The Lancet Countdown on Health and Climate Change

# Policy brief for Australia

2021

















# Introduction

Australian lives are already being lost to climate change. In 2021, at home and abroad, the alarms have sounded loud and clear: temperatures are rising, and people are dying as a result. From a health perspective, action to minimise and adapt to the effects of climate change is a critical policy imperative. The health and wellbeing of Australians now and into the future depend on policy decisions being made in this term of government. Further delays in implementing effective climate policy will be measurable in illness, injury, and death; and threaten to undermine the health systems on which we all depend.

Since 2018, the *Medical Journal of Australia-Lancet* Countdown on Health and Climate Change has presented a growing body of evidence and policy recommendations on the health impacts of climate change in Australia.<sup>3,4,5</sup> In this year's report, we found that while there has been encouraging progress at a state/territory and local government level, federal policy action on climate and health has been sparse, and even counterproductive.<sup>6</sup> Key findings include:

- Australia has no national plan for climate change and health, despite ongoing calls for a national climate-health strategy. There has been no national climate change impacts assessment since
- Australia remains one of the world's largest coal and gas exporters, and has carbon-intensive energy and transport systems.
- There has been minimal engagement with climate change as a

health issue by the Australian Government Department of Health this year.

This policy deficit and political inaction persists despite sustained advocacy on the health impacts of climate change by bodies such as the Australian Medical Association, the Royal Australasian College of Physicians, the Australian College of Nursing, and multiple other medical specialty colleges and health advocacy organisations. These organisations are unanimous in declaring that climate change is a health emergency.<sup>7,8,9</sup>

As COP26 approaches in November, we urge the federal government to act immediately to drastically reduce Australia's emissions, and commence critical preparations for the inevitable health impacts of locked-in climate change. Australia's current Nationally Determined Contribution under the Paris Agreement is world-lagging, inadequate, and does not include specific measures to protect Australians' health.<sup>10</sup>

Here, we present three practical, tried-and-tested policy measures that will help set Australia's health care system on a more sustainable emissions pathway, and foster national climate change resilience. These recommendations have been developed in consultation with experts and stakeholders in response to the new evidence on specific indicators in this year's *MJA-Lancet* and global *Lancet* Countdown reports. <sup>6,11</sup> They are pragmatic, achievable, and measurable policy responses that could be implemented within this term of government.

# Recommendations



# **Beat the heat**

Develop a national heat-health strategy to coordinate extreme heat preparation, response, and recovery measures across jurisdictions.



# **Empower First Peoples**

Provide funding and support to ensure Aboriginal and Torres Strait Islander Peoples are at the centre of climate change and health policymaking and implementation. Aboriginal and Torres Strait Islander knowledge and practices will be critical to enabling an effective national climate change response.



# Sustainable healthcare

Establish a target of net-zero healthcare in Australia by 2040, and a national sustainable healthcare unit to work towards this goal. This model is being successfully implemented in England and has resulted in significant healthcare emissions reductions over the past decade.

# In focus

# Work and play: how heat is jeopardising Australia's way of life

Heat harms Australians' health. It kills more Australians than bushfires, storms, and floods combined; exacerbates common chronic diseases; and drives patients into emergency departments with problems such as dehydration and collapse. <sup>12, 13</sup> Hot weather has always been part of the Australian way of life – but more extreme, prolonged heat makes normal activities of daily living increasingly hazardous to human health, with potential long-term consequences. <sup>14</sup>

Heat adversely affects Australians' capacity to work safely in industries such as construction, hospitality, and agriculture over the summer months. Heat stress can force workers in these exposed occupations to either slow down or stop work altogether on particularly hot days. Workers in blue-collar industries are disproportionately affected, potentially exacerbating existing labour inequities. In 2019, the equivalent of nearly 8,000 eight-hour workdays were lost across Australia due to heat exposure; and annual work hours lost due to heat have increased significantly over the past thirty years. Heat-related reductions in labour capacity have significant and concerning implications, both for individual workers and for economy-wide productivity and equity.

Climate change is also jeopardising Australia's annual 'summer of sport' by increasing the risk of heat-related illness associated with physical activity. Since 2001, the number of days each year on which there is an extreme heat stress risk associated with exercise has doubled.<sup>6</sup> There has also been a substantial increase in the number of days each year on which sporting activities need to be modified to reduce the risk of heat-related illness in athletes.<sup>6</sup> Heat has already resulted in major disruptions to both professional and community sporting events, "threatening the viability of summer sport as it is currently played." This has concerning implications for exercise participation by Australians of all ages, the majority of whom are already insufficiently physically active.

Effective planning and policy measures can reduce, and even prevent, the impact of heat stress on Australians' health and wellbeing. Heathealth action plans are internationally recognised as crucial measures for preventing heat-related morbidity and mortality. <sup>16,17</sup> Replicable examples have already been developed by many Australian peak bodies and state/local governments. <sup>18,19</sup> A national heat-health plan would provide crucial cross-jurisdiction guidance, support, and coordination to these region- and sector-specific strategies, bolstering Australia's resilience to the health impacts of rising temperatures.

For more information, see indicators 1.4, 1.5, and 1.6 in this year's MJA-Lancet Countdown report.<sup>6</sup>

# Climate change and Aboriginal and Torres Strait Islander health

The health and wellbeing of Aboriginal and Torres Strait Islander Peoples must be a central consideration in Australia's climate change and health policymaking. Having stewarded Australia's lands and waters sustainably for more than 65,000 years, Aboriginal and Torres Strait Islander Peoples bring crucial perspectives on custodianship and healing of Country, and on a more holistic paradigm of human health.<sup>20</sup> There exists an opportunity for Australia in centring First Nations leadership in tackling the health challenges associated with climate change, biodiversity loss, and resource depletion.

Aboriginal and Torres Strait Islander Peoples must be resourced and empowered to implement community-controlled solutions to the significant health threats arising from climate change. Climate change exacerbates structural health inequities, modifying physical, social, cultural, and environmental determinants of Aboriginal and Torres

Strait Islander health.<sup>21</sup> The physical effects of systemic racism have resulted in a higher population-level physiological vulnerability to climate-health impacts amongst Aboriginal and Torres Strait Islander Peoples.<sup>22, 6</sup> Moreover, relatively high levels of socio-economic disadvantage, inadequate infrastructure, and systemic barriers to accessing healthcare, curtail the climate adaptation capacities of many Aboriginal and Torres Strait Islander peoples.<sup>21, 6</sup> Finally, climate and ecosystem disruptions have a culturally mediated impact on Aboriginal and Torres Strait Islander health and wellbeing. As the Australian Indigenous Doctors Association has noted, "Connection with Country is a significant cultural determinant of health...When Country is sick from the environmental ill-effects of climate change, the sacred relationship with plants, animals and spirit ancestors is ruptured... [this] will magnify adverse effects upon Aboriginal and Torres Strait Islander people's social and emotional wellbeing."<sup>20</sup>

Fortunately, practicing custodianship of Country through fire, land, and sea management has known health co-benefits for Aboriginal and Torres Strait Islander peoples.<sup>23, 24, 25</sup> Providing sustainable, long-term funding and support to Aboriginal and Torres Strait Islander peoples to continue their custodianship of Country and communities – through

programs such as those in the Country Needs People alliance – is a vital policy measure in the era of climate change.

For more information, see indicator 1.2 in this year's MJA-Lancet Countdown report. <sup>6</sup>

# Do no harm: sustainability in Australia's healthcare sector

Contemporary healthcare has an enormous environmental impact.<sup>11</sup> It has been shown that "if the global health sector were a country, it would be the fifth-largest greenhouse gas emitter on the planet."<sup>26</sup> In Australia, healthcare produces 5-6% of the nation's annual carbon emissions-roughly equivalent to the emissions produced by the entire population of South Australia.<sup>27</sup> In generating vast volumes of waste, pollution, and carbon emissions, the healthcare sector paradoxically contributes to the degradation of the physical environment that underpins human health and wellbeing.

Over the past decade there has been mounting concern at healthcare's destructive environmental impact.<sup>28</sup> The urgent imperative for healthcare decarbonisation has been broadly recognised, and a strong international evidence base and guidelines have been developed to facilitate this.<sup>29</sup> In Australia, health workers have championed sustainability and responsible resource use within their healthcare organisations, and there has been promising progress at a state and territory government level. The Western Australian Government is launching a Sustainable Health Implementation Support Unit, and the Victorian Department of Health is currently preparing an emissions reduction plan.<sup>26,30</sup> These encouraging developments should be further formalised, consolidated, and expanded across states and territories

in this term of government.

Nonetheless, there have also been consistent calls from across the Australian healthcare sector for a sector-wide emissions reduction target, and a national sustainable healthcare unit to lead coordinated, strategic action on healthcare sustainability and climate change resilience. 31,32,33,34 A national unit driving progress towards a net-zero healthcare target could help to scale up successful initiatives; conduct research, monitoring, and evaluation; and lead critical improvements in primary and preventive care. This proposal is based on the demonstrated success of sustainability initiatives within the National Health Service England, including the Sustainable Development Unit and the Greener NHS program. Working towards a target of a net-zero health service by 2040, these initiatives have facilitated a significant reduction in UK healthcare emissions, while maintaining quality, costeffective care and increasing overall UK healthcare activity.34 This provides a model for a national unit that could maximise the impact of healthcare sustainability initiatives – and, in doing so, help to ensure that Australia's healthcare sector is as resilient, efficient, and effective in an era of climate change as possible.

For more information, see indicator 3.10 in this year's MJA-Lancet Countdown report.<sup>6</sup>

# References

- Vicedo-Cabrera A, Scovronick N, Sera F, et al. The burden of heat-related mortality attributable to recent human-induced climate change. Nat Clim Chang 2021; 11, 492-500. doi: 10.1038/ s41558-021-01058-x
- IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to
  the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte,
  V, P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M.
  Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B.
  Zhou (eds.)l. Cambridge University Press. In Press.
- Zhang Y, Beggs PJ, Bambrick H, et al. The MJA-Lancet Countdown on health and climate change: Australian policy inaction threatens lives. Med J Aust 2018; 209(11): 474.e1–474.e21. doi: 10.5694/mia18.00789
- Beggs PJ, Zhang Y, Bambrick H, et al. The 2019 report of the MJA-Lancet Countdown on health and climate change: a turbulent year with mixed progress. Med J Aust 2019; 211(11): 490–491.e21. doi: 10.5694/mja2.50405
- Zhang Y, Beggs PJ, McGushin A, et al. The 2020 special report of the MJA–Lancet Countdown on health and climate change: lessons learnt from Australia's "Black Summer". Med J Aust 2020; 213(11): 492.e2-492.e10. doi: 10.5694/mia2.50869
- Romanello M, McGushin A, Di Napoli C, et al. The 2021 report of The Lancet Countdown on health and climate change: code red for a healthy future. The Lancet, 2021.
- Australian Medical Association. Climate change is a health emergency. 2019; published online September 3. https://ama.com.au/media/climate-change-health-emergency Accessed June, 2021.
- Australian College of Nursing. Climate change a global health emergency. 2019; published online December 17. https://www.acn.edu.au/media-release/climate-change-global-health-emergency Accessed June. 2021
- Doctors for the Environment Australia. Doctors Declare a Climate Emergency. 2020; published online December 19. https://www.dea.org.au/climate-health-emergency-declaration/ Accessed lune. 2021
- The Global Climate and Health Alliance. Healthy NDCs Scorecard. 2021. https://climateandhealthalliance.org/initiatives/healthy-ndcs/ndc-scorecards/ Accessed July, 2021.
- 11. Romanello M, McGushin A, DiNapoli C et al. The 2021 report of the Lancet Countdown on health and climate change. Lancet 2021.
- 12. Coates L, Hayes K, O'Brien J, et al. Exploring 167 years of vulnerability: An examination of extreme heat events in Australia 1844-2010. Environ Science & Policy 2014; 42, 33 44. doi: 10.1016/j.envisci.2014.05.003
- Watson KE, Gardiner KM, Singleton JA. The impact of extreme heat events on hospital presentations to the Royal Hobart Hospital. J Public Health (Oxf) 2020; 42(2): 333–339. doi: 10.1093/ pubmed/fd/033.
- Lawton E, Pearce H, Gabb G. Environmental heatstroke and long-term clinical neurological outcomes: A literature review of case reports and case series 2000-2016. Emerg Med Australas 2019; 31 (2). doi: 10.1111/1742-6723.12990.
- 15. The Climate Council. Game, Set, Match: Calling Time On Climate Inaction. 2021; published online February 25. https://www.climatecouncil.org.au/resources/game-set-match-sports-climatechange/ Accessed June, 2021.
- 16. WHO Regional Office for Europe. Health-health action plans. 2008. https://www.euro.who.int/en/publications/abstracts/heathealth-action-plans Accessed May, 2021.
- 17. New Zealand Ministry of Health. Heat Health Plans: Guidelines. 2018. https://ghhin.org/wp-content/uploads/heat-health-plans-guidelines-dec18.pdf. Accessed June, 2021.

- 18. Victorian Department of Health and Human Services. Heat health plan for Victoria. 2020; published online November 25. https://www2.health.vic.gov.au/about/publications/policiesandguidelines/heat-health-plan-for-victoria-2020 Accessed July, 2021.
- Sports Medicine Australia. Extreme Heat Policy. 2021; published online February. https://sma. org.au/sma-site-content/uploads/2021/02/SMA-Extreme-Heat-Policy-2021-Final.pdf Accessed July, 2021.
- Australian Indigenous Doctors' Association. Policy statement: Climate change and Aboriginal and Torres Strait Islander people's health. 2020. https://aida.org.au/app/uploads/2021/01/AIDA-Climate-Change-Final-December-2020-002.pdf Accessed July. 2021.
- Green D, King U, Morrison J. Disproportionate burdens: the multidimensional impacts of climate change on the health of Indigenous Australians. *Med J Aust* 2009; 190(1): 4-5. doi: 10.5694/j.1326-5377.2009.tb02250.x
- 22. Australian Institute of Health and Welfare (AIHW). Aboriginal and Torres Strait Islander Health Performance Framework 2020 summary report. 2020. https://www.indigenoushpf.gov.au/getmedia/f61f0a50-f749-4045-b58f-b2c358db2c6b/2020-summary-ihpf-2.pdf?ext=.pdf Accessed July, 2021.
- 23. Larson S, Stoeckl N, Jarvis D, et al. Indigenous Land and Sea Management Programs (ILSMPs) Enhance the Wellbeing of Indigenous Australians. Int J Environ Res Public Health 2020; 171 (1): 125. doi: 10.3390/ijerph17010125
- 24. Hill R, Pert P, Davies J, et al. Indigenous land management in Australia: extent, scope, diversity, barriers and success factors. CSIRO, 2013. doi: 10.4225/08/584ee74971137
- 25. MacGuire, F.A.S. and Sergeeva, M. The Limits of Livability: The emerging threat of smoke impacts on health from forest fires and climate change. 2021. https://climateandhealthalliance.org/wp-content/uploads/2021/06/016062021\_GCHA\_bushfire\_report\_limits\_livability\_health.pdf Accessed August. 2021.
- Sutton B, Mulvenna V, Voronoff D, Humphrys T. Acting on climate change and health in Victoria. Med J Aust 2020: 212 (8) 345-346.e1. doi: 10.5694/mia2.50527
- Malik A, Padget M, Carter S, et al. Environmental impacts of Australia's largest health system. Resources, Conservation and Recycling 2021; 169(6):105556. doi.org/10.1016/j.resconrec.2021.105556.
- 28. Talley, N. A sustainable future in health: ensuring as health professionals our own house is in order and leading by example. Med J Aust 2020; 212 (8):344. doi: 10.5694/mja2.50574
- 29. Health Care Without Harm. Global Road Map for Health Care Decarbonization. First published online April 2021; https://healthcareclimateaction.org/roadmap Accessed August, 2021.
- 30. Weeramanthri TS, Joyce S, Bowman F, et al. Climate Health WA Inquiry: Final Report. Perth: Department of Health, Government of Western Australia, 2020.
- 31. Royal Australasian College of Physicians. Environmental Sustainable Healthcare Position Statement. 2016. https://www.racp.edu.au/docs/default-source/advocacy-library/environmentally-sustainable-healthcare-position-statement.pdf Accessed July, 2021.
- Australian Medical Association. Environmental Sustainability In Health Care. 2019; published
  online March 20. https://www.ama.com.au/position-statement/environmental-sustainability-health-care-2019 Accessed June, 2021.
- 33. Doctors for the Environment Australia. Net Zero Emissions for Australia's healthcare sector. 2020; published online December 13. https://www.dea.org.au/doctors-for-the-environment-australia-net-zero-report/ Accessed June, 2021.
- 34. NHS England. Submission to the Climate Health Western Australia Inquiry August 2019. 2019. https://ww2.health.wa.gov.au/-/media/Files/Corporate/general-documents/Climate-Health-WA-Inquiry/public-submissions/Organisations/SustainableDevelopmentUnit.pdf Accessed July, 2021.

# Organisations and acknowledgements

The MJA-Lancet Countdown on Health and Climate Change acknowledges the Traditional Custodians of the lands across Australia on which this document has been produced. We celebrate First Nations Peoples' enduring connection to, knowledge, and custodianship of Country. We recognise the outstanding leadership of Aboriginal and Torres Strait Islander Peoples in advocating for and protecting the health of their communities and their Country.

The concept for this brief was developed by the Lancet Countdown on Health and Climate Change. The brief was written by Dr. Georgia Behrens, MD; Assoc. Prof. Paul J. Beggs, PhD; and Assoc. Prof. Ying Zhang, PhD. Critical review and editorial comments were provided by Fiona Armstrong, MSc; Prof. Alexandra Barratt, PhD; Prof. Ollie Jay, PhD; Prof. Lynne Madden, MBBS, MPH; Dr. Frances MacGuire, PhD, MPH; Dr. Alice McGushin, MBBS, MSc; Dr. Catherine Pendrey, MBBS; Dr. Aditya Vyas, MBBS, MPH; the Climate and Health Alliance, the Australian College of Nursing, the Australian Indigenous Doctors' Association, the Australian Medical Association, the Public Health Association of Australia, and the Royal Australasian College of Physicians.

### THE LANCET COUNTDOWN

The Lancet Countdown: Tracking Progress on Health and Climate Change is a multi-disciplinary collaboration monitoring the links between health and climate change. It brings togethers lead researchers from 43 academic institutions and UN agencies in every continent, publishing annual updates of its findings to provide decision-makers with high-quality evidence-based recommendations. For its 2021 assessment, visit www.lancetcountdown.org/2021-report/

#### **AUSTRALIAN COLLEGE OF NURSING**

The Australian College of Nursing (ACN) is the leading non-industrial professional nursing organisation in the country. ACN is a for-purpose organisation working to make real and lasting change for the profession by helping to shape health care by advancing nursing. ACN works to achieve its mission through the pillars of world-class professional education, community engagement and development, championing nurse leadership, ensuring a positive social impact, performing Advocacy at all levels, and effective policy development.

# **AUSTRALIAN INDIGENOUS DOCTORS' ASSOCIATION**

AIDA is the member-based peak organisation for the Aboriginal and Torres Strait Islander medical workforce. Our purpose is twofold: to support the development of our medical workforce and to contribute to better health outcomes for our people. More information can be found at www.aida.org.au

#### **AUSTRALIAN MEDICAL ASSOCIATION**

The Australian Medical Association (AMA) is the peak professional body for doctors in Australia. The AMA promotes and protects the professional interests of doctors and the healthcare needs of patients and communities. Representing doctors, the AMA works with governments to develop and influence health policy to provide the best outcomes for doctors, their patients, and the community.

#### **AUSTRALIAN MEDICAL STUDENTS' ASSOCIATION**

The Australian Medical Students' Association (AMSA) is the peak representative body for Australian medical students. AMSA is a vibrant student-run organisation that represents informs and connects all of Australia's 17,000 medical students.

#### THE MEDICAL JOURNAL OF AUSTRALIA

The Medical Journal of Australia (*MJA*) is the leading peer-reviewed general medical journal in the Southern Hemisphere. It has been publishing ground-breaking research, perspectives on health care delivery and informed analysis on policy since 1914.

#### **PUBLIC HEALTH ASSOCIATION OF AUSTRALIA**

The Public Health Association of Australia (PHAA) is recognised as the principal non-government organisation for public health in Australia working to promote the health and well-being of all Australians. PHAA's mission is to promote better health outcomes through increased knowledge, better access and equity, evidence informed policy and effective population-based practice in public health

## THE ROYAL AUSTRALASIAN COLLEGE OF PHYSICIANS

The Royal Australasian College of Physicians (RACP) trains, educates and advocates on behalf of over 18,800 physicians and 8,800 trainee physicians in Australia and Aotearoa New Zealand across a broad range of medical specialties. Beyond the drive for medical excellence, the RACP is committed to developing health and social policies which bring vital improvements to the wellbeing of patients.