

### Submission to Federal Budget

Recommendations for a health-led post COVID-19 economic recovery (building on the Framework for a National Strategy on Climate, Health and Well-being for Australia)

January 2021

#### Contact

CAHA Executive Director Fiona Armstrong fiona.armstrong@caha.org.au 0438900005 www.caha.org.au

#### About the Climate and Health Alliance

The Climate and Health Alliance (CAHA) is a national charity and the peak body on climate change and health in Australia. CAHA and its members work together to raise awareness about the health risks of climate change and the health benefits of emissions reductions and adaptation.

The membership of CAHA includes a broad cross-section of health sector stakeholders with 50 member organisations, representing healthcare professionals from a range of disciplines, as well as healthcare service providers, institutions, academics, researchers, and consumers. Information about CAHA's membership and governance in Appendix 2.

CAHA is a member of the Global Climate and Health Alliance, a member of the World Health Organization Working Group to Advance Action on Health and Climate Change, and a strategic partner of the international NGO, Health Care Without Harm.

The Climate and Health Alliance has produced a significant number of reports and publications to assist policymakers and health stakeholders and the wider community understand the links between climate change and health, and to support evidence-based decisions regarding policy and solutions.

These include the <u>Human Health and Wellbeing Adaptation Plan for Queensland</u>; the <u>Framework for a National Strategy on Climate, Health and Well-being for Australia</u>; a <u>Review of Health and Climate Change Literature</u> for the City of Melbourne; a joint report on divestment from fossil fuels, <u>Healthy Investments</u>, with Doctors for the Environment, Australia; the seminal report <u>Coal and Health in the Hunter: Lessons from One Valley for the World</u>; a multi-stakeholder <u>Joint Position Statement and Background Paper on Health and Energy Choices</u>; a joint report '<u>Our Uncashed Dividend</u>' (with The Climate Institute) on the health benefits of reducing greenhouse gas emissions; a <u>Discussion Paper on the Health Implications of Energy Policy</u> and a subsequent <u>Background Briefing Paper</u> on the same topic.

CAHA has produced a film on the risks to health and climate from coal and gas, *The Human Cost of Power*, and has conducted many innovative and groundbreaking public events, including (since 2021) a annual series of Greening the Healthcare Sector Forums, including several Healthcare Environmental Sustainability Forums with Western Health and Institute for Hospital Engineers Australia; the Our Climate Our Health Seminar, featuring an innovative thought experiment: Imagining 2030 as a healthy low carbon world; a Public Seminar on Protecting Health from Climate Change (with University of NSW); and a national Forum on Climate and Health: Research, Policy and Advocacy.

For further information see <a href="https://www.caha.org.au">www.caha.org.au</a>

#### Introduction

The Australian government has a unique opportunity with the 2021 budget. The disruption and impact of the pandemic has demonstrated the importance of safeguarding people's health and livelihoods, and tackling systemic inequities which create vulnerability to health and economic shocks. By investing in public health measures, supporting health sector preparedness, and strengthening social and financial safeguards, Australia can significantly reduce the overall financial burden of COVID 19, and position itself for a strong and resilient society and economy for decades to come.

As we look to strengthen our economy, we must heed the lessons of 2020 and invest with foresight to tackle worsening population health outcomes and avoid ballooning healthcare costs in the near future. The Australian government has the option of choosing investments in health that can deliver long-term cost-savings. These include measures that simultaneously tackle climate change, improve air quality, and boost public health and wellbeing. Absent these measures, the adverse impacts from climate change on health alone will far outstrip financial, social and environmental costs of the pandemic.

By resourcing and enacting measures that reduce the impacts of climate change on health, the government can realise significant long-term savings as well as stimulate economic growth and employment. Prominent members of the investment and business community<sup>1</sup> and state and territory governments have recognised the importance of transitioning to zero emissions thereby setting out a clear goal and providing certainty for the business.

Failure by the federal government to support this consensus through its own commitment will incur substantial financial costs, harm Australia's international reputation, and limit our ability to ride the wave of international green growth that is delivering important economic stimulus elsewhere

Our recommendations lay out actions and investments that will position the federal government towards a sustainable and resilient economy and enable it to realise the cost-savings that arise from enacting climate and health measures and transitioning to a zero-carbon health sector and economy.

#### Contents

Our submission is in four parts:

<sup>&</sup>lt;sup>1</sup>Morton, Adam. "<u>Investors lead push for Australian Businesses to cut emissions more than government forecasts</u>". *The Guardian,* 14 Oct 2020.

**Part 1** outlines four key initiatives with associated costs to drive health gains through stakeholder engagement, policy governance, and health-sector leadership on climate.

Part 2 outlines measures for action on climate and health that will lead to cost-savings.

**Part 3** demonstrates how costs of inaction can be turned into cost-savings through climate and health measures guided by a National Strategy on Climate, Health and Well-being.

**Appendix 1** provides additional recommendations under eight strategic areas of policy action for further investment in implementing the proposed National Climate and Health Strategy.

# Part 1: Key initiatives to drive health gains through stakeholder engagement, policy governance, and health-sector leadership on climate

#### 1. Conduct a National Health and Climate Consultation

In order to better inform the Commonwealth's approach to climate change and health, a national stakeholder consultation should precede the development of a detailed plan for the implementation of a National Strategy on Climate, Health and Well-being for Australia.

The cost of the consultation (over four months) and development of the National Strategy and accompanying implementation plan (another four months) for three FTE staff and a travel/operational budget is estimated at \$500,000.

#### 2. Establish an AHPPC Subcommittee on Climate and Health

Given the significant impact of climate change and health, it is paramount that Australia's health governance structures incorporate a nationally coordinated approach to tackle climate and health issues. CAHA recommends that a new subcommittee on Climate and Health be established under the Australian Health Protection Principal Committee (AHPPC).

The costs required for the establishment and coordination of this committee are estimated (for one FTE annually, plus an operational budget) as \$150,000 p.a.

## 3. Establish a Sustainable Development Unit in Commonwealth Department of Health

CAHA recommends that the federal government creates a Sustainable Development Unit (SDU) inside the Commonwealth Department of Health to support health providers in low carbon transition and climate-health measures.

The cost of the establishment of a national SDU (for staffing of three FTE and operational budget) is estimated at \$ 500,000 p.a.

#### 4. Develop a roadmap for the health sector to net zero emissions

The SDU would be tasked with the development of a roadmap for the health sector to net zero emissions by 2040. This would include a detailed evaluation of national healthcare emissions, and the development of an annual carbon budget for the health sector as a mechanism to ensure measurable progress towards achieving net zero emissions by 2040. This approach can be modelled on the UK carbon budgets, established under the Climate Change Act, and monitored by the Climate Change Committee, which provides detailed analysis and information to support net zero transitions in different sectors, and reports to Parliament on progress towards each sector's carbon budgets.<sup>2</sup> It is proposed that the SDU performs this function in developing the roadmap and carbon budgets and reporting annually on health sector emissions.

The estimated cost for the development of the roadmap is an initial one-off cost of \$300,000; with biennial reviews and adjustments costing \$100,000.

## PART 2: Strategies for cost savings and health co-benefits through emissions reductions in the health sector

The health sector in Australia is responsible for seven per cent of our national emissions. Globally, the healthcare sector produces four per cent of global emissions. International evidence has demonstrated that sustainability measures in the area of energy, waste and water in the health sector result in substantive savings. In the UK, the Climate Change Act and establishment of a national Sustainable Development Unit has supported the National Health Services (NHS) over ten years to enact sustainability measures. By 2017, these measures resulted in annual savings of £90 million (~AUD\$160 million). The NHS has also demonstrated it is possible to decouple emissions and admissions: cutting its greenhouse gas emissions by 18.5 per cent between 2007 - 2017, during which period healthcare activity rose by 27 per cent.<sup>3</sup>

Hospitals and services in the international Health Care Climate Challenge, have so far cut emissions by 16 Mt, saved around US\$1.7 billion in the public health costs of air pollution, and saved US\$381 million with energy efficiency and clean energy.

Case studies in the Global Green and Healthy Hospitals network (GGHH, the regional network of which is managed by CAHA) routinely demonstrate clear savings from better waste, energy, water, food, travel, building, and

<sup>&</sup>lt;sup>2</sup> https://www.theccc.org.uk/topic/carbon-budgets/

<sup>&</sup>lt;sup>3</sup> Sustainable Develo[ment Unit. Reducing the use of natural resources in health and social care. Cambridge (UK); Public Health England and NHS England, 2018.

pharmaceutical management. Examples of cost-savings<sup>4</sup> generated in the Australian GGHH network through transitioning to low carbon practices include:

- Royal Melbourne Hospital found that by switching off idle sterilizers reduced electricity use by 66 MWh and water use by 1 ML p.a. - saving 26% and 13% respectively, dropped emissions by 79 tCO2-e, and saved almost \$14,000 p.a.
- NSW hospitals and health services have saved around \$7.1 million in 2019 through better environmental performance, reducing electricity and gas consumption by nearly 47 million kWh
- Between 2017–18 to 2018–19, the South Western Sydney Local Health District reduced emissions per occupied bed-day (OBD) by 6% and 3% overall (Scope 1 and 2 emissions), saving about \$300,000 in annual power costs through efficiency measures, despite a 16% rise in electricity costs and a 4% OBD rise.
- Western Health in Melbourne has saved around \$32,500 and 140 tonnes of CO2e per year, by safely substituting desflurane and nitrous oxide – anaesthetic gases that are potent greenhouse gases;
- Mater Health Services Australia cut its fleet by 41 vehicles from 2010 to 2014, with nearly 8 in 10 vehicles now low-emissions, saving over \$500,000 in fuel, lease, insurance, and repairs and maintenance;
- Mater Health Services Australia also reduced A4 paper purchases by 32 per cent between 2010 and 2015, switching to recycled then carbon-neutral products, saving \$60,000 through procurement decreases.

Currently, there is no nationally coordinated policy to support healthcare service providers to implement low carbon, environmentally sustainable initiatives. The Australian and NZ network of the Global Green and Health Hospitals initiative has over 100 members across every state and territory, representing 1,700 individual hospitals and health services. It is coordinated by CAHA with the support of philanthropy. However, structural support in the form of budget allocations by the federal government to support the coordination and expansion of this network could vastly improve the capacity of health providers to lead the low carbon transition and bring about cost-benefits at a magnified scale, such as those realised by the UK's NHS.

## PART 3: Cost savings and health co-benefits through climate action

Climate change has already caused significant costs to Australia's economy. Some of the most obvious financial losses are in the areas of agriculture, productivity, and insurance costs due to climate-fuelled extreme weather

7

 $<sup>^{\</sup>rm 4}$  Climate and Health Alliance. Advice to NSW Health Minister, 2020.

events, such as droughts, floods and bushfires. These events also burden the health system, leading to additional costs in the health sector.

Analysis by the Climate Council calculates that previous severe droughts have reduced GDP by 1 per cent in the years they occurred. Given predictions by the BOM and CSIRO<sup>5</sup> for more frequent droughts, it is estimated that droughts will likely cause yearly losses of one percent of GDP. Joint modelling by the Climate Council and Melbourne University<sup>6</sup> predicts cumulative damages to the economy from failing to reduce emissions in line with the Paris Agreement as AUS\$1.19 trillion dollars (\$611 billion from lost property values, \$211 billion due to agricultural and labour productivity losses, and \$368 billion losses in biodiversity and human health). This calculation is based on the assumption of a population increase to over 60 million by 2100. When the costs from extreme weather events, such as bushfires and floods are included, the cost accumulated damages rises to \$2.7 trillion dollars.

The flipside of this calculation is that by putting the right measures in place, the Australian government can accrue major cost savings. According to the modelling above, the cost of meeting Australia's targets under the Paris Accord by 2050 is \$122 billion, which is less than a twentieth the cost of the damages from climate change.<sup>7</sup>

"The longer we wait to act both the larger the damages from climate change and the costs of emissions reduction will be.

IMF estimates of the annual taxpayer (government) subsidies to energy producers in Australia alone, at \$29 billion per year, would more than pay for the cost of emissions reduction."8

Tom Kompas, Professor of Environmental Economics and Biosecurity, School of Ecosystem and Forest Sciences at the University of Melbourne.

<sup>&</sup>lt;sup>5</sup> CSIRO and BoM (Commonwealth Scientific and Industrial Research Organisation and Bureau of Meteorology)) Climate Change in Australia – Technical Report, 2015.

<sup>6</sup> Compound Costs: How climate change is damaging Australia's economy.Climate Council, 2019

 $<sup>^{7}</sup> https://sustainable.unimelb.edu.au/news/what-are-the-full-economic-costs-to-australia-from-climate-change$ 

https://sustainable.unimelb.edu.au/news/what-are-the-full-economic-costs-to-australia-from-climate-change

# Appendix 1: Further policy recommendations that build on CAHA's Framework for a National Strategy on Climate, Health and Well-being for Australia

CAHA's Framework for a National Strategy on Climate, Health and Well-being outlines a comprehensive set of integrated climate and health measures that will deliver cost-savings and health co-benefits.

In this section, we outline concrete investment measures under eight key areas of policy action. We submitted these <u>recommendations to the pre-budget</u> <u>consultation process</u> in 2020.



Areas of Policy Action, from Climate and Health Alliance's Framework for a National Strategy on Climate, Health and Wellbeing for Australia, 2017, and Healthy, Regenerative and Just: Our Vision for a Better Future, 2020.

#### 1. Supporting healthy and resilient communities

Enhancing the capacities of communities to anticipate their climate risks and reduce impacts on health and well-being in their communities. Supporting community resilience to avert future potential health and climate crises, including pandemics.

- a. Resource and support community-based health and social services organisations to develop their understanding of climate risks to service delivery and the population groups they serve, especially vulnerable groups.
- b. Increase funding for Aboriginal and Torres Strait Islander health and community services.
- Support the development of renewable energy infrastructure projects in rural, regional and remote communities in any construction-focused stimulus packages.
- d. Fund capacity building initiatives in culture, conservation and science, expanding Indigenous Ranger programs, and boosting First Nations-led businesses and participation in adaptation and resilience, including carbon farming.

#### 2. A sustainable and climate-resilient health care sector

A low/zero carbon, environmentally sustainable, climate-resilient health sector which can effectively respond to the health impacts of climate change and unforeseen health emergencies, including new infectious diseases and/or pandemics.

- a. Establish a national agency to advise on sustainability initiatives in the health care sector, such as a national Sustainability Development Unit to provide guidance and capacity building to health care providers and government departments, and realise savings for health sector budgets.
- Introduce mandatory standards and obligations for health facility design, construction and ongoing management of both new and existing facilities, which prioritise environmental sustainable, low emissions design and operations.
- c. Establish national standards for sustainable procurement in healthcare, to guide purchasing and support the transition to a circular economy.
- d. Invest in development / expansion of the manufacturing industry for medical supplies, including PPE, with a focus on using / producing materials that can be safely sterilised and re-used where appropriate.
- e. Invest in our national vaccine research and production capacity and fund an Australian production facility.
- f. Further invest in telehealth and teleconferencing services to improve access to healthcare, and avoid travel for staff, clinicians and patients.
- g. Fund the installation of solar panels (with batteries) for all metropolitan as well as rural hospitals and health services.
- h. Provide grants to support energy efficiency improvements in hospitals and health services.

- i. Provide grants for waste or energy audits for hospitals to inform waste and energy and water saving initiatives.
- j. Establish a national program to reduce the use of plastics in healthcare and significantly expand recycling efforts.

#### 3. Health-promoting and emission-reducing initiatives

Measures that reduce the risks to people's health and well-being while simultaneously reducing greenhouse gas emissions and avoiding air pollution.

#### Energy efficiency

- a. Upgrade all publicly-owned buildings and operations so they are energy efficient.
- b. Invest in 'shovel-ready' energy storage projects, such as large-scale batteries.
- c. Remove barriers to grid connection for large-scale solar and wind energy generation.
- d. Accelerate the closure of coal-fired power stations to allow an expanded proportion of electricity to be provided by renewable energy.
- e. Support small businesses to invest in solar power and storage.
- f. Fast-track electricity transmission infrastructure for low cost, reliable renewable energy.
- g. Increase investment in sustainable industries by reallocating fossil fuel subsidies.

#### Housing

- h. Invest in new social housing infrastructure, and ensure it is thermally efficient, and climate resilient to reduce running costs and improve health
- i. Install solar panels on all new housing and all public / social housing
- j. Ensure all existing social and affordable housing is "climate ready", to limit heat and cold stress for those unable to access or afford heating and cooling systems.
- k. Provide solar grants for community housing organisations to support access to a more affordable power supply.
- I. Invest in programs to weatherproof and energy retro-fit residential buildings
- m. Upgrade infrastructure to be safe during extreme heat events, including equipping public housing with adequate cooling infrastructure and building heat refuges.<sup>9</sup>
- n. Amend the National Construction Code to incorporate health protection and climate resilience measures to withstand temperature extremes and natural disasters.

#### Transport

\_

<sup>&</sup>lt;sup>9</sup> https://www.sciencedirect.com/science/article/abs/pii/S221209551830124X?via%3Dihub

- o. Expand electric, public and active transport manufacturing and infrastructure, including charging stations for electric vehicles.
- p. Replace federal government car fleets with electric vehicles.
- q. Provide funding for local and state governments to invest in pedestrian and cycling infrastructure.

#### 4. Emergency and disaster-preparedness

Supporting the identification of vulnerable populations and gaps in infrastructure in order to adequately prepare for the impacts of climate change and compound crises, such as future health threats.

- a. Expand investment in early warning systems to identify climate-related threats to health, such as extreme weather events, to enable rapid response to mitigate the impacts on Australian communities.
- b. Increase support for disaster preparedness and emergency services to respond to climate related hazards and disasters, to avoid catastrophes.
- c. Expand investment in climate and health vulnerability mapping programs to identify and map vulnerable populations and infrastructure to inform climate adaptation strategies and emergency response plans.
- d. Support the establishment of integrated climate and pandemic preparedness plans across national and state/territory and local government.
- e. Support the establishment of locally led disaster recovery initiatives to build capacity and support the agency of affected people and communities.
- f. Fund urban planning measures for heat abatement (tree planting, storm-water gardens, etc).
- g. Support development and roll out of Indigenous fire management and natural resource management programs, creating employment opportunities for Aboriginal and Torres Strait Islander people to advise local and state fire authorities (particularly those in rural and regional and remote areas).

#### 5. Education and capacity building

Educating and raising awareness of the health impacts of climate change within the health workforce, and the wider Australian community so they can adopt health-protective adaptation behaviours and realise the health benefits of reducing emissions. Equipping health professionals and the community with knowledge and tools to prepare for potential concurrent climate and health emergencies.

- a. Develop a national educational campaign to inform communities about the health risks of climate change, health-protective adaptation strategies, and the health benefits of reducing emissions and transitioning to a low-carbon future. This should include a focus on people and groups who are specifically vulnerable to climate change, such as those with chronic illnesses, those sensitive to heat and poor air quality, those that are being displaced, and Aboriginal and Torres Strait Islander people, whose connection to the country is integral to health and wellbeing. Ensure these programs are accessible to migrant and refugee communities, and available in multiple languages and formats to ensure accessibility for all.
- b. Support the establishment of a national education and training framework to support health professionals in recognising, preparing for and responding to the

- health impacts of climate change to guide undergraduate and postgraduate curricula and continuing professional development.
- c. Promote low emissions and healthy dietary habits and reduction of food waste by funding research, education, and behaviour change programs to support this.
- d. Develop a national certification and labelling scheme for products to communicate embodied carbon and to guide consumer behaviour towards low carbon choices.

#### 6. Leadership and governance

Establishing effective governance arrangements for implementing climate change and health initiatives at the national level.

- a. Establish or nominate a National Agency (liaising with and supported by the Department of Health) to advise on climate change and environmental health risks, with responsibility for evaluating and monitoring of outcomes and effectiveness of programs and initiatives already in effect and those proposed in this submission.
- b. Establish a national Ministerial Forum on Health and Climate Change to facilitate cooperation and leadership across multiple portfolios and at all levels of government on climate and health policy and programs.
- c. Establish a strong national framework for sustainable consumption and production that is integrated into national and sectoral plans, encourages sustainable business practices and consumer behaviour, and ensures adherence to international norms in relation to management of hazardous chemicals and wastes.

#### 7. Research and data

Supporting Australia's health and climate research capacity to evaluate specific health threats, priority needs and to monitor trends and opportunities for maximising multi-sector benefit.

- a. Establish a world class climate and health research capacity that enables evaluation of priority needs and effective responses to Australia's specific health threats.
- b. Conduct a national assessment of climate and health vulnerability and impacts to guide program development and support adaptation and mitigation actions.
- c. Establish national health surveillance systems to ensure climate change and environmental health threats are identified and appropriate responses developed, thereby ensuring the best possible physical and social health and well-being of the community, including through:
  - Establish a national environmental health surveillance system which includes climate-related indicators.
  - Provide continued investment in and support for the National Notifiable Diseases Surveillance Network, including a strong focus on disease outbreaks which may increase in frequency and severity as a result of

climate change (for example vector and zoonotic borne disease outbreaks, such as SARS-COV-2)

d. Conduct assessment of health-related economic benefits (i.e. co-benefits) to be gained from pro-health climate change mitigation and adaptation strategies that result from building community resilience, improved air quality, active transport options, and other co-benefits associated with emissions reductions. This would enable the government to be able to justify this small initial investment by demonstrating the cost savings that would result.

#### 8. Thriving ecosystems

Restoring and safeguarding Australia's ecosystems, recognising that intact ecosystems are the fundamental base of human health and livelihoods.

- Expand conservation programs to preserve natural environments, including wilderness areas and national parks. Invest in the following job-intensive initiatives to: 10
  - encourage utilization and protection of national parks and wilderness areas, recognising their role in healthy human development and long term health and wellbeing, as well as provide profound mental and physical health benefits;
  - enhance and maintain national park infrastructure and tracks, and support ongoing park management (fire, weeds, feral animals) - coupled with programs to build skills and capacity among long term unemployed and disadvantaged young people;
  - support bushfire recovery and resilience activities, including infrastructure repairs and habitat restoration;
  - expand river and wetland restoration, including fencing, revegetation and erosion control;
  - increase tree planting and habitat restoration in metropolitan, suburban, peri-urban and rural areas:
  - fund Indigenous ranger programs to create jobs for Aboriginal and Torres Strait Islander people and enhance environmental management and biodiversity conservation;
  - support coastal habitat restoration and monitoring, in partnership with local communities and the fishing industry; and
  - expand plastics and marine debris clean up, including research to inform future policy decisions.
- b. Expand initiatives to promote a sustainable food production system that recognises the risks of climate change and environmental limits, including:.
  - Provide incentives for farmers to invest in low emission technologies, soil conservation, and regenerative agriculture practices;
  - Invest in sustainable water strategies and water infrastructure to support food production in a warming climate.

<sup>10</sup> These initiatives were developed by a collation of conservation groups and the National Farmers' Association and submitted to the Prime Minister. Details on estimated numbers of job creations can be found here. <a href="https://www.rainforestrescue.org.au/wp-content/uploads/2020/04/prime-minister-re-economic-stimulus-in-conservation-and-land-managementatt-20-apr-2020.pdf">https://www.rainforestrescue.org.au/wp-content/uploads/2020/04/prime-minister-re-economic-stimulus-in-conservation-and-land-managementatt-20-apr-2020.pdf</a>

- c. Provide support for state, territory and local government programs to protect and restore biodiversity as a planning priority in urban areas recognising that the loss of green spaces in urban areas contributes to increased emissions, poorer air quality, and the urban heat island effect.
- d. Support development and roll out of Indigenous fire management and natural resource management programs, creating employment opportunities for First Nations people to advise local and state fire authorities (particularly those in rural and regional and remote areas).
- e. Establish a National Environmental Protection Fund to support biodiversity and ecosystem protection and long-term nature conservation.

#### **APPENDIX 2**

#### **Climate and Health Alliance Board**

Dr Rebecca Patrick, President

Amanda Adrian, Vice-President,

Ms Kim Daire, Treasurer, Finance Committee Chair (on maternity leave)

Dr Joanne Walker, Secretary, Research and Policy Committee Chair

Mr Michael Wheelahan, Acting Treasurer, Governance and Finance Committee

Dr Ingrid Johnston, Research and Policy Committee

Mr David Zerman, Independent Director, Fundraising Committee

Ms Fiona Armstrong, Executive Director, All Committees

Dr Lucie Rychetnik, Research and Policy Committee

Dr Frances Peart, Governance Committee Chair

#### **Expert Advisory Committee**

Assoc Professor Grant Blashki, Nossal Institute for Global Health

Assoc Professor Kathryn Bowen, Fenner School of Environment & Society, Australian National University

Professor Colin Butler, Visiting Fellow, Australian National University

Professor Tony Capon, Professor of Planetary Health, University of Sydney

Dr Susie Burke, Senior Psychologist, Australian Psychological Society

Professor Garry Egger, School of Health & Human Sciences, Southern Cross University

Professor Sharon Friel, Menzies Centre for Health Governance, Australian National University.

Dr Liz Hanna, Honorary Senior Fellow, Climate Change Institute, Australian National University

Professor David Karoly, Leader, Earth Systems and Climate Change Hub

National Environmental Science Program, CSIRO

Professor Stephan Lewandowsky, School of Psychology, University of Western Australia Dr Peter Tait, Convenor, Ecology and Environment Special Interest Group, Public Health

Association

Professor John Wiseman, Melbourne Sustainable Societies Institute

#### **CAHA Member Organisations**

#### Abilita

Australian Association of Gerontology (AAG)

Australian Association of Social Workers (AASW)

Australian College of Nursing (ACN)

Australian Council of Social Service (ACOSS)

Australasian Epidemiological Association (AEA)

Australian Healthcare and Hospitals Association (AHHA)

Australian Health Promotion Association (AHPA)

Australian Indigenous Doctors' Association (AIDA)

Australian Institute of Health Innovation (AIHI)

Australian Women's Health Network (AWHN)

Australian Medical Students' Association (AMSA)

Australian Nursing and Midwifery Federation (ANMF)

Australian, New Zealand and Asian Creative Arts Therapies Association (ANZACATA)

Australian Primary Health Care Nurses Association (APNA)

Australian Psychological Society (APS)

Central Australia Rural Practitioners Association (CARPA)

Children's Healthcare Australasia

Codesain

CoHealth

ConNetica Consulting

Consumers Health Forum of Australia (CHF)

**CRANAplus** 

**Doctors for Nutrition** 

Doctors Reform Society (DRS)

Friends of CAHA

Health Consumers NSW

Healthy Futures

Health Issues Centre (HIC)

Health Nature Sustainability Research Group (HNSRG)

Health Services Union (HSU)

Kooweerup Regional Health Service (KRHS)

Medical Association for Prevention of War (MAPW) Australia

Medical Scientists Association of Victoria (MSAV)

Naturopaths and Herbalists Association of Australia (NHAA)

NSW Nurses and Midwives' Association (NSWNMA)

Pharmacists for the Environment Australia (PEA)

Public Health Association of Australia (PHAA)

Psychology for a Safe Climate (PSC)

Royal Australasian College of Physicians (RACP)

Queensland Nurses and Midwives Union (QNMU)

School of Public Health, University of Sydney

School of Public Health & Social Work, Queensland University of Technology

Services for Australian Rural and Remote Allied Health (SARRAH)

Veterinarians for Climate Action (VFCA)

Victorian Allied Health Professionals Association (VAHPA)

Women's Health East (WHE)

Women's Health in the North (WHIN)

Women's Healthcare Australasia