

Sustainable health systems

The provision of good healthcare is one of the top priorities of modern societies. Experts are urging decision-makers to ensure that healthcare is delivered sustainably.

Most human activities have an impact on the natural environment. Healthcare is no exception. Healthcare professionals and scholars recognized this problem not so long ago. In 2010, Andersen and colleagues estimated the impacts of inhalation anaesthetics on climate change and found that global emissions of such anaesthetics have a climate change impact comparable to that of the CO₂ emitted by 1 million passenger cars¹. Essentially, most anaesthesia gases when released are not absorbed by patients; instead, they are captured by ventilation systems and ultimately expelled from the buildings and end up in the atmosphere. Thus, caring for patients has an environmental impact that over time can reduce well-being. A more recent paper by Malik and co-authors² estimated the overall CO₂ emissions from the Australian healthcare sector over the period 2014–2015 and found that such emissions were 7% of the total national emissions. Their research identified that among the main contributors within the healthcare sector, public hospitals were responsible for 34% of emissions and private hospitals for 10%. But it is not only about climate change. There is mounting waste produced by hospitals that ends up in landfill or, even worse, incinerated with problematic impacts on the environment and ultimately human health. During the first two years of the COVID-19 pandemic, the waste issue became especially acute, as reported in a 2021 paper by Roberts and colleagues who collected data across 11 countries over 14 months and estimated that the proportion of masks in litter increased from less than 0.01% to 0.8% as a result of the COVID-19 legislation³. And there are also other impacts, for example, from drug manufacturing and waste, among others.

Environmental awareness within the healthcare sector has been growing more recently. At the end of June this year, the White House announced that 61 of the largest hospitals and healthcare companies in the United States responded to the Biden–Harris administration's health sector climate pledge and committed to reducing 50% of their greenhouse gas emissions by 2030. This is a bold step from a sector that is responsible for 8.5% of the national greenhouse gas



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emissions. Hopefully, actions will match the ambition of the pledge, and similar commitments are happening elsewhere.

In this issue of *Nature Sustainability*, an interview by Lisa Palmer with Jodi Sherman, the founding director of the Program on Healthcare Environmental Sustainability in the Yale Center on Climate Change and Health, explores why sustainable healthcare matters, what the main environmental impacts of healthcare are and what can be done to reduce them. We learn that in order to improve the environmental performance of healthcare, there are two possible paths: one is to reduce the emissions that are embodied in the energy, products and services that the sector provides, and the other is to reduce wasteful consumption. This resonates largely with the views of sustainability experts. Cleaning up our energy systems and our supply chains, along with reducing wasteful consumption, are necessary societal steps towards sustainability. But the healthcare sector is special, as Sherman notes. Healthcare providers have a duty to do no harm; therefore, they have to commit to sustainability, and they cannot allow environmentally damaging practices in the delivery of care, as it is known that those practices will do harm at some point.

But the health sector is also special because its primary function of delivering care cannot be downscaled or altered substantially in the light of possible environmental impacts. A 2017 strategic

document on the environmental sustainability of health systems from the World Health Organization (WHO) Regional Office for Europe suggests⁴ that no trade-offs can be accepted between environmental sustainability and the performance of core health system functions, unlike private companies that, for example, can accept, as part of their operational planning, lower profits in the short term in order to improve their sustainability performance in the long term. Essentially, according to the WHO, in the case of health systems, the focus should be on win–win solutions. *Nature Sustainability* is open to featuring research and opinion on the most promising of such win–win solutions.

Healthcare is an essential service to society, it is the premise to a good quality of life, and delivering it sustainably will ensure that a good quality of life will be maintained in the future. We hope to persuade healthcare experts around the world to join the debate about how to transform healthcare into a sustainable practice. □

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References

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