

Revealing the global environmental impacts of healthcare

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An Australian-led, multiregional study has found that the healthcare sector causes up to 5 percent of total global environmental damage, placing it alongside other major global contributors to climate change.

The study, published today (Thursday 16 July) in the prestigious journal, *The Lancet Planetary Health*, is the first global assessment of environmental harms from healthcare, that in turn put human health at risk.

Using a global supply-chain database containing detailed information on healthcare sectors, the team of researchers quantified the supply-chain environmental damage driven by the demand for healthcare, focusing on seven environmental stressors with known adverse feedback cycles for health: [greenhouse gas emissions](#), particulate matter, nitrogen oxides, sulfur dioxide, malaria risk, reactive nitrogen in water and scarce water use.

The international team of sustainability experts found that healthcare causes global environmental impacts that, depending on which indicator is

considered, range between 1 percent and 5 percent of total global impacts, and more than 5 percent for some indicators at country levels.

Study co-author, Professor Tony Capon, director of the Monash Sustainable Development Institute says: "It's essential that healthcare managers understand the environmental footprint of the healthcare they provide—they should have standardized ways of measuring this footprint and be equipped to develop informed plans to reduce it. There is no doubt that healthcare is vitally important for protecting and maintaining [human health](#). This has been reinforced during the current pandemic. However, our [health systems](#) are part of broader economic systems and can harm health through the resources they use, and the waste and pollution they produce. Notably, this is an ethical issue for healthcare workers—why should any hospital be purchasing coal-fired energy when energy generated this way produces toxic air pollution that harms health? The purchasing power of healthcare could be harnessed to reduce the environmental footprint of economies more generally."

2020 has put the health impacts of environmental change squarely on the radar. The Black Summer in Australia has raised consciousness about health impacts of climate change, and globally there is now a youth-led uprising about the urgent need to reduce carbon emissions before it's too late.

Lead author Professor Manfred Lenzen, from the University of Sydney, says: "These findings underscore the need to support healthcare, especially if we require more of it in the future."

Dr. Arunima Malik from The University of Sydney, who worked alongside Professor Lenzen on the study, says: "Healthcare is responsible for not just emissions, but also other environmental impacts such as the use of scarce water resources. Rising healthcare expenditures around the world are driving these impacts, despite technological

improvements."

The study team would like to see governments ensure that sustainability policy is embedded in everyday practice in every sector of the economy, including the healthcare sector.

"Healthcare should take stock of its environmental footprint, and urgently take steps to reduce this footprint," says Professor Capon.

"As [health](#) workers increasingly call for action on [climate change](#), it's important to ensure that our own house is in order."

More information: Manfred Lenzen et al. The environmental footprint of health care: a global assessment, *The Lancet Planetary Health* (2020).
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