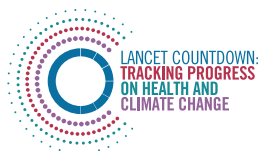


The Lancet Countdown on Health and Climate Change

Policy brief for Australia

DECEMBER 2020



Introduction

In Australia 2020 has been defined by dual health crises. The 2019-20 'Black Summer' bushfires have caused at least 450 excess deaths due to direct injury and air pollution exposure alone, highlighting Australia's significant vulnerability to the health impacts of climate change.^{1,2} Meanwhile, the COVID-19 pandemic has caused over 907 deaths and 27,590 laboratory-confirmed cases in Australia as of 31st October.

Australia's relative success in containing the COVID-19 pandemic has demonstrated its capacity to respond effectively to public health challenges when there is prompt, evidence-informed, coordinated intervention across all levels of government. The public health threats posed by climate change demand a similarly urgent, coordinated, evidence-based response.³ Recovery from the COVID-19 pandemic also presents an opportunity to reorient societies for healthier and more sustainable futures.

Climate change has been identified as a health emergency by leading medical bodies in Australia and worldwide.⁴ Climate-preserving policy interventions will help protect Australians from the escalating physical

and mental health impacts of climate change, including but not limited to intensifying heatwaves, increased extreme weather events, and changing infectious disease patterns.^{1,2,3,5}

The 2020 report of the Lancet Countdown on health and climate change and the *MJA*-Lancet Countdown for Australia have identified concerning trends in climate change impacts, exposures, and vulnerabilities in the country, but minimal national-level progress on mitigation and adaptation measures.^{1,2} To accompany the release of these reports, we present three win-win-win policy recommendations that preserve the climate, protect public health, and promote economic sustainability.

Australia is due to revise its emissions target ahead of the next United Nations Conference of Parties (COP26) in November 2021. Policies relating to this and to COVID-19 recovery will come to define the health of societies for decades.⁶ Delivering these policies must recognise and embrace the fact that climate change, health, and economic objectives are not only mutually reinforcing but mutually dependent.

Recommendations

1

Invest in health: accelerate the transfer to renewable energy and transport infrastructure

Direct stimulus spending towards renewable energy and public and active transport infrastructure. This should include collaborating with state governments to expedite and scale up existing clean energy and transport projects. Rapid transition away from coal and natural gas is critical. Significant health benefits would arise from reduced air pollution and increased physical activity on a population level as well as the longer-term health benefits of mitigating climate change.

2

Foster resilience: prepare and support communities affected by climate disasters

Ensure communities can withstand and recover from extreme weather events. This should include disaster planning, preparation and education, community-scale healthcare delivery, development of robust community renewable energy systems; and restoration of ecosystems informed by Aboriginal and Torres Strait Islander communities.

3

Protect wellbeing: develop a national climate change and health strategy

Develop a national, cross-sectoral climate change and health strategy. This should address both climate mitigation and adaptation, and encompass prevention, planning and preparedness; climate-health research; resilience and sustainability of the healthcare system and health equity.

In focus

Australia's 'Black Summer': bushfires and human health

The catastrophic bushfires of spring and summer 2019-20 occurred at the culmination of Australia's hottest and driest year on record. A compelling attribution study has demonstrated direct links between these unprecedented fires, and long-term meteorological trends caused by climate change.⁸ As Australia's climate has warmed, and rainfall patterns have changed, the country has experienced one of the greatest increases in fire risk of any country in the world (with a 22% increase since 2001 in the average number of days a year Australia's population is exposed to bushfires).^{1,2} Experts warn that Australia can expect to experience further catastrophic bushfire conditions as its climate continues to change.⁹ The health impacts of the Black Summer fires were extensive and are likely enduring. Forty-one people died as a direct result of the fires, including nine firefighters.¹⁰ Meanwhile, thick smoke blanketed Australia's major cities, exposing much of Australia's population to hazardous air quality for a prolonged period of time.¹¹ Smoke exposure resulted in an estimated 417 excess deaths, 1,305 emergency department presentations for asthma and 3,151 hospital admissions for cardiovascular and respiratory conditions.¹¹ At various points throughout the fire season, Melbourne and Canberra each recorded the worst air quality in the world.^{12, 13} The long-term effects of bushfire smoke exposure have yet to be quantified, as have the enduring mental health impacts of the catastrophic fire season. However, there is already evidence of long-term respiratory health

effects in children from acute air pollution events.¹⁴ Further physical and mental health effects will be examined as part of a \$5 million Medical Research Future Fund program on the 2020 bushfires; the outcomes of this research should be coupled with commensurate policy responses.²

The enormous loss of lives, homes and livelihoods in the Black Summer bushfires exposed the need to actively invest in community resilience to climate-related disasters. A wide variety of investments are required, which present opportunities to address underlying disadvantage, bolster wellbeing, and create clean jobs, particularly in some of Australia's most underprivileged communities.⁹ For example, investing in small-scale renewable energy projects for disaster-affected communities will help create local jobs while safeguarding future energy security, affordability, and self-sufficiency.⁹ Meanwhile, community wellbeing can be promoted by empowering and resourcing local citizens to lead disaster planning and healthcare delivery; context-specific mental healthcare is particularly important, especially for firefighters and other frontline emergency responders.⁹ For Aboriginal and Torres Strait Islander people maintaining connection to land and sea is important for building resilience to extreme weather events. Further, governance structures developed with Indigenous people to support climate adaptation work need to acknowledge the ongoing impact of colonisation.¹⁵



A kangaroo rushes past a burning house in New South Wales.

Photo: Matthew Abbott for The New York Times/ Redux.

The costs of inaction, and opportunities for investment in a healthier future

Inaction on climate change jeopardises both global and Australian economies. In 2019 alone, the global cost of climate-related extreme weather events was in the region of \$190 billion, only a small proportion of which was insured.¹ Meanwhile, Australia's major financial regulators are increasingly vocal about the need to act on climate change to safeguard the economy. To cite just one example, the Reserve Bank of Australia has stated that few forces "have the scale, persistence and systemic risk of climate change."¹⁶ Shocks to the Australian economy – such as that caused by the Black Summer bushfires – will increase in frequency and intensity if current warming trends continue.² These economic shocks will have significant effects on the socio-economic determinants of health in Australia, and thus further compound the health impacts of climate change.¹⁷

As the Australian Government attempts to steer the country out of the COVID-19 economic crisis, it has an unparalleled opportunity to reduce the impact of future economic shocks arising from climate change, while reducing the current health and economic costs of fossil fuel combustion. In Australia, the health costs of atmospheric air pollution associated with the burning of fossil fuels are estimated at \$5.3 billion per year.² Significant health and economic co-benefits can be achieved by using stimulus spending to build clean transport and energy infrastructure that will facilitate Australia's contribution to global emissions reduction efforts.¹⁸ Rapid emissions reduction will help to minimise future health costs of climate impacts such as floods, fires, and heat emergencies; and will also reduce the costs of managing chronic health conditions associated with air pollution.¹⁸

Developing a national climate change and health strategy

The COVID-19 pandemic has demonstrated how governments can act swiftly to protect people when required, and the critical importance of healthcare system planning, coordination, and capacity-building.⁵ As the health impacts of climate change mount and compound in the coming decade, adaptation measures will necessarily have to accompany mitigation measures to safeguard Australian public health. Health workforce capacity; climate-health research and development; and greening Australia's healthcare system (which itself contributes 7.2% of Australia's national greenhouse gas emissions) are just some of the many elements of adaptation that will need to be addressed.^{19,20} A national health and climate change strategy, addressing both mitigation and adaptation, would bring Australia into line with at least 51 countries worldwide that have developed national health and climate change adaptation plans.¹ The Framework for a National Strategy on Climate, Health and Wellbeing provides a useful basis from which such a strategy

could be developed.²¹

Australia's state, territory, and local governments have shown commendable leadership on climate change and health system planning. Every state and territory already has a climate change adaptation plan that includes health in some way.² Moreover, Victoria and Queensland have now developed specific climate change and health system adaptation plans, with Tasmania and Western Australia following suit.² However, there has been a deficit in leadership on climate change and health adaptation at a federal level, and Australia has no national climate change adaptation plan for health.² The COVID-19 pandemic has demonstrated the significant potential of genuinely collaborative state and federal approaches to public health crises; there are many lessons to be learned from COVID-19 in responding to climate change.

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Organisations and acknowledgements

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THE LANCET COUNTDOWN

The Lancet Countdown: Tracking Progress on Health and Climate Change is an international, multi-disciplinary collaboration that exists to monitor the links between public health and climate change. It brings together 38 academic institutions and UN agencies from every continent, drawing on the expertise of climate scientists, engineers, economists, political scientists, public health professionals and doctors. Each year, the Lancet Countdown publishes an annual assessment of the state of climate change and human health, seeking to provide decision-makers with access to high-quality evidence-based policy guidance. For the full 2020 assessment, visit www.lancetcountdown.org/2020-report/

THE MJA-LANCET COUNTDOWN AUSTRALIA

The *MJA*-Lancet Countdown on health and climate change was established in 2017, produced its first Australian national assessment in 2018 and its first annual update in 2019. It examines indicators across five broad domains: climate change impacts, exposures, and vulnerability; adaptation, planning, and resilience for health; mitigation actions and health co-benefits; economics and finance; and public and political engagement. Its 2020 report focusses on Australia's Black Summer bushfires and related indicators.

THE ROYAL AUSTRALASIAN COLLEGE OF PHYSICIANS

The Royal Australasian College of Physicians (RACP) trains, educates and advocates on behalf of over 18,000 physicians and 8,500 trainee physicians in Australia and Aotearoa New Zealand across a broad range of medical specialties.

THE 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.

THE 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 groundbreaking research, perspectives on health care delivery and informed analysis on policy since 1914.