

CLIMATE CHANGE, SUSTAINABILITY AND THE HEALTH SYSTEM

SOTIRIS VARDOULAKIS, PROFESSOR OF GLOBAL ENVIRONMENTAL HEALTH

National Centre for Epidemiology and Population Health

Research School of Population Health, Australian National University

Email: sotiris.vardoulakis@anu.edu.au

There is increasing recognition that climate change is a major health crisis. If unchecked, it can overwhelm health systems like the COVID-19 pandemic did in many countries around the world. As a consequence, health has been chosen as a science priority area for the 2021 United Nations Climate Change Conference in Glasgow (COP26) in November 2021, aiming to bring stronger health focus and ambition to the summit. Two of the key health priorities for COP26 are:

- Building climate resilient health systems
- Developing low carbon sustainable health systems

Both priorities are particularly relevant to the Australian health system, which is logistically stretched by COVID-19 related demands, but also vulnerable to climate change and extreme events, and a significant contributor to the national greenhouse gas emissions, waste generation, and water usage.

As demonstrated during the Australian Black Summer and COVID-19 pandemic, health systems are the main line of defence in protecting communities from emerging threats, including the impacts of infectious diseases and environmental disasters, such as extreme temperatures, droughts, floods, and bushfires. In this context, it is essential to strengthen the resilience of the Australian health system, including its physical infrastructure, access and ability to deliver services under rising temperatures and increasingly frequent and severe extreme events.

The Australian health sector generates 7% of national carbon emissions, which a relatively modest contribution compared to other industries such as energy generation, mining and agriculture. However, there is considerable scope for the sector to reduce its carbon footprint and operating costs and enable transformational change in other sectors. This can be achieved by reducing the carbon footprint of health service delivery, for example by improving the energy efficiency of hospitals, and by reducing medical waste, water usage, and unnecessary transport and pathology testing.

During the pandemic, there has been an explosion in the use of personal protective equipment (PPE). Although it is of paramount importance to ensure the safety of health care workers and patients, the way we currently use PPE is unsustainable for the long term. It should be a priority to re-assess the use, reuse and recycling of PPE and other disposable medical equipment. As an

example, it has been demonstrated that PVC recycling programs can effectively reduce waste and costs in hospitals. Alternative models of care, such as telehealth, also need to be developed for a more sustainable healthcare system. Importantly, reducing healthcare demand through preventive health will reduce emissions from the sector and improve health outcomes.

Environmental as well as health crises focus the attention of policymakers and response services on immediate risk reduction interventions. However, it is crucially important to shift attention to the longer-term preparedness, resilience and responsiveness of the health sector to environmental change. The increasing frequency and severity of extreme events, such as bushfire, heatwaves, floods and droughts, emphasise the need for an evidence-based environmental action plan for the Australian health system and the society as a whole.

Health professionals have an important role to play by raising public awareness of the damaging health effect of climate change, as well as by supporting and advocating policy action within the healthcare sector and more broadly within our society to reduce carbon emissions. Decisive action on climate change adaptation and mitigation will avoid disruption in healthcare delivery and improve physical and mental health outcomes now and into the future.

Improving sustainability within the Australian healthcare sector will bring multiple benefits for human health and additional efficiencies for the sector (see AHHA's [Transforming the health system for Sustainability](#)). An important initiative would be to establish a national Sustainable Development Unit (SDU), similar to the pioneering SDU of the National Health Service in England (now known as the [Greener NHS National Program](#)), to coordinate efforts to reduce the environmental footprint and improve the efficiency of the Australian health sector. This should also involve an important educational and training component, with environmental health, climate change and sustainability becoming key elements of medical college curricula.

Ahead of COP26, World Health Organization Director-General Dr Tedros Adhanom Ghebreyesus said "the health arguments for rapid climate action have never been clearer". It should be emphasised that an ambitious target to a net-zero emissions economy before 2050, with a concrete plan to substantially cut emissions this decade, is a target to a healthier, cleaner and more resilient future. In the health sector, we need to put "our house" in order, to mitigate the risks of climate change, environmental pollution and extreme events, and realise the health and economic benefits of the transition to a more sustainable zero carbon future.

Protecting health from climate change requires action well beyond the health sector, including in the energy, transport, built environment, agriculture, forestry and other sectors. Health professionals are trusted and can be influential climate action advocates enabling transformational change that will protect lives, health services and the planet.