

Family doctors well suited to being climate leaders

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Extraordinary increases in the number and intensity of weather- and climate-related disasters experienced around the globe in recent years have silenced all but the most stubborn of climate change deniers. There is growing public acceptance that predictions climate scientists made decades ago are now being realized. Climate change is the greatest threat to the health of the planet and its people, and we urgently need to not only mitigate further impacts but also plan to adapt to their acute and slower-onset effects, which are now unavoidable: more frequent, severe, and widely distributed wildfires, floods, droughts, storms, and infectious diseases brought on by environmental degradation and an increasingly unstable climate.¹⁻³

The 26th United Nations Climate Change Conference of the Parties (COP26) in Glasgow, Scotland, in 2021, included an increased focus on the health care sector as a substantial contributor to climate change.⁴ Despite health care's mandate to promote and protect health, this sector produces a substantial amount of pollution. In Canada, the health care system is responsible for 5.1% of our national carbon footprint,⁵ and we are lagging far behind countries such as the United Kingdom, which is leading the way in sustainable health care.⁶ Canada has joined more than 50 countries in formally committing to ambitions stated at COP26 to develop climate-resilient and low-carbon sustainable health systems.⁴

Meeting the targets of these health initiatives will require a major shift in thinking about environmental action. The traditional approach, for both the general public and the health care sector, has involved a narrow focus on proximal sources of greenhouse gases (GHG) and waste in our homes and facilities—encouraging individual end-users to turn off lights, do energy retrofits, and recycle while largely ignoring extravagantly wasteful overconsumption that drives the problem. Much has already been written about *greening* medical offices,⁷ and such changes are important for us all to make, but increasing the sustainability of the health care system also requires us to look much farther upstream, beyond the walls of our offices and facilities. A UK study found that only about 20% of the health care system's GHG emissions arise from energy use, water use, and waste produced in facilities themselves; the other 80% are generated by patient and staff travel and by the production and transportation of goods and services in the supply chain.⁶ We must expand our focus beyond the consumption we see and attend to the *invisible* pollution generated on our behalf, out of sight.

Role of family physicians

In a 2021 paper on achieving net-zero health care, Sherman et al presented a framework for planetary health care that identified 3 key targets: reducing demand for health services by better supporting disease prevention, appropriate screening, and health promotion; matching the supply of health services to demand (such as ensuring there are enough family physicians so that patients are not forced to seek primary care in resource-intensive settings such as emergency departments); and reducing emissions created in the delivery of health services.⁸ The importance of a strong primary care system is evident in every element of this framework, and family physicians are well positioned to be leaders in reducing the environmental impacts of health care.

Family physicians routinely work toward this framework's first target, to reduce demand on the system, by promoting healthy lifestyles and providing education and treatment to help prevent patients with chronic diseases from developing more advanced disease that requires more intensive (and resource-intensive) treatments.

Regarding the second target, patient-centred longitudinal care (and in particular team-based care) allows primary care practitioners to deliver and coordinate care efficiently, prevent unnecessary emergency department visits, and reduce duplication of services. It has long been recognized that

people with no source of primary care are more likely to be hospitalized, to delay seeking needed and timely preventive care, to receive care in emergency departments, and to have higher subsequent mortality and higher health care costs.⁹

Almost every action taken in the health care system contributes to the consumption of material resources and GHG generation. The only processes that do not do so directly are the processes of careful thought and planning and the building of comprehensive and meaningful interpersonal relationships between health care professionals and patients.

With respect to the third target in Sherman et al's framework,⁸ family physicians have another powerful climate mitigation tool at their disposal: in the role of thoughtful gatekeeper, family physicians can control a substantial proportion of emissions generated through the delivery of health services by avoiding unnecessary investigations, prescriptions, and referrals. Given that the Canadian Institute for Health Information has

determined that up to 30% of the tests, treatments, and procedures carried out in Canada might be unnecessary (based on 8 selected Choosing Wisely Canada [CWC] recommendations), the potential GHG savings that could be achieved through careful resource stewardship are enormous.¹⁰ Groups such as CWC have identified many commonly ordered but generally unnecessary investigations for each specialty, including family medicine. Although the focus of CWC is on enhanced patient care and more efficient use of health care resources, its more-is-not-always-better philosophy can also help reduce our impact on the planet.¹¹

With each medication we prescribe or laboratory test we order, we contribute to the energy and raw materials required to produce, test, package, transport, and ultimately dispose of the product or sample and its packaging. In the context of health care, we can aim to reduce redundant, inefficient, or inappropriate care or processes anywhere along the patient journey.⁸ Practising medicine with a climate lens in mind requires considering every decision's short- and long-term impacts on the environment in addition to its immediate impacts on the individual patient and society at large. Although our primary duty is to provide care to the patient before us, this is usually compatible with care that is also environmentally sustainable. High-quality care that optimizes patient outcomes is often more efficient, produces less waste, and uses fewer resources, which also translates into cost savings in materials and reduced workload for health care workers. The current levels of burnout and widespread staffing shortages in many areas of health care make this latter effect an important co-benefit. More efficient and appropriate use of health care resources result in more resources being available to care for patients elsewhere in the system.

According to an analysis done in the United Kingdom, medications prescribed by primary care practitioners are responsible for an astounding 61% of the total GHG emissions from the primary care sector.⁶ Since individual family physicians have almost complete prescribing autonomy, modifying our prescribing practices presents an exciting opportunity for each of us to reduce our environmental impact. An important example is the prescription of metered-dose inhalers (MDIs). The hydrofluorocarbon propellants contained in MDIs alone contribute 13% of the 61% total above. A single MDI releases as much GHG as a 120- to 185 km car journey, depending on the brand of inhaler.¹² Alternatives such as dry-powder inhalers are readily available, including new, more reasonably priced generic options, and produce substantially less GHG. Other important ways to reduce environmental *pill burdens* include offering nonpharmacologic treatment options, regularly reviewing and deprescribing medications when appropriate,¹³ requesting 1-week trial dispensing of new prescriptions, and providing accessible opportunities for safe disposal


of medications. Well-informed, shared decision making can help eliminate prescriptions altogether when clinical benefits are marginal. A trusting, longitudinal family physician-patient relationship can facilitate these discussions and reduce the risk of being perceived as *withholding care*. Patient-centred care can also lead to fewer interventions and decreased prescribing through more appropriately tailored solutions based on individual risk and personal preferences.

Support for systemic solutions

These examples highlight a few of the many ways in which family physicians can play an important role in mitigating the climate crisis. Placing full responsibility on individual practitioners, however, will not allow us to meet COP26 targets. A traditional tactic that has slowed progress toward environmental sustainability has been the tendency of leaders to download responsibility for change to individuals. Although this approach can be presented as empowering in one sense—and it is necessary for individuals to make changes—it is both inefficient and inadequate.

Policy makers and clinicians must start working together to make ecologically informed decisions at higher levels and to develop policies for system-wide changes that incentivize, facilitate, or mandate climate-friendly actions that are effective and feasible. Implementing a single purchasing policy or formulary change for an entire province or health region can have a far greater impact than individual physicians struggling to make changes in isolation. Fortunately, with public awareness growing rapidly, leaders will find it more and more politically prudent to address the issue of sustainability while reaping the many potential co-benefits of improved health of the population and, in many cases, cost savings.

Action as antidote

It is possible to feel a sense of helplessness when facing a threat as large as climate change, but positive action, however small, is one possible antidote, empowering us and providing a greater sense of purpose and hope. Each of us can envision and work toward a future where primary care takes a leading role in creating a more efficient system by shifting the focus of care from curative to preventive and by eliminating care that provides no benefit to patients. These suggestions provide new opportunities for family physicians to embed environmental action into daily practice. The alternative of doing nothing, in the face of what we know and can now see, is becoming increasingly uncomfortable and unconscionable. 

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References

1. Romanello M, McGushin A, Di Napoli C, Drummond P, Hughes N, Jamart L, et al. The 2021 report of the *Lancet* Countdown on health and climate change: code red for a healthy future. *Lancet* 2021;398(10311):1619-62. Epub 2021 Oct 20. Erratum in: *Lancet* 2021;398(10317):2148.
2. Berry P, Schnitter R, editors. *Health of Canadians in a changing climate: advancing our knowledge for action*. Ottawa, ON: Government of Canada; 2022. Available from: <https://changingclimate.ca/health-in-a-changing-climate/>. Accessed 2023 Mar 13.
3. Pörtner HO, Roberts DC, Poloczanska E, Mintenbeck K, Tignor M, Alegría A, et al. Summary for policymakers. In: Pörtner HO, Roberts DC, Tignor M, Poloczanska E, Mintenbeck K, Alegría A, et al, editors. *Climate change 2022: impacts, adaptation and vulnerability. Working Group II contribution to the sixth assessment report of the Intergovernmental Panel on Climate Change*. Cambridge, UK: Cambridge University Press; 2022. p. 3-33. Available from: <https://www.ipcc.ch/report/ar6/wg2/>. Accessed 2023 Mar 13.
4. *Alliance for Transformative Action on Climate and Health (ATACh)*. Geneva, Switz: World Health Organization; 2022. Available from: <https://www.who.int/initiatives/alliance-for-transformative-action-on-climate-and-health/cop26-health-programme>. Accessed 2023 Mar 13.
5. Pichler PP, Jaccard IS, Weisz U, Weisz H. International comparison of health care carbon footprints. *Environ Res Lett* 2019;14:064004.
6. Tennison I, Roschnik S, Ashby B, Boyd R, Hamilton I, Oreszczyn T, et al. Health care's response to climate change: a carbon footprint assessment of the NHS in England. *Lancet Planet Health* 2021;5(2):e84-92.
7. Blau E, Asrar FM, Arya N, Schabert I, Abelsohn A, Price D. Greener medical homes. Environmental responsibility in family medicine. *Can Fam Physician* 2016;62:381-4 (Eng), e226-30 (Fr).
8. Sherman JD, McGain F, Lem M, Mortimer F, Jonas WB, MacNeill AJ. Net zero healthcare: a call for clinician action. *BMJ* 2021;374:n1323.
9. Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. *Milbank Q* 2005;83(3):457-502.
10. *Unnecessary care in Canada*. Ottawa, ON: Canadian Institute for Health Information; 2017. Available from: <https://www.cihi.ca/sites/default/files/document/choosing-wisely-baseline-report-en-web.pdf>. Accessed 2023 Mar 14.
11. Born KB, Levinson W. Choosing Wisely campaigns globally: a shared approach to tackling the problem of overuse in healthcare. *J Gen Fam Med* 2018;20(1):9-12.
12. *Asthma inhalers and climate change*. London, UK: National Institute for Health and Care Excellence; 2022. Available from: <https://www.nice.org.uk/guidance/ng80/resources/asthma-inhalers-and-climate-change-patient-decision-aid-pdf-6727144573>. Accessed 2023 Mar 14.
13. Farrell B, Conklin J, Dolovich L, Irving H, Maclure M, McCarthy L, et al. Deprescribing guidelines: an international symposium on development, implementation, research and health professional education. *Res Social Adm Pharm* 2019;15(6):780-9. Epub 2018 Sep 18.

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