

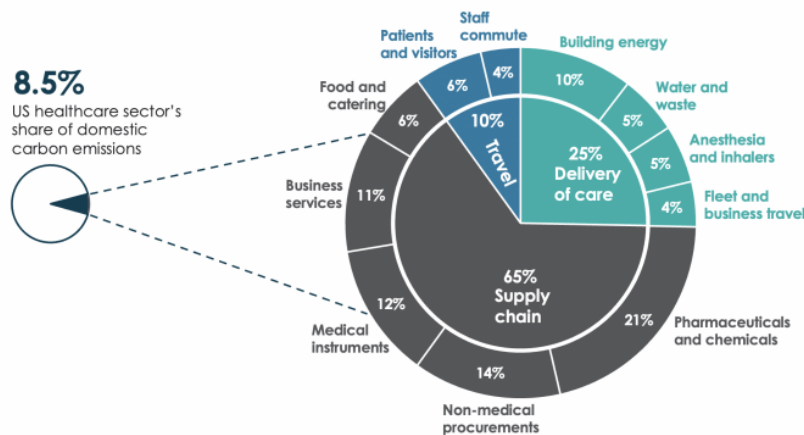
Healthcare's impact on global warming

In honor of Earth Day, our graphic this week breaks down healthcare's carbon footprint. Each year, the US healthcare sector emits around 540M metric tons of carbon dioxide equivalents (a measure that standardizes the warming effect of greenhouse gasses), **making up just under 10 percent of domestic emissions, equivalent to roughly one-half of the annual output of all cars driven in the US.** According to a comprehensive [study](#) of the United Kingdom's National Health Service, **around two-thirds of healthcare's carbon emissions come from its supply chain**, meaning far more greenhouse gasses are released indirectly through the manufacturing and shipping of medicine and supplies (which are often single-use) than through the delivery of care. However, especially amid rising supply costs, health systems looking to reduce their carbon footprint may want to focus first on emissions within their direct control. According to experts, **hospitals have opportunities to improve their carbon footprint with little to no impact to their bottom lines by being more thoughtful about their energy consumption.** Likewise, by limiting the use of certain [anesthesia](#) gasses with particularly strong greenhouse effects, they can reduce emissions at no extra cost or compromise of clinical quality. **While increasing numbers of health systems are taking initial steps to reduce their carbon footprint, the Biden administration is also signaling that it may soon require hospitals to meet new emission standards.**

Examining Healthcare's Carbon Footprint

One-Quarter of Emissions Released Directly Through Care Delivery

Illustrating Healthcare Carbon Emissions¹ by End Use



1. Estimates of health sector emissions breakdown come from a study of the UK's National Health Service, excluding commissioned private care.
2. Operating rooms.

Source: Eckelman, et al. "Health Care Pollution And Public Health Damage in The United States: An Update." Health Affairs, Dec. 2020; Tennison, et al. "Health care's response to climate change: a carbon footprint assessment of the NHS in England." The Lancet. 1 Feb. 2022; Health Care Climate Council. "Climate Action: A Playbook for Hospitals." July 2020; Gisti Healthcare analysis.

Greener Hospital Initiatives

Building energy

- Hospitals consume 2.5x more energy per sq. ft than office buildings
- Rochester Regional Health on track to use 100 percent renewable energy by 2025

Operating rooms

- ORs² consume 3-6x more energy per sq. ft than the rest of hospitals
- Cleveland Clinic saves 25 million kWh/year in energy by reducing OR air changes

Anesthesia gases

- Anesthetics account for over half of surgical procedure carbon emissions
- Advocate Aurora Health reduced emissions from anesthetic gases by 55 percent since 2017