C, et al. Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health. *Lancet*. 2015;386(10007):1973–2028. [https://doi.org/10.1016/s0140-6736\(15\)60901-1](https://doi.org/10.1016/s0140-6736(15)60901-1)
5. Lewis SL, Maslin MA. Defining the anthropocene. *Nature*. 2015;519(7542):171–180. <https://doi.org/10.1038/nature14258>
6. Myers SS. Planetary health: protecting human health on a rapidly changing planet. *Lancet*. 2017;390(10114):2860–2868. [https://doi.org/10.1016/s0140-6736\(17\)32846-5](https://doi.org/10.1016/s0140-6736(17)32846-5)
7. Davis J, Moulton AA, Van Sant L, Williams B. Anthropocene, capitalocene, ... plantationocene?: a manifesto for ecological justice in an age of global crises. *Geogr Compass*. 2019;13(5):e12438. <https://doi.org/10.1111/gec3.12438>
8. Prescott SL, Logan AC, Albrecht G, et al. The Canmore Declaration: Statement of Principles for Planetary Health. *Challenges*. 2018;9(2):31. <https://doi.org/10.3390/challe9020031>
9. Romanello M, Di Napoli C, Green C, et al. The 2023 report of the Lancet countdown on health and climate change: the imperative for a health-centred response in a world facing irreversible harms. *Lancet*. 2023;402(10419):2346–2394. [https://doi.org/10.1016/s0140-6736\(23\)01859-7](https://doi.org/10.1016/s0140-6736(23)01859-7)
10. Tennison I, Roschnik S, Ashby B, et al. Health care's response to climate change: a carbon footprint assessment of the NHS in England. *Lancet Planet Health*. 2021;5(2):e84–e92. [https://doi.org/10.1016/s2542-5196\[20\]30271-0](https://doi.org/10.1016/s2542-5196[20]30271-0)
11. Hale I, Norris J, Larkin L. *Planetary health for primary care*. Toronto, On: CASCADES; 2023. <https://cascadescanada.ca/resources/sustainable-primary-care-toolkit/>
12. Hensher M, Canny B, Zimitat C, Campbell J, Palmer A. Health care, overconsumption and uneconomic growth: a conceptual framework. *Soc Sci Med*. 2020;266:113420. <https://doi.org/10.1016/j.socscimed.2020.113420>
13. Laine JE, Huybrechts I, Gunter MJ, et al. Co-benefits from sustainable dietary shifts for population and environmental health: an assessment from a large European cohort study. *Lancet Planet Health*. 2021;5(11):e786–e796. [https://doi.org/10.1016/S2542-5196\(21\)00250-3](https://doi.org/10.1016/S2542-5196(21)00250-3)
14. Wolkinger B, Haas W, Bachner G, et al. Evaluating health co-benefits of climate change mitigation in urban mobility. *Int J Environ Res Public Health*. 2018;15(5):880. <https://doi.org/10.3390/ijerph15050880>
15. Robinson J, Breed M. Green prescriptions and their co-benefits: integrative strategies for public and environmental health. *Challenges*. 2019;10(1):9. <https://doi.org/10.3390/challe10010009>
16. Prescott SL, Logan AC. Planetary health: from the wellspring of holistic medicine to personal and public health imperative. *Explore (NY)*. 2019;15(2):98–106. <https://doi.org/10.1016/j.explore.2018.09.002>
17. Parkes MW, Poland B, Allison S, et al. Preparing for the future of public health: ecological determinants of health and the call for an eco-social approach to public health education. *Can J Public Health*. 2019;111(1):60–64. <https://doi.org/10.17269/s41997-019-00263-8>
18. Xie E, de Barros EF, Abelsohn A, Stein AT, Haines A. Challenges and opportunities in planetary health for primary care providers [published correction appears in *Lancet Planet Health*. 2018 Jul;2(7):e291]. *Lancet Planet Health*. 2018;2(5):e185–e187. [https://doi.org/10.1016/S2542-5196\(18\)30055-X](https://doi.org/10.1016/S2542-5196(18)30055-X)
19. Barna S, Maric F, Simons J, Kumar S, Blankestijn PJ. Education for the anthropocene: planetary health, sustainable health care, and the health workforce. *Med Teach*. 2020;42(10):1091–1096. <https://doi.org/10.1080/0142159X.2020.1798914>
20. Brady Bates O, Walsh A, Stanistreet D. Factors influencing the integration of planetary health topics into undergraduate medical education in Ireland: a qualitative study of medical educator perspectives. *BMJ Open*. 2023;13(1):e067544. <https://doi.org/10.1136/bmjopen-2022-067544>
21. Lowe AE, Le AB, Gibbs SG. How should biocontainment balance infection control with practice sustainability? *AMA J Ethics*. 2022;24(10):E944–E950. <https://doi.org/10.1001/amajethics.2022.944>
22. Parashar N, Hait S. Plastics in the time of COVID-19 pandemic: protector or polluter?. *Sci Total Environ*. 2021;759:144274. <https://doi.org/10.1016/j.scitotenv.2020.144274>
23. Tan T, Junghans C, Varaden D. Empowering community health professionals for effective air pollution information communication. *BMC Public Health*. 2023;23(1):2547. <https://doi.org/10.1186/s12889-023-17462-1>
24. Hasan F, Marsia S, Patel K, Agrawal P, Razzak JA. Effective community-based interventions for the prevention and management of heat-related illnesses: a scoping review. *Int J Environ Res Public Health*. 2021;18(16):8362. <https://doi.org/10.3390/ijerph18168362>
25. Taking action on planetary health – building community to advance planetary health. <https://planetaryhealthaction.ca/>
26. Buchman S, Woollard R, Meili R, Goel R. Practising social accountability: from theory to action. *Can Fam Physician*. 2016 Jan 1;62(1):15–8.
27. Agenda. Climate & Health 2023. <https://www.climatehealth2023.com/agenda>
28. Solomonian L. Eco-reciprocity and the moral obligation of naturopathic medicine. *CANDJ* 2019;26(3):13–6. <https://doi.org/10.54434/candj.36>