Health equity in a climate-altered world

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It will not be news to the readership of this journal that climate change, pollution and biodiversity loss are unequivocally affecting human health.[1] Despite being a high-income country with a well-resourced health system, the health of Australians is increasingly impacted by climate-related extreme weather events. Australia has already warmed by 1.47 ± 0.24°C since national records began in 1910,[2] and over the next five years, the planet is predicted to experience temperatures between 1.2°C and 1.9°C above pre-industrial levels (1850–1900).[3] Climate change threatens to undermine decades of progress in combating infectious diseases via changes in the distribution and burden of vector-borne disease and increased gastrointestinal illness from unsafe drinking water supplies after extreme weather events.[4] Non-communicable diseases are expected to increase as environmental hazards such as bushfires and thunderstorm-asthma events affect respiratory and cardiovascular health.[4] Floods and prolonged droughts affect Australia's agriculture and food security, with disasters contributing to 19% of the severe food insecurity experienced by over 2 million Australian households (21%) in 2023.[1] It is a sad irony that our emissions-intensive farming systems that contribute to climate change also result in a substantial non-communicable disease burden. Agriculture contributes around one-sixth of Australia's greenhouse gas emissions, while high red meat and processed meat consumption and low fruit and vegetable intake accounted for about half of the 87,166 diet-related deaths in Australia in 2021.[1]

There are strong links between climate change–related weather events, public health and disaster recovery. The mental health impacts of repeatedly experiencing climate-related disasters require attention and care. Matthews et al. describe how river flooding in Northern New South Wales in 2017 had profound psychological impacts for residents,[5] only for the area to be flooded again in 2022 and May 2025. Similar events have occurred in Aotearoa New Zealand, where the damage to housing and infrastructure caused by Cyclone Gabrielle in 2023 continues to cast a long shadow.[6] More broadly, McGorry et al. identify inaction on climate change as a societal mega-trend impacting young people's mental health worldwide,[7] and Beggs et al.[1] find that Australia is emerging as a hotspot for climate litigation.

Health equity and just transitions

The societal fretwork that perpetuates inequitable health outcomes across the region will be deeply familiar to our readership. What requires attention in our continuing public health scholarship is a resolute awareness of just how profoundly these persistent health inequities will be shaped by living in the era of the climate crisis. The recently published World Report on Social Determinants of Health Equity explicitly acknowledges climate action and biodiversity preservation amongst its 14 recommendations for action.[8] There is a strong argument for placing health equity at the centre of both local and international responses to climate change. Indeed, health equity was a key feature of the United Nations climate change negotiations (COP28) in 2023, the first time health was included as a dedicated theme.[9]

More than a decade ago, (the late) Del Weston wrote an editorial in *ANZJPH* advocating for "*new models of economic and social organisation...to enable humans to live within the planet's means—to live more simply, locally, consuming less, leaving fossil fuels in the ground and to make the transition to a new, no-growth economy and less consuming society*".[10] It is heartening to see her vision reverberated in the key outputs of the COP28 Health Programme. These include the COP28 UAE Declaration on Climate and Health, which called for "transformation of health systems to be climate-resilient, low-carbon, sustainable and equitable", and the COP28 Guiding Principles for Financing Climate and Health Solutions emphasised the need to "promote an inclusive and equitable approach to financing climate and health solutions".[9] A just transition must guide how we reimagine health systems—ensuring that climate and health investments reduce, rather than entrench existing inequalities. It is now time for public health researchers and practitioners to turn these aspirations into actions.

Elevating Indigenous knowledge systems for planetary and collective health

For Indigenous peoples, the climate crisis is not a distant threat—it is an unfolding reality entangled with colonisation, land dispossession

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and erosion of ancestral knowledge.[11] Wellbeing has always been relational: grounded in whakapapa (genealogy), land, waters, sky and the responsibilities held for future generations. Climate change does not merely disrupt ecosystems—it tears at the cultural and spiritual fabrics that sustain Indigenous health. Across Australia, Aotearoa New Zealand and the Pacific, Indigenous communities are responding with knowledge, leadership and innovation. These Indigenous-led responses are acts of both restoration and resistance. They challenge dominant settler paradigms of land use and invite public health to engage with Indigenous cosmologies of care, balance and interdependence. Indigenous peoples are not passive recipients of climate impacts—they are guardians, knowledge holders and architects of flourishing futures. To reimagine health equity in a climate-altered world, Indigenous self-determination must be central—not peripheral. Indigenous knowledge is not an "alternative perspective"; it is critical to planetary health and the vision for a flourishing future outlined in the World Health Organization Geneva Charter.[12] Public health education and policy institutions must grow the courage to learn from and with Indigenous communities. Doing so requires confronting institutional power imbalances, investing in Indigenous leadership and resourcing community-led solutions.

Educating ourselves to do public health in a climate-altered world

In public health education, communities of practice focussed on teaching the intersections between climate change and public health are growing. Two notable regional examples include the recently established CPHEN—the Climate and Public Health Education Network—supported by the Council of Academic Public Health Institutions Australasia, and the warm, dynamic sessions of the Western Pacific Climate and Health Responder Course run by the Global Consortium on Climate and Health Education which regularly attracted 800 people from across the region. Both reflect a growing momentum in climate and health education. Teaching about the health effects of climate change is not emotionally neutral. Students and their educators may feel distress and hopelessness about the future or be reminded of their own lived experience of climate-related events. Resources such as Planetary Health Alliance's Education Framwork[13]guide educators in embedding these themes empathetically. However, more scholarship of teaching and learning specific to the Australian and New Zealand context is urgently needed.

Directions for public health scholarship

To echo the WHO Geneva Charter for Well-Being, our public health work must be based upon the principles of human rights, social and environmental justice, solidarity, inter-generational equity and peace.[8] As a discipline, we are already highly attuned to issues of equity and justice. Here at the journal, we realise there is much more to be done. First, public health research describing the population health effects of living with climate change, increasingly frequent disasters, pollution and biodiversity loss is necessary. Second, Indigenous-led scholarship and action and work by communities on the forefront of the climate crisis and disaster recovery are vitally important. Third, we urgently require evaluation of initiatives that justly transition health services to renewable, low-carbon alternatives where the benefits are shared equitably and the risks and costs are not borne by those least able to adapt. Finally, pedagogical approaches that centre Indigenous knowledge and are sensitive to the mental health implications of learning about, and witnessing the effects of our changing planet must be documented. We welcome and look forward to submissions that continue these conversations on how our communities can flourish and justly adapt to our climate-altered world.

Conflict of interest

The authors declare no conflicts of interest.

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