EXECUTIVE SUMMARY

THIS PAPER

- Establishes the first-ever global estimate of health care's climate footprint.
- Is based on full global coverage of spending data, together with detailed information from 43 countries.
- Identifies key sources of health care emissions while allowing for a comparison between nations and among many regions of the world.
- Makes a set of recommendations to align global health goals with global climate goals.

KEY FINDINGS

Health care's global climate footprint

- The health sector, whose mission is protecting and promoting health, makes a major contribution to the climate crisis — the greatest health threat of the 21st century — and therefore has an important role to play in resolving it.
- Health care's climate footprint is equivalent to 4.4% of global net emissions (2 gigatons of carbon dioxide equivalent).
- The global health care climate footprint is equivalent to the annual greenhouse gas emissions from 514 coal-fired power plants.
- If the health sector were a country, it would be the fifth-largest emitter on the planet.

Top health care emitters

- The top three emitters, the United States, China, and collectively the countries of the European Union, comprise more than half the world's total health care climate footprint (56%).
- The top ten health care emitters make up 75% of the global health care climate footprint.
- The United States health sector, the world's number one emitter in both absolute and per capita terms, produces 57 times more emissions per person than does India.
- While India has the seventh-largest absolute health sector climate footprint, it has the lowest health-related emissions per capita of all 43 nations considered in detail in this study.
- China's health sector produces six times more greenhouse gases per person than India's does. But China's health system also emits one-seventh the greenhouse gases per capita as that off the United States, one-third that of Korea and just under one-half per capita that of the European Union.

"Health care's climate footprint is equivalent to 4.4% of global net emissions"

Sources of health care's climate footprint

- While vastly differing in scale, each nation's health sector directly and indirectly releases greenhouse gases while delivering care and procuring products, services and technologies from a carbon-intensive supply chain.
- Health care contributes to greenhouse gas emissions through energy consumption, transport, and product manufacture, use, and disposal.
- Emissions emanating directly from health care facilities and health care owned vehicles (Scope 1) make up 17% of the sector's worldwide footprint.
- Indirect emissions from purchased energy sources such as electricity, steam, cooling, and heating (Scope 2) comprise another 12%.
- The lion's share of emissions — 71% are primarily derived from the health care supply chain (Scope 3) through the production, transport, and disposal of goods and services, such as pharmaceuticals and other chemicals, food and agricultural products, medical devices, hospital equipment, and instruments.
- Three-quarters of all health care emissions, including from its supply chain, are generated domestically. This means roughly one-quarter of all health care emissions are generated outside of the country where the health care product is ultimately consumed.
- Fossil fuel consumption is at the heart of health care's emissions. Energy — primarily the combustion of fossil fuels — makes up well over half of health care's climate footprint when measured across all three scopes.

Health care's footprint is linked to health spending

- There is a strong but not absolute correlation between a country's health sector climate footprint and a country's health spending. Generally, the higher the spending, measured as percentage of a country's GDP, the higher the per capita health care emissions are in that country.
- Other factors are also critically important, particularly the energy intensity of a country's economy and the emissions intensity of its energy system.
- If health sector growth and investment is coupled with a new trajectory to zero emissions, health care's climate footprint can decrease significantly even as health spending grows. Such a scenario can link health sector development goals such as universal health coverage with global climate targets.

NEXT STEPS

The health sector must take responsibility for its climate footprint

- Health care must respond to the growing climate emergency not only by treating those made ill, injured, or dying from the climate crisis and its causes, but also by practicing primary prevention and radically reducing its own emissions.
- Health care climate action that aligns with the ambition of the Paris Agreement will require health sector facilities, systems, and ministries to work with manufacturers and suppliers of health care goods and services to achieve net zero emissions by 2050 or before.
- The sector must undertake this effort while simultaneously meeting global health goals such as universal health coverage and working to achieve the Sustainable Development Goals.
- Several health systems in multiple countries are already leading the way toward decarbonization, serving as models for the sector.

SIX ACTIONS FOR CLIMATE-SMART HEALTH CARE

Action 1

Reduce health care's climate footprint now. Actors at all levels in the health sector can build on the ongoing work of thousands of hospitals and health systems already addressing their climate footprint to forge parallel and related paths toward net zero emissions. Key steps can be based on the Greenhouse Gas Protocol and should include:

Scope 1: Take immediate action to reduce health care facility emissions.

Scope 2: Invest in and advocate for the decarbonization of local and national energy systems and the implementation of clean, renewable energy.

Scope 3: Set and implement criteria for low-carbon or zero-emissions procurement so as to begin to decarbonize the supply chain.

Action 2

Support a societal transition to clean, renewable energy. The health sector in every country should advocate for a rapid phase-out of fossil fuels and a transition to clean, renewable energy so as to help move health care energy consumption to net zero emissions while also protecting public health from both local pollution and global climate impacts.

Action 3

Chart the course for zero emissions health care by 2050. A coherent global road map is necessary to identify key pathways forward, while establishing timelines and frameworks for action. The road map should be based on principles of global equity for climate and health, a unified, climate-smart approach to mitigation and resilience, and an approach that fosters action at all levels.

Action 4

Make development assistance for health climate-smart. Bilateral aid agencies, multilateral development banks, other health funding agencies, and philanthropies should integrate climate-smart principles and strategies into their health aid, lending, and policy guidance for developing countries. Those funding climate mitigation and adaptation should integrate health into their programs. This should be undertaken in alignment with the outcomes of the UN Secretary General's 2019 Climate Action Summit.

Action 5

Establish and implement government action plans for climate-smart health care. National and sub-national governments should build on existing initiatives to establish action plans to decarbonize their health systems, foster resilience, and improve health outcomes. Implementation should contribute to government climate policy and nationally determined contributions to the Paris Agreement. The countries most responsible for the problem should lead the way.

Action 6

Deepen research on health care and climate change. Further research is necessary to better understand trends in the interplay of health care and climate change, including an analysis of the future trajectory of health care emissions, in-depth analysis of the supply chain and its climate impact, national and sub-national level health care climate footprinting, economic and health analysis of the costs and benefits of transitioning to climate-smart healthcare, and more.

CONCLUSION

- Health, as with every sector of society, has the responsibility to align its actions and development trajectory with the Paris Agreement in order to stave off the worst impacts of climate change.

- Given its mission to protect and promote health, the sector also has a responsibility to implement the Hippocratic Oath to “first, do no harm” as it relates to its own climate footprint, while influencing other sectors to do the same.

- Health investment and policy must be retooled to support decarbonization. If the health sector — individual health facilities, health systems, ministries of health, international and bilateral development agencies, and private health care organizations — all take action toward this goal, it can be achieved.

- If health care development, growth, and investment can align with global climate goals, the 10% of the world economy that health care represents, together with its political influence at every level of government, can help provide leadership for a low-carbon, climate-smart, more equitable, and healthier future.