

Carbon Accounting for Health Systems: Steps to Address Scopes 1 and 2

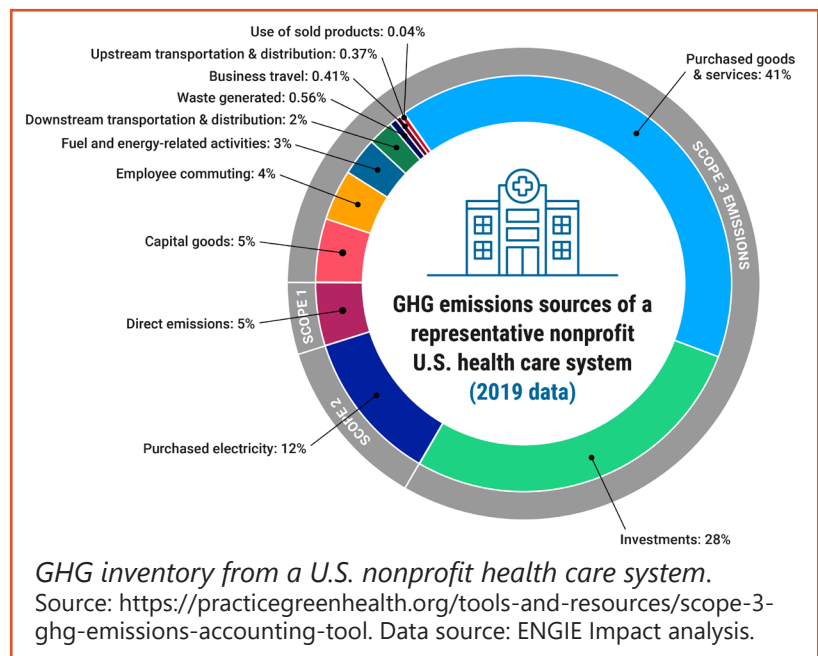
Overview

Carbon accounting is the process of measuring, tracking, and reporting an organization's greenhouse gas (GHG) emissions. Carbon accounting helps organizations understand how they are contributing to climate change and how they can most effectively reduce their emissions.

The health care sector is responsible for 4% of global GHG emissions and 8.5% of U.S. GHG emissions. These emissions are driven by the energy and fuel used to power health care facilities; use of anesthetic gases; purchased goods and services; investments; employee commuting; and waste management. Carbon accounting is a way to categorize these emissions, ensuring consistency of reporting, avoiding double counting, and allowing for comparison between organizations.

There are three scopes in carbon accounting for GHG emissions:

- *Scope 1*: Fuels burned in assets owned by the organization, which typically include natural gas, anesthetic gas, and diesel/gasoline fuels.
- *Scope 2*: Purchased steam and electricity.
- *Scope 3*: Everything not listed above, including purchased goods and services, investments, capital goods, employee commuting, energy emissions not in Scope 1 or 2, waste management, business travel, and leased assets.



By implementing carbon accounting, health care facilities can understand their current carbon footprint and take efficient and effective action to reduce it. Sharing progress will help health care systems learn from one another and ensure that health care begins to reduce its overall carbon footprint as rapidly as possible.

Learn more at: nam.edu/CarbonClinics

Steps Organizations Can Take to Begin Carbon Accounting: Scopes 1 and 2

1. Getting Started

To begin carbon accounting, health care organizations should collect data from a variety of locations utilizing different methods, including drawing data from energy billing systems, purchasing systems, investment teams, employee surveys, waste data systems, and real estate. This is often a time-intensive activity but is necessary to understand when and how the system is emitting GHGs. Data should be gathered only on facilities and operations where changes can be made and sustained.

2. Determining a Baseline

After data collection, the baseline GHG emissions for the health care system should be calculated and will serve as a benchmark for the development of a reduction strategy. Carbon footprints should be determined by activity data multiplied by carbon factors, and reductions can be planned by using less material or energy or switching to a lower carbon modality.

3. Setting a Reduction Goal

A reduction goal should include an anticipated percentage reduction in emissions, specific goal emissions levels, percentage reduction in emissions necessary to reach the goal levels, and a target date for achievement. Some organizations aim for a carbon neutral goal by reducing Scope 1 and 2 emissions to zero, but the cutting-edge approach is to reduce Scope 1, 2, and 3 emissions down to net zero.

4. Developing a Reduction Strategy

Once the reduction goal is set, organizations can use the data they have collected to launch their reduction strategies and then monitor progress. The biggest targets for reducing Scope 1 and 2 emissions are typically the usage of electricity, natural gas, and purchased steam.

Primary actions to reduce Scope 1 and 2 emissions

- Turn off energy systems when not needed, including lights, heating and cooling systems, and equipment (where feasible) that are not in use.
- Establish an anti-idling policy for vehicles.
- Properly maintain equipment and ensure that energy systems operate at peak efficiency.
- Upgrade lighting systems from fluorescent to LED.
- Identify future opportunities to utilize more efficient energy systems (e.g., switching from a natural gas boiler to an electric heat pump when a major renovation or new construction allows).
- Use renewable energy sources, such as solar or wind power, whenever possible.

5. Monitoring Progress

Regularly monitoring selected reduction strategies is crucial for understanding how much Scope 1 and 2 emissions are being reduced. Tools can be utilized to rate and compare facility performance prior to and following strategy implementation, while real-time energy data tools can provide feedback on system trends from day-to-day.

6. Reporting Carbon Footprint, Strategy, and Goals

Publicly disclosing the health system's reduction goal is important, and there are several reporting frameworks available to ensure transparency. Reporting should include the standard used to calculate the data, how data accuracy is managed, and as much strategy disclosure as leadership is comfortable with.