

# Practising environmentally sustainable health care every day

There is growing awareness that human activity is leading to environmental degradation and global climate change. We are witnessing the symptoms of an increasingly unhealthy planet as wildfires, droughts, floods, and other extreme weather events take their toll on human health. As health care providers, we contribute to this problem both as private citizens of a consumer society and as part of a health care system that contributes approximately 5% of the total greenhouse gases causing climate change. Thinking about climate change can be overwhelming, but small, positive actions can be empowering. As individual physicians, we all have an opportunity to make changes in our practices every day through our clinical decisions, leading to multiple co-benefits [Box].<sup>1</sup>

## New way of thinking: Garbage we see versus hidden waste

Traditionally, our approach to environmental action has focused on saving energy and recycling physical waste. However, in health care, these things account for only about 20% of our total greenhouse gas emissions [Figure]. The other 80% comes from what most of us never think about because we can't see it: the upstream waste generated on our behalf every day from the medications we prescribe, the tests we order, and the vast amount of energy and resources needed when patients require higher levels of intense medical interventions like surgeries and hospitalization.<sup>2</sup> Consider

the resources and energy needed to produce the materials required for even one lab test (syringe, needle, tube, label, arm band, gloves, chemicals, etc.) or medication (wood, oil, minerals). Additionally, its packaging must be extracted, processed, manufactured, transported, and ultimately disposed of.

## Framework for environmentally sustainable health care

The UK Centre for Sustainable Healthcare has identified four main principles to help clinicians reduce environmental impacts while still providing high-quality care:<sup>3</sup>

**Avoid overuse.** Approximately 30% of the tests and treatments we order are unnecessary<sup>4</sup> and place burdens on patients, providers, and the health care system. This overuse wastes resources, extends wait times, and can lead to cascades of additional testing and treatment. Eliminating overuse could dramatically reduce the environmental impact of the health care system and improve patient care. Review the Choosing Wisely Canada recommendations<sup>5</sup> for your specialty to identify frequently overused tests and treatments.

### Co-benefits of environmentally sustainable health care:

- Improve patient care
- Save money
- Provide more equitable care
- Reduce workload

**Engage patients.** In a UK study, only half of patients surveyed felt they were involved in shared decision making. When properly informed about true benefits and risks of an intervention, many wanted less rather than more care.<sup>6</sup> Asking patients “What matters to you?” and having serious illness conversations near the end of life can also reduce unwanted care. Empowering patients to become more involved in their own care can also reduce reliance on providers and avoid unnecessary visits and hospitalizations.

**Choose environmental alternatives.** There are many examples, such as prescribing dry powder instead of metered-dose inhalers, where simple choices can reduce our carbon footprint. Other examples include switching from single-use disposable to reusable

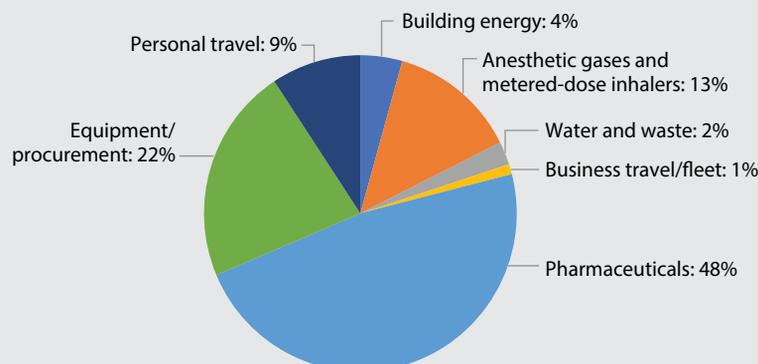


FIGURE. Greenhouse gas emissions from primary care.

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products, which have lower life cycle environmental impacts, using nonsterile gloves (or no gloves) when possible, choosing oral over parenteral medications, switching to desflurane or IV anesthetics, and using the least toxic alcohol-based cleaning agents.

**Promote health.** Shifting our focus from resource-intensive curative medicine toward actions that prioritize health promotion and disease prevention will naturally reduce the impact of care. Timely and appropriate screening interventions can prevent advanced disease and complications of chronic illness. Supporting active transport, plant-based diets, smoking cessation, and moderate alcohol use have health as well as environmental benefits.

Many of these actions can be facilitated by embracing the principles of slow medicine. Taking more time with patients, communicating more carefully with colleagues, and calming our daily frenzy can reduce waste and improve patient care, provider well-being, and planetary health. ■

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