

Health and climate change *MJA–Lancet* Countdown report: Australia gets another failing grade in 2020 but shows signs of progress

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At the end of 2019 and into 2020, catastrophic fires in Australia consumed homes, lives, wildlife and land. Just as the fires subsided, Australia, like the rest of the world, faced another emergency — the COVID-19 pandemic.¹ It is instructive to reflect on lessons from the health disasters of the past year.

Following publication of *The Lancet* Countdown on health and climate change,² the *Medical Journal of Australia (MJA)–Lancet* Australian Countdown on health and climate change was published in December 2020.³ This annual report on health and climate change in Australia is in its third year and comprises the efforts of five Australian institutions, in collaboration with University College London, facilitated by a partnership between *The Lancet* and the *MJA*.³ All three reports make sobering reading.^{3–5} 2019 was Australia's hottest and driest year on record, with average temperatures 1.52°C above normal and mean rainfall 40% below the 30-year average before 1991.³ Australia's 2019–20 bushfires burned 10 million hectares, directly killed 33 people and destroyed more than 3000 homes.⁶ Smoke engulfed major capital cities, including Sydney and Melbourne, and smoke exposure caused an estimated 417 excess deaths and over 3000 hospital admissions.^{3,7,8} The catastrophe laid bare how extreme heat is a severe health risk.⁹ The ecological damage of the bushfires was enormous;⁶ almost 3 billion animals were killed or displaced, and natural systems of biodiversity and species were harmed, perhaps irreparably.⁶ Severe storms and floods followed the fires, bringing further damage. Insured losses from disaster events totalled AU\$3.7 billion in 2019, with bushfires accounting for \$2.2 billion, although the total costs of the so-called Black Summer fires could be much higher.³

The devastation of the bushfires led the Australian Government to establish the Royal Commission into National Natural Disaster Arrangements. The final report of the Royal Commission in October 2020 identified climate change as a major driver and acknowledged the risk of increasing extreme weather events.⁶ However, the Royal Commission's scope was limited to disaster management (mitigation, preparedness, response and recovery) and did not discuss root causes of climate change such as the fossil fuel industry's grip on Australia's energy infrastructure, economy, political will and public discourse. Australia has no decisive national plan to address climate change and its health consequences.³ The Australian Government is a signatory to the Paris Agreement, but has declined to affirm net zero carbon emissions by 2050 — or by any date — unlike the UK and the EU; China has also committed to this goal by 2060.

Unlike this inadequate approach to the climate crisis, Australia's response to COVID-19 was rapid and effective, despite facing the pandemic while the last bushfires still burned.^{10,11} Strong

community engagement with public health measures enabled effective management of the first and second waves, making Australia's, together with those of New Zealand and parts of Asia, among the more successful responses to COVID-19.¹² Key to this success was the valuing by governments of science and data to guide decision making. The pandemic forced politicians from across the Australian political divide to prioritise the evidence and expertise of the medical, scientific and public health communities over the voices of conservative commentators, business leaders and politicians. Tough political decisions were made for the sake of the nation's health. This bipartisan, science-based approach is a model for the future management of climate change, if implemented alongside an appropriate national plan.

Australia's First Nations people, who are at increased risk of poorer health outcomes than the general population in a pandemic, have provided exceptional leadership in their response to COVID-19, resulting in low rates of virus transmission thus far.^{13,14} The country's Indigenous populations are also disproportionately vulnerable to future climate change natural disasters.⁶ Since the traditional owners of Australia's land are effective, resilient caretakers of the country and experts in land and fire management, the Royal Commission recommended federal, state and territory governments learn from and engage with their expertise.⁶

As another initiative capitalising on local expertise, *The Lancet* Countdown's regional report in partnership with the *MJA* has led to improved performance indicators for climate change. For example, the Australian Countdown reports^{3–5} developed the wildfire (bushfire) indicator, which the Countdown is now adopting globally. These data have encouraged more direct engagement with Australian policy makers and health professionals, and provided direct funding guidance to Australia's National Health and Medical Research Council (NHMRC), which is expected to translate into funding changes in 2021.¹⁵ Australia's leading medical and nursing bodies have recognised climate change as a health emergency.⁸ Governments of states and territories have committed to zero net carbon emissions by 2050, with climate change adaptation plans incorporating the health sector and investment in renewable energy.^{3,16}

With the unprecedented disasters of 2020, public sentiment in Australia has shifted, as more people realise climate change is here now, with impacts for all. In November, the Climate Change (National Framework for Adaptation and Mitigation) Bill 2020 was introduced into the Australian federal Parliament by the independent Member of Parliament Zali Steggall, with wide public support, including from the Australian Medical Association and more than 100 major businesses.¹⁷ The outcome of the 2020 US election and the environmental platform of the incoming

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administration of Joe Biden coincides with a more positive stance in Australian politics towards addressing climate change.¹⁸

In the *MJA-Lancet* Countdowns,³⁻⁵ Australia embraced the importance of local data, local experts and local stories. A regional China Countdown report is also being published in parallel this year,¹⁹ and in 2021, there will potentially be Countdown collaborations for the EU, South America, the US, and Small Island Developing States.

Looking forwards, Australia should as a priority establish a National Health and Climate Change Centre within the Australian Government Department of Health to develop a National Plan for Health and Climate Change with real-time monitoring. As well as preparing to manage climate-related health sequelae, Australia's health sector should commit itself nationally to zero net carbon emissions by 2040 in line with the National Health Service in the UK, preferably with the states and territories responsible for implementing evidence-based interventions.²⁰ Reducing unnecessary medical tests and procedures will serve to reduce carbon emissions, health care costs and harmful outcomes.²¹ Research funded by the NHMRC and the Medical Research Futures Fund should guide better ways to efficiently reduce the carbon footprint of Australia's health care services. Australia has an obligation under the Paris Agreement to submit enhanced nationally determined contributions by the end of 2020. We recommend that the Australian Government agree to a target of a 50% reduction in carbon emissions by 2030, which is what is likely required to limit global warming below 1.5°C.³⁻⁵ The Australian Government needs to recognise that fossil fuels are no longer a sound investment and join with other jurisdictions that are committed to shifting completely to renewable energies to make that sector the most cost-effective for jobs and energy security.

In Australia the crises of 2020 were unprecedented, shocking and predictable. We remain hopeful all Australian governments will aspire to the leadership shown nationally with the COVID-19 pandemic and effectively deal with climate change now, understanding the major health risks of neglecting this issue. We anticipate health and corporate leaders, as well as leaders across other sectors, will continue to drive change. Interrogating successes and failures nationally in the *MJA-Lancet* annual Australian Countdown provides a robust model for monitoring and positive change. The flow on benefits to health and wellbeing, the economy and society from such change will be enormous.

Competing interests: A complete list of Nick Talley's disclosures is available at <https://www.mja.com.au/journal/staff/editor-chief-professor-nick-talley>.

Provenance: Commissioned; not externally peer reviewed. ■

This article is co-published in *The Lancet*.²²

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