



Nuffield Department of Medicine,
University of Oxford, Oxford, UK

sarah.briggs@well.ox.ac.uk

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Building climate resilient and low carbon health systems

Transformative change is needed, says WHO

Sarah Briggs *clinical lecturer*

The effect of climate change on human health is increasingly visible,¹ and health systems will inevitably be challenged over coming decades. Healthcare professionals are also increasingly aware of our climate impact—healthcare is responsible for 4.6% of emissions globally.¹ The 28th annual UN climate conference (COP28) for the first time included a “health day” dedicated to climate and health. Several key papers on climate and health have been published ahead of December’s COP28.^{1–3}

A central report in this flurry of activity is the operational framework for building climate resilient and low carbon health systems from the World Health Organization.⁴ To address the challenges of climate change and continue to protect their populations, healthcare systems need to improve resilience to climate risks, optimise resource use, and reduce emissions—all while continuing to deliver healthcare and improve population health.

Many health systems have already begun. Following COP26 in 2021, the ministries of health in over 70 countries committed to climate and health initiatives and joined the Alliance for Transformative Action on Climate and Health (ATACH).⁵ WHO’s operational framework provides clear guidance to decision makers in health systems and is also applicable to individual healthcare facilities. It also aligns with other global health and climate agendas—for example, universal health coverage, the country level climate commitments in the Paris Agreement in 2015,³ and targets set within the UN sustainable development goals.⁶

Building blocks

The framework comprises 10 key components for climate resilient and low carbon healthcare, spread across the six core health system building blocks: leadership and governance, service delivery, workforce, health information systems, medical products and technologies, and health financing.^{4,7}

To begin with, high level political leadership and governance to support climate and health initiatives will be essential, including effective collaboration across all health programmes. Cross-sectoral collaboration beyond health can also achieve rapid health benefits through the climate response efforts of “health determining” sectors (for example, food, agriculture, transport, urban planning, and housing). The framework is therefore relevant to decision makers in sectors beyond health. “Climate smart” health workforces, who are educated and enabled to respond to climate related health risks and empower their communities to practise more sustainably, need to be expanded, particularly in low and middle income countries.

A strong evidence base needs to be developed through funding clear national research agendas on climate and health, with translation into policy. Health information systems will help provide this evidence, including by quantification and tracking of health risks related to climate and greenhouse gas emissions. Alongside this, integrated risk monitoring that combines national data on population health, climate related metrics, and health system capacity facilitates timely and effective action to protect health outcomes.

Healthcare infrastructure, technology, and supply chains are an important source of emissions. They must also adapt to climate risks such as flooding or extreme heat events. However, the development and use of low carbon technologies such as e-health and renewable energy can help health systems build resilience and reduce emissions. Climate sensitive environmental determinants of health, such as air quality and food security, must be monitored and managed, with coordination across sectors and regulatory policies enforced. Programmes for climate sensitive health problems, such as malaria and dengue, respiratory disease, or maternal health, should use climate and risk information to inform strategic planning and disease management. Health systems need to be prepared for climate related emergencies such as extreme weather events using WHO’s health emergency and disaster risk management framework.⁸ Community empowerment and action will also play a central part in preventing extreme exposures and protecting health.

Importantly, the final component of the operational framework is sustainable financing for climate and health. The most vulnerable countries face the greatest challenges in achieving the aims of the framework and do not have the capital to implement the necessary responses.^{1,9} WHO provides guidance on access to the main funding streams for climate and health in these countries,⁹ with further support from the ATACH finance working group.¹⁰ Health considerations may also be addressed through financial support for health determining sectors.

Threaded throughout the framework is a strong focus on justice, equity for vulnerable regions and peoples, and community empowerment. The specific pathways to achieve these aims will vary by health system, depending on current healthcare performance and healthcare emissions per capita. The onus is on high emitting countries to rapidly decarbonise their healthcare. In low emission settings, the priority is building optimally performing resilient health systems, which may require short term increases in emissions. Importantly, efforts to reduce emissions

across all sectors will also have health benefits and may substantially reduce healthcare costs.¹¹

The framework is a blueprint for transformative change, within and beyond healthcare, promoting whole-of-society action. Carbon emissions continue to rise, with current global climate commitments keeping us on track for 3°C of warming, which would be devastating for human and planetary health.¹² We must hope that the principles set out in this framework—effective leadership, collaboration, equity, and justice—will be prioritised in all climate negotiations, at COP28 and beyond, to secure a healthier and safer future for us all.

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