

Healthcare industry is a major source of harmful emissions

August 5 2019, by Mike Cummings



Credit: CC0 Public Domain

Climate change presents an unprecedented public health emergency and the global healthcare sector is contributing to the worldwide crisis, argues Jodi Sherman, M.D., associate professor of anesthesiology at the Yale School of Medicine in a commentary published Aug. 2 in the *Journal of the American Medical Association*.

"The [healthcare](#) industry is responsible for responding to the many of the most dangerous effects of pollution and [climate change](#), and yet it is a significant source of greenhouse gases and other deadly environmental emissions itself," said Sherman, who is also an associate professor of epidemiology in [environmental health sciences](#) at the Yale School of Public Health. "We must act to reduce waste and prevent pollution—work that is crucial to protecting public health and improving patient safety, which is at the heart of everything we do. "

Sherman and her coauthors—Andrea MacNeill, M.D., of the University of British Columbia and Cassandra Thiel of New York University—lay out a multi-faceted approach to incorporate [environmental sustainability](#) into value assessments in healthcare, which includes quality, safety, and costs. Their "green print" plan to improve sustainability would engage clinicians and hospital administrators, [regulatory bodies](#), policymakers, and healthcare-related industries in minimizing the healthcare sector's environmental impact.

The U.S. healthcare system contributes 10% of the nation's [carbon emissions](#) and 9% of harmful non-greenhouse air pollutants. (Air pollution was associated with an estimated 9 million premature deaths worldwide in 2015 or 16% of all deaths.) Its rate of greenhouse gas emissions increased 30% between 2006 and 2016, Sherman said. The healthcare sectors of the United States, Australia, Canada, and England combined emit an estimated 748 million metric tons of greenhouse gases each year, an output greater than the carbon emissions of all but six nations worldwide, Sherman noted.

Sherman and her co-authors advocate applying the principles and tools of sustainability science—a multi-disciplinary field that addresses complex problems threatening the earth's systems—to the healthcare sector to critically examine how the current provision of healthcare depletes natural resources and produces toxic emissions that undermine

public health.

Sherman says that [patient safety](#) regulations are frequently made in isolation without considering how they impact health systems and public health. That narrow view must change, she asserts.

"Everything we do must factor in public health considerations," Sherman said. "Patient care and public health go hand in hand. We can no longer make patient care and regulatory decisions in silos without considering the implications on public health."

The commentary piece highlights the need for international standards and metrics for measuring the energy and material use and environmental impact of healthcare facilities and practices. The co-authors urge consideration of the public health effects of pollution caused by healthcare-related activity up and down the supply chain, including [natural resource](#) extraction, manufacture and packaging, transportation, utilization, and disposal.

They call on government funding bodies, such as the National Science Foundation, the Agency for Healthcare Research and Quality, and the National Institute for Environmental Health Sciences to create funding mechanisms to support healthcare sustainability science, and cite the need for policy-relevant research to facilitate innovation.

Sherman and her co-authors suggest establishing a "Global Commission for the Advancement of Sustainability in Healthcare" to stimulate scientific research into healthcare sustainability and guide policymaking.

More information: Jodi D. Sherman et al. Reducing Pollution From the Health Care Industry, *JAMA* (2019). [DOI: 10.1001/jama.2019.10823](#)

Provided by Yale University

Citation: Healthcare industry is a major source of harmful emissions (2019, August 5) retrieved 18 April 2024 from

<https://phys.org/news/2019-08-healthcare-industry-major-source-emissions.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.