Australian Government
Department of Health and Aged Care

NATIONAL HEALTH AND CLIMATE STRATEGY

Detailed submission form

This form allows you to provide responses to the full set of questions in the Consultation Paper available here.

Alternatively, you may wish to complete the briefer online survey available here.

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

Respondent details

What is your name?
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What is your organisation?
Health and Wellbeing Queensland
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
[redacted]
Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☐ Academic or Researcher ☒ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

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Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
Health and Wellbeing Queensland (HWQld) was established on 1 July 2019 as an independent statutory body within the health portfolio of the Queensland Government with the objective to improve the health and wellbeing of the Queensland population, including by reducing the burden of chronic diseases through targeting risk factors for those diseases, and reducing health inequity. HWQld has contributed a response to those questions which relate to its remit. HWQld notes that the Consultation Paper does not yet have a Vision Statement to underpin the objectives, principles and enablers of the Strategy. HWQld would welcome a Vision Statement with a broad, holistic focus on health and wellbeing, and community resilience. HWQld acknowledges that the objectives listed in the Consultation Paper are important issues to be dealt with in the context of the Strategy (namely Measuring health system greenhouse gas emissions, Mitigation, Adaptation, and Health in All Policies) HWQld recommends, however, that a broader approach be taken to the objectives so that promoting and protecting health and wellbeing is prioritised. HWQld would support the Strategy's focus being on preventing illness, injury and death associated with climate change, building resilience within the community to deal with the impacts of climate change, minimising the healthcare system's contribution to Australian emissions and ensuring the health system's resilience and adaptation to climate change. This will require an approach which is broader than the health system, promotes a health lens in all policy development, considers the wider determinants of health, influences the investment and decision-making of other sectors, and drives national whole-of-government collaboration.
2. How could these principles be improved to better inform the objectives of the Strategy?
HWQld supports the six principles outlined in the Consultation Paper: First Nations leadership; Tackling health inequities; Population health and prevention; One Health; Evidence-informed policymaking; Partnership-based working across all levels of government and beyond. HWQld strongly supports First Nations leadership being a central component of the Strategy and encourages genuine collaboration with First Nations bodies to understand the significant impacts that climate change is having on First Nations peoples, particularly in the Far North Queensland and the Torres Strait Islands. HWQld also strongly supports a Strategy which gives due consideration to tackling health inequities. HWQld has the reduction of health inequity in its remit, and its approach to driving progress on this issue is grounded in an understanding that the conditions that hold inequity in place are complex, entrenched and interrelated and that system level change is required to address root causes of inequity, and ensure long term inter-generational wellbeing outcomes for Queensland. HWQld is progressing work on an Equity Framework which aims to assist in shifting the social conditions for all communities, families and individuals to flourish.

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HWQld would welcome the opportunity to share insights from the development of the Equity Framework with the National Sustainable Healthcare Unit.
3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?
HWQld encourages a comprehensive approach to the greenhouse gas emissions in scope for the Strategy. HWQld recognises that the Australian Government has no commitment to estimate and report emissions associated with the manufacture of pharmaceutical products imported into Australia under the Paris Agreement. However, HWQld is of the view that capturing this information would help to ensure a broad and comprehensive Strategy.
4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?
Nil response.
5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?
A climate change workshop entitled 'Stronger Together: What can we all do to transition to greater climate resilience in the Torres Strait region?' was convened by the Torres Strait Regional Authority on 22-23 June 2022 on Waiben (Thursday Island). The key aims were to identify and then achieve consensus around adaptation priorities for the 2022-27 Torres Strait Regional Adaptation and Resilience Plan. Fifty participants including Traditional Owner representatives, local, State and Commonwealth agency representatives, NGOs and research institutes were involved. Towards developing the Plan, the workshop documented that: • Climate change already affects daily lives in the region • Further urgent and local climate action is required as soon as possible • Action to building climate resilience is needed from individuals up to governments in a shared response • Torres Strait Islander Peoples want to guide their region's future, and driving the local vision to a climate resilient future in the Torres Strait is a key next step • The voices of Torres Strait Islander women and youth are crucial in all climate conversations • External agencies are aware of the importance of culture and community for all climate action • The Torres Strait region will become a leader in Indigenous climate adaptation and support a positive narrative and approach for the regions' people in responding to this challenge. Detailed initiatives towards this focus were developed regarding: • Food, water, and energy security • Infrastructure design and delivery • Regional climate resilience • Coastal management • Establishing a Torres Strait Centre of Indigenous Climate Resilience.

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HWQld suggests a similar forum could be utilised to facilitate co-design of the Strategy with First Nations people. HWQld would welcome the opportunity to facilitate an introduction to the convenors of this forum.

Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?
Nil response.
7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?
Nil response.

Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?
HWQld supports the inclusion of **travel and transport** and **prevention and optimising models of care** into the proposed focus areas for emissions reduction.
9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?
Nil response
10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?
HWQld recognises emissions associated with vehicles not owned by the health system, such as employee commuting, fall into the scope of category three emissions. The Strategy provides an opportunity to consider specific action to reduce these emissions by promoting and encouraging public and active transport to healthcare facilities. The National Obesity Strategy[1] recognises that when access to physical activity opportunities is convenient, affordable, and safe, people are more likely to be active in their everyday lives. Active travel can be impacted by perceived amenity as well as safety concerns. HWQld encourages increasing connections of health precincts to accessible transport networks including public transport, walking and cycling networks, and accessible change rooms and free end-of-trip facilities. 1 National Obesity Strategy available at https://www.health.gov.au/resources/publications/national-obesity-strategy-2022-2032
11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?
Nil response.
12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?
Nil response.

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13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?
Nil response.
14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?
HWQld is leading a new Clinical Prevention agenda to take pressure off the health system, bridging the gap between health promotion and clinical healthcare. Clinical Prevention is a new term created by HWQld to describe a systems approach to integrating and embedding prevention into the health system through innovative models of care, digital integration, and education and training informed by data and evidence. Targeted **models of care** informed by data and evidence, which maximise engagement and utilisation, are needed to progress this agenda. This requires a systems approach to population strategies developed with and by communities, which acknowledges people as the experts in their own health and supports those people to stay well. If people do not engage in services offered, services will fail, generating a significant amount of waste within the current health care system as services do not reach those with greatest need. The literature reports over 30 per cent of the services provided through current healthcare models is waste. Communities need to own their own health solutions and outcomes need to be impactful. This means a more precise, data informed, and contextualised service development model is required. The health system's workforce is critical to its ability to implement change, with every contact with a health professional offering an opportunity to reinforce healthy lifestyle behaviours. Primary healthcare professionals are uniquely positioned to engage in routine, evidence-based primary and secondary prevention strategies. **Building capability and capacity** of the current and emerging workforce in prevention, with shared responsibility across the health system, is crucial to taking pressure off the health system. To take pressure off the health system — which will ultimately mitigate emissions — it is recommended that investment in preventive health is increased to be five per cent of total health expenditure across Commonwealth, state and territory governments by 2030, in accordance with the National Preventive Health Strategy.
15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?
There is significant division between healthcare sectors limited by fractured funding arrangements, lack of integrated data systems and a siloed approach to service planning. A coordinated, integrated approach to health care is needed to deliver the right care, in the right setting at the right time, and be responsive to consumer needs informed by evidence. An approach is required which bridges the jurisdictional and healthcare sector divide to healthcare planning and delivery to leverage sector strengths and reduce service duplication.
16. Where should the Strategy prioritise its emissions reduction efforts? a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas?

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b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?
Nil response.
17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?
Nil response.

Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

There are 3 types of health impacts from climate change, as identified in *Stronger Together: What can we all do to transition to greater Climate Resilience in the Torres Strait Region? Outputs, Outcomes and Follow Up Steps.* Torres Strait Climate Change Workshop, 22-23 June 2022:
• Direct health impacts (e.g. Impacts of extreme weather events like storms, heat stress).
• Indirect health impacts mediated by natural systems, such as:
  ○ Impacts on drinking water availability and quality
  ○ Impacts on air quality
  ○ Food safety and security (e.g. increased risk of food spoilage and poisoning, decline in local food resources)
  ○ Infectious Diseases.
• Indirect health impacts mediated by social systems, such as:
  ○ Social and Emotional Wellbeing impacts (e.g. stress of impacts on cultural sites or loss of country)
  ○ Housing infrastructure - poorly designed houses that exacerbate climate impacts.
 	
HWQld provides the following detailed comments on food security, a key priority for the Queensland Government, based on HWQld's ongoing work with First Nations communities in the Torres Strait Region to support food security.
 	
• Food security is a complex issue and one that affects people differently across Australia. For example, some remote communities in North Queensland are twice as likely to experience food insecurity compared with communities in Brisbane. This disparity is driven by a range of factors such as reduced economic opportunity, extreme climates and inadequate infrastructure.
• In remote Aboriginal and Torres Strait Islander communities, food insecurity is further reinforced by the on-going impacts of colonisation and other systemic challenges such as land availability, employment, digital connectivity, climate change, energy, power, water and housing security.
• Existing health disparities and the close bond with traditional lands exacerbates the impact of climate change for Aboriginal and Torres Strait Islander peoples. Food security has specifically been addressed in the First Nations Health Equity Strategies of both the Torres[1] and Cape[2] Hospital and Health Service as well as the North West Hospital and Health Service.

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- Climate change threatens productivity of local horticultural crops and availability of traditional food sources for Aboriginal and Torres Strait Islander communities due to extinctions, biodiversity loss and impacts on animal and plant distributions (AHRC 2009; Altman, Buchanan & Larsen 2010; TSRA 2018; Zavaleta-Cortijo, Ford, Arotoma-Rojas et al. 2020). For example:
    - Increased heat and coastal erosion are threatening the breeding patterns of turtles (Nursey-Bray, Palmer, Smith et al. 2019).
    - The environmental cues that were the basis of traditional seasonal calendars are changing in ways that mean Aboriginal communities cannot 'read' the landscape, requiring an adjustment to this knowledge (Nursey-Bray, Palmer, Smith et al. 2019).
    - Reduced food supply can affect health both directly (nutrition and diet) and indirectly (affordability).
- Loss of locally sourced foods could mean changes to subsistence practices and communities becoming more reliant on store foods that can be of poor quality, as well as unreliable and expensive in rural and remote areas due to transportation and storage costs.
- Extreme weather events from climate change will also risk these supply chains, driving up the price of healthy food and further compromising food affordability and accessibility in communities (Hall & Crosby 2020; Keating 2013).
- According to a 2022 Remote Community Supply Chain Report by HWQld, ARUP and Torres Cape Indigenous Council Alliance (TCICA), fresh produce travels up to eight days across 3,675 kilometres to reach remote supermarket shelves in Queensland without any supply chain disruptions. Moreover, upon reaching its destination, it is nearing its use-by date, low quality and priced 34 per cent higher than in Brisbane. In far-north Queensland, the impact of the region's weather patterns are critical to consider, with the wet season (December to May) impacting road networks with flooding and road closures; cyclones further impact already vulnerable areas, and climate change may exacerbate existing conditions.
- During the wet and cyclone season, remote stores look to hold larger inventories to prepare for the possibility of missed shipments. However, this must be balanced against the shelf life, particularly of perishable goods.
- HWQld's draft Gather + Grow Queensland Remote Food Security Strategy 2023-32[3] outlines the Queensland Government's framework to ensure all Queenslanders, particularly Aboriginal and Torres Strait Islander peoples, have access to affordable, fresh and healthy food to help reduce the risks of developing chronic health issues.
- As part of ongoing remote First Nations community consultation as part of Gather + Grow, specific climate change concerns raised include impacts on the fishing industry and biosecurity.
- Queensland has many unique cultural and bioregional food systems which, to avoid unintended consequences, necessitate sustainable place-based and community-led climate change adaptation solutions in conjunction with inter-agency governmental support linked to food security/sovereignty.
- Action to promote the availability of nutritious culturally-appropriate food for all also has public health co-benefits to prevent overweight and obesity.

1 Torres and Cape Hospital and Health Service Health Equity Strategy available at https://www.torres-cape.health.qld.gov.au/about-us/corporate-publications-and-reporting/health-equity-strategy

2 North West Health Equity Strategy available at https://os-data-2.s3-ap-southeast-2.amazonaws.com/nwhhs/bundle3/nwhhs_health_equity_strategy_final.pdf

3 Health and Wellbeing Queensland's draft Gather + Grow Queensland Remote Food Security Strategy 2023-32 available at https://hw.qld.gov.au/wp-content/uploads/2023/02/Gather-Grow-Qld-Remote-Food-Security-Strategy_Consultation-Draft.pdf

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- TSRA 2018, Torres Strait Climate Change and Health – First Pass Risk Assessment, Report prepared by BMT Global for the Environmental Management Program. TSRA, Thursday Island, Qld.
- Zavaleta-Cortijo, C., Ford, J. D., Arotoma-Rojas, I., Lwasa, S., Lancha-Rucoba, G., García, P. J., Miranda, J.J., Namanya, D.B., New, M., Wright, C.J., Berrang-Ford, L., the Indigenous Health Adaptation to Climate Change Research Team, & Harper, S.L. 2020, Climate Change and COVID-19: Reinforcing Indigenous food systems, The Lancet Planetary Health, vol. 4(9), pp. e381-e382. DOI: 10.1016/S2542-5196(20)30173-X
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- Hall, N. L. & Crosby, L. 2020, Climate Change Impacts on Health in Remote Indigenous Communities in Australia, International Journal of Environmental Health Research. DOI: 10.1080/09603123.2020.1777948
- Keating, A. 2013, Food security in Australia: The Logistics of Vulnerability, In W. Farmar-Bowers, V. Higgins & J. Millar (eds), Food Security in Australia: Challenges and Prospects for the Future, pp. 21–34. DOI: 10.1007/978-1- 4614-4484-8_2

19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes:
    a. What are the key considerations in developing a methodology?
    b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally?
    c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

Nil response.

20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?

Nil response.

21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?

Nil response.

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Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?

HWQld strongly supports a Health in All Policies (HiAP) approach and recommends amplification of this approach in the Strategy.

A HiAP approach promotes healthy public policy based on an understanding that health is not merely the product of health care services, but is influenced by a wide range of social, economic, political, cultural and environmental determinants of health. It recognises that changes must occur outside the health system to improve the health of all Australians. The HiAP approach is aligned with HWQld's Generation Queensland vision to see children born today experience better health outcomes than previous generations. HWQld also supports the inclusion of the United Nations Sustainable Development Goals (SDGs) in the Consultation Paper, noting the National Obesity Strategy is also closely aligned with the SDGs.[1] 1 Gather and Grow Queensland Remote Food Security Strategy and Action Plan available at https://hw.qld.gov.au/wp-content/uploads/2023/02/Gather-Grow-Qld-Remote-Food-Security-Action-Plan_Consultation-Draft.pdf 2 National Obesity Strategy available at https://www.health.gov.au/resources/publications/national-obesity-strategy-2022-2032
23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?
HWQld strongly supports effective collaboration across all levels of government with a cross-sectoral focus. HWQld also notes the establishment of the Australian Centre for Disease Control (ACDC) and its role in strengthening Australia's ability to forecast, monitor and respond to changing patterns of disease and ill-health driven by climate change. HWQld envisages that the role of the ACDC can also help facilitate cross-government and cross-sectoral collaboration.

Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
HWQld supports the included enablers: Workforce, leadership and training; Research; Communication and engagement; Collaboration; and Monitoring, evaluation and reporting.
25. For each of these enablers: d. What is currently working well? e. What actions should the Strategy consider to support delivery?
Nil response.

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Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

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Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☒ Academic or Researcher ☐ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

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Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
N/A
2. How could these principles be improved to better inform the objectives of the Strategy?

We confine our comments to *Principle 5: Evidence-informed policy making* and *Principle 6: Partnership-based working across all levels of government and beyond.* We agree that applying these two principles are essential for developing and delivering an effective National Health and Climate Strategy. We would like to comment further on how these principles can best inform the objectives of the strategy, particularly *Objective 3. Adaptation.*

Principle 5: Evidence-informed policy making.

"The response to climate change must be based on the best available data, evidence and research – but we must also be willing to take action on a prudent and precautionary basis in the face of uncertainty and incomplete information. Where possible, actions should be prioritised based on the principles of cost-effectiveness analysis, considering where resources can be allocated to maximise population health gains, while also taking account of health inequities and rights-based approaches."

Climate science provides vital information which can be used to protect the health and wellbeing of Australians from the effects of climate change as well as contributing to planning and prioritising actions. The ARC Centre of Excellence for Climate Extremes (the Centre) can assist with providing and interpreting climate science information to inform the National Health and Climate Strategy.

The Centre is Australia's leading university climate science centre, which brings together over 100 scientists across five Australian universities. The Centre's work improves the national capacity to understand the processes underlying climate extremes and how these may change and affect us into the future.

We study extreme events such as droughts, heavy rainfall, heatwaves, storms and fire weather and hold valuable perspectives informed by the most recent research in climate science. We recognise the growing risks to all Australians and offer our expertise and support.

The complex and changing nature of the climate system can be hard to navigate. With the growing use of climate data to inform the adaptation and mitigation process, the Centre advises that the use and interpretation of climate information should be performed cautiously and undertaken with expert help, to ensure that knowledge is transferred effectively and misinterpretations are avoided.

Here, we demonstrate the requirement for expert opinion for '*action on a prudent and precautionary basis in the face of uncertainty and incomplete information'.*

1. **Climate scientists can provide *'the best available data, evidence and research'* on climate change.**
   Climate risk is complex and can result from multiple physical processes acting together, making each event unique. Consulting with climate scientists to understand specific climate

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risks to health will ensure that the various drivers of climate risk are considered. For example, the 2022 east Australian flooding events resulted from multiple factors including:

1. a combination of meteorological phenomena which brought persistent, heavy rain,
2. sodden catchments that were primed for flooding due to preceding months of heavy rainfall and
3. the interaction of climate drivers including La Niña, the Indian Ocean Dipole and the Southern Annular Mode which promoted wetter weather [1].

Understanding the future risk of high impact events requires understanding how each of these elements will change as well as their interactions. Research into the climate has provided a robust basis for action so far, however further research is needed to improve climate information and reduce uncertainties. As the climate responds to increased warming, it is causing greater impacts than anticipated, and these impacts are emerging at lower amounts of warming than expected [2]. There is still much to be understood amid a continuously changing environment. Research at the Centre is furthering our understanding of the mechanisms causing weather extremes and how these will change in a warming world.

For example, our research on compounding climate hazards, known as compound events, is of particular relevance for understanding climate risk to health [3,4]. This research investigates how multiple elements of weather and climate come together to produce high impact events on socioeconomic or ecological systems. There are several ways compound events arise: they can involve multiple hazards occurring at the same time, a succession of hazards, hazards in multiple connected locations, or simply a more severe event as the result of preconditioning. For example, during the Black Summer Bushfires of 2019-20, numerous bushfires occurred in many different regions within the same emergency services jurisdiction. In addition to nationwide losses exceeding 10 billion dollars [5] there were wide ranging health impacts including eye and throat irritation, headaches, anxiety, respiratory issues, and cardiovascular problems [6].

The impacts of climate change are expected to lead to an increase in prolonged hot and dry compound events across Australia which is likely to exacerbate fire risk. The most intense rainfall extremes are also expected to increase substantially. All of these climate extremes have negative impacts on human health.

2. Taking *'action in the face of uncertainty and incomplete information'.*

Uncertainties are an inherent component of climate risk and must be considered and navigated when using climate data to inform adaptation. Uncertainties arise from natural variability in the climate system and knowledge gaps in our understanding or from limitations in model projections of our future climate. There is considerable uncertainty when quantifying the risk of future climate extremes. For example: it is difficult to robustly predict the magnitude of specific temperature increases in an exact urban location despite knowing, on average, temperatures will increase.

We strongly recommend using multiple lines of evidence to inform adaptation strategies. This may involve beginning with examining historical observations and past trends in extreme events. Climate models can be used to explore future emission scenarios and how these may impact the frequency and intensity of extreme events and the related health impacts. This process has utility when applied on a case-by-case basis, examining each location and their specific climate risks and vulnerabilities. It is important that throughout this process there is transparency around the data used and methodology, as well as how uncertainties are communicated. Information should be communicated in a meaningful way. For example,

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describing hazard exposure through ranges such as: severity, likelihood, duration, frequency, and confidence.

3. Applying '*a prudent and precautionary*' approach.

There is considerable open-source climate data publicly available for use, purportedly providing meaningful information. However, there is a risk that the numerical precision and certainty around some of the information can provide decision makers with false confidence especially when applied to future climate risk. The misuse of climate information can be detrimental, resulting in investment in maladaptive strategies and failing to implement actions that facilitate better health outcomes for Australians. The Centre advises that expert opinion is used when interpreting climate science and navigating climate information.

Principle 6: Partnership-based working across all levels of government and beyond

"All levels of government need to work closely with each other, as well as with communities, patients, First Nations, not-for-profit organisations, peak bodies, private industry and education and research institutions to craft and implement a holistic and nationally consistent response to climate change."

The Centre agrees on the importance of *'Principle 6. Partnership-based working across all levels of government and beyond'*. The complexities and interconnectedness of climate and public health means adaptation requires cross-disciplinary collaboration. The Centre can provide information on climate extremes, but how these extremes translate into health impacts depends on a range of factors. We recommend that the National Health and Climate Strategy brings together climate scientists with other experts in areas such as health professionals, policy, economics, first nations communities and disaster responders to establish an on-going dialogue across a wide stakeholder base which includes climate scientists. This will ensure that diverse perspectives and knowledge are captured to inform activities under the National Health and Climate Strategy.

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3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?
N/A
4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?
N/A
5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?
N/A

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Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?
N/A
7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?
N/A

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Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?
N/A
9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?
N/A
10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?
N/A
11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?
N/A
12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?
N/A
13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?
N/A
14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?
N/A
15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?
N/A
16. Where should the Strategy prioritise its emissions reduction efforts? a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas? b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?

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N/A
17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?
N/A

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Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

Q18i. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy?

Incorporating the latest scientific understanding of different risks of extremes provides critical insights into prioritising adaptation efforts in the National Health and Climate Strategy. By leveraging this knowledge, we can:

- allocate resources effectively,
- develop targeted interventions and,
- safeguard public health in the face of climate-related challenges.

Below is a selection of research from the Centre that demonstrates our work on key climate risks which impact health.

Heatwaves:
Heatwaves are prolonged periods of extreme temperature which can impact a wide range of sectors including public health. Heatwaves in Australia are becoming more frequent and lasting longer as shown by the Centre's researchers [1]. Heatwaves will continue to increase with climate change and may be 85% more frequent in Australia with global warming of 1.5-2°C [2]. Global warming also makes higher heat extremes possible. Importantly, local scale temperature extremes can increase at a significantly higher rate than the global average temperature increase rate [3].

High temperatures during heatwaves can lead to heat-related illnesses such as heat exhaustion and heatstroke, particularly affecting vulnerable groups including the elderly, children, indigenous populations and individuals with pre-existing health conditions. Moreover, heatwaves can exacerbate respiratory and cardiovascular diseases, trigger dehydration, and increase the risk of heat-related fatalities [4]. In addition to high temperatures, the combination of heat and humidity during heatwaves can further intensify the health risks. High humidity reduces the body's ability to cool itself through perspiration, leading to increased heat stress and discomfort. Research on heat stress and hospital admissions emphasises the need to choose suitable heat stress indices for modelling purposes [5].

Research led by our Centre has shown that high heat stress in urban areas pose a serious threat to human health [6]. Centre research has investigated the impact of urban land cover on thermal comfort, finding that increased grass and tree cover can reduce temperatures by 5°C [7]. Currently there is Centre research assessing the risk of heat stress as a function of socio-economic status and population density in Australia. This will provide insight into the vulnerability of different socio-economic groups and densely populated areas to heat stress in Australia. It is important to note that there is a probability that unknown health impacts may emerge due to increased temperatures. For example, Candida auris is a novel fungal disease which has emerged on three different continents, and generally affects immunosuppressed individuals. It may be the first example of a new fungal disease emerging where amongst other factors, climate change has contributed. [8].

Fire weather:

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Fire is a natural part of the Australian climate which can cause injuries, loss of life and other health impacts. Exposure to hazardous pollutants and smoke particles during fire weather can cause respiratory problems, exacerbate existing respiratory conditions, and increase the risk of cardiovascular issues. Moreover, the smoke generated from fires can result in poor air quality, leading to respiratory irritation, eye irritation, and other health concerns for individuals, particularly those with pre-existing respiratory ailments. These impacts from bushfires are expected to increase with climate change (IPCC synthesis report) [9].

In Australia, extreme fire weather days have become more frequent, and the fire season has lengthened since 1950 in various locations. Projections indicate that fire weather events in Australia will continue to increase in intensity, frequency and duration [10]. Several significant fires in southern-eastern Australia, such as those in the Black Saturday bushfires [11,12], the 2003 Canberra bushfires [13], and the 1983 Ash Wednesday bushfires have occurred in recent times resulting in mortalities or increased health burdens [14, 15].

The events have coincided or worsened with the occurrence of strong cold fronts [16,17] passing through the region [18]. Cold fronts, which are associated with low pressure systems, bring significant changes in weather conditions as they move across southern Australia. Before a cold front arrives, hot and dry air from the northern interior is transported over the region due to the movement of air around the low-pressure system. These conditions create favourable environments for the ignition and spread of fires as shown by our centre's research [19]. The winds following the frontal passage predominantly come from the west, pushing the fire-front eastward and putting towns and communities that were previously not in danger at risk.

It is crucial to be aware of the changes in weather conditions and take necessary precautions to ensure safety [12,19]. Adaptation planning and disaster preparedness, in association with health responses, should align to ensure effective response to prevailing weather conditions and potential disasters.

Heavy rainfall and storms:
Heavy rainfall and storms can lead to flooding, which poses immediate risks to human life and safety [20] as well as damage to infrastructure. Documented health effects [Z] from flooding commonly include stress, anxiety and depression, as well as other conditions including dermatitis, increased asthma, arthritis, chest infections and the spread of waterborne diseases.

The east coast floods in 2022 were the costliest in Australia's history totalling $5.45 billion in insured losses across Queensland and New South Wales [21]. Events like the east coast floods have lasting health effects with disadvantaged populations being particularly vulnerable. Notably, in the 2017 Lismore flood, more than 80% of the residents lived in the lowest socio-economic neighbourhoods [22]. Lismore, additionally, has a history of flooding, highlighting how compounding impacts of multiple disasters require on-going health services support. A compound event is caused by multiple hazards or drivers. In this case, a combination of meteorological phenomena caused persistent, heavy rain to fall on catchments that were already sodden and primed for flooding due to a second consecutive La Niña event. Persistent, stalled weather systems resulted in multiple flooding events exacerbating an already flooded area [23].

Rainfall trends vary across different parts of the country as shown by research undertaken by the centre [24, 25, 26, 27]. As the planet warms, the atmosphere's capacity to hold moisture is expected to increase globally. High intensity rainfall events are likely to increase with climate change, impacting the risk of flash flooding [28] however, rainfall is also expected to become more variable, with more frequent swings from extreme droughts to flooding rains [29].

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Any level of prediction of future rainfall extremes will be crucial in order to minimise the impacts. However, accurately predicting these extremes over longer timescales can be challenging. For instance, even in the case of the Lismore floods, we were unable to anticipate that the weather system would stall and result in significantly more rainfall than initially anticipated.

Emerging research provides insight into future changes in regional weather systems providing an opportunity for adaptation planning and preparation. In eastern Australia, low-pressure systems extending deep into the atmosphere are projected to occur less frequently but produce more extreme rainfall [30]. In Sydney, short, intense rainfall events have risen by 40% in the last two decades, leading to a higher risk of flash flooding and infrastructure damage [24]. In the north, tropical cyclones are anticipated to occur less often but contribute more strongly to extreme rainfall when they do occur [31]. The significance of location in policy matters is evident, as there is no universally applicable approach. Different regions within a country will exhibit distinct responses, emphasising the need for the National Health and Climate Strategy to account for local variations and circumstances.

18 ii. What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

The Centre recommends using the hazard/exposure/vulnerability framework proposed by the Intergovernmental Panel on Climate Change (IPCC) [32]. This framework offers a valuable tool for prioritising health impacts and adaptation action. It encompasses three key components:

1. Hazard: identifying and assessing climate-related hazards such as extreme heat, flooding, or infectious diseases allows for a comprehensive understanding of potential health risks.
2. Exposure: evaluating the exposure of populations to these hazards, considering factors like geographical location, population density, and demographic characteristics, helps identify the most vulnerable groups.
3. Vulnerability: assessing vulnerability by considering socio-economic conditions, healthcare access, and adaptive capacity provides insights into the resilience and adaptive needs of different communities.

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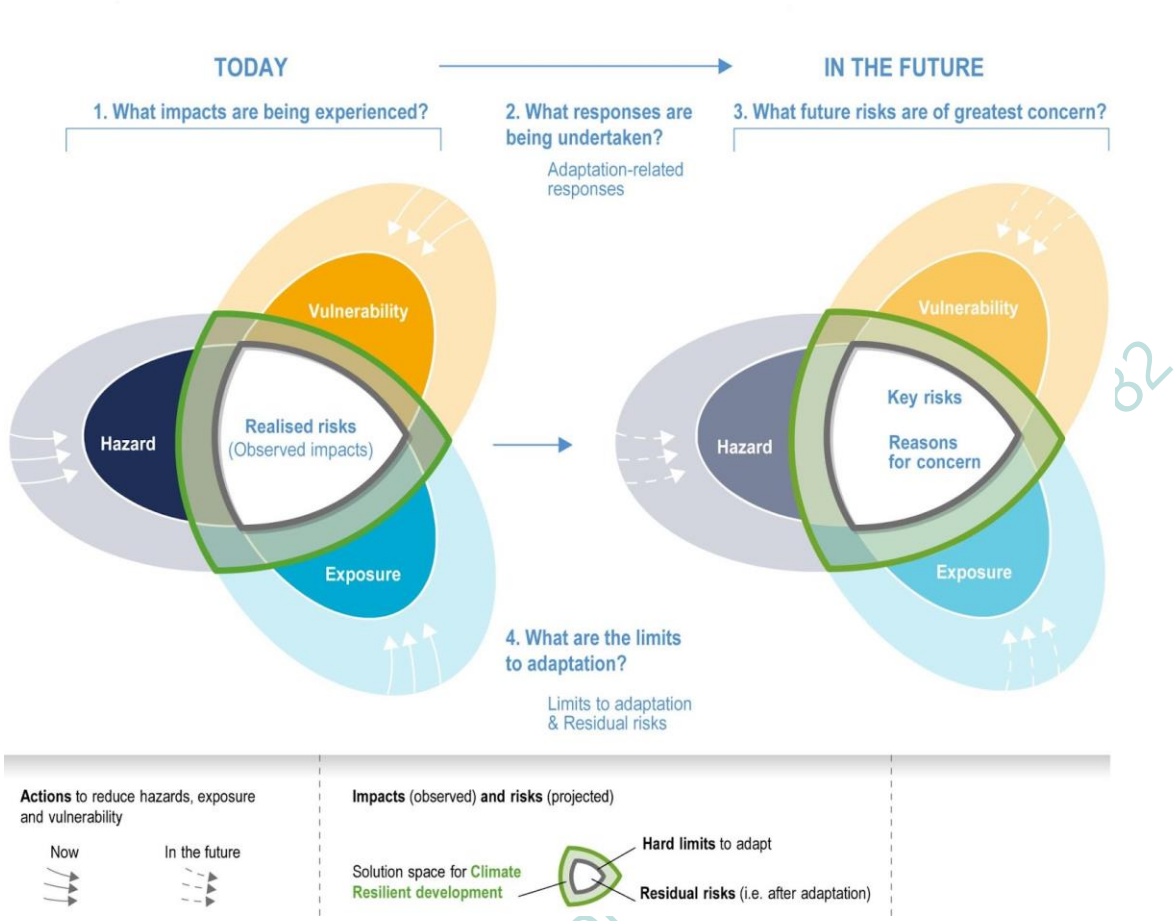


Figure 1: Hazard/exposure/vulnerability framework. This framework demonstrates how efforts to reduce hazard, exposure and vulnerability, determine how risks are experienced. Source: IPCC, https://www.ipcc.ch/report/ar6/wg2/figures/chapter-16/figure-16-001

The Centre's research primarily focuses on the hazard aspect of this framework. Our research can provide insights into the severity of a climate hazard and how it can be exacerbated due to climate change. This information enables decision-makers to target resources and interventions towards areas and communities that are most at risk of a particular climate hazard. The IPCC framework facilitates an interdisciplinary approach, integrating climate projections, health data, and socio-economic indicators, providing a holistic understanding of the health risks associated with climate change.

For example, if the assessment reveals high vulnerability and significant exposure to heatwaves in urban areas with limited access to healthcare facilities, the strategy can prioritise interventions such as improving heatwave early warning systems, implementing heat-resilient infrastructure, and enhancing healthcare services in those regions. This hazard/exposure/vulnerability framework provides a method to effectively incorporate all 6 principles of the National Health and Climate Strategy to deliver the objectives, specifically, *Objective 3. Adaptation.*

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19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes: a. What are the key considerations in developing a methodology? b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally? c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?
N/A

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20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?
N/A
21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?
N/A

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Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?
N/A
23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?
N/A

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Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
N/A
25. For each of these enablers: a. What is currently working well? b. What actions should the Strategy consider to support delivery?

The Centre will comment on:

- Enabler 2: Research
- Enabler 4: Collaboration

Enabler 2: Research

a) What is currently working well?

The development of the National Health and Climate Strategy is an instrumental first step in establishing links with health stakeholders and initiating further research. We support the government's fulfilment of their pre-election commitment [1] to setup a National Health and Climate Strategy and Minister Bowen's recognition of the effects of climate change alongside dementia, diabetes, cancer and other common threats, to wellbeing [2]. We agree that '*E2.1. A scan of current research activities pertaining to climate change and health'* is beneficial for the National Health and Climate Strategy to provide a starting point to understand current knowledge and gaps in our understanding.

Supporting Australia's research capacity is critical to understanding how the climate will affect the health sector and Australia's climate resilience. As outlined in the response to Question 2, an interdisciplinary approach is important to ensure that research efforts and findings are directly linked to health outcomes.

b) What actions should the Strategy consider to support delivery?

Additional actions to improve *'Enabler 2: Research'* include:

1. **Increasing funding for health-related impacts due to climate change**
   Investment in climate science research is lacking. This limits Australia's research capacity in fundamental climate science as well as follow on investigations into health-related impact research. Climate researchers are working hard to get better information through various avenues e.g., increased process understanding, climate model development and provision of robust information at the local scale. The Centre recommends increased funding for fundamental climate science focused on the connection between the impacts of climate change and health outcomes.

2. **Developing a national strategy for health and climate science research**
   We advocate for a national health and climate impacts research strategy that brings together existing capabilities across climate science and health and creates a common vision for the key research investigations that will underpin and inform the National Health and Climate Strategy. Greater co-design and knowledge of the requirements of the health sector would help frame applicable research topics. This can provide an evidence-base to inform actions under the National Health and Climate Strategy**.** This strategy

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would be informed by the findings of *'E2.1. A scan of current research activities pertaining to climate change and health'*. The national strategy would facilitate further scientific ambition, fund fundamental research and coordinate national research efforts.

Enabler 4: Collaboration

a) What is currently working well?

It is positive to see the Department of Health and Aged Care spearheading the development of the National Health and Climate Strategy. We urge the department to maintain this momentum and increase collaboration and an on-going dialogue between the federal government and health stakeholders.

An environment is emerging where the government is progressively more open to closer ties with academia. We have found, in our dealings with the government, that they are responsive and keen to provide leadership, as evidenced by recent interactions with the department. Public servants were keen to hear about our research and how we could help inform their policy development.

b) What actions should the Strategy consider to support delivery?

1. **Recognising the value that climate scientists add to the National Health and Climate Strategy**

   Climate scientists can provide access to the latest research and guidance around best practice use of climate data. There is significant room for error when incorporating climate science data into the actions**.** For example, when considering the risk of flooding for a community, it is vital that appropriate metrics such as rainfall data and climate projections are chosen, otherwise an analysis is unlikely to provide useful insights for action.

2. **Increasing opportunities for collaboration between health experts and climate scientists**
   Collaboration opportunities can assist with understanding complex information as well as utilising expertise when to bridge this gap between climate science and health adaptation. The Centre suggests increasing collaborative opportunities to assist with Australia's climate resilience task.

3. **Invest in climate science communicators**
   There is a need for climate science communicators to broker knowledge to health experts. Knowledge Brokers from our Centre, who work to foster greater ties between climate science research and end users, are instrumental in engaging with government, industry and the public. We suggest that the department actively engage with knowledge brokers to facilitate relationships and maintain closer links across stakeholder groups.

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Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

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Australian Government
Department of Health and Aged Care

NATIONAL HEALTH AND CLIMATE STRATEGY

Detailed submission form

This form allows you to provide responses to the full set of questions in the Consultation Paper available here.

Alternatively, you may wish to complete the briefer online survey available here.

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

Respondent details

What is your name?
[redacted]
What is your email address?
[redacted]
What is your organisation?
Community industry Group
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
[redacted]
Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☐ Academic or Researcher ☐ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☒ Medical College or Peak professional body

Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
Implement ambitious and targeted measures to swiftly reduce greenhouse gas emissions from the health system. This involves adopting renewable energy sources, improving energy efficiency, and promoting sustainable practices in healthcare facilities and operations. Enhance the resilience of the health system and communities to effectively anticipate and respond to the health impacts of climate change. This includes integrating climate considerations into health infrastructure planning, emergency preparedness, and service delivery to ensure adaptive responses. Foster collaboration and coordination across sectors such as public health, environment, and social welfare to maximise the synergies between climate and public health policies. By addressing social and cultural determinants of health, the adverse impacts of climate change on vulnerable populations can be mitigated. Promote research and knowledge-sharing to better understand the intersection of climate change and health, identify emerging risks and develop and implement evidence-based strategies. This supports informed decision-making and targeted interventions. Enhance public awareness and engagement through effective communication and educational campaigns, to empower individuals and communities to take sustainable actions. This includes promoting behaviour change, sustainable transportation, and eco-friendly practices. Engage in international partnerships and agreements to address global climate change challenges, share knowledge, and leverage best practices. Active participation in international efforts enable Australia to have a broader impact and access valuable resources and expertise.
2. How could these principles be improved to better inform the objectives of the Strategy?
Elevate the principle of First Nations leadership to empower First Nations communities and recognise the importance of their active involvement in decision-making processes regarding climate and health policy. This includes providing resources, support, and capacity-building opportunities to ensure their knowledge and experiences are valued and integrated into decision-making at all levels. Expand the principle of tackling health inequities to explicitly address social justice. Acknowledge that marginalised communities and vulnerable populations are disproportionately affected by climate change and commit to addressing systemic inequities through targeted interventions. Promote equitable access to resources, services, and opportunities, considering the social determinants of health and addressing underlying structural factors contributing to health disparities. Emphasise proactive prevention measures to mitigate the health impacts of climate change. Prioritise primary, secondary, and tertiary prevention strategies across the lifespan to reduce

disease burden and enhance mitigation and adaptation efforts. Incorporate health promotion, education, and behaviour change initiatives to foster a culture of prevention.

Strengthen the principle of One Health by recognising the interconnectedness of human health, animal health, and ecosystem health. Promote collaboration among the health, environment, agriculture, and veterinary sectors to comprehensively address climate change impacts. Safeguard biodiversity, ecosystem services, and promote sustainable land and resource management practices.

Enhance evidence-informed policymaking by emphasising the importance of robust scientific evidence while embracing the precautionary principle. Acknowledge the need for proactive measures based on available evidence in the face of uncertainty. Prioritise research, monitoring, and data collection to improve understanding and decision-making regarding climate change and health.

Broaden partnership-based working to encourage inclusive and diverse multi-stakeholder collaboration. Foster meaningful engagement and active participation from government agencies, communities, patients, healthcare providers, research institutions, industry, non-profit organisations, and educational bodies. Facilitate knowledge exchange, co-design of interventions, and coordinated implementation of the Strategy across all levels of government and society.

3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?

The National Health and Climate Strategy should encompass all categories of greenhouse gas emissions discussed in the paper to effectively reduce emissions. This includes addressing direct (Scope 1) and indirect (Scope 2 and Scope 3) emissions that occur within and outside the health system's boundaries. By addressing all sources of emissions, the Strategy can contribute comprehensively to national emission reduction targets and align with the commitment to achieve net-zero emissions by 2050.

Scope 1 Emissions: These emissions directly result from the activities of the health system and occur within its organisational boundaries. Examples include emissions from anaesthetic gases, diesel generators, pressurised metered dose inhalers used by patients, and fuel use in healthcare vehicles such as ambulances and patient transport. The Strategy should include measures to mitigate and reduce these direct emissions through improved energy efficiency, adoption of cleaner technologies, and sustainable practices within healthcare facilities.

Scope 2 Emissions: These are energy-related indirect emissions that occur outside the health system's organisational boundaries but result from the generation of electricity consumed by the system. This includes emissions from burning fossil fuels (such as coal and natural gas) at power stations to produce the electricity used in hospitals and other healthcare facilities. The Strategy should address scope 2 emissions by promoting the use of renewable energy sources, energy conservation, and energy efficiency measures within the health system.

Scope 3 Emissions: These are other indirect emissions that occur outside the boundaries of the health system but are influenced by its actions. This includes upstream emissions related to the manufacture of medical equipment used in hospitals and emissions from staff commuting to work. Downstream emissions, such as those from waste incineration, should also be considered. The Strategy should explore opportunities to reduce scope 3 emissions through sustainable procurement practices, promoting low-carbon alternatives, and waste management strategies.

Furthermore, the Strategy should account for emissions associated with patient and visitor transport, which may fall outside the traditional definition of scope 1, 2, and 3 emissions. These emissions should be addressed through initiatives that promote sustainable transportation options, public transit, active transportation, and telehealth services to minimise the carbon footprint of healthcare-related travel.

4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?

To address climate change and safeguard the country, culture, and wellbeing of First Nations people and country, the National Health and Climate Strategy should align with and draw upon existing First Nations policies, initiatives, expertise, knowledge, and practices. This alignment ensures a culturally responsive and inclusive approach that respects and protects First Nations country, culture, and wellbeing in the face of climate change.

Recognise and respect the invaluable First Nations knowledge passed down through generations. Incorporate traditional practices, land management techniques, and sustainable resource use embedded in First Nations cultures to enhance climate change adaptation and mitigation efforts.

Align the Strategy with the principles and objectives outlined in the United Nations Declaration on the Rights of Indigenous Peoples UNDRIP (United Nations Declaration on the Rights of Indigenous Peoples | Division for Inclusive Social Development (DISD), which acknowledges the rights of Indigenous peoples to their lands, territories, resources, and self-determination. Implementing the Strategy in accordance with UNDRIP ensures a rights-based approach and meaningful engagement with First Nations communities.

Collaborate and partner with Indigenous-led climate change initiatives and organisations that have been working on addressing climate change impacts on Indigenous lands and communities. Foster knowledge exchange, support capacity-building, and amplify Indigenous voices and perspectives.

Incorporate and support traditional fire and land management practices, such as cultural burning, (Cultural burning practices in Australia - Background Paper.pdf (royalcommission.gov.au), which have proven effective in restoring and maintaining healthy ecosystems. Work with First Nations communities to revive and promote culturally appropriate land management techniques.

Align the Strategy with existing Indigenous health and wellbeing frameworks, such as the Aboriginal and Torres Strait Islander Health Plan (National Aboriginal and Torres Strait Islander Health Plan 2021–2031 | Australian Government Department of Health and Aged Care) and regional/community-specific frameworks. Emphasise holistic approaches, cultural safety, community engagement, and self-determination in addressing health and wellbeing disparities.

Adopt a collaborative and partnership-based approach with First Nations communities, engaging them as equal partners in co-designing and implementing climate change initiatives. Support Indigenous governance structures, build respectful relationships, and ensure decision-making power and control reside with Indigenous peoples.

Recognise and uphold the significance of land rights for First Nations peoples (Land Rights and Native Title | Common Ground). Support land rights and empower First Nations in land management decisions to preserve cultural practices, protect biodiversity, and mitigate climate change impacts.

Value and prioritise cultural resilience and community-led solutions in addressing climate change. Support community-led projects, knowledge exchange, and capacity-building to empower First Nations communities in developing and implementing climate change adaptation and mitigation strategies rooted in their unique cultural contexts.

5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?

Governance structures should be approached with a commitment to cultural safety, respect for Indigenous protocols, and a genuine willingness to listen, learn, and act upon the insights shared by First Nations people. The governance structures should be flexible, inclusive, and adaptable to the diverse needs and aspirations of different First Nations communities across Australia. To facilitate co-design of the Strategy with First Nations people and ensure their voices, decision-making, and leadership are embedded, the following types of governance forums could be utilised.

Establish a dedicated First Nations Advisory Committee comprising representatives from diverse First Nations communities, organisations, and knowledge holders. This committee should have a formal role in shaping the Strategy, providing advice, and ensuring First Nations perspectives are integrated into decision-making processes.

Convene a national forum that brings together First Nations leaders, health experts, community representatives, and relevant stakeholders. This forum should provide a platform for sharing experiences, knowledge, and best practices related to Indigenous health and climate change, as well as an opportunity for direct input into the development and implementation of the Strategy.

Conduct regional and local consultation workshops that engage First Nations communities directly in the co-design process. These workshops should facilitate meaningful discussions, enable community members to share their experiences, insights, and priorities, and ensure their perspectives are reflected in the Strategy's development.

Organise cultural healing circles and storytelling sessions, guided by Indigenous protocols, to create a safe and culturally appropriate space for dialogue. These circles and sessions can foster trust, encourage open sharing of knowledge and experiences, and provide opportunities for First Nations peoples to express their aspirations and concerns regarding climate change and health.

Collaborate with existing Indigenous governance bodies at national, regional, and local levels. This can include partnerships with Indigenous Health Leadership Councils, Land Councils, and other representative bodies. By working closely with these entities, the Strategy can ensure that Indigenous governance structures are respected, and decision-making processes are guided by Indigenous principles and protocols.

Prioritise the engagement of Indigenous youth and Elders in the co-design process. Create specific platforms and forums that enable intergenerational knowledge exchange, value the perspectives of Elders, and empower young Indigenous leaders to actively contribute to the development and implementation of the Strategy.

Support Indigenous-led workshops and knowledge sharing sessions that focus on climate change, health impacts, and traditional practices. These sessions should provide opportunities for sharing traditional ecological knowledge, cultural practices, and community-led solutions, ensuring that Indigenous voices and expertise guide the Strategy's development.

Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?

7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?
Comprehensive data on greenhouse gas emissions across all social welfare facilities (e.g., Housing & Homelessness Supported Accommodation settings and Disability group home settings), and not exclusively the health and aged care sector is crucial. This includes scope 1, 2, and 3 emissions data, covering energy consumption, water usage, waste generation, and transportation emissions. An accurate and up-to-date emissions inventory is essential for identifying emission hotspots and prioritising reduction efforts effectively. Establishment of baseline data for emissions is vital to measure progress and evaluate the effectiveness of emissions reduction initiatives. This involves collecting historical emissions data, energy consumption patterns, waste generation rates, and other relevant metrics. Baseline data provides a reference point for comparison and enables the setting of realistic reduction targets. Detailed information on energy consumption within healthcare facilities is necessary for identifying opportunities for energy efficiency improvements. This entails capturing data on electricity, natural gas, and other energy sources utilised in different areas of health and aged care settings. Energy consumption data can help pinpoint areas with high energy usage and prioritise energy-saving measures. Data on water consumption within all social welfare facilities is important for identifying water conservation opportunities. Tracking water usage patterns, identifying water-intensive processes, and understanding peak consumption periods can inform the development of targeted strategies for water conservation and efficiency. Data on waste generation rates and waste composition within healthcare facilities are vital for developing effective waste management strategies. Detailed information on the types and quantities of waste generated, including hazardous and non-hazardous waste, can guide efforts to reduce waste generation, promote recycling, and implement proper disposal practices. Comprehensive data on the supply chain, including information on suppliers, manufacturers, and transportation methods, is essential for assessing the environmental impact of products and materials used in health and aged care settings. This data can help identify opportunities for sustainable procurement, assess the carbon footprint of products, and collaborate with suppliers to reduce emissions along the supply chain. Data on patient and staff transportation patterns, including commuting and patient transport, is crucial for understanding the carbon footprint associated with travel. This data can inform efforts to promote sustainable transportation options, develop alternative transportation strategies, and measure the impact of transportation-related emissions reduction initiatives.

Access to data on emerging research, innovations, and best practices in sustainable healthcare is valuable for informing targeted emissions reduction efforts. Information on technological advancements, sustainable materials, energy-efficient equipment, and successful case studies can support evidence-based decision-making and guide the implementation of sustainable practices.

By collecting this additional data and information, social welfare facilities can gain a comprehensive understanding of their emissions profile, identify priority areas for reductions, and implement targeted initiatives to achieve significant emissions reductions.

Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?

The proposed areas of focus for emissions reduction in the Australian health system are comprehensive and encompass key sources of greenhouse gas emissions. They cover a wide range of sectors, including the built environment, travel and transport, supply chain, medicines and gases, waste, and prevention and optimising models of care. This holistic approach recognises the significant contribution of these areas to emissions and presents opportunities for implementing sustainable practices and improvements.

Addressing emissions in the built environment and facilities, including energy and water consumption, is crucial for enhancing energy efficiency, adopting renewable energy sources, and implementing sustainable water management practices. These actions align with existing policies that promote sustainable infrastructure and resource management in healthcare settings.

Efforts to tackle emissions from travel and transport, which encompass both patient and staff transportation, are essential. Promoting alternative transportation modes such as public transit, cycling, and telehealth services can significantly reduce the carbon emissions associated with healthcare-related travel. This aligns with existing initiatives that aim to reduce reliance on private vehicles and promote sustainable transportation options.

The supply chain is another critical focus area, considering emissions generated during the manufacturing, packaging, and transportation of medical supplies and equipment. Implementing sustainable procurement practices, prioritising suppliers with lower carbon footprints, and exploring local sourcing options can contribute to emissions reduction and align with existing policies promoting responsible resource management.

Actions relating to medicines and gases should include promoting sustainable practices in pharmaceutical manufacturing, optimising prescribing practices, and exploring alternatives with lower carbon footprints. This approach aligns with existing initiatives promoting responsible medication use and waste reduction in healthcare.

Waste management is a significant aspect of emissions reduction, with emissions potentially associated with waste incineration. Implementing sustainable waste management practices such as recycling, composting, and waste reduction measures can contribute to emissions reduction in the health system.

Prioritising prevention and optimising models of care can also have a substantial impact on emissions reduction. Emphasising preventive measures, health promotion, and effective disease

management can potentially reduce the need for resource-intensive interventions, leading to overall sustainability improvements in the health system.

While the proposed focus areas are comprehensive, it is important to consider the carbon footprint associated with food and catering services within healthcare facilities. Strategies promoting sustainable food choices, local sourcing, and waste reduction in food services can further enhance emissions reduction efforts in the health system.

In addition, attention should be given to the lifecycle assessment of healthcare infrastructure and equipment. Integrating sustainability considerations into the planning, construction, and disposal stages of healthcare facilities and equipment can further enhance emissions reduction efforts and contribute to a more sustainable and climate-resilient healthcare sector.

9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?

Implement energy efficiency upgrades in healthcare facilities, such as retrofitting buildings with energy-efficient lighting systems, optimising heating, ventilation, and air conditioning systems, and installing energy management controls. These measures can result in significant energy savings and emissions reduction.

Increase the integration of renewable energy sources, such as solar panels or wind turbines, into healthcare facility operations. This can involve conducting feasibility studies, securing financing mechanisms, and establishing partnerships with renewable energy providers to transition towards cleaner energy sources.

Implement sustainable water management practices within healthcare facilities. This includes installing water-efficient fixtures, such as low-flow faucets and toilets, adopting rainwater harvesting systems for non-potable water needs, and implementing water recycling and reuse systems where feasible.

Adopt smart building technologies and energy management systems that optimise energy consumption and track energy performance in real-time. These technologies can automate lighting, and other energy-intensive systems to reduce waste and improve overall energy efficiency.

Incorporate sustainable design principles into new healthcare facility construction or retrofitting projects. This includes passive design strategies, optimising insulation, maximising natural lighting, and utilising energy-efficient materials to minimise energy demands and emissions.

Establish mechanisms for monitoring and reporting energy consumption and greenhouse gas emissions from healthcare facilities. Regularly track and analyse energy data to identify areas of improvement, set targets for emissions reduction, and assess the effectiveness of energy efficiency initiatives.

Develop and implement behavioural change programs to engage staff and patients in energy conservation efforts. This can involve raising awareness, providing training on energy-efficient practices, and encouraging sustainable behaviours through incentives and recognition programs.

Conduct energy audits and retro commissioning of healthcare facilities to identify energy-saving opportunities and optimise existing systems. This process involves assessing equipment

performance, identifying inefficiencies, and implementing corrective measures to improve energy efficiency.

Green building certifications, such as LEED (Leadership in Energy and Environmental Design) (Leadership in Energy and Environmental Design (LEED) | Certified Energy) or Green Star (Green Star Rating System | Green Building Council of Australia (gbca.org.au)), for healthcare facility design and operations. These certifications provide frameworks and guidelines for sustainable building practices, helping to reduce energy consumption and emissions.

10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?

Promote and incentivise sustainable transportation options for staff, patients, and visitors. This can involve providing facilities for bicycle storage and encouraging cycling, supporting public transit use through discounted passes or shuttle services, and facilitating carpooling or ridesharing programs.

Expand the availability and utilisation of telehealth services to reduce the need for in-person visits and associated travel emissions. This includes investing in telehealth infrastructure, providing training and support to healthcare professionals, and raising awareness among patients about the benefits and availability of telehealth services.

Install electric vehicle (EV) charging infrastructure at healthcare facilities to encourage the adoption of electric vehicles by staff and patients. Collaborate with local authorities, EV charging service providers, and government initiatives to establish charging stations and facilitate the transition to cleaner transportation options.

Transition healthcare facility fleets, including ambulances and other patient transport vehicles, to electric or hybrid vehicles. Develop a strategy for fleet electrification, considering vehicle range requirements, charging infrastructure, and financial feasibility. Explore partnerships with vehicle manufacturers, government programs, or leasing options to support the transition.

Implement travel management policies that prioritise the use of low-emission transportation options. This includes establishing guidelines for staff travel, promoting the use of videoconferencing and online meetings as alternatives to travel, and considering emissions criteria when selecting transportation modes for patient transfers or referrals.

Develop initiatives to encourage sustainable commuting practices among healthcare staff. This can include providing incentives for using public transit or active transportation, facilitating flexible work arrangements or remote work options, and promoting carpooling or ridesharing programs among staff members.

Conduct education and awareness campaigns to promote sustainable travel choices among staff, patients, and visitors. Raise awareness about the environmental impacts of transportation emissions and provide information on sustainable transportation options available in the local area.

Collaborate with local transportation authorities, government agencies, and community organisations to enhance sustainable transportation options and infrastructure in the surrounding areas. Advocate for improved public transit services, cycling infrastructure, and pedestrian-friendly environments to facilitate sustainable travel.

11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?

Develop and implement sustainable procurement practices that prioritise environmentally friendly and low-carbon products. This can involve establishing criteria for selecting suppliers based on their environmental performance, supporting suppliers with sustainable practices, and integrating environmental considerations into procurement policies and processes.

Engage with suppliers to promote emissions reduction and sustainability initiatives throughout the supply chain. Collaborate with suppliers to identify opportunities for reducing emissions, improving packaging practices, and optimising transportation coordination. Encourage suppliers to adopt sustainable manufacturing processes and reduce the carbon footprint of their products.

Explore opportunities for local sourcing of medical supplies and equipment to reduce emissions associated with long-distance transportation. Foster regional collaboration among healthcare facilities to aggregate purchasing power and negotiate contracts with local suppliers, promoting regional economic development and reducing emissions from global supply chains.

Conduct life cycle assessments of medical products to identify opportunities for emissions reduction and environmental improvements. Assess the environmental impacts associated with the entire life cycle of products, including raw material extraction, manufacturing, distribution, use, and disposal. Use the findings to inform procurement decisions and encourage suppliers to adopt more sustainable practices.

Optimise packaging practices to reduce material waste and associated emissions. Encourage suppliers to use environmentally friendly materials, minimise packaging size and weight, and explore reusable or recyclable packaging alternatives. Implement waste reduction and recycling programs within healthcare facilities to further minimise the environmental impact of packaging waste.

Implement carbon accounting and reporting systems to track emissions within the supply chain. Establish mechanisms for collecting emissions data from suppliers, calculating supply chain emissions, and reporting progress toward reduction targets. Use the data to identify emission hotspots and prioritise actions for emissions reduction.

Support innovation and research efforts to develop sustainable alternatives and technologies within the healthcare supply chain. Foster partnerships with research institutions, industry experts, and innovators to drive advancements in materials, manufacturing processes, packaging, and transportation logistics that result in lower emissions and improved sustainability.

Raise awareness among healthcare professionals and staff about the environmental impact of the supply chain and the importance of sustainable procurement practices. Provide training and resources to promote understanding and engagement in sustainable supply chain initiatives.

12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?

Implement strategies to minimise medication waste, such as improving prescribing practices, optimising inventory management, and promoting patient adherence to medication regimens. This can help reduce the environmental impact associated with the disposal of unused or expired medications.

Incorporate sustainability considerations into medication procurement processes. Give preference to suppliers and manufacturers that demonstrate environmentally responsible practices, such as sustainable sourcing of raw materials, reduced packaging waste, and environmentally friendly manufacturing processes.

Promote the responsible use of inhalers, as they often contain potent greenhouse gases (Asthma inhalers emit greenhouse gases, but that can change | World Economic Forum (weforum.org)). Educate healthcare professionals and patients about proper inhaler use, including techniques to minimize waste and optimise dosing. Encourage the transition to low-global-warming-potential inhalers and facilitate their availability.

Monitor and track greenhouse gas emissions associated with the production, distribution, and use of pharmaceuticals and medical gases. Establish mechanisms to collect data on emissions, conduct life cycle assessments, and identify areas for emissions reduction within the medication supply chain.

Collaborate with pharmaceutical manufacturers and suppliers to drive sustainability improvements throughout the medication supply chain. Engage in dialogues, partnerships, and initiatives that encourage the adoption of sustainable manufacturing practices, reduced emissions, and responsible waste management.

Establish safe and convenient medication disposal programs to prevent the improper disposal of pharmaceuticals. Promote the proper disposal of medications through partnerships with pharmacies, community organisations, and waste management agencies. Encourage patients to return unused or expired medications for safe disposal.

Support research and development efforts to develop sustainable pharmaceutical alternatives and reduce the environmental impact of medication production and use. Invest in research initiatives that focus on green chemistry, sustainable packaging, and improved manufacturing processes with reduced energy consumption and waste generation.

Raise awareness among healthcare professionals, patients, and the public about the environmental impact of medications and the importance of sustainable medication practices. Provide education and resources on proper medication disposal, medication waste reduction, and the role of individuals in promoting sustainability in healthcare.

13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?

Implement waste reduction and minimisation strategies throughout healthcare facilities. This can involve initiatives such as waste audits to identify sources of waste, implementing recycling programs, promoting the use of reusable products, and reducing unnecessary packaging.

Enhance recycling and waste diversion programs within healthcare facilities. Establish comprehensive recycling systems for common waste streams such as paper, plastic, glass, and metal. Explore opportunities for recycling medical equipment, batteries, and other specialised waste items. Collaborate with waste management providers to ensure proper recycling practices.

Implement composting programs to manage organic waste generated in healthcare facilities. This includes composting food waste from cafeterias, landscaping and green waste, and potentially even

certain medical waste items. Educate staff on proper segregation and composting practices to divert organic waste from landfills.

Develop and implement strategies to reduce the use of single-use plastics within healthcare facilities. This can involve promoting the use of alternatives such as reusable or compostable products, encouraging staff and patients to bring their own water bottles or containers, and phasing out unnecessary single-use plastic items.

Implement proper disposal and management practices for pharmaceutical waste. This includes establishing protocols for the safe collection and disposal of expired or unused medications, minimising the disposal of pharmaceuticals into waterways or landfills, and promoting take-back programs for proper medication disposal.

Enhance hazardous waste management practices within healthcare facilities. Ensure the proper segregation, storage, and disposal of hazardous materials, including chemicals, laboratory waste, and sharps. Implement training programs for staff to ensure compliance with regulations and safe handling practices.

Provide education and training programs for healthcare professionals and staff to raise awareness about proper waste management practices. Promote understanding of waste segregation, recycling protocols, and the importance of environmentally responsible waste disposal. Encourage staff to take an active role in waste reduction and sustainability efforts.

Conduct regular waste audits and monitoring to track waste generation, identify opportunities for improvement, and measure progress in waste reduction initiatives. Analyse data to inform decision-making, set targets, and implement targeted actions for waste reduction and diversion.

14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?

Strengthen efforts to prioritise and promote preventive care throughout the health system. This includes promoting health screenings, vaccinations, health education, and lifestyle interventions to prevent the onset of diseases or manage conditions at an early stage. Invest in community-based prevention programs and initiatives to reach populations at risk.

Develop and implement integrated, multidisciplinary approaches to chronic disease management. Foster collaborations between primary care providers, specialists, and allied health professionals to provide comprehensive care and support for patients with chronic conditions. This can include care coordination, patient education, self-management programs, and remote monitoring technologies.

Expand the use of telehealth and remote care models to improve access to healthcare services while reducing the need for in-person visits. This includes implementing remote monitoring technologies, virtual consultations, and remote patient monitoring for chronic disease management and follow-up care. Develop reimbursement policies and infrastructure support to facilitate the widespread adoption of telehealth.

Promote the shift from fee-for-service models to value-based care models that prioritise quality outcomes and patient-centred care. Encourage the use of alternative payment models that incentivise preventive care, care coordination, and improved health outcomes. Support care models that integrate social determinants of health and address health disparities.

Intensify health promotion and education initiatives to empower individuals and communities to make informed decisions about their health. Develop culturally appropriate and targeted health promotion campaigns that address risk factors, healthy lifestyles, and preventive measures. Engage community organisations and stakeholders to support health education efforts.

Foster collaborative care models that leverage the expertise of various healthcare professionals. Implement team-based approaches, such as interdisciplinary care teams and care coordination, to optimise care delivery and improve patient outcomes. This includes promoting shared decision-making, care planning, and communication among healthcare providers.

Utilise health data analytics and evidence-based guidelines to inform decision-making and optimise models of care. Establish systems for collecting and analysing health data to identify trends, measure outcomes, and guide quality improvement initiatives. Use data to monitor population health trends, identify gaps in care, and implement targeted interventions.

Integrate sustainability considerations into infrastructure planning and facility design. This includes designing energy-efficient healthcare facilities, incorporating green spaces, optimising resource utilisation, and considering the environmental impact of construction and renovation projects.

15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?

Actively engage private providers through outreach efforts and establish collaborative relationships. This can involve initiating discussions, workshops, or conferences that focus on sustainability and emissions reduction. Encourage private providers to join working groups or task forces dedicated to addressing climate change and sustainability within the health sector.

Share best practices and success stories from within the health system or other private providers that have effectively implemented emissions reduction initiatives. Highlight the environmental and financial benefits achieved through sustainable practices and inspire private providers to adopt similar strategies.

Facilitate networking opportunities among private providers to foster knowledge sharing, collaboration, and peer learning. Create platforms or forums for private providers to exchange ideas, share challenges and solutions, and collectively work towards emissions reduction goals. Encourage public-private partnerships to support joint initiatives and leverage resources.

Recognise and reward private providers that demonstrate commitment and progress in emissions reduction efforts. Establish sustainability awards, certifications, or other recognition mechanisms to acknowledge their achievements. Consider providing financial incentives, grants, or tax benefits to incentivise private providers to invest in sustainable practices.

Encourage private providers to collect and report data on their emissions and sustainability efforts. Establish standardised reporting frameworks or guidelines to streamline data collection and ensure comparability. This enables private providers to monitor their progress, benchmark against peers, and demonstrate transparency in their emissions reduction initiatives.

Offer capacity building programs and training sessions to private providers on sustainable practices, emissions reduction strategies, and environmental management. Provide resources, toolkits, and

training materials to support private providers in implementing sustainability measures and integrating emissions reduction efforts into their operations.

Collaborate with industry associations and trade organisations representing private providers to promote emissions reduction efforts. Engage with these associations to advocate for sustainable practices, disseminate relevant information, and encourage their members to participate in emissions reduction initiatives.

Develop policies, guidelines, or regulations that encourage private providers to prioritise emissions reduction and sustainability. Provide clear guidance on emissions reporting requirements, energy efficiency standards, waste management practices, and other sustainability measures. Align regulatory frameworks with emissions reduction targets to create a supportive environment for private providers to act.

16. Where should the Strategy prioritise its emissions reduction efforts?

    a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas?

    b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?

In prioritising emissions reduction efforts, the Strategy should strike a balance between areas where the health system has the most direct control and areas where emissions are highest, even if they are more challenging to address.

The Strategy should prioritise emissions reduction efforts in areas where the health system has direct control and can implement changes easily. This includes focusing on internal operations, such as energy consumption in healthcare facilities, waste management practices, and transportation choices for staff and patients. By addressing these areas, the health system can lead by example, demonstrating its commitment to sustainability and reducing its own environmental footprint.

The Strategy should also prioritise efforts in areas where emissions are highest, even if they are more challenging to reduce. This may include emissions associated with medical supply chains, pharmaceuticals, anaesthetic gases, and other external factors. While these areas may require collaboration with suppliers, manufacturers, and other stakeholders, addressing high-emission areas is crucial for achieving significant overall emissions reductions within the health system.

The Strategy should consider the cost-effectiveness and potential impact of emissions reduction efforts in different areas. By conducting a cost-effectiveness analysis, the Strategy can prioritise actions that yield the greatest emissions reduction per unit of investment. This approach ensures efficient use of resources while maximising the overall impact on reducing emissions.

The Strategy should also consider co-benefits and health impacts associated with emissions reduction efforts. Prioritise actions that not only reduce emissions but also yield additional benefits, such as improved air quality, reduced waste, and enhanced public health outcomes. This aligns with the broader goals of the health system and enhances the overall sustainability and well-being of communities.

Engage stakeholders from the health system, industry, research institutions, and community organisations to identify key emission sources, potential mitigation strategies, and opportunities for collaboration. Foster dialogue and partnerships to ensure a comprehensive approach and to address emissions reduction efforts in areas that may require multi-sectoral cooperation.

Striking a balance between areas of direct control and high-emission areas acknowledges the need for both immediate action within the health system's sphere of influence and collaborative efforts to address broader emission sources. This comprehensive approach allows for targeted reductions, while also driving systemic changes that can have a significant impact on reducing emissions and contributing to the overall sustainability of the health system.

Determining the highest priorities for action among the six sources of emissions depends on several factors, including the specific context, local circumstances, and emission reduction potential.

17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?

Prioritise energy efficiency upgrades in healthcare facilities, such as installing LED lighting, optimising air conditioning systems, and implementing smart energy management systems. These measures can yield immediate energy savings and reduce carbon emissions.

Accelerate the adoption of renewable energy sources, such as solar panels or wind turbines, in healthcare facilities. This can involve partnering with renewable energy providers or seeking funding opportunities to facilitate the installation of renewable energy infrastructure.

Implement initiatives to promote sustainable transportation options for staff, patients, and visitors. Encourage carpooling, provide incentives for using public transit, and support active transportation like cycling or walking. These actions can quickly reduce carbon emissions associated with transportation.

Establish waste reduction and recycling programs within healthcare facilities to minimise waste generation and maximise recycling rates. This can include proper segregation of waste streams, education and awareness campaigns, and engaging waste management partners for efficient disposal and recycling processes.

Develop and implement sustainable procurement policies that prioritise the purchase of environmentally friendly and low-carbon products and services. This can involve working with suppliers to identify sustainable alternatives and incorporating sustainability criteria into procurement decision-making processes.

Launch behaviour change campaigns to raise awareness and encourage sustainable practices among staff, patients, and visitors. Promote energy conservation, waste reduction, and sustainable transportation through educational materials, training sessions, and communication channels.

Expand the availability and utilisation of telehealth services to reduce the need for in-person visits and associated carbon emissions from patient travel. Provide training and support to healthcare providers to enable efficient and effective delivery of telehealth services.

Conduct audits and assessments of heating and cooling systems in healthcare facilities to identify energy-saving opportunities. Optimise temperature settings, upgrade insulation, and implement energy management controls to reduce energy consumption and emissions.

Implement water conservation measures, such as efficient irrigation systems, low-flow fixtures, and water recycling systems, to minimize water consumption and associated energy use for water treatment and distribution.

Promote the development of green spaces and biodiversity initiatives within healthcare facilities. This can involve creating gardens, planting trees, and preserving natural habitats on site, contributing to carbon sequestration and improving the overall environmental sustainability.

Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

Prioritise health impacts, risks, and vulnerabilities that disproportionately affect vulnerable populations, including Indigenous communities, low-income populations, the elderly, children, and individuals with pre-existing health conditions. These populations often face higher risks and have reduced capacity to adapt to the health impacts of climate change.

Identify and prioritise health impacts and risks associated with climate-sensitive diseases and conditions. This may include vector-borne diseases, heat-related illnesses, respiratory conditions aggravated by air pollution, mental health impacts, and waterborne diseases. Assess the potential increase in prevalence, severity, or geographic distribution of these conditions due to climate change.

Focus on health impacts and vulnerabilities related to extreme weather events, such as heatwaves, floods, droughts, and severe storms. Consider the potential health consequences, including injuries, heat-related illnesses, mental health impacts, displacement, and disruptions to healthcare services.

Address health impacts and vulnerabilities related to climate-induced infrastructure and service disruptions. This includes disruptions to power and water supply, transportation, healthcare facilities, and communication systems. Identify the potential consequences for health service delivery, access to care, and emergency response capabilities.

Prioritise health impacts and vulnerabilities related to food and water security. Assess the potential consequences of climate change on agricultural production, food availability, quality, and nutritional value. Consider the impacts of water scarcity, contamination, and disruptions on public health and the availability of safe drinking water.

Recognise the health impacts and vulnerabilities of coastal communities facing sea-level rise, coastal erosion, and increased frequency of extreme weather events. Consider the unique challenges faced by Indigenous communities in relation to their cultural connections to the land, reliance on traditional food sources, and impacts on mental and emotional well-being.

A participatory and evidence-based approach should be adopted by way of engaging a diverse range of stakeholders, including health professionals, community representatives, Indigenous leaders, policymakers, and researchers. Seek their perspectives and insights on health impacts and vulnerabilities, drawing upon their local and experiential knowledge.

In addition, by conducting vulnerability and risk assessments to identify and quantify the potential health impacts of climate change. This involves analysing current health status, demographic data, climate projections, and exposure assessments to determine the level of vulnerability and the likelihood and severity of health impacts.

Utilise a multi-criteria decision analysis framework to systematically evaluate and prioritise health impacts, risks, and vulnerabilities based on predefined criteria. This can involve considering factors such as severity, magnitude, equity implications, feasibility of adaptation measures, and the potential for co-benefits across multiple sectors.

Furthermore, collaborate with existing climate change adaptation initiatives, both at the national and international levels, to align priorities and leverage resources and expertise. This includes partnerships with climate change agencies, public health organisations, research institutions, and community-based organisations.

Lastly, establish a monitoring and evaluation framework to track the effectiveness of adaptation actions and regularly reassess priorities based on emerging evidence and changing climate scenarios. This iterative process allows for adaptive management and refinement of adaptation strategies over time.

19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes:
    a. What are the key considerations in developing a methodology?
    b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally?
    c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

a) What are the key considerations in developing a methodology?

The methodology should consider multiple factors contributing to health vulnerability, including socio-economic factors, demographic characteristics, health determinants, and climate projections. It should also incorporate indicators of adaptive capacity, such as healthcare infrastructure, emergency response capabilities, and community resilience.

The methodology should adopt a participatory approach, involving stakeholders from diverse sectors and levels of government. Engaging local communities, Indigenous peoples, healthcare professionals, researchers, and policymakers will ensure the assessment captures local knowledge, experiences, and priorities.

Foster interdisciplinary collaboration to combine expertise from various fields, including climate science, public health, social sciences, and environmental sciences. This collaboration will enable a comprehensive assessment of health vulnerabilities and adaptation strategies.

Utilise existing data sources and models to inform the assessment. This includes leveraging state and territory-level assessments, international research, and climate change adaptation frameworks. By building upon existing work, duplication of efforts can be avoided, and synergies can be maximised.

a) How should their development draw on work already undertaken, for example at the state and territory level, or internationally?

Analyse existing vulnerability assessments conducted by state and territory governments. Identify common methodologies, best practices, and lessons learned to inform the development of the national assessment. This collaborative approach will ensure consistency and harmonisation across areas.

Review international research and frameworks on health vulnerability and adaptation to understand global best practices. Draw upon methodologies, case studies, and tools developed by international organisations, such as the World Health Organisation (WHO), Intergovernmental Panel on Climate Change (IPCC), and other relevant research institutions.

Establish collaborative partnerships with international organisations, research institutions, and experts working on health vulnerability and adaptation. This can facilitate knowledge exchange, capacity-building, and the adoption of international standards and guidelines in the national assessment and plan.

b) What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

Provides a consistent and standardised framework for vulnerability assessment and adaptation planning across all jurisdictions. This ensures comparability of data, methodologies, and outcomes, facilitating cross-jurisdictional coordination and knowledge sharing.

Allows for the pooling of resources, expertise, and data. It enables the sharing of best practices, tools, and adaptation strategies between jurisdictions, maximising efficiency and avoiding duplication of efforts.

Supports local/jurisdictional efforts by providing capacity-building initiatives, technical assistance, and training programs. This helps build the necessary skills and knowledge at the local level to undertake vulnerability assessments and develop effective adaptation plans.

Ensures policy alignment and coherence across jurisdictions. It facilitates the integration of health considerations into broader climate change adaptation policies and strategies, promoting a holistic and coordinated approach to addressing health vulnerabilities.

Encourages the sharing of data, information, and research findings among jurisdictions. This enhances the evidence base for vulnerability assessments, promotes data interoperability, and facilitates the development of targeted adaptation strategies.

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20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?

There would be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system. Issuing guidance and providing associated implementation support tools can help standardise practices, ensure consistency, and facilitate effective adaptation planning across states, territories, and local health systems.

The following topics could be covered to promote a nationally consistent approach:

Providing guidance on -

- the methodology for conducting vulnerability assessments, including the selection of indicators, data sources, and analytical frameworks. This should encompass the identification of climate-sensitive health impacts, consideration of socio-economic factors, and assessment of adaptive capacity.
- data collection, including the types of data to be gathered, data sources, and approaches for data analysis. This can involve methods for assessing climate projections, health outcome data, demographic information, and socio-economic data to inform vulnerability assessments.
- engaging stakeholders throughout the vulnerability assessment and adaptation planning process. This includes strategies for involving Indigenous communities, healthcare professionals, policymakers, community representatives, and other relevant stakeholders. Emphasise the importance of inclusive and culturally appropriate engagement practices.
- effective risk communication and health messaging strategies to ensure the dissemination of accurate and accessible information. This can include guidance on conveying the health risks of climate change, promoting behaviour change, and addressing public concerns related to climate-related health impacts.
- developing and implementing adaptation plans, including identifying priority actions, setting targets, and monitoring progress. This should encompass strategies for integrating adaptation into existing health policies and programs, identifying co-benefits, and ensuring equity considerations.
- monitoring and evaluating the effectiveness of adaptation measures. This includes establishing indicators, data collection methodologies, and frameworks for assessing the success of adaptation actions. Encourage iterative learning and adaptive management approaches.

Examples of existing guidance that can be drawn from include:

The Climate Change and Health Adaptation Planning Guide by the Australian National Health and Medical Research Council (NHMRC) National Climate Resilience and Adaptation Strategy 2021-2025 - DCCEEW provides a comprehensive framework for planning adaptation strategies in the health sector.

Drawing from existing guidance documents developed by state and territory governments, such as the Victorian Climate Change Adaptation Plan for the Health Sector (Adaptation Action Plans

(climatechange.vic.gov.au)) or the Queensland Health Climate Change Adaptation Plan (Climate adaptation | Queensland Climate Action (des.qld.gov.au)).

Reference international guidance, such as the World Health Organisation's (WHO) "Health and Climate Change: Toolkit for Implementation" (Climate Change and Health (who.int)) or the United Nations Framework Convention on Climate Change (UNFCCC) "Adaptation Knowledge Portal" UNFCCC Adaption Knowledge Portal) for insights on best practices and methodologies.

21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?

Ensure that vulnerable populations, particularly low-income households, and older people, have access to affordable heating options during the colder months. Subsidise energy costs, provide energy-efficient heaters, and implement targeted support programs for those at risk of energy poverty.

Implement targeted outreach programs to identify and support vulnerable individuals, such as older people living alone, those experiencing homelessness, and low-income households. Provide information and resources on cold weather risks, preventive measures, and available support services.

Develop and implement heatwave preparedness plans within healthcare facilities and communities. Raise awareness about heat-related health risks, establish cooling centres, train healthcare professionals on heat illness management, and ensure adequate resources for heatwave response and patient care. Issue timely and accurate cold weather health advisories to the public, with a focus on vulnerable populations. Include information on preventive measures, cold-related health risks, and available support services. Collaborate with meteorological agencies and public health authorities to ensure effective communication and coordination.

Enhance emergency response protocols to effectively address health impacts associated with extreme weather events. Develop and test emergency response plans, strengthen coordination between healthcare facilities, emergency services, and public health agencies, and ensure the availability of medical supplies, equipment, and personnel during emergencies. Strengthen the capacity of healthcare facilities, especially those serving vulnerable populations, to respond to the health impacts of cold weather. Develop cold weather response plans, ensure adequate heating systems, and train healthcare staff to identify and address cold-related health conditions.

Build resilience in the health system to withstand and adapt to climate-related disruptions. Assess and strengthen the resilience of healthcare infrastructure, ensure backup power supply, develop contingency plans for service interruptions, and incorporate climate resilience considerations into facility design and maintenance.

Strengthen mental health support systems to address the psychological impacts of climate change. Train healthcare providers to recognise and respond to climate-related mental health issues; integrate mental health services into disaster response plans; and promote community-based mental health support networks. Enhance healthcare services to address the specific health needs arising from cold weather, such as respiratory illnesses, cardiovascular conditions, and injuries due to slips and falls. Increase healthcare capacity, ensuring timely access to medical care, and provide targeted education and resources to healthcare professionals.

Enhance vector-borne disease surveillance, prevention, and control measures by monitoring changes in the geographic distribution and prevalence of vector-borne diseases; implementing targeted vector control strategies; and promoting public education on personal protective measures.

Provide capacity-building initiatives and training programs for healthcare professionals to enhance their understanding of climate-related health risks, adaptation strategies, and the integration of climate change considerations into clinical practice and public health programs.

Engage and educate communities on climate-related health risks, promoting behaviour change, and fostering community resilience. Conduct public awareness campaigns, providing educational materials, and work with community leaders and organisations to empower individuals and communities to act.

Support research efforts and strengthen surveillance systems to monitor climate-related health impacts. This includes studying the epidemiology of climate-sensitive diseases, assessing the effectiveness of adaptation measures, and developing early warning systems for climate-related health threats. Undertake research and data collection initiatives to better understand the specific health impacts of cold weather on vulnerable populations, including low socioeconomic demographics and older people.

Foster collaboration and partnerships among health agencies, research institutions, community organisations, and other sectors to address climate-related health impacts holistically. This involves sharing best practices, leveraging resources, and engaging in joint initiatives to enhance the health system's adaptation capacity. Collaborative efforts can include conducting community outreach, establishing temporary shelters, and organising community events to raise awareness and promote cold weather preparedness. Encourage the development and expansion of social support networks for vulnerable populations during the cold weather period. This should involve community initiatives, volunteer programs, and partnerships with social service organisations to aid with heating, transportation, and social connection for those in need.

Initiate and advance vulnerability assessments and adaptation planning processes to identify specific vulnerabilities and prioritise adaptation actions in line with local contexts and needs.

Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?

Integrating health considerations into energy and environmental policies can promote the transition to renewable and clean energy sources, reduce greenhouse gas emissions, and mitigate the health risks associated with pollution and climate change. This approach can lead to improvements in air quality, reduce respiratory illnesses, and minimise the health impacts of extreme weather events.

Incorporating health considerations into transportation policies can encourage the development of sustainable and active transportation options, such as public transit, cycling infrastructure, and pedestrian-friendly environments. By prioritising active transportation and reducing reliance on

fossil-fuelled vehicles, this approach can improve air quality, enhance physical activity levels, and reduce traffic-related injuries and fatalities.

Considering health and wellbeing in urban planning and infrastructure policies can lead to the creation of healthier and more sustainable communities. This includes designing neighbourhoods that promote walkability, access to green spaces, and the availability of essential services. By creating healthier environments, this approach can improve mental health, increase physical activity, and enhance overall quality of life.

Integrating health considerations into agricultural and food policies can support sustainable and climate-resilient food systems. This includes promoting sustainable farming practices, reducing food waste, and supporting local and nutritious food production. A Health in All Policies approach in this area can contribute to improved food security, nutrition, and reduced greenhouse gas emissions from the food sector.

Incorporating health considerations into disaster preparedness and emergency management policies is essential for effectively responding to climate-related emergencies. This includes developing robust public health response plans, ensuring access to healthcare services during emergencies, and addressing the specific health needs of vulnerable populations. By integrating health into emergency management, this approach can save lives, reduce injuries, and enhance community resilience.

Implementing education and awareness initiatives that integrate climate change and health messaging into school curricula, public campaigns, and community programs can enhance public understanding of the health impacts of climate change and foster sustainable behaviours. By promoting climate literacy and empowering individuals to act, this approach can drive behaviour change, promote resilience, and contribute to emissions reduction efforts.

23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?

Create dedicated platforms or working groups that bring together stakeholders from climate and public health sectors, including government agencies, health departments, environmental organisations, research institutions, community groups, and advocacy organisations. These platforms provide opportunities for regular communication, knowledge sharing, and coordinated action.

Encourage interdisciplinary collaboration and knowledge exchange between experts from climate science, public health, epidemiology, environmental health, and other relevant fields. This facilitates a holistic understanding of the links between climate change and health and promotes the development of evidence-based policies and interventions.

Encourage joint research initiatives and data sharing between climate and health sectors. This collaboration can help generate evidence on the health impacts of climate change, identify vulnerable populations, and develop effective interventions. Sharing data, expertise, and research findings enables informed decision-making and strengthens the scientific basis for policies and actions.

Invest in capacity-building initiatives to enhance the understanding of climate change and health interactions among professionals in both sectors. This can involve training programs, workshops,

and knowledge exchange activities that empower stakeholders to integrate climate and health considerations into their work.

Involve communities, including vulnerable populations, in the decision-making process and implementation of climate and health initiatives. Collaborative partnerships with community-based organisations, non-governmental organisations, and local stakeholders can ensure that interventions are context-specific, culturally appropriate, and address community needs. This approach also enhances community ownership and resilience.

Foster international collaboration and knowledge exchange to learn from successful examples and share best practices. Global networks, partnerships, and agreements provide platforms for cross-border collaboration on climate and health issues. Examples include the World Health Organisation's Climate and Health Country Profiles and collaborations under the United Nations Framework Convention on Climate Change.

EXAMPLES:

The Climate and Health Alliance (CAHA) (Climate and Health Alliance (caha.org.au)) in Australia brings together health professionals, organisations, and advocacy groups to promote action on climate change and health. CAHA facilitates collaboration, education, and advocacy efforts to influence policy and practice.

The Lancet Countdown on Health and Climate Change (The Lancet Countdown on health and climate change) is a global collaboration between academic institutions and international organisations. It tracks progress on climate change and its health impacts, generating evidence and providing recommendations for policy and action.

The Global Climate and Health Alliance (GCHA) (Home - The Global Climate and Health Alliance) is a coalition of health organisations worldwide that advocate for climate action and the protection of public health. GCHA fosters collaboration, knowledge sharing, and joint advocacy efforts to promote the health benefits of climate action.

The Partnership for Resilience and Preparedness (PREP) (Partnership for Resilience and Preparedness (prepdata.org)) is a collaboration between governmental, non-governmental, and private sector organisations. It aims to enhance climate resilience by improving access to data, tools, and knowledge, supporting decision-making, and promoting coordination among stakeholders.

Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?

1. Encourage medical training institutions and other education and training institutions to ensure the impacts of climate change on health form part of the training curriculum for all health care professionals:

Enhance the specificity of this enabler by providing clear guidelines and recommendations on the inclusion of climate change and health topics in the curriculum. This can ensure consistency across institutions and promote comprehensive understanding among healthcare professionals.

2. Conduct a comprehensive scan of current research activities pertaining to climate change and health:

Specify the scope and methodology of the research scan to ensure a thorough assessment of existing research. This can involve considering various sources, such as academic literature, reports, and ongoing research projects, to identify gaps, emerging trends, and areas requiring further investigation.

3. Increase public awareness of the health impacts of climate change to empower individuals and communities to take actions to reduce emissions and build climate resilience:

Enhance this enabler by incorporating targeted communication strategies to reach diverse populations, including vulnerable and marginalised communities. Consider using various channels, such as social media, community engagement events, and partnerships with local organisations, to disseminate information effectively.

4. Establish governance structures – both cross-jurisdictional and beyond government – to facilitate regular collaboration with all stakeholders (and in particular First Nations representatives) to build ownership and facilitate working partnerships where required to plan and deliver shared commitments to reduce emissions and strengthen climate resilience:

Provide specific guidance on the composition, roles, and responsibilities of governance structures to ensure meaningful engagement and representation of stakeholders, including First Nations stakeholders. Consider mechanisms for decision-making, conflict resolution, and long-term sustainability of these governance structures.

5.1.1 Establish agreed indicators to monitor the key deliverables for the Strategy:

Specify the process for developing indicators, ensuring they are measurable, relevant, and aligned with the objectives of the Strategy. Involve key stakeholders in the selection and refinement of indicators to ensure their usefulness in tracking progress and informing decision-making.

5.1.2 Provide regular reports on progress against the objectives of the Strategy:

Clarify the frequency, format, and dissemination channels for the annual reports to ensure transparency and accountability. Consider including qualitative and quantitative data, case studies, and success stories to provide a comprehensive overview of progress and challenges faced.

Additionally, it may be beneficial to consider Facilitating partnerships between researchers, policymakers, and practitioners to promote the exchange of knowledge, best practices, and innovative solutions related to climate change and health. This can involve establishing research networks, funding opportunities for collaborative projects, and platforms for sharing research findings and lessons learned.

25. For each of these enablers:
    a. What is currently working well?
    b. What actions should the Strategy consider to support delivery?

a) What is currently working well:

Encourage medical colleges and education institutions to include climate change and health in the training curriculum. Institutions have already recognised the importance of climate change and health and have started integrating related topics into their curriculum. Some institutions have developed specific courses, workshops, or modules on climate change and health, providing students with relevant knowledge and skills.

Conduct a scan of current research activities pertaining to climate change and health. There is ongoing research on the health impacts of climate change, and various organisations and research institutions are actively studying this intersection. Existing research scans provide valuable insights into the current state of knowledge and help identify research gaps and areas for future investigation.

Increase public awareness of the health impacts of climate change. Public awareness campaigns and initiatives have been conducted to raise awareness about the health impacts of climate change. Collaborations between health organisations, environmental groups, and community organisations have helped reach diverse audiences and disseminate information effectively.

Establish governance structures for collaboration and partnerships. Some governance structures, such as committees, advisory groups, or task forces, have been established to facilitate collaboration and partnerships among stakeholders. These structures have enabled engagement and input from various sectors, including First Nations, and have supported the development of shared commitments and actions.

Establish indicators to monitor the key deliverables for the Strategy. Some initiatives have identified and implemented indicators to track progress and measure the effectiveness of climate change and health interventions. These indicators provide valuable data and insights for decision-making, accountability, and continuous improvement.

Provide annual reports on progress against the objectives of the Strategy. Annual reporting allows for transparency and accountability, providing an opportunity to share achievements, challenges, and lessons learned. Reports facilitate communication and engagement with stakeholders and can drive ongoing support and commitment to the Strategy.

b) What actions should the Strategy consider to support delivery?

Provide guidelines and resources to support the integration of climate change and health topics into curricula, ensuring consistency and quality across institutions.

Offer training and professional development opportunities for educators to enhance their knowledge and capacity to teach climate change and health effectively.

Coordinate and collaborate with research institutions to ensure comprehensive coverage and avoid duplication of efforts.

Identify research gaps and priorities to guide future research funding and initiatives.

Develop targeted communication strategies tailored to diverse populations, including specific messaging for different age groups, cultural backgrounds, and geographic locations.

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Collaborate with community organisations, media outlets, and influential figures to amplify the message and reach a broader audience.

Ensure the inclusion of diverse stakeholders, including First Nations stakeholders, in governance structures to ensure representation and inclusion.

Establish clear roles, responsibilities, and decision-making processes within the governance structures to facilitate effective collaboration and decision-making.

Collaborate with relevant stakeholders to develop robust indicators that align with the objectives of the Strategy.

Ensure indicators are measurable, relevant, and aligned with national and international standards to enable meaningful tracking of progress.

Develop clear reporting guidelines and templates to ensure consistency and facilitate meaningful comparisons over time.

Incorporate qualitative and quantitative data, case studies, and success stories to provide a comprehensive overview of progress and impact.

Thank you for taking the time to complete this survey – your feedback is greatly appreciated! Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

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NATIONAL HEALTH AND CLIMATE STRATEGY

Detailed submission form

This form allows you to provide responses to the full set of questions in the Consultation Paper available here.

Alternatively, you may wish to complete the briefer online survey available here.

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

Respondent details

What is your name?
[redacted]
What is your email address?
[redacted]
What is your organisation?
Royal Flying Doctors Service QLD
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
[redacted]
Please select which applies to you: ☐ Individual citizen ☒ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☐ Academic or Researcher ☐ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☒ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

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Feedback from the Consultation Paper

RFDS QLD response to the National Health and Climate Strategy Consultation Paper

July 2023

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Introduction

The Royal Flying Doctors Service Queensland Section (RFDS QLD) would like to thank the Australian Government for the opportunity to respond to this policy. Implementing a dedicated national health and climate policy will bring much needed attention and action to the climate risks associated to our communities health into the future. As this issue is highly complex, national leadership and oversight is critical to implement effective, systematic policy. It is an opportunity to bring together climate policy from all Government departments and lead with a coordinated, holistic approach – improving both policy efficiency and effectiveness as well as health outcomes for all Australian residents.



The Royal Flying Doctor Service in Queensland provides excellence in, and access to primary health care and aeromedical services across the state. Our emergency retrieval service operates 24 hours a day, seven days a week, delivering healthcare to more than 330,000 Australians each year — that's one person every two minutes. In addition to aeromedical retrievals of the critically ill or injured, the RFDS also delivers a broad range of essential primary and preventative healthcare services, including telehealth, mental health, oral health and health promotion. The RFDS QLD currently employs about 525 passionate people. With our primary service area being rural and remote Queensland, 70% of our patients are First Nations Peoples

The RFDS QLD has a unique view of the health challenges that the effects of climate change poses for remote communities including First Nations Peoples. We acknowledge that not only the effects of climate change but also the main driver of climate change (fossil fuel emissions) both impose negative effects on the health of Australian residents. We acknowledge our own emissions footprint and are committed to reducing this in an evidence-based manor. We have conducted a formal assessment of our carbon footprint and are working on an evidence-based emissions reduction and sustainability strategy. The RFDS QLD supports a national strategy to address health alongside climate change.

Challenges posed to human health by climate change are significant and accelerating. Climate change directly impacts human health and increases both demand for health services and the stress on the people and institutions providing those services. Findings from the literature make it clear that action on climate and health is immensely beneficial for social, environmental, cultural and economic outcomes. These benefits can only be achieved with urgent and decisive action, and the funding to execute it.

The importance of this Strategy can not be understated. The current major health impacts of climate change being from: more severe and frequent adverse weather events, increased likelihoods of infections diseases, increased air pollution and allergens, sea level rise and subsequent land loss/changes and compromised food and fresh water security, require a connected, evidence-based, ongoing, national response.



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Overall Response

- In the main, we support the four proposed objectives of the strategy, however, these should be amended to more strongly reflect the protection of population health and wellbeing to be the primary focus of the Strategy – to apply the 'health in all' climate/health lens to other national policy and departments.
- In the main, we support the principles proposed, although these should be expanded to be more explicit (see below).
- We support, in the main the proposals in the adaptation section, especially including improved emergency healthcare response and improved preventative health strategies.
- We understand that RFDS VIC are also submitting a response on the National Health and Climate Strategy and would like to indicate our support of their submission paper.

Overarching Recommendations:

- Include a clearly articulated vision and purpose
- Use this policy to link with and include a climate-health section in Australia's Nationally Determined Contributions (NDC's) to the Paris Climate Agreement (still currently one of the only countries that does not refer to health in their NDC's) as stated in 'Decarbonising the Healthcare Sector: A Roadmap for G20 Countries for the upcoming T20 India meeting.
- Include the human right to health and intergenerational justice as a principle for the Strategy
- Establish a Board to advise the Minister on the Strategy
- Establish an interdepartmental committee on climate change and health
- Recognise and respond to the wider determinants of health impacted by climate change
- Outline **how** the Strategy will support the coordination of initiatives and collaboration with stakeholders
- Change the structure and wording of the Strategy to more precisely indicate how the strategy can influence other government departments to change their policies (more holistic, evidence-based approach) to reduce population health risk from climate change and maximise the health co-benefits of mitigation and adaptation strategies (Health in all Policy)
- Involve genuine engagement with First Nations leaders, Elders and communities and ensure ongoing consultation on health/climate initiatives
- Include the subject of the health (and financial) costs of policy in-action (currently not in the strategy).
- Discuss increased Commonwealth funding for evidence-based climate-health initiatives, with particular emphasis for not-for-profit organisations
- Provide a detailed schedule of when this strategy's initiatives are to be implemented to facilitate the Commonwealth's climate targets being met
- Make terminology consistent

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Specific recommendations:

Objective 1 Measurement

In the 'What do we currently know about health system greenhouse gas emissions in Australia?' section there is no reference to academic literature about the GHG emissions of Australia's healthcare sector. It is recommended to include study's that have already been done which calculates/estimates Australis's health industry emissions or similar. Examples include:

- Karliner, J.; Slotterback, S.; Boyd, R.; Ashby, B.; Steele, K.; Wang, J. Health care's climate footprint: The health sector contribution and opportunities for action. Eur. J. Public Health 2020, 30 (Suppl. S5), ckaa165-843.
- Malik, A.; Lenzen, M.; McAlister, S.; McGain, F. The carbon footprint of Australian health care. Lancet Planet. Health 2018, 2, e27–e35.
- Climate and Health Alliance CAHA. Healthy, Regenerative and Just, Framework for a National Strategy on Climate, Health and Well-being for Australia; Climate and Health Alliance: Melbourne, Australia, 2021.
- Salas, R.N.; Maibach, E.; Pencheon, D.; Watts, N.; Frumkin, H. A pathway to net zero emissions for healthcare. BMJ 2020, 371, m3785.
- Romanello, M.; McGushin, A.; Di Napoli, C.; Drummond, P.; Hughes, N.; Jamart, L.; Kennard, H.; Lampard, P.; Rodriguez, B.S.; Arnell, N. The 2021 report of the Lancet Countdown on health and climate change: Code red for a healthy future. Lancet 2021, 398, 1619–1662.
- Australia DftE. Net Zero Carbon Emissions: Responsibilities, Pathways and Opportunities for Australia's Healthcare Sector; Doctors for the Environment Australia: Melbourne, Australia, 2020.

There is mention of the introduction of standardised, internationally aligned climate risk/disclosure reporting requirements (which may be in effect a TCFD reporting system). RFDS QLD supports this initiative and feels it would drive more efficient progress for climate/health outcomes. We are currently in the process of formally assessing climate risks and opportunities as an organisation.

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Objective 2 Mitigation

It is recommended that the Strategy discusses the need for mitigation solutions needing to be bespoke and tailored to particular regions, organisation, and healthcare service and their unique climate impact. Although national, over-arching evidence-based targets and strategy/policy is critically needed, the solutions themselves need to be practical at an operational level for the healthcare facility/service. The literature is clear that a one size fits

all approach is not efficient and will be influenced by many factors including the business case of the mitigation options, and available financing/funding.

2.1.1

There is greater need for electrification to displace fossil fuel use for heating in new healthcare facilities. Where practicable and where the business case is warranted, the recommendation is to have no gas connection to any new health facility. It is noted that retrofitting the electrification of facilities is possible from an engineering perspective but will incur higher costs than if designed from the outset for new build facilities.

Add rooftop solar hot water heating with electric boost (not gas) in addition to roof top solar for all new healthcare facilities (highly energy efficient in most regions of Australia).

Consider battery technology to improve resilience as well as assist fleet EV charging – or use EVs as batteries.

2.1.2

Add 'smart building' technologies with evidence-based automatically controlled heating/cooling to prevent over or under heating/cooling and be not on when not needed, auto lights etc.

2.2

Mention telehealth service increases – where appropriate. There is much literature demonstrating how telehealth services, when used appropriately, can maintain a high level of healthcare and patient satisfaction while reducing emissions footprints and barriers to access to healthcare services – especially in rural/remote regions where the RFDS QLD operate.

2.3

Mention specifically (or introduce) policy on reducing the use of virgin plastic in healthcare supply chains and encouraging cost-competitive, high-quality plastic-alternative products.

2.6

Increase preventative healthcare efforts – focusing specifically on issues such as obesity, diabetes, poor gut health as these effect (and cause) many lifestyle based diseases which increase the healthcare sectors ecological footprint. This may include mention of reviewing the percentage of federal healthcare budget allocated to preventative healthcare measures (currently much lower than many other developed countries). Include cross-cutting policies such as a 'sugar tax' on products such as soft drinks and using funds raised from this to subsidies locally grown fruit and vegetables.

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Objective 3 Adaptation

The RFDS QLD have a strong relationship with First Nations peoples in Queensland and while the references to First Nations cultural knowledge and practice throughout the Strategy are extremely welcome, it is crucial that First Nations Elders and communities are genuinely engaged in the development of the Strategy and its related objectives as well as in ongoing mitigation strategies.

Although the Strategy mentions climate change's negative impact on food security/production, and increased risk of water scarcity and acknowledges the potential severe health effects on populations of this, it does not detail any direct strategies to mitigate these issues. This should be included in the Strategy and link with how the Strategy relates to other Government policy/departments on these issues.

3.3

Mention specifically that enabling healthcare facilities subsidised renewable energy generation capacity and battery storage is evidence-based to improve their resilience in times of power failures and extreme weather events. Note that EV's (that can feed back to the building) can be utilised as energy storage also.

In responses to Q21, the World Meteorological Organisation has forecast an El Nino system is likely to prevail over Australia for possibly the next five years. (https://public.wmo.int/en/media/press-release/world-meteorological-organization-declares-onset-of-el-ni%C3%B1o-conditions). Given this, it is highly likely that large parts of the country will face greater drought conditions and potentially, ensuing events such as bushfires as occurred during the last El Nino event. These conditions and events obviously have significant health implications. Given this, we recommend that the next 12 to 24 months include urgent activities that enhance preparedness and resilience of this impending climate event. One initiative could be to advance discussions with Treasury for additional Commonwealth funding for mental health support of rural and regional residents. This will mean support is delivered in a timely, coordinated and proactive manner as opposed to a reactive approach.

As the RFDS QLD is heavily involved in emergency response to extreme weather events, we recommend increased planning and resources to fire-prone areas which would mitigate potential adverse health impacts. These resources could be interlinked with severe storm event emergency response to increase utilisation of assets and improve efficiencies. More advanced modeling with a healthcare lens (as well as economic) on potential food and water shortages from prolonged drought conditions and subsequent policy actions could also mitigate health impacts for large populations.

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Objective 4 Health in all Polices

Health in all policies

In addition to transport, food, agriculture and housing – include health in other departments such as energy, manufacturing and urban planning policy. These have historically only been concerned about financial risk and managing short-term Government budgets and have not considered population health in their policy direction or actions. It will be key to include potential (and likely) health impacts in energy policy (fossil fuel powered energy generation vs renewables), urban and rural/regional planning (active transport – vs car-centric, high-medium density housing vs urban sprawl etc.), and plastic manufacturing/recycling moving forward. For example, when considering new fossil fuel energy generation and its health impacts, the common figure used in the literature is that for every dollar a fossil fuel initiative is subsidised, it creates $10 worth of health costs to the taxpayer (Health and Environment Alliance. 2017. Fossil Fuel Subsidies and Health. https://www.env-health.org/wp-content/uploads/2018/06/fossil-fuel-subsidies-and-health-briefing.pdf)

This illustrates how many industries combine to impact our collective biosphere: https://globalcommonsalliance.org/news/earth-commission/safe-and-just-earth-system-boundaries-published-in-nature/

Enablers

The Strategy states (on page 34) "The World Health Organisation has recently found that progress in delivering national health and climate change plans or strategies has been impeded by a number of challenges including insufficient financing, human resource constraints, and limited research, evidence, technologies and tools", yet, the Strategy is silent on the need for additional financing/funding that will be critical to achieve the Commonwealth's climate targets and associated health outcomes in the time required.

It is strongly recommended that the Strategy include a finance mechanism (or at least a reference to one) to assist the healthcare sector to reduce its emissions and become more resilient. At the very least it should state where increased national funding will come from and how much this might be. Moreover, it is strongly recommended that an evidence-based longer-term financing mechanism is introduced to provide the resources needed to decarbonize the healthcare sector and also make it more resilient and effective. This could be in various forms including an emissions or carbon tax – incentivising the entire supply chain, transport and energy sectors to reduce their emissions footprints. Alternatively (or in collaboration) subsidise renewable energy and ecologically superior healthcare products. These are evidence-based mechanisms that would assist the healthcare sector being able to achieve the outlined environmental objectives and realise the economic, social and health co-benefits.

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Thank you

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NATIONAL HEALTH AND CLIMATE STRATEGY

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Respondent details

What is your name?
Doctors for the Environment Australia
What is your email address?
[redacted]
What is your organisation?

Doctors for the Environment Australia (DEA) is an independent, self-funded, non-government organisation of medical doctors in all Australian states and territories.

DEA's work is based on the premise that humans need a future with clean air and water, healthy soils capable of producing nutritious food, a stable climate, and a complex, diverse and interconnected humanity whose needs are met in a sustainable way. We are therefore interested in environmental protection and restoration to promote human health and social stability.

DEA's members work across all medical specialties, including academia and public health.

Background

Doctors for the Environment Australia (DEA) welcomes the development of an Australian National Health and Climate Strategy. For over a decade, DEA has been at the forefront in advocating for the establishment of a national Unit, decarbonisation of the healthcare sector and the formation of a National Climate and Health Strategy.

In collaboration with the Australian Medical Association (AMA) and others, DEA calls for the Australian healthcare sector to reach **- net zero carbon emission by 2040, with an interim emission reduction target of 80% by 2030.** Net zero emissions for the sector by 2040 and important enablers are also supported by the majority of Australia's medical colleges, as called for in our joint 2022 Communique. Evidence-based targets are required

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from the healthcare sector to play its part in meeting the Paris Agreement commitment to limit global temperature increases to 1.5-2°C and further background can be found in DEA's 2020 report *Net zero carbon emissions: responsibilities, pathways and opportunities for Australia's healthcare sector*. The healthcare sector has both a duty and opportunity to lead and influence the broader multi-sector transformational change that is urgently needed to protect the health and wellbeing of present and future Australians.

DEA has proposed an Australian Sustainable Healthcare Unit for over a decade because of the clear need for a national approach to reducing carbon emissions from the healthcare sector. Cross-jurisdictional co-ordination is needed to realise the full extent of the financial, human health, healthcare-quality and environmental co-benefits of such emissions reductions – further detail can be found in DEA's 2021 Proposal for a National Sustainable Healthcare Unit. National leadership, policies and coordination is necessary to support state-based Sustainable Healthcare Units, private and not-for-profit healthcare organisations and the wider healthcare industry to work together towards net zero healthcare emissions.

With the Australian healthcare sector estimated to contribute to over 7% of Australia's total greenhouse gas emissions, there can be no further delay in developing a National Health and Climate Strategy. Collaborating with global partners to develop sustainable, climate resilient healthcare systems and communities will be important. DEA strongly recommends that Australia embrace the global leadership and co-ordination already occurring by joining the WHO lead **ATACH (Alliance for Transformative Action on Climate Change).**

There are national and international calls from the healthcare community for unprecedented action and funding to protect health from climate change. As a sector, the healthcare system should lead in complete decarbonisation by 2040, with a strong interim reduction target of 80% by 2030, with the onus on wealthy nations to do much more, much faster. The Editorial Call for emergency action to limit global temperature increases, restore biodiversity, and protect health was published in over 200 international journals in 2021.

Have you read and agreed to the Privacy Statement?
(NB we will not be able to use your submission unless you tick this box)

☒ I have read and agreed to the Privacy Statement

Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)

[redacted]

Please select which applies to you:

☐ Individual citizen
☐ Health Service Provider

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☐ Industry and Life Sciences Organisation or Representative ☐ Academic or Researcher ☒ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
To provide focus and clarity of purpose, the Strategy Vision should be clearly articulated and brief. DEA's suggested vision statement is: *A high-quality sustainable healthcare system, leading rapid multi-sector decarbonisation and a healthy, equitable, climate resilient community enabled by a health in all policies governance framework***.** Full decarbonisation must be achieved by 2040, with an interim reduction target of 80% by 2030 from current levels. Each objective should have clear targets and timelines, most critically the mitigation objective, but relevant to all, to assist benchmarking and the forthcoming necessary operational plans. DEA supports the 4 over-arching Objectives listed in the Consultation Paper and recommends the addition of a fifth. *Additional objective – Widespread awareness and understanding of the urgent need for the Strategy.* An important Strategy Objective should be to raise awareness and understanding of the necessary **decarbonisation targets, pathways** and opportunities that are **required** to avoid the dire health consequences of a 2°C increase in global temperatures – let alone the predicted business as usual current trajectory of >3°C global warming by 2100. This awareness and understanding is needed across all levels of government, policy influencers, industry, professional bodies and the community.

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Measurement

DEA supports the Measurement Objective with the addition that whilst decarbonisation of the healthcare system is urgent and must be prioritised, there is also a need to address (and therefore measure) the wider environmental impact of the healthcare sector, such as non- greenhouse gas pollutants like particulates and sulphur, resource consumption including water and waste management.

Nationally standardised measurement methods are important to enable mitigation pathways to be developed and guided by benchmarking across the healthcare sector and jurisdictions. Without such standardised measurement of carbon footprints and other environmental impacts, it will be difficult to coordinate and compare mitigation efforts.

Greenhouse gas emission measurement must include Scope 1,2 and 3 emissions, including but not limited to direct healthcare energy emissions (from electricity and fossil gas), transport and anaesthetic gases (including nitrous oxide) and respiratory inhalers (which are potent greenhouse gases). Scope 3 emission inclusion is fundamental**. The Scope 3 emissions of all medical equipment and pharmaceuticals must be measured – this will require mandatory reporting from industry.**

Other recommended measurements are:-

- carbon footprint analysis of different models of care
- health co-benefits of population/public health initiatives that reduce carbon emissions and morbidity, such as active transport and plant rich diets.
- the cost of climate change in-action on Australia's health and healthcare system, such as costs of excess deaths, disability and health care (including mental health related) due to increasing extreme weather events fuelled by accelerated climate change.
- coding for cause of death to include climate change and its health effects.

Mitigation

DEA supports the Mitigation Objective, however it is paramount that this objective is specific in what it aims to deliver. **Science-based carbon emission targets are required** to mitigate and track improvements. The healthcare sector and its institutions should lead in acting on and advising governments of the importance of setting carbon emission targets aligned with keeping Australians safe and healthy below a temperature rise of 2°C and ideally less than 1.5°C.

These targets must explicitly include all Scope 1, 2 and 3 emissions (onshore and offshore) with annual interim targets to allow progress to be monitored. DEA and the AMA, along with many medical Colleges, Societies and healthcare organisations have endorsed a net zero target for the Australian healthcare system of 2040 with an 80% reduction in emissions by 2030.

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DEA supports the Adaptation Objective. Adaption is necessary to protect health outcomes for people and communities as well as the resilience of our health system, from climate change harms which can no longer be prevented. However, **adaption will never be sufficient to protect human health without science-based climate mitigation to keep global warming as close to 1.5°C as possible**, noting that this represents over 1.5°C warming for Australia.

Adaption will include education, training and workforce planning and resourcing to respond to current and predictable increases and changes in healthcare needs due to the impacts of greenhouse gas emissions which have already occurred.

On Health in All Policies (HiAP)

DEA strongly supports the HiAP Objective. Most of the determinants of health lie outside the direct influence of the healthcare system. Health in All Policies must integrate health considerations into policies across all sectors (trade, agriculture, transport, buildings and infrastructure, energy, education, defence, and so on) and not just within the health sector. Feasibility analyses for all fossil fuel projects must include the financial and human costs of health impacts (externalities), including such projects' global warming potential, air and water pollution, the need for increased health services and displacement of local communities.

2. How could these principles be improved to better inform the objectives of the Strategy?

DEA supports the Principles outlined in the Consultation Paper and in particular that First Nation leadership is prioritised.

Recommended additions to the Principles:

Principle 2 should include reference to inter-generational equity, justice and inclusion – our action or inaction now will have profound impacts on the generations to come and this must be forefront in developing the strategy.

Principle 7 – A strong governance framework – this should incorporate a commitment to overcome traditional state and commonwealth boundaries to deliver transformative change. This includes co-ordination of the intersecting roles of the National Health, Sustainability and Climate Unit, existing and emerging state-based sustainable health units, the Net Zero Authority, the Department of Climate Change, Energy, the Environment and Water, public and private healthcare organisations (including industry), and non-governmental bodies. In addition, conflicts of interest must be transparently declared and managed appropriately.

Principle 8 – Provision of high-quality, sustainable healthcare. The future of high-quality care is reliant on a healthcare system that is both financially and environmentally sustainable in which quality care is prioritised, as the provision of high-quality care is low carbon care.

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3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?

Scope 1, 2 and 3 greenhouse gas emissions must be included in all targets and mitigation efforts. Offshore generated Scope 3 emissions are very relevant to healthcare as described below.

Apart from direct emissions from anaesthetic gases and respiratory inhalers, measurement of Scope 1 and 2 emissions already exists and is reported in most Australian jurisdictions, as noted on page 11 of the Strategy document. The expansion of improved measurement of Scope 3 emissions via process-based life cycle assessment (LCA), as indicated in answers to questions 7 and 8, will be important to support evidence-based low carbon models of care and product selection.

Inclusion of all Scope 3 (indirect) greenhouse gas emissions is particularly important for healthcare since greenhouse gas emissions from health procurement form the majority (60-70%) of health care's carbon footprint. This has been shown through repeated environmentally-extended input-output (EEIO) whole of healthcare carbon footprint studies and is often related to products being manufactured overseas.

In particular, offshore Scope 3 emissions associated with pharmaceuticals and medical devices must be included. It is only by including offshore Scope 3 emissions that these emissions can be taken into account for evidence-based procurement decisions. Health care's purchasing power can then be used to move procurement toward lower carbon products and in turn impact pharmaceutical and manufacturing decisions made overseas.

In addition, in healthcare there may be complex interplay between different Scopes of greenhouse gas emissions. For example, it has been found repeatedly that adopting reusable in lieu of single use medical equipment lowers the associated greenhouse gases, particularly if a hospital's electricity source is renewable. Yet, if only measuring a hospital's Scope 1 greenhouse gas emissions, this will increase as electric steam sterilisers would be more frequently in use. The reduction in Scope 3 greenhouse gas emissions due to lower single use equipment purchasing would not be captured if only Scope 1 and 2 greenhouse gases are measured.

Emissions from all healthcare associated travel must also be included, despite patient and visitor travel not traditionally being included in the definition of Scope 1,2 and 3 emissions. Notably, emissions associated with patient and visitor travel and transport to and from healthcare facilities is a major source of healthcare emissions. Such travel comprises 8% of the UK NHS's carbon footprint and is being shown to be of similar proportions in Australia through emerging carbon footprinting studies. Measuring these emissions will influence decisions not only related to provision of transport modes, but also models of care such as telehealth and provision of care 'in place' (hospital in the home). These emissions have been measured in multiple studies and undoubtedly fall within the remit of this strategy.

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4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?
Doctors for the Environment Australia supports the centring of First Nations voices and policies in this Strategy and co-design of the necessary governance structures. We do not seek to represent the views of First Nations people and encourage meaningful engagement with their communities.
5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?
Doctors for the Environment Australia supports the centring of First Nations voices and policies in this Strategy and co-design of the necessary governance structures. We do not seek to represent the views of First Nations people and encourage meaningful engagement with their communities.

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Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?
The current national greenhouse gas emission reporting schemes outlined in the Consultation Paper are noted, including the National Greenhouse and Energy Reporting scheme (on page 11 of the Strategy) and the Climate Active program, although it is unclear if any healthcare facilities currently participate in this voluntary program. The Scope 1 and 2 emission calculations presented on page 11 are challenging to interpret and potentially misleading due to the lack of refined data, although the estimates for healthcare related Scope 1 emissions are broadly in line with prior studies. However, the Scope 2 emission data is an aggregated estimate for ANZSIC (Australian and New Zealand Standard Industrial Classification) Commercial Services and therefore bears little relevance to what emissions can be attributed to Australia's healthcare system. The 6% estimate of national emissions from the health system on a consumption basis is broadly in line with the 7% calculated by Malik et al for 2014/15. DEA has been involved in advocacy at many levels including organisational, state and national levels for improved measurement and reporting on healthcare emissions and energy use. Several DEA members are involved in directly measuring and reporting on emissions, including Burch et al and Associate Professor Forbes McGain at Western Health in Melbourne. In association with the Universities of Melbourne and Sydney, members have undertaken several process-based life cycle assessments (LCAs) of common tests and procedures, including pathology tests and CT and MRI scans. These studies are important in providing the evidence base for a more nuanced healthcare greenhouse gas emissions profile and the foundation for an informed research and policy agenda to realise low carbon healthcare. Victoria has recently introduced an updated Financial Reporting Directive 24 - Reporting environmental data by government entities. This includes mandatory reporting on Scope 1 and 2 as well as some Scope 3 emissions. This structure could be used as an initial template for national standardisation. This could then be built on in the coming years, noting that it still does not adequately measure and report on Scope 3 emissions. The Global Green and Healthy Hospitals Climate Impact Checkup Tool is another resource to help hospitals report on Scope 1 and 2 with selected Scope 3 emissions.
7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?

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Careful consideration is required when choosing appropriate carbon footprint methodologies, such as Environmentally Extended (Economic) Input Output (EEIO) analysis, process-based life-cycle assessment or a hybrid model. It is important not to over-rely upon EEIO studies in guiding local decision-making. EEIO studies are useful for setting the scene and providing a broad overview of the healthcare sector's greenhouse gas emissions. However, data derived from EEIO studies are rarely refined enough to guide evidence-based product choice (including pharmaceuticals), or consideration of greenhouse gas emissions from clinical care processes and procedures.

EEIO studies link a financial value with greenhouse gas emissions (kg CO_2e per dollar). They are useful for large, healthcare sector wide estimates of greenhouse gas emissions. Process based LCAs require careful analyses of the components, their masses, place of manufacture, and energy sources used to deliver the final product. It is possible to spend less time and money completing an EEIO study of the entire Australian healthcare system than that required to study the greenhouse gases associated with the treatment of 10 patients with septic shock in one intensive care unit. However, process based LCAs are a more reliable method when making comparisons between different clinical pathways. Access to such granular carbon footprint information will be increasingly important in clinical decision-making as the healthcare sector moves towards net zero emissions.

An important role of the National Health, Sustainability and Climate Unit will be to assist researchers to develop a robust life cycle inventory of common medical equipment, pharmaceuticals and so on. An international LCA inventory has recently been developed HealthcareLCA and will provide useful information. However, process based LCA outcomes can be jurisdiction and methodology dependent and therefore are not always transferable.

Policy and legislation to mandate reporting of the carbon footprint of pharmaceuticals (as part of PBS approval) and medical devices (as part of TGA approval), using an appropriate methodology, will be a cornerstone of measuring the emissions associated with procurement and supply chains. This is already being considered in the NHS through the NICE guidelines.

Measurement of health system environmental impacts should not be confined to greenhouse gas emissions, but include other relevant impacts such as water use, waste outputs and air pollutants.

Measuring the economic value of the **health co-benefits of climate change mitigation policies** (such as from transitioning the energy and transport sectors) and **adaptation** is important:

- to inform future policy and resource allocation,
- to count the economic cost to health care from climate enhanced weather events,
- for financial analysis of sustainable healthcare practices (costs and benefits), and

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- for cost-benefit analyses of increasing resourcing of preventative and primary healthcare.

It is important to understand that the EEIO approach assumes there is a linear relationship between financial and environmental costs. This is discussed in McGain et al on the treatment of patients with septic shock:

> *So, a product that costs ten times as much has ten-fold the environmental footprint. Whilst this may be true for many publicly available products, in health care, environmental reporting is opaque. Although pharmaceuticals form a considerable part of health care's carbon footprint, there are few publicly available studies of individual drugs. Further, it is unlikely that an expensive, patented drug that costs ten times more than a non-patented drug has ten times the greenhouse gas emissions, or that greenhouse gas emissions would really fall ten-fold when no longer patented.*

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Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?

DEA supports the proposed focus areas. However, we **strongly recommend that both 'Prevention and optimising models of care' are prioritised** – placed first and potentially separated. Fundamental to successfully decreasing sector emissions are policies and enablers that reduce healthcare demand and prevent the need for resource intensive acute care, followed by evidence-based sustainable models of care.

Ultimately, the most sustainable healthcare system is one that minimizes unnecessary or ineffective use of resources (financial and natural) by delivering the right care, in the right place, at the right time – and by preventing care needs from arising at all where possible. Naylor and Appleby.

Consequently, the greatest long-term results will come from investment in preventive and primary care, eliminating low value care and developing low carbon models of care. Noting that Barratt et al (MJA, 2022) estimated clinical care in Australia to account for 80% (28Mt CO_2e) of Australian healthcare emissions, of which greater than 11.5 Mt CO_2e emissions are likely to stem from harmful and low value care.

Disappointingly however, there **is no sense of urgency related to this objective that accurately captures the science-based need to decarbonise rapidly**. Central to any strategy for mitigation are emissions reduction targets. The healthcare sector has both a responsibility and opportunity to lead with science-based emission reduction targets. DEA, the AMA and a number of health organisation, colleges and societies have called for the sector to be **net zero by 2040, with an interim reduction target of 80% by 2030.**

To align with science-based targets, the Australian health sector needs a net zero roadmap and supportive legislation. Greener NHS England has legislated healthcare sector specific targets and developed a Net Zero Roadmap to reach Carbon Zero across Scopes 1,2 and 3 by 2040/45, including clear annual targets towards that goal. This will require leadership, clear strategy, adequate funding and resourcing to support a national effort, the creation of an authorizing environment for all health workers to co-develop solutions, and the fostering of collaborations with research and industry sectors to drive innovation and efficient implementation.

Each mitigation section 2.1- 2.6 should be strengthened by clarifying the relevant emission reduction targets.

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9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?

Whilst DEA supports the proposed actions listed in the Strategy in relation to the built environment and facilities, the Strategy also needs to set out (in this section or elsewhere) how it will support:

- **action to reduce demand for large, resource-intensive healthcare facilities** and ensure only absolutely necessary buildings are constructed, such as by scaling up health promotion, telehealth and care closer to home, without compromising patient outcomes
- healthcare organisations and suppliers **transition** to net zero buildings and facilities.

DEA has strongly advocated for, and influenced, increased healthcare facility renewable energy and electrification as recommended in our Net Zero Carbon Emissions Report for Australia's healthcare sector and the DEA: All Electric Hospital Guide. A list of all-electric hospitals that are planned in Australia can be found here.

The current Strategy currently lacks clear time frames for the proposed actions, which should be included. DEA recommends:

- 100% renewable electricity supply to all Australian public and private healthcare facilities by 2025
- no planned healthcare facility builds to include gas infrastructure, effective immediately
- transitioning of existing healthcare facilities to be gas-free by 2030
- the establishment of nationally consistent guidelines for healthcare facilities to be designed and constructed for net zero emissions by 2024. Note that the value of reducing ongoing energy consumption through better design and insulation needs to include current and projected increased extreme weather events, such as heatwaves and hot weather, and not be based on historical data.
- no piped nitrous oxide infrastructure in future hospital designs as of 2023, apart from when considered necessary for obstetric and paediatric services. Nitrous oxide piped infrastructure is not a required standard of the updated Australian Health Facility Guidelines.

Internal facility design is important to improve energy efficiency. For example:

1. Modular design of hospitals to allow heating, ventilation and air conditioning (HVAC) units to be turned off in offices and outpatient clinics when not it use (such as overnight and weekends) and in operating theatres when appropriate.

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2. Environmentally Sustainable Design for Kidney Care Facilities from the Australian and New Zealand Society of Nephrology calls for all new planned dialysis facilities to enable significant environmental benefits. These include:
    - Incorporating submetering capacity into the design of dialysis units to enable measurement of water and power consumption by reverse osmosis (RO) plants, as these consume large amounts of power and water. Currently, the lack of measurements is limiting the ability to compare usage between plants and/or improvement initiatives and consequently, the setting of environmental key performance indicators for dialysis units.
    - Installing reverse osmosis plants on the same floor as the dialysis unit to minimise energy usage due to pumping water long distances and loss of heat as water circulates for disinfection.
    - Consider opportunities for RO to reject water capture and reuse it instead. In hospitals, used water can be directed to toilets, central sterile services departments (CSSD) and so on. It is relatively cost efficient and straightforward to incorporate into infrastructure planning, but costly to do after construction.
    - Europe and UK are moving towards centralised delivery of acid concentrate, which saves concentrate wastage, transport, packaging, staff handling and money. While not currently done in Australia, there should be proactive consideration of the different space implications of this for new units, as storage tanks are needed for the concentrate rather than rooms for concentrate bags or canisters.

The strategy should specifically outline the importance of adequate waste management facilities – that is, all planned capital projects and upgrades should include space for multiple waste streams and an appropriately sized CSSD. Without these it can be extremely difficult for a healthcare facilities to instigate adequate waste management streams and return to the use of reusable medical devices (which need washing and sterilizing facilities) compared with single use items.

10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?

Patient and visitor travel to and from healthcare facilities needs to be included in the Strategy. Robust accounting of all emissions is necessary and modes and habits of patient and visitor travel, in particular, can influence the emissions from different models of care, such as telehealth. NHS England (8% of NHS emissions) and some Australian healthcare organisations have measured these emissions, so we do not accept that these emissions should not be measured, reported and reduced through policies included in this strategy.

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Policies that **promote active transport** and corresponding infrastructure for access to healthcare, including affordable public transport options, must be prioritised and outlined in the Strategy. This would include facilitating collaboration between state and territory governments, local government and health services to improve active and public transport access, infrastructure and incentives for patients, staff and visitors at existing and new facilities.

Specific targets are needed for the adoption of zero emissions, including electric transport. DEA recommends all vehicles owned or operated by the health system to be zero emission vehicles before 2025. In circumstances where electric vehicle use is not practical, such as in very remote settings, a high fuel efficiency standard must be the minimum.

Universal electric vehicle charging must be available at all healthcare facilities for staff, patients and visitors.

Models of care and health business practices (virtual meetings) can influence travel modes and emissions. Hence the Strategy should incorporate incentivising the uptake of videoconferencing, telehealth, telephone consultations and other virtual technologies when clinically appropriate. Changes to models of care can also include Hospital in the Home and decentralising health care away from tertiary centres by upskilling and adequately resourcing local health facilities to deliver appropriate care closer to home. For example, in Melbourne, the Royal Children's Hospital has established memorandums of understanding with Northern and Sunshine Hospitals to transfer appropriate patients to their inpatient paediatric units so that their inpatient care can be completed closer to home.

Staff travel emissions should be addressed through restructuring continuous medical education (CME) funding to de-incentivise international travel for conferences, prioritise virtual attendance and allow CME allowances to be reimbursed to the clinician, used for other educational activities or environmental, social and governance projects that benefit the health system.

11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?

DEA strongly supports the actions outlined in the Strategy. They are important and should be explored fully to ensure robust policy levers are used for implementation, including those relevant to non-clinical goods such a food and beverages.

As outlined in the Strategy, the England NHS has developed a clear roadmap to reduce its supply chain emissions. Despite Australia's federated system, a **national coordinated approach to procurement policy is a critical aspect of our Strategy.** Importantly, the private health system must be subject to the same procurement standards as the public

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system. Standardisation is already in place in the Modern Slavery Act which requires all procurement processes to ensure that the risk of modern slavery is minimised in all contracts and is the responsibility of suppliers and purchasers. So, while appreciating the potential complexities, DEA refutes the current Strategy assertion that policies similar to the England NHS supply chain roadmap cannot be implemented in Australia.

Furthermore, Australia has national bodies that can regulate certain standard requirements, such as the Therapeutic Goods Administration (TGA), Pharmaceutical Benefits Scheme (PBS) and the Australian Commission on Safety and Quality in Health Care (ACSQHC).

All pharmaceutical and medical device or supply companies must be required to publicly report the carbon footprint of each of their products, either through the PBS for pharmaceuticals or the TGA and/or the Medical Services Advisory Committee (MSAC) for medical devices or services. These carbon footprint analyses should require methodology standards for LCAs and be compiled in an LCA database to aid procurement decisions.

All medical devices must have declared end of life disposal plans, with a focus on a circular economy approach. Financial, including taxation, incentives could be provided to companies that provide these circular solutions in Australia. The onus needs to be on all medical device suppliers to explain why specific devices are not reusable, and what efforts they have taken and will take in the future to make their devices reusable. Careful regulation will be needed to support such changes in practice, including policies to develop a medical equipment re-processing industry, as presently companies have financial incentives to declare items single use only.

Australia must join the WHO-led Alliance for Transformative Action on Climate and Health (ATACH). Sixty-four countries are members, and it is very disappointing that Australia is not. It is through this alliance that national Departments of Health are developing international procurement standards, led by the UK NHS, United States Department of Health and Human Services and several major European nations.

12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?

Clarify that Section 2.4 includes **medicines, medical gases and respiratory inhalers.** Many recommendations for pharmaceuticals are incorporated in the actions listed in 2.3 as part of the supply chain.

DEA supports strengthening the listed Strategy actions in this section, including but not limited to:

- Banning the use of desflurane, as both the England and Scotland NHS have done.

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- Mandating reporting of emissions associated with anaesthetic gases (including nitrous oxide), as in the new Victorian Financial Reporting Directives (FRD 24) requirements.
- Mandating a nitrous oxide infrastructure management plan for all hospitals with piped nitrous oxide, to ensure adequate monitoring, detection and mitigation of leaks and the reduction of overall procurement.
- Minimising waste of medical oxygen. Flow meters should be turned off when not in use, as the production of medical oxygen has a carbon footprint.
- Preferencing the use of dry powder inhalers (DPIs) over metered dose inhalers (MDIs) by changing the current PBS restrictions to MDI prescribing when there is an indication. For beta agonist inhalers, at present the PBS restricts prescription of terbutaline DPI to those who cannot coordinate an inhaler and the prescriber should assess this every time they prescribe it. However, a salbutamol MDI is much more carbon intensive, causing 27kg $C0_2e$ in emissions, whereas terbutaline causes only <1kg CO_2e. Research into which patients clearly benefit from MDIs rather than DPIs should be incentivised and translated into specific indications for MDIs. In addition, research into alternative propellants or delivery systems such be prioritised.
- Investment in emerging technology platforms designed to improve pharmaceutical stock management and reduce waste.
- Working with the TGA to review packaging and information requirements for medicines to reduce waste and carbon emissions.
- Funding for the Choosing Wisely and NPS Medicinewise programs should be restored and increased. Funding for the Choosing Wisely and NPS MedicineWise programs should be restored and increased. These programs reduce low value prescribing and other aspects of low value care.
- Including a requirement in the upcoming National Safety and Quality Health Service (NSQHS) Standards Sustainable Healthcare module for hospitals to be actively engaged in reducing their emissions associated with anaesthetic gases, MDI inhalers, low value prescribing and medication waste management.

13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?

While waste management is a key component of a Strategy to reduce environmental impact, the **focus must be on an emphasis on reducing waste in the first instance**, as the waste itself does not have as significant carbon footprint as the production of the product.

Appropriate **segregation of waste** that is generated is also important. This requires multi-factorial initiatives including staff education, facility infrastructure, waste contracts as well

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as the capacity to re-use, reprocess and recycle products. Much waste related to healthcare, including medical procedures, is not 'clinical waste' and should not be treated as such.

Approaches to medical device supply and disposal as outlined in the Supply Chain section will be required.

Healthcare facilities should have mandatory recycling streams and targets for compliance with these. These should form part of the NSQHS Accreditation standards. Education on appropriate waste streams should be mandatory for all employees.

Review of infection control policies is necessary to ensure infection risk versus sustainability considerations are evidence-based and only appropriate and necessary use of many goods, such as sterile gowns and drapes, isolation gowns, gloves, dressing packs, Blueys, and face masks. Distinctions between the requirements for a sterile field versus a clean, non-sterile field must be clearer.

The phrase 'sustainable single-use item' should be clearly explained as single-use items are generally not sustainable.

14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?

For health prevention, the importance of Health in All Policies cannot be overstated, and DEA commends the Strategy for recognising this.

As discussed in Q 8, fundamental to successfully decreasing sector emissions are policies and enablers that reduce healthcare demand and prevent the need for resource intensive acute care, followed by evidence-based sustainable models of care, hence DEA **strongly recommends that both 'Prevention and optimising models of care' are prioritised in the proposed mitigation focus areas,** such as by being placed first and potentially separated.

Education, work force support, research and investment in primary and preventive care (including mental health), elimination of low value care and development of low carbon models of care are all important. These will require further consultation and engagement with both consumers and peak professional bodies – DEA has collaborated with the AMA to develop the GreenCollege Guidelines to assist.Green College Guidelines to assist. Recent AMC updates to the pre-vocational curriculum include principles of sustainable healthcare and all clinicians (and healthcare administrators) should be similarly required to undergo education in this area.

The UK based Centre for Sustainable Healthcare's Sustainable Healthcare Principles provides a good outline of the priorities and framework needed, highlighting the

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importance in models of care of prevention as well as patient-centred decision-making and self-care.

As outlined in the Strategy, the review of existing health services and models of care, including telehealth and 'hospital in the home' programs, will be important to understand their potential contributions to emission reductions. Policies and funding (including Medicare Benefits Schedule item numbers) should encourage the uptake of telehealth/videoconferencing and telephone consultations, where clinically appropriate.

Actions previously mentioned to enhance sustainable models of care include decentralising health care away from tertiary centres, by upskilling and adequately resourcing local health facilities to deliver appropriate care closer to home. This would also include enhancing, not replacing, local, ongoing, community-based mental health care which is integrated with primary health care.

Other enablers to optimise sustainable models of care and practices include:

- defunding, via Medicare, of procedures identified as low value care,
- working with private insurers to defund low value procedures, and
- identifying and eliminating financial incentives for over-servicing.

15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?

Responsibility for the delivery of Australia's health care is shared by federal and state governments as well as private entities. Coordination, collaboration and alignment of goals across all these entities are therefore needed to achieve reductions in the sector's environmental impact, including its carbon footprint. There are several incentives and policy levers that can facilitate the involvement of private providers.

A primary incentive should be financial, because there are numerous synergies between the provision of environmentally sustainable healthcare and financial benefits. This is demonstrated by the UK based Sustainable Healthcare Unit and outlined in DEA's Proposal for a National Sustainable Healthcare Unit.

Accreditation standards apply to both public and private healthcare facilities and a significant lever for both should be the mandatory inclusion of NSQHS Sustainable Healthcare Module standards.

Private providers of healthcare sit under the control of the federal Department of Health and Aged Care, with approximately 75% of funding for GPs and private practitioners arising from Medicare. Providing financial incentives to avoid low value (and by definition, high carbon) health care and encourage high value care via Medicare billing is feasible.

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Primary Health Networks, the RACGP and ACRRM should be resourced to support the transition of the primary care sector to lower carbon models of care.

In relation to private providers and the built environment, facilities and energy, there is scope to facilitate 100% renewable electricity bulk power-purchasing agreements along with financial incentives to general practices to change to renewable energy sources, including the installation of solar panels and batteries.

16. Where should the Strategy prioritise its emissions reduction efforts?

a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas?

b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?

a.

The Strategy should focus on numerous quick wins in the first 12 months to generate momentum, demonstrate positive progress and inspire broad action across the health sector. This intersects with DEA's recommended additional Objective that should also be emphasised in the first 12 months.

Additional objective – Widespread awareness and understanding of the urgent need for the Strategy.

Please see our recommended quick wins in the section below for priority actions.

In addition, work to align national, state and private procurement policy with the NHS supply chain Roadmap is critical to deliver inside the life of this strategy.

In parallel with the efforts to bring about quick wins a focus must be on **developing and funding sustainable carbon models of care.** This involves shifting funding priorities to primary and preventive healthcare. It will also require an expansion of the **Choosing Wisely** program and engagement of all peak professional bodies to **develop evidence-based examples of sustainable models of care** and work together through Medicare and private insurers to defund models of care that have been found to be of low-value, or even harmful.

The health infrastructure community, including state governments and private providers, must be given clear direction that **all new hospitals are to be all-electric** (**fossil fuel-free**). All existing hospitals are to develop plans for removing fossil fuels as an energy source and **commit to rapidly decarbonising the electricity supply for healthcare facilities.**

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b.

DEA supports the proposed 6 focus areas however it is fundamental for successful mitigation that each **mitigation section 2.1- 2.6 be strengthened by clarifying the relevant emission reduction targets.**

DEA strongly recommends that both **'Prevention and optimising models of care' are prioritised,** including being placed first and potentially separated. We also appreciate that these are unlikely to be quick wins.

Other priority actions are:

- **Medical gases and inhalers** – there are viable low carbon alternatives in most clinical cases and other countries have already demonstrated potential in this area.
- **Supply chain** – this forms the bulk of carbon emissions and federal policy levers, and regulatory agencies will be important in effecting change.
- **Travel and transport** - federal policies can enable the transition to electric fleets, decarbonisation of the electricity grid, high fuel efficiency standards and changes in transport modes, including the need to travel at all, such as when telehealth is used.
- **Built environment and facilities** – federal policy levers, including funding, must work towards the rapid decarbonisation of private healthcare facilities.

17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?

Suggested 'quick wins' include:

- Banning the use of desflurane.
- Mandating the reporting of emissions associated with anaesthetic gases (including nitrous oxide), as in the new Victorian Financial Reporting Directions (FRD 24) requirements.
- Mandating a nitrous oxide infrastructure management plan for all hospitals with piped nitrous oxide to ensure adequate monitoring, detection and mitigation of leaks and reduction of overall procurement.

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- Changing the PBS criteria for inhalers from the current preferencing of MDI prescription to prescription of MDIs when there is an indication.
- Investing in emerging technology platforms designed to improve pharmaceutical stock management and reduce waste.
- Working with the TGA to review packaging and information requirements (including extension of use by dates) for medicines to reduce both waste and carbon emissions.
- Developing policies to support the **electrification** of transport fleets and healthcare facilities and the supply of 100% renewable energy.
- Developing policies, including financial renumeration, to support telehealth and decentralised/localised care.
- Developing policies to dramatically improve the energy efficiency of healthcare facilities including HVAC efficiencies.
- Working with the TGA to assess criteria for single-use products as well as the environmental impacts of products.
- Requiring **healthcare sector education** on the principles of sustainable healthcare and the health impacts of climate change.
- Providing research funding to undertake further carbon footprint analyses, including a comprehensive process-based life cycle inventory (stocktake) of commonly used equipment, pharmaceuticals, and the development of decarbonisation roadmaps.
- Further development and adequate funding of the Choosing Wisely program.
- Expanding telehealth item numbers to better renumerate practitioners and incentivise their use.

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Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

Whilst adaption to climate change fuelled adverse health and healthcare impacts is necessary and urgent, **DEA strongly advocates that mitigation must be prioritised over adaptation.** Every mitigation initiative is in effect an adaptation initiative, by reducing the future impact of climate change on vulnerable groups and the population as a whole. **The imperative of 'avoiding the unmanageable' cannot be overstated.**

Furthermore, adaptation will only be effective if the wider community understands the risks to health from climate change and are empowered to take actions that protect health. This is in line with DEA's recommended additional Strategy Objective *Widespread awareness and understanding of the urgent need for the Strategy.* As such, the Strategy should include a public education campaign that highlights the risks to health of climate change and the health benefits of adaptation. This is critical to the success of any adaptation action.

'Policy responses to ameliorate impacts' (page 27 should include responses across sectors and government departments including housing and education.

Priority health impacts

The Strategy should recognise the overall increase in burden of disease because of climate change and include goals and targets as part of resilience planning.

The Strategy must focus on planning for building resilient communities, noting that the emerging evidence shows that community preparedness for disasters improves mental health as well as other outcomes, and that emergency responses alone are insufficient for increasingly frequent disasters.

Mental health

The Strategy should explicitly address the wide-ranging mental health impacts of climate change, including direct and indirect effects and solastalgia, which are wide-ranging. refers to the emotional distress caused by climate change.

Direct impacts include mental health emergencies during heat waves and extreme weather events, including increases in major depression, anxiety disorders, substance use disorders and trauma-related disorders such as post-traumatic stress disorder. Climate change can impact mental health indirectly through stressors such as displacement, food and water insecurity as well as physical ill health from climate sensitive diseases such asIndirect mental health impacts include displacement, food unemployment and water insecurity as well as physical ill health from climate sensitive diseases such as and the mental health impacts associated with physical climate health effects eg. thunderstorm asthma.

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borClimate distress in young people has been correlated with a perceived lack of governmental action and could be ameliorated through demonstrated robust government action on climate mitigation, consistent with the Paris agreement.

Heat related illness

The Strategy should recognise and plan for the health effects of increasing severity and frequency of extreme heat, including very hot days and nights as well as heatwaves. Heat causes more deaths in Australia than floods, storms and bushfires combined, although harm reduction strategies are available. Local, community-based solutions should be emphasised. Heat causes more deaths in Australia than floods, storms and bushfires combined, although harm reduction strategies are available. Local, community based solutions should be emphasised.

Health infrastructure and Workforce

Health and aged care facilities can be damaged during extreme weather events as well as incremental changes due to climate change. The Strategy include. We need to develop goals and targets to reduce these impacts including when planning new capital projects.

Similarly, the Strategy should recognise the challenges of adequately staffing healthcare facilities during extreme weather events.

The Strategy should address the challenge of adequately staffing healthcare facilities during extreme weather events. Health and aged care workforce may have difficulty in actually accessing healthcare facilities and along with their own homes and families, they may also be directly impacted by extreme weather.

Supply chain disruption

As mentioned in the Strategy planning for supply chain disruption from climate related events will be important.

19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes:
    a. What are the key considerations in developing a methodology?
    b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally?
    c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

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The development of a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan should be conducted as part of the National Climate and Risk Assessment processes and not as a duplication of effort. This should be executed as a whole-of-government assessment, and not siloed within and as the sole responsibility of the Department, noting the role of National Climate Change Adaptation Research Facility (NCCARF) which was disbanded in 2019.

The Strategy should account for the lived experience of consumers, with a focus on priority populations, as part of vulnerability and adaptation planning.

The methodology used needs to identify policy gaps and opportunities for improving population resilience across sectors, including those under other government portfolios.

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20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?

DEA considers there would be value in the Australian government promoting an overarching nationally consistent approach to vulnerability assessment and adaptation planning for the health system. However, it is important to note that both **vulnerability and adaptation are often community and location specific**, and as such local and state governments also have a major role to play. The national assessment can use an overarching framework to benchmark and facilitate federal policy and funding decisions and should take into account: -

- the extensive range of vulnerabilities across different communities and regions,
- the wide variety of ecosystems and natural habitats and climates across Australia, and
- the wide variety of health and wellbeing considerations, and how these are impacted by climate change.

Guidance for the assessments should consider policies and tools that have already been developed, at the international (e.g. by the World Health Organization), state and territory level, and action that has already occurred (including the local government and health service level) to avoid duplication of effort.

Guidance for a broad range of health services is needed, including primary care and mental health, as well as aged care. Guidance needs to be adaptable to different communities, service settings and climate change threats.

Implementation support is essential, in the form of tools, knowledge and capacity building as well as finance. This work takes considerable time and resources, requires input from multiple internal and external stakeholders, and is new territory for many people in the healthcare workforce.

The National Health Sustainability and Climate Unit (NHSCU) must be resourced to provide ongoing implementation support for health services to assess and plan for climate risks.

The Strategy should seek to adopt existing tools where possible. Guidance and support should be provided for health services to assess and plan for climate risks to infrastructure, service provision (including surges in service demand and changing burdens of disease), the health workforce and supply chains. Relevant tools include:

- Queensland Climate Risk Strategy and Adaptation guides

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- Human Health and Wellbeing Climate Change Adaptation Plan for Queensland
- NSW Climate Risk Ready program
- Victorian Health and Human Services Climate Adaptation plan
- Resources from the **World Health Organization**, such as the Protecting health from climate change: vulnerability and adaptation assessment
- Sydney North Health Network Climate and Health Strategy

Importantly, the international Alliance for Transformative Action on Climate and Health (ATACH) has a Climate Resilient Health System thematic working group that collaborates on vulnerability and adaptation assessments and of which DEA and over 64 nations are members – but **not Australia**.

21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?

The full societal costs of climate inaction over both short and long term time frames and the implications of health-relevant policies in all sectors, need to be fully and systematically considered to prevent the hidden transfer of costs (externalities) to the health sector and the undermining of environmental sustainability.

Careful planning of the implementation phase of the Strategy must include broad engagement with all stakeholders (including widespread public promotion) to increase acceptance and engagement with the Strategy. This underlines the importance of the additional objective proposed by DEA – *Widespread awareness and understanding of the urgent need for the Strategy.*

In particular:

- collaborating with the new **Australian Centre for Disease Control** (ACDC),
- education and capacity building among policymakers, community members, the health workforce, and within emergency and disaster preparedness services and agencies,
- avoiding building any new healthcare facilities on land likely to be at risk of climate change related damage, such as flooding and fires,
- preparedness plans for healthcare service delivery climate related disasters, and
- adequate preparation and resourcing of emergency services.
- Rural and remote health service support and resources to improve resilience.

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- Preparedness for disruption to health system supply chains (from both international and national climate threats).

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Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?

DEA commends the Strategy for acknowledging the importance of influencing factors outside of Health and the imperative for a HiAPs approach, and **strongly recommends incorporating a HiAPs approach in the final Strategy.**

Specifically, DEA applauds recognition of the need for a HiAPs approach through several Strategy statements including:

> *Most decisions affecting the wider determinants of health - such as policies on food and agriculture, housing, employment, infrastructure, land use and transport – are made outside the traditional confines of 'health policy'.*

DEA fully supports the expressed intent to:

> *…to maximise the synergies between good climate policy and public health policy, by "facilitating sectors outside of Health to routinely consider and account for the health impact of their policies, plans and implementation."*

The WHO definition of Health in All Policies also outlines the imperative of its inclusion for Strategy success:

> *an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity.*

Key Areas where a Health in All Policies approach and synergies would assist the Strategy reduce the health and wellbeing impacts of climate change along with emissions are:

- Energy – particularly fossil fuel exploration, mining, extraction, combustion and exportation (further details below).
- Transport – transitioning the sector's reliance on fossil fuels including policies to develop active transport and public transport.
- Food and agriculture – agriculture production, transport and storage as well as public health policies to promote health and wellbeing by improving dietary habits, such as a sugar tax and addressing inappropriate junk food advertising.
- Finance – ceasing fossil fuel subsidies as well as removing current requirements to demonstrate savings in a specific area, rather than in relation to the overall Australian budget costings, including health and healthcare.

A significant barrier to effective inclusion of health concerns in decision-making appears to be the operation of silos within government so that departments overseeing planning, infrastructure, energy, agriculture, water and so on make decisions independent of projected health impacts. An effective avenue that should be covered by a HiAP approach

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would be the requirement to **include health metrics in the assessment phase of any significant national, state or private sector proposal, and particularly any proposed fossil fuel project.**

Concerningly, the **Strategy makes no reference to Australian fossil fuel operations.** Ignoring the health impacts of fossil fuel projects in this country and 'exporting' the human and planetary cost of these is no longer an acceptable approach. A HiAP approach should incorporate this.

A 'Mortality cost of carbon' (MCC) could be undertaken for all proposed fossil fuel projects, based on expected carbon emissions. For example, if approved, the North West Shelf (NWS) proposal would permit the Karratha Gas Plant (KGP) to produce 3.2 $GtCO_2e$ of scope 3 greenhouse gas emissions in addition to those that are already approved to 2030. This is almost equivalent to Australia's carbon emission 'budget' to achieve net zero by 2050, which is around 3.5 $GtCO_2e$ total domestic emissions to be produced after 2030. So, from 2030 onwards, the Scope 1 and 3 emissions from the KGP would be comparable to Australia's entire scope 1 emissions.

Furthermore, the decarbonisation of the Australian economy by 2050 and 2040 has been modelled to avert an estimated 988,000 and 1,101,000 global deaths respectively. Decarbonisation of the Australian healthcare sector by 2050 and 2040 is predicted to avoid an estimated 69,000 and 77,000 global temperature-related deaths, respectively.

23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?

Legislation remains the most effective approach to ensuring all stakeholders engage authentically with a Health in All Policies approach. A necessary step will be legislation requiring the incorporation of health metrics into the assessment phase of any future policy and any significant national, state or private sector proposal.

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Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?

DEA supports all the enablers that have been proposed with several additions.

Leadership and Governance

Leadership and governance should be a standalone enabler and prioritised, rather than being rolled into workforce and training. There needs to be development of:

- a legislative framework to institute regulatory targets
- healthcare sector/system specific emission reduction targets – net zero by 2040
- a governance structure the includes the relationship between the National Health, Sustainability and Climate Unit, developing state health sustainability units and so on
- governance and outcome accountability structures
- demonstration of leadership through facilitating DEA's recommended Objective of *Widespread awareness and understanding of the urgent need for the Strategy*, as outlined in our response to Question 1. This is important to the Strategy's success and and should not only be the responsibility of the health and aged care work force as listed under the current Enabler 1.

Finance structure and funding

Adequate funding is a key enabler and will be pivotal for a Strategy of this importance and scope and includes outlining:

- how initiatives will be funded,
- how related training and research will be funded, and
- how cost savings will be re-invested into initiatives aligned with the Strategy.

Workforce and training

Staffing

The NHSC Unit must be adequately staffed to be effective. England's Greener NHS program now has over 100 central staff.

Training and education

The whole health workforce must be educated on the health impacts of climate change and, where appropriate, their clinical management. Knowledge of sustainable healthcare principles and skills in implementing them are also vital – that is, how to deliver local change projects to effectively mitigate the environmental impact of healthcare delivery.

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Given the pace of change required, it will require a whole of sector approach with large numbers of healthcare workers engaged in mitigation efforts.

Medical colleges and other education and training institutions must be **required** rather than 'encouraged' to integrate both the impacts of climate change on health **and sustainable healthcare principles** into their training curriculums. This is already being led by the AMC, but needs to be strengthened and broadened across healthcare disciplines.

Recruitment and retention of health staff across the sector needs to be addressed through incentives and targeted recruitment and training program, in line with the Strengthening Medicare Taskforce Report recommendations. This is especially important in rural and remote areas where the impacts of climate change are likely to be greater.

Research

Health and climate change research is important.

Equally important is research in sustainable health care to better understand the environmental footprint of our healthcare system, develop decarbonisation roadmaps and evidence-based implementation pathways. Further research to identify and eliminate or reduce low value care is also important. Measuring and tracking the health impacts and health costs of climate change would inform and support climate mitigation and adaptation policies. Quantifying the health and financial costs of **inaction** on climate change mitigation and sustainability more broadly would also encourage action.

Communication and engagement

DEA strongly supports the proposed action of *Increased public awareness of the health impacts of climate change to empower individuals and communities to take action to reduce emissions and build climate resilience*. However, to show leadership, this enabler needs to be emphasised through incorporating DEA's recommended additional Objective for the Strategy: ***Widespread awareness and understanding of the urgent need for the Strategy.***

To ensure the strategy is translated into meaningful results and outcomes, it is critical to engage with healthcare professionals. This includes their involvement as clinical leads, such as in the NSW Health Climate Risk and Net Zero Unit. Organisations such as DEA and the Climate and Health Alliance (CAHA) can provide input from frontline clinicians already engaged in this work.

Collaboration

In addition to governance structures, regular input from health and climate experts, peak professional bodies and advocacy groups is essential.

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Monitoring and reporting

As has been discussed earlier in DEA's response, monitoring and reporting require targets to track progress. Hence DEA reiterates the importance of science-based targets for health sector decarbonisation – a net zero target of 2040 with an 80% reduction by 2030.

Each of the six mitigation focus areas also require specific targets.

25. For each of these enablers:
    a. What is currently working well?
    b. What actions should the Strategy consider to support delivery?

a. What is currently working well?

Workforce and training

DEA has engaged extensively with the healthcare sector and produced health professional education resources that are being used by multiple hospitals, healthcare services and education and training organisations.

While there is progress in making training in climate and health and healthcare sustainability principles mandatory in health professional education, this must progress faster. In addition to healthcare professionals currently in-training, there must also be a requirement for related education for that are already practising. Knowledge relating to sustainable healthcare principles should be part of accreditation requirements, in the same way as existing requirements for infection prevention and patient blood management.

Healthcare professionals, including clinicians, should have dedicated, funded time to work on mitigation efforts in their immediate clinical environments.

Important enablers to implement these changes include:

- **education standards** (such as being developed by the AMC)
- **enterprise agreements** (Victorian updated Enterprise Agreement has a 'Climate change and sustainability' clause)
- **accreditation standards.**

Collaboration

Clinician engagement through DEA, the AMA, medical colleges and other professional bodies as well as universities, has been in place for years. The Strategy should build and support this engagement and collaboration and include other bodies, such as CAHA.

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b. What actions should the Strategy consider to support delivery?

To support delivery, the strategy should consider DEA's additional actions listed in answer to Q 24 and all of the proposed actions listed in the Strategy Enabler section.

Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

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Australian Government
Department of Health and Aged Care

NATIONAL HEALTH AND CLIMATE STRATEGY

Detailed submission form

This form allows you to provide responses to the full set of questions in the Consultation Paper available here.

Alternatively, you may wish to complete the briefer online survey available here.

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

Respondent details

What is your name?
[redacted]
What is your email address?
[redacted]
What is your organisation?
Medical Technology Association of Australia
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
[redacted]
Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☒ Industry and Life Sciences Organisation or Representative ☐ Academic or Researcher ☐ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

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Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
With objective 1 regarding measurement, it should be noted that measuring and reporting should be done in a consistent and agreed upon approach involving consensus across the health sector. There needs to be an element outlined in the objective that measuring and reporting can be verifiable to avoid the risks of greenwashing. In addition, there needs to an equitable aspect regarding how to ensure all business can adopting reporting measures (especially SMEs) – it is very expensive to use certain reporting platforms that are widely regarded. With objective 4, outlining that there needs to be a maintenance of clinical safety and efficacy whilst trying to address the climate change impacts. The balance needs to be called out explicitly because what we want to avoid in healthcare is focus too much at the system level that individual care is compromised.
2. How could these principles be improved to better inform the objectives of the Strategy?
3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?

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4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?
5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?

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Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?
Some of our larger member companies do operate globally and would be following recording emissions in line with those jurisdictions requirements they are based in. They might have a global strategy on measuring emissions and have certain aspects implemented within the ANZ region. Something to flag is that while global companies might have dedicated teams to tacking sustainability, the ANZ arm might not have the same level of resourcing – sometimes the sustainability roles is an additional responsibility of someone in the company and not their primary role. However, Australian MedTech SMEs are likely to have limited capability to identify and report on emissions targets or productions. There would need to be high degree of education support provided to SMEs if they are required to embrace these new reporting requirements and to do them effectively.
7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?
For the Medtech sector, there needs to be an understanding of the types of activity that occurs in the Australian context. A lot of MedTech companies in Australia are involved in distribution and sales activity, while there is less manufacturing activity. As a result, the scale of emissions generated within Australia is different and would generally involve capturing emissions at various points across the domestic supply chain (fuel used for transporting, electricity while storing in warehouse, etc). Trying to progress targeted emissions reduction also involves understanding the geographical constraints operating business in Australia. Domestically, transferring goods to different locations can be challenging given the large distances between the major cities in Australia. For example, it is quite common for some MedTech companies to move product from the East Coast of Australia to the West Coast. Therefore, businesses might reach a certain threshold beyond which point it might be very difficult to further reduce missions as part of their distribution model - this would require innovative and more fuel efficient approaches to have be created and implemented. Similarly, a lot of MedTech products are shipped or brought in into Australia from around the world. These lengthy supply chains can be managed at certain parts to reduce their carbon footprint (in terms of less packaging, less electricity at certain stops) but the reality is still shipping or transporting the goods to Australia is another geographical constraint that will be hard to reduce after a certain level.

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Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?
9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?
10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?
11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?
There needs to be an understanding of the diversity in medical technology supply chains The strategy might need to tailor requirements based on the type of technology that companies are involved in. In the Medtech sector there are medical consumables (PPE, syringes etc), Medical implantables (hip and knee implants, pace makers etc) and capital equipment. These will have their own respective environmental footprints so a one size fits all model might not be appropriate. Engaging industry on across the respective domains will help in developing appropriate mitigation strategies.
12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?
13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?
Different companies across Medtech are engaging in specific Waste Management initiatives. For example, in the renal space there are MedTech companies that are doing a

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lot in recycling plastic and developing circular economy approaches where Plastics are reused as construction materials or gumboots.

An area that is gradually evolving is the ability of MedTech companies to partner with waste providers that are trying to find innovative solutions to manage medical waste. At MTAA, we have a webpage that is a dedicated resource on different types of medical waste and link to potential providers that could offer solutions for a MedTech company. Part of the challenge is bringing together the fragmented ecosystem and increase awareness of the different ways companies can manage their waste.

14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?

One key area that intersects optimising models of care is procurement of MedTech. From an industry perspective, there are concerns that Health Services sometimes purchase particular MedTech products on a per operation basis rather than consolidating their orders into one. From a sustainability point of view, procuring with the former approach will result in unnecessary materials and fuel and energy being used. This is an important lever and if not appropriately addressed will mitigate the impacts of Industry can make in trying to embed more environmentally sustainable ways of doing business.

15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?

Engage in roundtable sessions with the MedTech industry to understand the types of business activity that occur in Australia. If there are frameworks that are being developed to assess sustainability progress, there needs to be consultation with the MedTech industry to ensure the implementation of these Frameworks is feasible.

It is important to know that the MedTech sector is one of the most heavily regulated sectors and it is very hard in the current environment to get a product to Market and get regulatory approval. This broader context needs to be factored in as well when trying to implement a plan around emissions reduction targets. This is especially paramount for smaller companies/ SMEs that do business in Australia and don't have the design dedicated personnel to focus purely on achieving emissions reductions targets

16. Where should the Strategy prioritise its emissions reduction efforts?

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a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas?

b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?

17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?

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Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?
19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes: a. What are the key considerations in developing a methodology? b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally? c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

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20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?
21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?

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Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?
23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?

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Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
Enabler 2 – From dialogue with key government bodies that are focused as a sustainability there is an increasing interest embedding sustainability in the design of products. Investing in research that targets MedTech trying to find ways to design products which sustainability principles are incorporated at the front end of the design process could be a potential way that the industry collectively moves forward to create more Innovative and environmentally and carbon neutral medical technology. This might involve funding through the MRRF or NHRMC and be a priority area that aligns with the Department in terms of looking at climate change as a health priority area.
25. For each of these enablers: a. What is currently working well? b. What actions should the Strategy consider to support delivery?

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Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

National Health and Climate Strategy

Lung Foundation Australia 2023

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Executive Summary

Lung Foundation Australia welcome and support the first National Health and Climate Strategy which provides an important opportunity to protect and support Australians in the face of climate change. We are already witnessing significant impacts to human health because of climate change, and we will continue to see increased impacts on human health into future. We must do more to protect Australians, build resilience and prevent health harms as the environment in which we live, work and play, impacts our health and wellbeing. We highlight the importance of this strategy to protect the one in three Australians living with and lung disease and further to prevent avoidable lung disease in the future. We strongly support the development of Australia's first National Health and Climate Strategy and the work being done by the Government to reduce emissions, strengthen legislation and importantly, recognise the importance of public health. Tackling and adapting to climate change requires significant co-ordination, collaboration, and action from all government sectors and importantly these actions must be guided by the principle of ensuring the protection of human health and safeguarding the environment now and into the future. The Department's leadership in this space will be crucial for implementation and collaboration, as the Strategy will only be effective for public health based on strong co-ordination between sectors and all levels of government.

The development of the first National Health and Climate Strategy is a significant achievement for Australia and highlights the Government's commitment to the health of Australians and the environment. We further acknowledge the Departments plan to deliver a National Climate Risk Assessment, which will consider a range of climate linked health impacts at a national level and a National Adaption Plan which addresses the climate risks identified by risk assessment including those in the health sector. We are pleased to witness the early draft of this Strategy and hope this Strategy will inform and guide much needed change in Australia and promote health and wellbeing of all. We understand the National Health and Climate Strategy is the first step, yet we note the importance of a strong foundational strategy to guide all levels of government and ensure the key objectives of protecting public health remain at the forefront of future policy reform.

In our view, the National Health and Climate Strategy is the framework to acknowledge and address the links between the environment and human health. The relationship between environment and health has long existed, however in the face of climate change the impacts are becoming more prominent, increasing the need for further government action to protect public health. The National Health and Climate Strategy must identify the clear intersections between climate change and health including the health impacts. The Strategy must effectively guide all levels of government to address environmental health risks and challenges to create safe environments that support the health of all noting ongoing inequities and vulnerabilities. We note the complexity of environment and health and thus, this foundational strategy should pave the way for sub-strategies/action plans focusing on key health impact and target areas to address these links (Refer to Figure 1). The National Health and Climate Strategy should become the overarching objective for protecting public health in the face of climate change, however given the complexities and extent of health

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outcomes they are unable to be effectively addressed in one strategy. We recommend the Department create sub-strategies on main health issues/sectors to allow for an in-depth analysis and catered action plans to effectively address each area that is pertinent to health.

National Health and Climate Strategy and Sub-Strategies

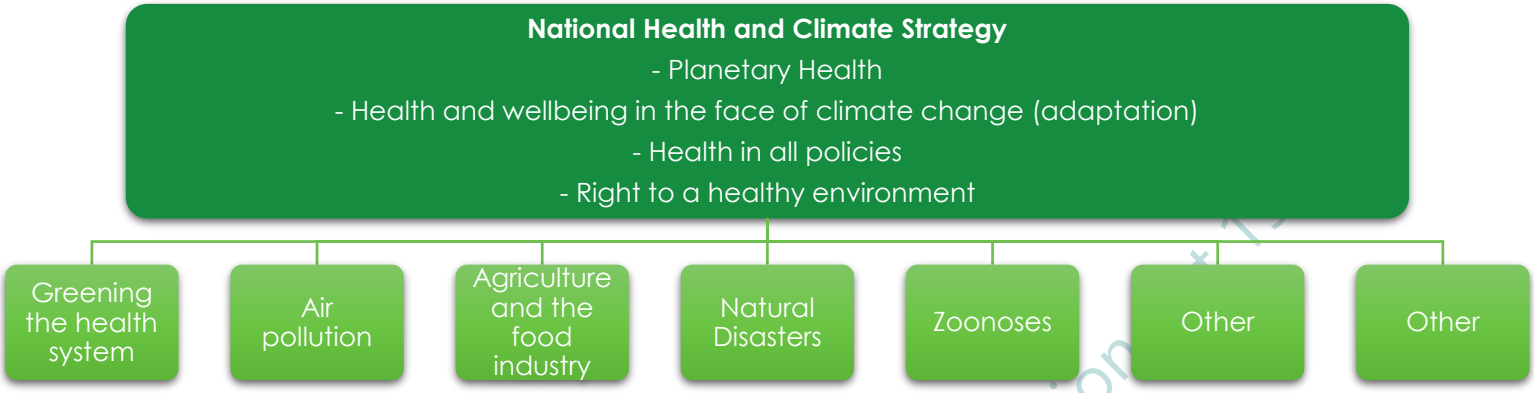


Figure 1: National Health and Climate Strategy and potential sub-strategies

The Strategy needs to provide the central framework to address climate and health risks and protect the health of all Australians. Climate change is progressing and must take strong action to prepare and adapt to protect health now and into the future. We thank the Department for their work in developing a National Health and Climate Strategy and the importance of this work for our future. We urge the Department to release a draft Strategy and undertake a second round of consultation to ensure the Strategy is effective in meeting the needs of the Australian community and protects the health and wellbeing of all in the face of climate change.

Lung Foundation Australia are keen to work together and support the Department in the next steps for addressing climate and health and further provide the Department an understanding of the lived experiences of those living with a lung disease. We look forward to continuing discussions on climate and health and thank you for the opportunity to provide feedback on the consultation paper. To organise a meeting please contact Paige Preston, Senior Manager of Policy, Advocacy and Prevention, at paigep@lungfoundation.com.au or 0423 734 885.

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Mark Brooke
CEO
Lung Foundation Australia

About Lung Foundation

Lung Foundation Australia (LFA) is the only national charity and leading peak-body dedicated to supporting anyone with a lung disease including lung cancer. For over 31 years we have been the trusted national point-of-call for patients, their families, carers, health professionals and the general community on lung health. There are over 30 different types of lung disease currently impacting 1 in 3 Australians. Our mission is to improve lung health and reduce the impact of lung disease for all Australians. We will continue working to ensure lung health is a priority for all, from promoting lung health and early diagnosis, advocating for policy change and research investment, raising awareness about the symptoms and prevalence of lung disease and championing equitable access to treatment and care. As a patient representative charity, we have partnered with patients, health professionals, researchers, medical organisations and the Australian community to drive reform in the delivery of health services in Australia to benefit more than 7 million Australians impacted by lung disease and lung cancer.

Lung disease and climate change

Climate change is causing increases in average temperature, more frequent hot weathers and shifting rainfall patterns. Climate change is decreasing the air quality in Australia and impacting the lung health of Australians, which is of particular concern for those living with a pre-existing lung disease. Climate change particularly increases the level of pollutants in the air and such increases in air pollution poses a threat to lung function, causing respiratory symptoms and may lead to lung cancer. Vulnerable populations, such as the 1 in 3 Australians living with a lung disease, experience worse health impacts in the face of climate change and are prone to worsening of respiratory symptoms and exacerbations of lung conditions when exposed to air pollution. Noting the harmful impacts to lung health the Strategy should pave the way to protect the one in three Australians living with a lung disease and prevent avoidable lung conditions resulting We highlight the importance of this Strategy in protecting the one in three Australians living with lung disease and further to prevent avoidable lung disease in the future.

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Main recommendations

The current consultation paper highlights the importance of recognising health in all policies and adaptation to strengthen the resilience of the health system and communities, and we strongly support these objectives. We however note that the Strategy is brief and does not allow for a complete understanding of what these important objectives mean and the research supporting these notions. There is extensive evidence on the relationship between the environment and human health which is not incorporated into the Strategy. It is important the Strategy effectively discusses these links to provide context for current and future challenges. Lung Foundation Australia recommends the following to ensure the Strategy protects the health and wellbeing of Australians from the impacts of climate change.

The 2021 WHO Health and Climate Change Global Survey found 52% of countries surveyed (49 out of 95) have a national climate change and health strategy in place.[1] However, despite progress on assessment and planning, implementation of national strategies remained a challenge due in insufficient funding.[2] Additionally, whilst most governments identified both health and climate change as main priorities, they often do so separately rather than via integrated and mutually reinforcing goals.[3] To achieve meaningful progress on implementation there must be clear mandates and proportionate resources dedicated to the intersections between climate and health.[4]

1. Health and wellbeing of Australians as the primary focus of the strategy

The National Health and Climate Strategy is long overdue and fills a significant gap in policy regarding environmental health. This Strategy should provide the overarching framework of how Australia will acknowledge and respond to the environment noting the impacts on health. The current outline and structure of the strategy removes focus from the big picture aspects of environmental health, and these become overshadowed by emission reduction efforts in the health system. The Strategy has a significant focus on the healthcare sector and reducing carbon emissions, and whilst this is important, more attention is needed on the broader concepts of environmental health to mitigate the health impacts from climate change effectively. At the very least, to ensure the focus remains on health and wellbeing we recommend the objectives to be re-ordered with adaption and health in all policies at the beginning of the strategy.

2. Effective engagement and collaboration with communities

The strategy must incorporate priorities for engagement and collaboration with communities who are vulnerable to the impacts of climate change. Lived experiences of consumers provides an understanding of the needs of communities and should inform actions for implementation and the ongoing work under the National Health and Climate Strategy. We particularly highlight the needs of the 1 in 3 Australians living with a lung disease and the impacts they are experiencing due to the changing climate. Australia has experienced extreme natural disasters in recent years, causing major flooding and bushfire events. Pollution from bushfires and the build-up of mould in damp environments has resulted in poor air quality both indoors and outdoors which can lead to significant health impacts for all Australians. However, those living with a lung disease are particularly vulnerable and

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exposure can lead to worsening of symptoms and the need for increased healthcare. The impact of climate change for lung health will be discussed further below.

The Strategy must support such communities in adapting to the impacts of climate change and tailor actions to recognise their needs. With natural disasters already increasing we cannot ignore the communities who face increased health risks and poorer health outcomes which will ultimately lead to the need for increased healthcare, exacerbating healthy system pressures and costs. The impacts of climate change are disproportionately felt by the most vulnerable and disadvantaged including children, ethnic minorities, poor communities, migrants, and those with underlying health conditions.[5] The Strategy must acknowledge the needs of such groups and ensure health inequities are reduced. Any actions to mitigate the health impacts of climate change needs to account for the intersection between socioeconomic disadvantage, First Nations, rural and remote communities, and health – particularly respiratory health for those already living with a lung condition or more likely to develop one due to climate change or other determinants.

We encourage the Department to establish and facilitate an expert working group to ensure the Strategy is informed by evidence-based research to lead Australia in developing healthy communities. There is already extensive research on environmental health and climate change, and we should draw on knowledge, experience and best practice measures to guide future actions.

3. Capturing health in a holistic sense and the broader definition of health

The Strategy acknowledges the notion of one health and the alignment with achieving health in all policies, objective 4. Expanding on one health, the concept of planetary health places more emphasis on the interconnections of environment and health. The World Health Organization explains planetary health as incorporating the interdependencies of human and natural systems, while also recognizing that preserving the integrity of natural systems is an essential precondition for human health, survival, and prosperity.[6] Planetary health is simply described as the health of human civilisation and the state of the natural system on which it depends, and thus, this concept provides greater emphasis on climate and health and should be referred to in the Strategy.[7]

4. Identify a clear purpose of the strategy

The purpose and vison of the Strategy is unclear and presents objectives that are both solely the responsibility of the Australian Department of Health as well as all levels of government. We recognise the overarching purpose outlined on page 2 of "protecting the health and wellbeing of Australians from the impacts of climate change." Despite this being identified as the purpose, we note that the Strategy does not go far enough to effectively do so, and we can and should be doing much more to support and protect the health of Australians.

Emissions reductions and environmental protection are important factors underpinning climate change however, these must be considered separately to protection of public health for environmental risks. We must not only reduce our environmental impact but further create and promote health within all areas of government to recognise health and wellbeing as holistic.

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Additionally, the Strategy does not recognise links to the Australian Centre for Disease Control nor the Measuring What Matters Framework, and importantly the intersections on how each could support the implementation of the National Health and Climate Change Strategy and objectives. The Measuring What Matters Framework and wellbeing economy assists in addressing climate change as it defines the markers of progress as the things that serve the wellbeing of people and the planet.[8]

5. Goals and targets outlined with timeframes

We note that while objectives are discussed the Strategy does not outline actions or goals for each objective. Such goals are important to ensure the Government have clear responsibilities and are held accountable to achieving the objectives and aligning with the Strategy. It is currently unclear how the objectives can be effectively implemented to achieve the desired outcomes and the timeframes in which this will occur. A strategy without clear targets, timelines and actionable items will serve no purpose. For effective implementation we need co-ordinated cross department collaboration by the Government due to the complex nature of the environment and health and the intersections with key policies at all levels. Without timeframes, action will continue to be delayed. It is important to understand how these objectives will be achieved and allow for progress to be tracked and monitored to ensure we are protecting the health and wellbeing of Australians.

6. Facilitate co-ordination for effective implementation

The Strategy must recognise the need for co-ordination for implementation and will ultimately require cross-jurisdictional and cross-portfolio activities. The Strategy must reflect the broader actions needed by all levels of government rather than solely focusing on what the Department of Health will do as part of the Strategy. The Department needs further actions around how it will influence and drive investment to implement the initiatives that involve other sectors to reduce health threats. The strategy should make the role of states and territories clear and provide the overarching guidance on safeguarding public health in the face of climate change.

7. Recognise the right to a healthy environment as a principle

In 2022, The Australian Capital Territory began the process of achieving the right to a healthy environment to be incorporated into the Humans Rights Act. We urge the Department to consider the inclusion of Principles regarding the right to health and the right to a healthy environment. The presence of these core principles acknowledges the links between the environment and our health and wellbeing, and importantly makes environmental health a priority for government.

In July 2022, The United Nations declared healthy environment as a fundamental right and whilst this is not legally binding for the 193 United Nations member states, it aims to encourage countries to uphold the right to healthy environment in legislation.[9] On the other hand, Australia is a signatory to the Paris Agreement, which is a legally binding international treaty on climate change.[10] Article 7 of the Paris Agreement outlines the commitment to enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change and acknowledges this may including assessment of climate change

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impacts and vulnerability to formulate national priorities for action.[11] These notions should underpin the purpose of the Strategy and emphasise the importance of the relationship between the environment and public health.

Lung Foundation Australia's view on the evidence and importance of national leadership

The impacts of climate change

Climate change is increasing the intensity and frequency of natural disasters, causing extreme rainfall, heatwaves and droughts which can modify the transmission of food and water borne disease as well as zoonotic infectious disease, having a large impact on human health.[12] Human health and development rely on a healthy environment and currently about one quarter of all death and disease burden worldwide is a result of known, avoidable environmental risks.[13] One of the largest risks to health is air pollution with more than 90% of the world's population breathing polluted air. In Australia it is estimated that 2600 people die from air pollution each year, demonstrating the urgent need to do more to achieve clean air in Australia.[14] The estimated financial cost of premature deaths due to air pollution ranges from roughly $11 billion to $24 billion per year, placing a significant financial burden on the government.[15]

The United Nations 2030 Agenda for Sustainable Development is a plan of action to create a sustainable and resilient world with 17 Sustainable Development Goals and 169 targets aimed at balancing the three dimensions of sustainable development: the economic, social, and environmental.[16] We note Australia's commitment to the 2030 Agenda including the Sustainable Development Goals, which align with the Australian Government priorities and long-standing efforts across a range of sectors.[17] The United Nations Sustainable Development Goal 13 calls for urgent action to combat climate change and its impacts by strengthening resilience and adaptive capacity to climate-related hazards and integrating climate change measures into national policies, strategies, and planning.[18] Additionally, Sustainable Development Goal 3.9 sets the target by 2030 to substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination.[19]

Climate change and lung health

Over the past 60 years, the effects from global climate change have impacted Australia. There has been a shift in the local climate with an increase in average temperature, more frequent hot weathers and shifting rainfall patterns.[20] Climate change is associated with respiratory symptoms and decreased lung function which is caused when exposed to air pollutants such as particulate matter.[21] Climate change particularly increases the level of particulate matter in the atmosphere and such increases in air pollution and exposure can pose a threat to lung function.[22] Furthermore, warmer temperatures associated with climate change increases exposure towards respiratory allergens and pollutants with poor quality leading to respiratory allergies and asthma.[23] Vulnerable populations, such as the 1 in 3 Australians living with a lung disease, experience worse health impacts in the face of climate change, compared to the general community. Those living with a lung disease are prone to

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worsening of respiratory symptoms and exacerbations of lung conditions when exposed to air pollution. Research has also shown an increase in hospital admissions for children with asthma during cool seasons due to high concentrations of pollutants such as PM2.5, NO2, PM10 and pollen.[24] Climate change is worsening the air quality in Australia and impacting the lung health of Australians, which is of particular concern for those living with a pre-existing lung disease, and also increases the likelihood of more Australians developing a lung disease.

National Response to climate change

Climate change is causing widespread impacts on our environment at an accelerated rate, and these damaging effects will undoubtably impact the health of all. The concern and need for action to slow down climate change led to the formation of a an international legally binding treaty, the Paris Agreement, on the 4th of November 2016.[25] The agreement, signed on by 194 parties, is a commitment made to reduce emissions and work in collaboration to adapt to the impacts of climate change.[26] Australia is a party to the Paris Agreement and works to achieve the two primary goals of; holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit temperature increase to 1.5°C.[27] Australia has legislated new targets in the Climate Change Act 2022, aiming to reduce greenhouse gas emissions by 43% below 2005 levels by 2030 and keep Australia on track to reach net zero emissions by 2050.[28] The new target set in 2022, increases reduction targets by 15% below previous goals, demonstrating an increased response and effort by the Australian Government.[29] However, research has shown that Australia is not on target to meet the current pledge and further, the current targets set are insufficient in with keeping global warming to 1.5°C (Refer to Figure 2).[30]

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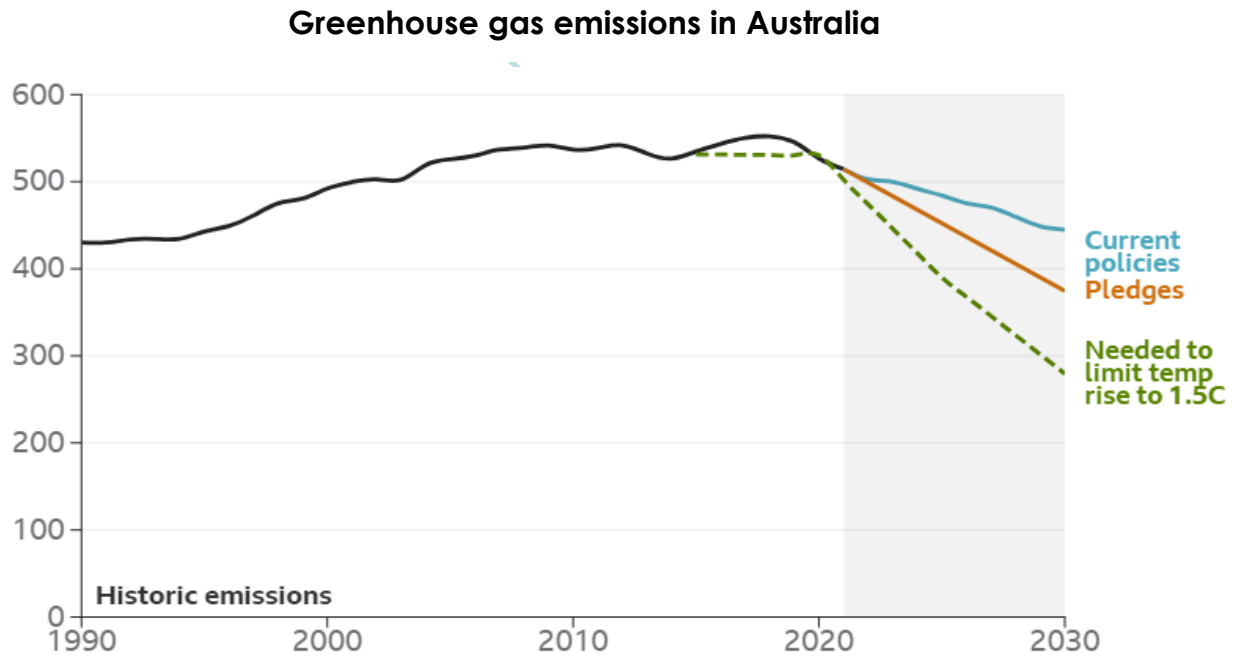


Figure 2: Greenhouse gas emissions in Australia and future modelling of current policies, pledges and what is needed to reduce warming to 1.5°C

Importantly, the Strategy notes that we have known avoidable environmental risks and climate change is increasingly affecting people's health and wellbeing.[31] Further, we note one of the strategic objectives which remains of importance in Australia is cross-sectoral action to act on determinants of health in all policies and in all sectors.[32] This means that policies across sectors will systematically consider health perspectives and evidence, and ultimately health co-benefits of environmental protection will result. This is seen in current work being undertaken by the federal government on cleaner fuel and electric vehicles which not only improves air quality but the health of Australians.[33] The Australian Government continues to work to address climate change and reduce emissions by upgrading the electricity grid to support more renewable power, reducing costs of electric vehicles, regulating and reporting on greenhouse gases and reducing baselines under the Safeguard Mechanism (policy for reducing emissions at Australia's largest industrial facilities) predictably and gradually over time.[34] The National Preventive Health Strategy 2021-2030, identifies climate change as a significant issue and aims to ensure that by 2030 evidence-based approaches are developed and implemented to identify, address, and mitigate the impacts of climate change on the health system.[35]

Urgency for a well-developed strategy

The Intergovernmental Panel on Climate Change (IPCC) found that to avoid catastrophic health impacts and prevent millions of climate change related deaths, we must limit the temperature rise to 1.5°C.[36] Ongoing emissions have already caused the global temperature to increase and action across the globe is insufficient in preventing further rises.[37] In 2023, the World Meteorological Organisation released a new report finding it is likely that the global surface temperature will exceed 1.5°C above preindustrial levels for at least one year between 2023 and 2027.[38] This new research continues to demonstrate the ongoing need to address climate change and importantly that we are already living and witnessing health impacts from the changing climate. In 2020, the World Health Organisation developed the World Health Organisation (WHO) global strategy on health, environment, and climate change to provide a way forward on how the world and its community need to respond to environmental health risks and challenges until 2030.[39]

Climate change continues to pose new challenges and health risks, and delayed action in effectively reducing emissions means we will be being seeing more and more impacts from the changing climate. We cannot stop climate change however, Australia's current goals and targets for emission reduction are ineffective in slowing climate change and protecting the environment. The relationship between our health and the environment is greatly understood in research and we are able to avoid many poor health outcomes by adapting and recognising the environmental health links and taking strong action.

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Consultation paper questions

Objective 1

1. How could these objectives be improved to better support the vision of the Strategy?

The objectives of the Strategy primarily focus on reducing emissions from the healthcare sector and supporting the healthcare sector in implementing mitigation and measurement systems to improve the environment. We note that while it is important to address the causes of climate change and take strong action to protect the environment, the healthcare system is not the primary source of pollution and is rather a small part of the bigger picture in addressing climate change. We recommend implementing stronger principles to protect public health noting the complexities and linkages between the environment and health. The Strategy must extend beyond the health system and focus further on public health.

We refer to recent research which concludes there are three grand challenges for health and climate action, and we need to implement goal driven approaches to:

1. Promote actions that both reduce carbon emissions and improve health
2. Build better, more resilient and environmentally sustainable health systems
3. Implement public health measures to protect from the range of climate risks to health.[40]

Given the scale and complexity of each of the challenges these need to be dealt with separately to ensure equal weight in given to each distinct area and clear actions can be set. Addressing all three areas will accelerate the health response to climate change and importantly, the scale and health sector response needs to be appropriate to the size of the health threat.[41]

2. How could these principles be improved to better inform the objectives of the Strategy?

We support the principles to better inform the objectives and particularly note the importance of tackling health inequalities. Vulnerable populations, such as the 1 in 3 Australians living with a lung disease, experience worse health impacts in the face of climate change, compared to the general community. Those living with a lung disease are prone to worsening of respiratory symptoms and exacerbations of lung conditions when exposed to air pollution. Research has also shown an increase in hospital admissions for asthma in children during cool seasons due to high concentrations of pollutants such as PM2.5, NO2, PM10 and pollen.[42] Climate change is decreasing the air quality in Australia and impacting the lung health of Australians, which is of particular concern for those living with a pre-existing lung disease. Ensuring a principles-based approach that puts the broader community at the centre of the Strategy is vital.

3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?

Australia is falling behind in effectively reducing emissions and taking strong action to protect the health of the environment. Noting this we must urgently implement strong measures to effectively reduce emissions and make the biggest impact to public health. The Strategy should implement all 3 scopes of emissions, including other indirect emissions such as

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emissions generated from the incineration of its waste offsite. The actions taken must consider the whole picture of emissions and ensure the health system is responsible for their environmental emissions. Additionally addressing upstream sources such as emissions generated in the manufacture of medical equipment used by the hospital or by hospital staff commuting to work promotes awareness of the emissions and promotes meaningful behaviour change by the health system and workers.

4. **What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?**

Lung Foundation Australia emphasise our strong support for First Nation leadership and the inclusion of such knowledge and experience to be central to decision making on climate and health at all policy levels. Australia is a signatory to the United Nations Declaration on the Rights of Indigenous Peoples and as such has a commitment to including First Nations views and needs in all aspects of policy development.[43] These should be determined through self-determination and reciprocity with First Nations Elders, leaders and communities.

The voice of First Nations should be central to the Strategy. The government needs to undertake meaningful engagement with First Nations communities, drawing upon their knowledges and cultural practices which hold solutions to the impacts of climate change on health and wellbeing. The Strategy should further outline how governance mechanisms and processes for community leading will be integrated, in accordance with best practice and with cultural safety principles. The Strategy must clearly outline how engagement with First Nations leaders, Elders and communities will be carried out, how leadership will be fostered and importantly how the health and wellbeing of First Nations peoples will be advanced through the Strategy.

5. **What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?**

Genuine engagement and co-design principles are needed to ensure First Nations voices, decision-making and leadership are embedded in the Strategy. The Department must listen and learn from First Nations peoples to understand their priorities to tackle health impacts of climate change.[44] There must be a clear continual process to embed First Nations cultural knowledge and practice into goals and actions. We highlight the need for collaboration with First Nations peoples at local, state and territory and national levels and drawing expertise from the National Aboriginal Community Controlled Health Organisation and its associated Aboriginal Community Controlled Health Organisations across Australia, the Coalition of the Peaks, Closing the Gap and other existing coalitions and partners.

6. **Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?**

   No comment.

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7. **What additional data and information is required to support targeted emissions reduction efforts within health and aged care?**

We refer to feedback provided in this submission and reiterate that the focus of this Strategy must be broadened to protect the health and wellbeing of all Australians and increase adaption in the face of climate change.

Objective 2

8. **What do you think of these proposed focus areas for emissions reduction? Should anything else be included?**

We refer to feedback provided in this submission and reiterate that the focus of this Strategy must be broadened to protect the health and wellbeing of all Australians and increase resilience in the face of climate change.

9. **Which specific action areas should be considered relating to the built environment and facilities (including energy and water), over and above any existing policies or initiatives in this area?**

We acknowledge the need to ensure newly built healthcare facilities and those needing renovations meet building requirements which not only address current needs but anticipate and prepare for the future. Importantly, the Government must invest in the necessary upgrades of current healthcare facilities to ensure the built environment and facilities support emission reduction. However, we again reiterate that the focus of this Strategy must be broadened to protect the health and wellbeing of all Australians and increase adaption in the face of climate change.

10. **Which specific action areas should be considered relating to travel and transport, over and above any existing policies or initiatives in this area?**

We refer to feedback provided in this submission and reiterate that the focus of this Strategy must be broadened to protect the health and wellbeing of all Australians and increase adaption in the face of climate change.

11. **Which specific action areas should be considered relating to supply chain, over and above any existing policies or initiatives in this area?**

We refer to feedback provided in this submission and reiterate that the focus of this strategy must be broadened to protect the health and wellbeing of all Australians and increase adaption in the face of climate change.

12. **Which specific action areas should be considered relating to medicines and gases, over and above any existing policies or initiatives in this area?**

Lung Foundation Australia support transitioning consumers from pMDIs to environmentally sustainable inhalers. However, we note that such medical decisions should be done so in consultation with patients. Additionally, educating consumers on the impacts of pMDIs should be a key action area as patients can then advocate for their needs and are also equipped with the knowledge to request an alternative device that is environmentally friendly. Both primary care and consumers play an integral role in medicine use, and both

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need to be considered. We further urge The Department to consider the sustainability and waste of other medicines outside of pMDIs.

13. Which specific action areas should be considered relating to waste, over and above any existing policies or initiatives in this area?

We support the approaches proposed to the Department to reduce waste and encourage re-use were possible. We further highlight the need for clear waste guidelines for used medical products. This should include education for the community regarding how to correctly dispose of such products and where they can be disposed of. This is particularly important for products such as nicotine vaping products (NVP) that contain hazardous waste (nicotine), plastic and batteries. With NVPs accessible via medical prescription and pharmacies, it is integral that these products can be disposed of correctly to avoid environmental harms.

14. Which specific action areas should be considered relating to prevention and optimising models of care, over and above any existing policies or initiatives in this area?

Lung Foundation Australia support greater social prescribing and shifting models of care from acute to primary and self-care. Further we strongly support public health initiatives targeted at clinicians and patients including reducing unnecessary medical tests, treatments and procedures.

Health professionals play a key role in communicating greener options to patients and further promoting healthy lifestyles to prevent illness and the need for medical treatment. However, consumers who are equipped with the knowledge about greener healthcare choices are able to advocate for their wants and can encourage conversations with their healthcare providers.

15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?

No comment.

16. Where should the Strategy prioritise its emissions reduction efforts?

a) How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas?

The actions and goals to reduce emissions in Australia needs to be strengthened to prevent avoidable health risks and protect the environment. The Strategy should include prioritising areas where emissions are highest as this will make the greatest impact to emission reductions. It is important that the scope of the Strategy adequately acknowledges and address the ongoing pollution and makes every effort to green the healthcare system. We must urgently implement strong measures to effectively reduce emissions.

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b) Which of the six sources of emissions discussed above (on pages 13 to 18) are the highest priorities for action?

All sources of emissions should be prioritised, and we can no longer delay action. Further, the Strategy needs to consider broader sources of emissions and we re-iterate the focus of the Strategy must expand beyond the health system.

17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?

The health system should be implementing actions to all areas outlined above. Additionally, the government can and should be undertaking further policy review in other sectors to reduce emissions and this should be prioritised in the 12 months following the publication of the Strategy. This should include ongoing work to address vehicle emissions (e.g., on and off-road diesel), adoption of the World Health Organisation air quality guidelines, increasing transition to electric vehicles and developing a National Air quality Strategy, amongst others.

Objective 3

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

Public health and the environment are strongly interconnected, and we note the importance of addressing all risks outlined in the Strategy. Australia must undertake a thorough risk assessment to understand the existing and potential health risks resulting from the changing environment and additionally identify effective actions to reduce exposure/risk.

We note the importance of further ensuring vulnerable populations are considered when developing actions and understanding community needs. Those most vulnerable will experience worse health outcomes in the face of climate change. For example, the one in three Australians living with a lung condition experience worsening of symptoms in the face of air pollution and even small changes in air quality can result in deterioration of their condition.

Vulnerable populations such as the 1 in 3 Australians living with a lung disease are greatly impacted by climate change and should be identified as an important population group when considering adaption. We need improved support and communication for those living with a lung disease particularly during hazard reduction burning and bushfire emergencies which cause poor air quality. Such events impact the health and wellbeing of those with a pre-existing lung condition, causing worsening of symptoms which may require urgent medical attention. However, we highlight the importance of recognising differences and challenges amongst communities and hope the Department supports all levels of government in undertaking research and identifying key actions that cater to the needs of states and local communities.

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19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes:

Yes, the Australian government must develop a National Health Vulnerability and Adaption Assessment and Nation Health Adaption Plan. We need further investigation and research on the links between the environment and public health, particularly in the Australian environment and acknowledgment of our current legislative framework. However, we note that there is strong international evidence on negative health harms and the environment and thus there is no need to delay action. The development of the assessment and plan should not prevent action from occurring in the near future. We can utilise international frameworks and policy actions to guide Australia and create a resilient population that can adapt and are protected from avoidable health harms. The 2021 WHO Health and Climate Change Global Survey found that almost half of all countries surveyed (48 out of 95) have conducted a climate change and health vulnerability and adaptation assessment and this is the first essential step to understanding the scale and nature of health vulnerabilities to climate variability and change.[45]

a) What are the key considerations in developing a methodology?

In 2021, The World Health Organisation, Pan American Health Organisation and Health Canada developed updated guidance on vulnerability and adaptation assessments.[46] The guidance builds upon previous work and aims to provide basic and flexible direction for conducting nation and subnational assessments of current and future vulnerability to the health risks of climate change and of policies and programs that could increase resilience. We note the importance of referring to such tools which has been applied to more than 50 countries and settings since launching in 2013. In undertaking such assessments and plans it is important to identify vulnerable populations and ensure that appropriate consideration is given to those who are most impacted by climate change.

We need strengthened action as part of disaster management and increased focus on disaster risk reduction and climate action. We need effective mechanisms in place to reduce risk to natural disaster events and yet investment in mitigation and preparedness remains low as recovery and rebuilding is extremely costly.[47] We still see significant gaps in public health support in the face of climate change particularly for vulnerable communities. As mentioned, those living with a lung disease experience worsening of symptoms when exposed to poor air quality and we need improved systems and communication such as systems to alert those living with a lung disease of hazard reduction burning and bushfire emergencies on poor air quality days.

b) How should their development draw on work already undertaken, for example at the state and territory level, or internationally?

Work within health and climate has already been undertaken across the nation and is an important starting point to grow our understanding and actions into the future. The *Climate Health WA Inquiry: Final Report* published in November 2022, is a key example of critically investigating and analysing the impacts of climate change and health.[48] The report provides clear recommendations based upon findings and importantly WA are in the process of developing a climate adaption Strategy in 2023 to identify and manage climate impacts and enhance climate resilience.[49] We further acknowledge the Western Australian Climate

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Policy which combines a suite of climate change actions currently being implemented and new commitments to support a resilience and a low carbon future.[50] Additionally, Queensland has developed the Queensland Climate Adaption Strategy 2017-2030 which aims to prepare Queenslanders for the current and future climate changes by understanding the impacts, managing the risks and harnessing opportunities.[51] We note that Australian states and territories are progressing their own adaption plans and it is important that these do not become siloed. The federal government must lead this key area of work and guide states and territories to achieve effective change across the nation.

Additionally states and territories have already developed action plans for reducing emissions in the health sector. We note WA's work in greening healthcare and has recently joined the Global Green and Healthy Hospitals network. The Department of Health WA established a Sustainable Development Unit, modelled on a successful example in the UK's National Health Service (NHS) to coordinate a systemwide response on climate action and sustainability across the WA health system.[52]

Further other plans include:

- WA Department of Health Climate Action Plan 2022-2024[53]
- Queensland Health Climate Risk Strategy 2021-2026[54]
- Queensland Health Climate Change Adaptation Planning Guidance Guidelines[55]

Significant work has been undertaken internationally on climate change and health, including ongoing research on the health impacts and assessments for vulnerability and adaptation. To ensure such assessments and plans in Australia are well-developed we urge the Department to draw upon international learnings and use these foundations to guide work within the Australian context.

The Climate Change and Health Strategy developed in Toronto, United States, identifies specific actions for main areas of concern including air quality, water, vector-borne disease and the built environment.[56] This Strategy is a good example of taking a more specific approach to the health impacts and the actions needed however, a more complex understanding and analysis of each would be needed.

Canada's response to climate change and health

Canada have acknowledged the rapid rate of climate change and subsequently the urgent need to prepare for climate change impacts on health. In 2022, Health Canada, the federal department responsible for helping the people of Canada to maintain and improve their health, released the "*Health of Canadians in a Changing Climate: Advancing our Knowledge for Action*" which is the first comprehensive study of current and projected risks from climate change since 2008.[57] The report provides information to help people understand how Canada's climate is changing and the effects on health and health systems including for at risk communities. Importantly the document notes that mitigation measures for climate changes such as addressing greenhouse gases via investment in renewable energy and electric vehicles, can have indirect effects of reducing exposure to health damaging air pollutants.[58]

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"For example, GHG mitigation and adaptation efforts that significantly reduce fossil fuel use (e.g., changes to the design of transportation infrastructure in communities to improve thermal comfort; use of low-emission vehicles; promotion of active and public transportation) also improve air quality by reducing fine particulate matter, including black carbon and tropospheric ozone; these efforts can have multiple co-benefits, including reductions in cardiovascular and respiratory diseases"
- Health of Canadians in a Changing Climate: Advancing our Knowledge for Action.[59]

c) What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

It is important to implement a national approach that promotes and supports local vulnerability assessment and adaption planning. Australia is vast and the risks are different between communities. A national plan should acknowledge this and guide communities in effectively addressing and responding to the needs of their community. We cannot expect local planning to occur without strong guidance and leadership from the top.

20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?

Yes, we need strong leadership from the Government to guide implementation for states, territories, and local health systems. There would be value in promoting a nationally consistent approach to vulnerability assessment and adaption planning however it is also important that the approaches consider vulnerabilities and differences in communities and geographical regions and how climate change will impact their health and wellbeing. We need a strong framework that encourages states and territories to recognise and implement actions that will be most impactful for their communities.

We highlight the need for vulnerability assessment and adaptation planning to extend beyond the health system and ensure communities receive tailored support that acknowledges their needs in the face of climate change. We cannot focus solely on the health system to adapt to climate change, and we need to build community resilience by increasing awareness, education, and support systems. Protecting public health from avoidable health outcomes results in improved wellbeing and reduces costs on the health system.

21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?

We need increased investment in education, awareness and support in climate and health education for those living with a lung disease who are vulnerable and the wider community. To effectively prepare for the future ahead which will undoubtably see extreme natural disasters and ongoing health impacts from climate change we need to build community resilience. Communities need guidance and clear actions they can take to protect themselves in the face of such impacts.

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Over the next 12 to 24 months, we need a complete assessment of the health risks from climate change in the Australian context and importantly, effective measures that span across sectors to respond to the growing health risks and prevent avoidable health harms. Air pollution is a key example, whereby policy changes in the transport industry can reduce air pollution and subsequently protect Australians from being exposed to poor air quality. We can and should continue to take health-based approaches in policy reform outside of the health department and this should be prioritised to ensure we use every opportunity to improve health now and into the near future.

Australia has suffered through extreme natural disaster events such as the recent flooding and bushfire events, which have devastated communities and caused ongoing impacts. We are experiencing an increase in severe natural disasters due to climate change and now is the time to build community resilience to protect public health. Exposure to bushfire smoke and mould following flooding, can cause severe short- and long-term health impacts, particularly for those living with a lung disease. There is significant evidence that low level exposure to air pollutants can cause harm to human health and the current air quality standards in Australia are behind the international standards. With climate change causing increasing health risks we need The Government to strengthen policies and take strong action such as aligning with international best practice and implementing the World Health Organisation Air Quality Guidelines 2021. Research demonstrates air pollution is causing ongoing harm to human health and the Australian Government needs to commit to cleaner air for all Australians, particularly as we face increasing risks from climate change.

Objective 4

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?

Implementing a health in all policies will be integral to safeguarding the environment and effectively protecting public health. There are complex intersections between public health and other government sector policies, and many provide opportunities to strengthen our response to public health and achieve co-benefits for communities. We need a clear understanding of how health in all policies will be achieved in future policies changes. The American Centers for Disease Control (CDC) have developed a climate and health guide for cross-sector collaboration, created to support health department staff in conducting cross-sector outreach for climate adaptation planning.[60] We note the need for a similar document which outlines key areas in which climate and health can be addressed and opportunities for the future. This provides an opportunity to take a health and climate approach during policy reform and importantly identify the areas which are not effectively prioritising health. The CDC sector guide identifies climate and health intersections for urban planning and land use, transport planning, green design, and agriculture to name a few.[61] However, we not only need to understand the intersections but further have a clear plan on how we can achieve a health focus now and into the future.

Public health considerations should be given in all areas of policy development however, the key intersections of policy and public health have long been ignored leaving many vulnerable populations at risk of health conditions. For example, overlaps between public health and town planning are often ignored and thus, childcare centres are often built on or

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near major roads, exposing young children to high levels of air pollution, such as harmful PM, during their time in care.

We highlight we have already seen this with the vehicle/transport industry in recent consultations to strengthen legislation regarding emissions from vehicles and improving fuel quality. The recent consultation regarding the implementation of standards for non-road diesel engines recommended legislative requirements based on the improvements to public health. This is a primary example of policy reform that not only aims to reduce pollution for environmental reasons but further considers the benefits to human health both now and into the future. Australia is considerably behind international best practice regarding vehicle emissions, and we can and should be doing more in alternative sectors to promote the health and wellbeing of Australians.

We need greater emphasis on public health within policy reform and prioritisation of public health when considering new legislation. Health in all policies needs to consider the important implications to public health and should further incorporate support/incentives to drive public behavioural change such as financial incentives provided to those moving away from using woodfire heaters as a means of improving indoor air pollution.

23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?

Those living with a lung disease are particularly vulnerable to the impacts of climate change and are an important example of key populations that must be included in collaboration and partnerships to adequately address climate policy and public health policy. Community organisations are key stakeholders and importantly can best represent communities who are vulnerable. National committees with key stakeholders, experts in the field and political representation can guide the development of effective strategies and allow community voice to be heard. We need diverse representation and importantly ensure those who are most vulnerable are given a platform to express their needs. Furthermore, implementing community engagement models such as citizen science, promotes collaboration and community participation in research. This is not only beneficial for researchers but the wider community, increasing scientific knowledge and raising awareness of key issues.

As mentioned in the consultation paper, preventive health actions are primary in a health in all policies approach and such work is in alignment with Australia's National Preventive Health Strategy. Climate change is identified in the National Preventive Health Strategy 2021-2030 as a primary concern for health, highlighting the need to adopt evidence-based approaches to identify, address, and mitigate the impacts of climate change on the health system.[62] In line with the National Preventive Health Strategy aims, we need an increased investment in preventive health, and this should rise to 5% of the total health expenditure across Commonwealth, state and territory governments by 2030. Work to address the risk of climate change for health is underpinned by preventive health notions and thus, we need all levels of government to provide adequate investments to create healthy environments and place health and wellbeing at the forefront of government sectors.

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24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?

Enabler 1: Workforce, leadership and training

Lung Foundation Australia notes the importance of education and training for health professionals as a core part of addressing the impacts of climate change and health.

Lung Foundation Australia in partnership with The Thoracic Society of Australia and New Zealand and Asthma Australia, developed the lung learning hub to provide a tailored source of quality-assured and evidence -based respiratory health education and training for primary healthcare professionals to optimise patient outcomes.

We encourage the Strategy to utilise such platforms as the Lung Learning Hub to guide education and ensure health professionals are able to upskill in climate and health.

Enabler 2: Research

Research plays an integral role in understanding health and climate and we urge the Government to develop dedicated MRFF Research Missions to encourage research and support further research in this important public health area. We are unable to prevent the effects of climate change and instead we must create a resilient community. Given this area of public health is rather new and under recognised it is important to foster strong research to guide our future in this space. Funding applications should further be evaluated and given sustainability scores to ensure research considers its environmental impact and encourages environmental sustainability.

Enabler 3: Communication and engagement

We strongly support enabler 3, and further note that actions should include engagement and communication with key community groups and co-designing education and awareness information. Further we need ongoing support mechanisms for these key groups, particularly during emergencies.

Enable 5: Monitoring and evaluation

Further to monitoring and evaluating we additionally need an action to review the Strategy to build upon new research, knowledge, and experiences both nationally and internationally. As this is Australia's first National Strategy it should provide the overarching principles and guidance that will remain relevant for years to come. On the other hand, action plans created from the Strategy should only last for short time periods to ensure new targets are set and deliverables are strengthened in line with the latest evidence.

25. For each of these enablers:

a) What is currently working well?

As above.

b) What actions should the Strategy consider to support delivery?

As above.

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Summary

Lung Foundation Australia support the work of The Department in developing the first National Health and Climate Strategy. We acknowledge the importance of the Strategy for Australians in the face of climate change and the leadership from the federal government will be paramount to effectively building a resilient community. Lung Foundation Australia reiterate the need to consider vulnerable populations, such as the one in three Australians living with a lung disease, as key stakeholders in future work around climate and health due to their unique experience in the face of climate change.

Lung Foundation Australia strongly recommend The Department to strengthen the Strategy on climate and health, with increased emphasis on links to public health outcomes rather than reducing emissions in the healthcare sector. Whilst emission reductions play an important role in mitigating climate change, emission reduction in the health sector must be addressed separately to the public health impacts resulting from climate change. Without strong action, Australia will continue to experience poor health outcomes because of increasing consequences of climate change, and we know from recent experiences with extreme natural disasters that we are unprepared for climate change and the health risks it is causing and will continue to cause. We urge the Department to release a draft Strategy and undertake a second round of consultation to ensure the Strategy is effective in meeting the needs of the Australian community and protects the health and wellbeing of all in the face of climate change. Lung Foundation Australia commend the work of the Department and look forward to the continuing efforts in addressing climate and health risks.

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Australian Government
Department of Health and Aged Care

NATIONAL HEALTH AND CLIMATE STRATEGY

Detailed submission form

This form allows you to provide responses to the full set of questions in the Consultation Paper available here.

Alternatively, you may wish to complete the briefer online survey available here.

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

Respondent details

What is your name?
This submission was prepared jointly by the following researchers in the Healthy Housing Unit at the University of Melbourne: [redacted]
What is your email address?
[redacted]
What is your organisation?
Centre for Health Policy Melbourne School of Population & Global Health The University of Melbourne
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
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Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☒ Academic or Researcher ☐ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

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Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
The first objective, "measurement" supports the vision of "monitoring and reporting of progress". However, this commitment could be strengthened to include "evaluation". While monitoring means keeping track of what you are doing while you are doing it, "evaluation" means finding out if the strategy and the "key action areas" have achieved the intended effect of protecting health and reducing risks. As part of this, health authorities need to have the expertise, knowledge, and specifically the **resources** to identify the extent to which climate change is impacting health. The second and third objectives that consider "Mitigation" and "Adaptation", as per the first objective, will require that our health systems have the expertise, knowledge, and specifically the **resources** needed to identify and manage climate change-related risks and disasters and take equitable, evidence-based action to protect health. How the sector will be resourced is not clear in the Strategy. The fourth objective, "Health in All Policies" could be more explicit insofar that rather than just "lessening the impact" the approach should be that people are protected from urgent climate-related health risks such as extreme heat, infectious diseases, wildfire smoke, foodborne hazards and impacts to traditional foods, poor mental health outcomes, and others.
2. How could these principles be improved to better inform the objectives of the Strategy?
The Principles recognise and emphasise the critical importance of high-level structural and societal levers for effective action, yet there is a risk that in practice the actual actions proposed or facilitated by the Strategy will be narrowly focused on the health care system. For example, the Strategy states: "while our proposed Objective 1 is focused on measuring health system greenhouse gas emissions, we recognise there are many other measurement challenges related to climate change and health". Given a large proportion of healthcare services are delivered in home (e.g., aged care services, occupation therapy etc) - and that 20% of emissions are household based – the strategy needs to explicitly include housing as part of the healthcare system and its greenhouse gas emissions reduction efforts. Despite the significant emphasis in the Strategy's Principles on preventive health and the social determinants of health, in Objective 2 (Mitigation) we see 'prevention' rolled in with 'optimal models of care' as one of six areas of focus for mitigation. The fact that all preventive health action reduces greenhouse emissions of the health system if it keeps people out of hospital, means this deserves greater centrality as part of the Mitigation objective. The decision to place Health in All Policies as Objective 4 rather than Objective 1 raises concerns that is considered the least important, when in fact it should be running through the entire Strategy. In the Melbourne consultation workshop, there was a distinct sense that action on the social, structural, environmental and commercial determinants of health is at risk of remaining sidelined, despite its importance for both mitigation (of health system and wider emissions) and adaption to changing climate. In terms of the specific principles: • "First Nations leadership" – this could be more explicit in respect to jurisdictions and upholding Indigenous Peoples' rights. That is, Indigenous rights should be explicitly recognised.

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- "Tackling health inequities" – "tackling" is a vague term and does not convey how this will be done. For example, will health inequity be reduced? In what way will it be tackled?
- "Population health and prevention" – needs to be incorporated more comprehensively and explicitly (we expand on this in our submission).
- "Evidence-informed policymaking" – again, Strategy needs to be more explicit on how we can maximize benefits and avoid maladaptation.
- "Partnership-based working across all levels of government and beyond" - this should include both personal and paid carers, advocacy groups are key partners, how will these partnerships be established and ensure that these groups have a voice?

3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?

All of Scope 1, 2 and 3 emissions, as well as the additionally mentioned emissions such as patient and visitor transport emissions. Not mentioned, but also arguably very much in scope are the emissions potentially averted by preventive health activity that keeps people healthy (or put another way, the emissions caused by failure to focus on prevention). Also, as indicated above, greater consideration of the intersection of healthcare delivery in the home and how this impacts household emissions needs to be considered.

4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?

NA

5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?

NA

Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?

The University of Melbourne's Sustainability Plan 2030 (The Plan) is a road map for delivering on the commitments of our Sustainability Charter, aligned to the goals of our 2030 institutional strategy, Advancing Melbourne.

7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?

Better information systems and quantification of the health and climate costs averted by reduction efforts, to facilitate more accurate and complete cost-benefit analyses of various scenarios (in order to counter concerns about mitigations and adaptation being costly).

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Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?

By collapsing 'prevention' in with 'optimising models of care', the Strategy downplays the important role of prevention in mitigating health system emissions.

As mentioned above, the significant amount of primary and aged care delivered in the home needs to be recognised when defining the health system. Given approximately 20 per cent of Australia's carbon footprint comes from household emissions, there is an opportunity to consider how the delivery of health care in the home contributes to the health systems carbon footprint and where these emissions can be reduced.

Additionally and importantly, improvements to living conditions for residents (e.g. heating/cooling) and reduced energy poverty can directly and indirectly improve health outcomes. Improved efficiency of household energy systems will directly improve living conditions and reduce health risks associated with exposure to indoor temperatures that are too high or too low, reduce the mental health burden of energy poverty [1], and indirectly improve health via increased disposable income available to spend on healthcare.

We also note there are no specific targets/timelines associated with these focus areas.

SOLUTION: Housing needs to be a key focus area. Healthcare and community providers can work with residents to facilitate upgrading of homes either through referrals to government programs or through direct home improvement funds (i.e., from the same pool of funds that can support upgrades like handrails etc).

[1] Bentley, R., Daniel, L., Li, Y., Baker, E., & Li, A. (2023). The effect of energy poverty on mental health, cardiovascular disease and respiratory health: a longitudinal analysis. *The Lancet Regional Health–Western Pacific*.

9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?

As per above, housing needs to be included either in this focus area (recognising it is a site of much health care delivery), or as its own area.

As stated above for all proposed focus areas, built environment and facilities (including energy and water) could have explicit targets e.g., by XYZ date, mitigation and adaptation measures are in XYZ% of building / healthcare facility codes.

When assessing the value for money of public tenders for buildings, the tendering process should give greater consideration to whole-of-life costs, upweighting longer-term savings that arise from energy efficiency measures.

10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?

Australia's well-documented housing affordability crisis means many healthcare workers are forced to either live further from their workplace and have longer commutes (i.e., more Scope 3 emissions), or to live in cheaper but worse quality housing that may be bad for their own physical and mental health. Ensuring key workers are suitably housed close to hospitals and other

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healthcare facilities will reduce transport-related emissions, while also being good for workforce health, wellbeing and productivity.

In our group's research in flood-affected Echuca-Moama, we have heard from a local hospital that's struggling to recruit staff because it's hard to get affordable housing in the area and because of the climate-related risks becoming clear.

SOLUTIONS:
Increase the supply of nearby affordable, secure housing and cheap and reliable public transport for key workers. Offer free transport to key workers, especially in areas with poor transport options. Improve opportunities for telehealth for patients and staff to reduce the need to travel. There are also opportunities for community housing providers to work with healthcare providers in providing housing for key workers. Another model is the work of Ash Group Holdings, an Indigenous owned and operated business that designs, builds and manages "workforce" villages before managing the repurposing of accommodation into social and affordable housing to be used in local communities.

Deliver more healthcare in regional/remote areas using transportable units to reduce the distances patients need to travel.

Again, the efforts need to be inked to targets. E.g., XYZ% of the health care population has access to public transport.

11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?

As indicated above, targets need to be set where XYZ% of supply chain organizations have factored climate change into their policies and practices. This might include transport modes; reduction of trip chaining by reconsidering alternate transport modes and suppliers; distances travelled in supply chains.

12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?

NA

13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?

NA

14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?

Preventive health measures that tackle the social determinants can reduce emissions from the health system by tackling the root causes rather than the symptoms. As a key social determinant of health, housing is an important target for interventions to improve population health and reduce health inequalities.

Furthermore, homes provide shelter from extreme temperatures and other weather events, as well as being a source of carbon emissions themselves, making housing an important site for climate mitigation and adaptation. Some of the same measures that make housing healthier and keep people out of hospital, also reduce emissions directly (e.g. improved insulation to better regulate

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temperature also means lower home energy use). Improving housing for climate and health is a win-win situation.

SOLUTIONS:
We need changes in the housing system such as:

- More social and affordable housing (that is also environmentally sustainable).
- Subsidies and incentives for landlords to improve housing for vulnerable populations
- Building regulations, minimum standards, and renter protections to improve thermal comfort, energy efficiency, affordability and the ability to modify homes.

Within the health system, we could also:

- Adopt a social prescribing approach to housing, identifying patients in primary care whose housing circumstances are (or may be) affecting their health and supporting them to seek assistance with home environment modifications and related actions, including available government support such as subsidies.

15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?

The government needs to either:
a) make funding conditional on meeting mandates; or
b) provide incentives to partners to facilitate transitions

16. Where should the Strategy prioritise its emissions reduction efforts?

    a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas?

    b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?

NA

17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?

Immediate investment in sustainable transport options for healthcare workers (e.g., upgrade to electric vehicles)

Rebates for homes where health and aged care is delivered to upgrade appliances and make energy efficient home improvements to reduce energy consumption.

Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

We need to ensure that people are protected from urgent climate-related health risks related to climate disasters (e.g., fires, flooding).

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We need to improve housing conditions to protect vulnerable populations (in particular) from the health effects of extreme temperatures and weather events. Our research has shown that pre-disaster housing vulnerability such as poor-quality housing is associated with larger health impacts and longer health recovery post disasters [1,2].

The elderly, those with chronic conditions and certain disabilities, and people with poor mental health, are particularly vulnerable to very high temperatures and other extreme weather events, which are becoming more common with climate change [3]. With many avoidable hospital admissions and other interactions with the health system already attributable to heatwaves, we need to recognise the growing importance for these vulnerable groups of being able to regulate indoor temperature at home to safe levels when outdoor temperatures are unsafe.

Better housing and urban planning can protect against the health effects (both physical and mental) of heatwaves for these vulnerable populations. Better temperature control through home insulation, efficient heat and cooling systems, green infrastructure to reduce the urban heat island effect, and tackling fuel poverty can all reduce avoidable hospital admissions from vulnerable people during heatwaves (while often also reducing emissions in the home).

As well as changes to the housing and planning systems, there's a role for health and aged care workers to understand the home environment of at-risk patients and direct them towards available support for improving their housing circumstances. This may apply particularly for in-home aged care workers, since the elderly are especially vulnerable to extreme heat events.

SOULTIONS:

- More social and affordable housing (that employs environmentally sustainable design and whole-of-life costing (WLC)).
- Subsidies and incentives for landlords and owner-occupiers to improve housing to reduce risk from climate-related events (e.g., installing energy efficient heating and cooling, reduce reliance on diesel generators in regional areas)
- Building regulations, minimum standards, and renter protections to improve thermal comfort, energy efficiency, affordability and the ability to modify homes.
- Arm health and aged care workers with support, information and tools to (a) identify patients with housing-based risk factors for increased vulnerability to health effects of climate related events, and (b) support them seek assistance with home environment modifications (i.e. a social prescribing approach).

[1] Li, A., Toll, M., & Bentley, R. (2023). Health and housing consequences of climate-related disasters: a matched case-control study using population-based longitudinal data in Australia. *The Lancet Planetary Health*, *7*(6), e490-e500.
[2] Li, A., Toll, M., Martino, E., Wiesel, I., Botha, F., & Bentley, R. (2023). Vulnerability and recovery: Long-term mental and physical health trajectories following climate-related disasters. *Social Science & Medicine*, *320*, 115681.
[3] Li, Ang, Mathew Toll, and Rebecca Bentley. 2022. "Social Vulnerability Indicators to the Health Impacts of Climate Change: A Scoping Review." SocArXiv. December 1. doi:10.31235/osf.io/qxge3. (under review with *The Lancet Planetary Health*)

19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes:
    a. What are the key considerations in developing a methodology?
    b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally?

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c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?
Canada's *National Adaptation Strategy: Building Resilient Communities and a Strong Economy* contains some targeted actions that could be models for Australian actions. We need long-term goals that set transformational direction; medium terms objectives which are linked to key milestones to progress the vision/goals; near-term targets that identify key action items; and an action plan that has immediate priorities, enables accountability and focused investment. The Intergovernmental Panel on Climate Change (IPPC) in their recent assessment report identified the need to understand social vulnerability to climate change on a local and urban scale to facilitate climate change adaptation. There is a need to develop these resources in Australia to facilitate adaptation planning. We are developing an index that aims to give an overview of the area-level social vulnerability to the health burden of climate change in Australia. Based on a scoping review of social vulnerability indicators for the health implications of climate change [1], ~50 social vulnerability indicators were included in the index covering demographic, socioeconomic, geographical, living environment, social capital, service access, and health. A social vulnerability map could be used in conjunction with climate risk mapping to determine the areas in which social vulnerability coincides with exposure to hazards. [1] Li, Ang, Mathew Toll, and Rebecca Bentley. 2022. "Social Vulnerability Indicators to the Health Impacts of Climate Change: A Scoping Review." SocArXiv. December 1. doi:10.31235/osf.io/qxge3. (under review with *The Lancet Planetary Health*)
20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?
NA
21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?
NA

Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?
All preventive health action reduces the carbon footprint of the health system if it keeps people out of hospital (and otherwise avoids emissions-intensive treatments). Housing is an important driver of health inequalities, so addressing unhealthy housing as a way of mitigating and adapting to climate change will also improve health equity. Homes that are well adapted for extreme weather and/or more energy efficient are also healthier for people, helping avoid excess use of the healthcare system.

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There is a major equity issue here: low-income households are less able to mitigate and adapt, due to fuel poverty, costs of modifying homes, etc. Improving incomes/reducing poverty and reducing the end-user costs associated with housing-related adaptation and mitigation is important to avoid widening inequalities.
23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?
NA

Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
NA
25. For each of these enablers: a. What is currently working well? b. What actions should the Strategy consider to support delivery?
NA

Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

OTHER NOTES:

WHO resolution WHA67.12 calls upon ministries of health "to champion health and the promotion of health equity as a priority and take efficient action on social, economic and environmental determinants of health". Although each country has its own political structure and forms of administration, the role of the health ministry or similar body at the national level, in relation to health in all policies usually includes work on health determinants that includes: o Supporting the growth of scientific knowledge on health determinants; o Identifying and prioritizing emerging health issues resulting from changes in society; o Monitoring the activities of other sectors that impact on health; o Creating structures and mechanisms for dialogue across government and with whole of society; o Facilitating negotiations between sectors and with non-government stakeholders; and o Overseeing the implementation, monitoring and evaluation of policy with respect to health outcomes, health determinants and equity.

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Australian Government
Department of Health and Aged Care

NATIONAL HEALTH AND CLIMATE STRATEGY

Respondent details

What is your name?
[redacted]
What is your email address?
[redacted]
What is your organisation?
Australian Association of Gerontology
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
[redacted]
Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☐ Academic or Researcher ☒ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

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Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
AAG suggests the addition of a clearly articulated vision statement, as this is missing from the proposed Strategy. With respect to the objectives, AAG understands that more detail will be provided in the future. Understanding this, the AAG highlights the importance of the addition of clear

timelines and milestones for the assessment of the strategy and for supporting decision-making.

2. How could these principles be improved to better inform the objectives of the Strategy?

Overall, AAG suggests including a Human Right to Health and Intergenerational Justice as a principle for the Strategy. We note that the new Aged Care Act and accompanying regulatory model are adopting a rights base approach.

Principle 2: Tackling health inequities. AAG supports the expansion of this section.

- Older Australians are more susceptible to the impact of climate change, such as temperature extremes. In addition, they often present comorbidities that may increase their experiences of the impact of climate change. This information is presented in an AAG rapid evidence assessment piece available here.
- AAG supports the addition of a section acknowledging the wider determinants of health. AAG has members working in architecture design for climate adaptation. Something as simple as revising window standards can make a difference in the impact of climate change in the older population. Access to air conditioning is also a determinant that should be covered (price of air conditioning and efficiency due to house construction materials). There is scope for having a heat mitigation objective for the health care system and aged care facilities.
- Many older Australians have particular needs or are at higher risk of being marginalised or disadvantaged as they age. This includes people from culturally and linguistically diverse backgrounds, members of the LGBTQ+ community, people with a mental illness, people with dementia, and those who live in rural or remote areas. Failing to take these intersections into consideration may increase the disparities people currently experience.

Principle 5: The National Strategy states that 'Responses to climate change must be based on the best available data, evidence and research - but we must also be willing to take action on a prudent and precautionary basis in the face of uncertainty and incomplete information.'

- AAG supports evidence-informed policy making.
- The "best available data, evidence and research" must be supported by a clear strategy, including budget, so that evidence can be collected and actioned swiftly.
- Research should include collection of lived experiences of people from across Australia, paying attention to the inclusion of data from rural and remote areas. People sharing life experiences should be of all ages and should come from different backgrounds, paying attention to the representation of those who may be particularly vulnerable. There is clear evidence that this type of qualitative 'story telling' allows us to gain insights into people's cultures, places and social worlds.

3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?

NA

4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?

- United Nations Declaration on the Rights of Indigenous Peoples
- Closing the Gap (with targets around aged care improvements for Elders and older Aboriginal and Torres Strait Islander peoples)

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- The 5-Year Plan for Aboriginal and Torres Strait Islander Aged care (2021-2026) "Our Care, Our Way, Our Future" by National Aboriginal & Torres Strait Islander Ageing and Aged Care Council (NATSIAACC). Find information here.

5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?

Pillars should be put in place to enshrine First Nations leadership (not partnership) and uphold Indigenous Intellectual Property and Data Sovereignty. AAG suggests:

- Holding a series of consultations akin to the methodology detailed in the 2017 Final Report to the Referendum Council. Find it here.

- Working with the Coalition of Peaks to identify relevant stakeholders in different areas. Find information here.

- Facilitating the development of consortiums of Native Title Bodies /Land Councils and Aboriginal Community Controlled Organisations with the legal authority to approve or deny developments that would impact climate change and health (as it is defined in the OneHealth concept).

- Creating education strategies for non-Indigenous Australians on the impact of racism (interpersonal, institutional, structural).

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Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?
AAG is exploring ways in which the impacts of climate change affect the health and wellbeing of older people.
7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?
NA

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Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?
NA
9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?
The following answer is based on the observations highlighted in the AAG heatwaves paper. Access here. - Air conditioning. Facilitate access to air conditioning in at least one room for older people. Implementation issues need to be considered, including: • Installing air conditioning in public and community housing • Financial support for people on low income (e.g., for installation, repairs, servicing and power costs) • User-friendly air conditioner design and supporting older people with how to use the controls. - Consider establishing cooling centres for older people at hospitals or residential aged care facilities. Implementation issues need to be carefully considered. - Provide outreach programs for older people experiencing homelessness to assist them during heatwaves or any other extreme weather condition (e.g., more public drinking fountains) - Develop back-up strategies for older people if power supplies are interrupted during heatwaves or other extreme conditions, for example if air conditioners or telephones cannot be used.
10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?
Travel and transport can have a bigger impact on people's lives, especially when remote areas and cultural heritage are taken into account. For example, participation in funerals in remote areas etc.
11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?
NA
12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?
NA
13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?
NA
14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?

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NA
15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?
NA
16. Where should the Strategy prioritise its emissions reduction efforts? a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas? b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?
NA
17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?
NA

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Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?
NA
19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes: a. What are the key considerations in developing a methodology? b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally? c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?
AAG agrees with developing a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan. Several publications focused on the impact of heatwaves in Australia noted that there are some groups of older people who have additional risk factors that make them particularly vulnerable during heatwaves. Other vulnerable groups have not been covered (refugees, LGBTQ+, etc.) More information is found in the AAG publication previously provided via email, 'AAG Rapid Evidence Assessment: Research on heatwaves and older people in Australia'. Find the paper here. - Homelessness is associated with several factors that increase vulnerability to heat related illness including lack of access to shade, drinking water and air-conditioned shelter, limited access to sources of information, social isolation and economic deprivation. Stakeholders reported that the lack of outreach programs specifically targeting older people experiencing homelessness was a significant gap in capacity to minimise harm. - Dementia: It has been observed that compared with controls, patients admitted to hospital during a heatwave were more than 20 times more likely to have dementia. Stakeholders have noted that cognitive impairment can affect clarity of thought and adaptive behaviours. - Other medical conditions including heart disease, renal conditions, diabetes, neurological and mental health conditions. - Cultural and linguistic diversity: Stakeholders noted that many of the older generation were born overseas, immigrating to Australia from Europe in the 1950s and 1960s. They pointed out that that linguistic barriers can emerge for some ageing immigrants if first language reversion occurs. This can increase isolation and may be a significant issue during heatwaves because it affects the uptake of heat-health information. - Low income: It has been noted that research on heat-related morbidity and its association with socioeconomic disadvantage is limited but existing literature identifies people in low socioeconomic groups as among the most vulnerable.

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20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?
NA
21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?
Based on the AAG report: Research on heatwaves and older people in Australia, AAG suggests: - Support aged care providers and other relevant organisations to educate staff and volunteers, older people and their families/carers about responding to climate changes and reducing emissions. - Consider establishing a register of older vulnerable people that can be used to contact them before and during heatwaves or any other extreme weather condition. - Develop specific prevention strategies for older people with medical conditions that place them at higher risk during heatwaves or other extreme weather conditions (including dementia, heart disease, neurological conditions, renal conditions, mental health issues and diabetes). - Develop nuanced health messaging about hydration for older people to take account of people with congestive heart failure, taking diuretic medications, with concerns about continence and other relevant issues.

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Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?
NA
23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?
For AAG, facilitating discussion groups has been essential to gather insights from specialists and people experiencing particular issues. Our approach always involves professional expertise and lived experience perspectives to gain a broader insight into the realities and complexities of the topic.

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Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
NA
25. For each of these enablers: a. What is currently working well? b. What actions should the Strategy consider to support delivery?
AAG highlights the importance of informed and impartial decision-making. In this context, it will be important to create more research capacity which require planning and resources.

Extra notes:

AAG, as a member of CAHA, supports their feedback submission.

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

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Department of Health and Aged Care
National Health, Sustainability and Climate Unit
Health.Climate.Consultation@health.gov.au

21st July 2023

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National Health and Climate Strategy
Northern Sydney Local Health District Submission

Thank you for the opportunity to comment on the National Health and Climate Strategy Consultation paper.

Northern Sydney Local Health District

Northern Sydney Local Health District (NSLHD) is one of the leading health services in Australia, providing high-quality healthcare to a population of nearly 970,000 people. The district covers a region approximately 900 square kilometres between Sydney Harbour and the Hawkesbury River, which includes the Local Government Areas of Hornsby, Hunter's Hill, Ku-ring-gai, Lane Cove, Mosman, North Sydney, Northern Beaches, Ryde and Willoughby.

Planetary Health is a priority for NSLHD as we recognise that the health and wellbeing of our patients, staff and community is inextricably linked to the health of our planet. As such, the NSLHD Planetary Health team sits within the Population Health Promotion Directorate to reflect the importance of primary prevention for fostering a sustainable healthcare system.

NSLHD Net Zero Target

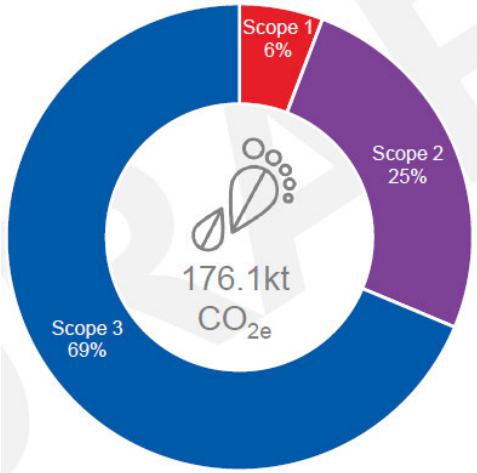
NSLHD is committed to an ambitious target of net zero by 2035, with most of the reduction – 70-80 per cent – to be achieved by 2030, for the emissions we control directly (Scope 1 and 2). A stretch target for NSLHD to reduce those emissions which are outside our direct control (Scope 3) is currently being developed for Board approval. NSLHD's net zero target has been developed based on projected NSW Government and global emissions reductions and is aligned to the internationally recognised Science-Based Targets initiative (SBTi) Net Zero Standard.

NSLHD Carbon Footprinting

NSLHD has recently completed carbon footprinting of our facilities and services with a sustainability consultant to calculate the district's baseline greenhouse gas emissions (using 2018/19FY as the baseline), identify emissions hotspots and develop a pathway for reducing our emissions. This work was commissioned by NSW Treasury, Office of Energy and Climate Change, Sustainable Government Team, which is also funding the LHD's transition to electric fleet vehicles and improving our energy management systems.

Scope 3 was found to be dominant across NSLHD's footprint, making up almost 70% of our total emissions (see figure 1). Our top ten emissions hotspots are:

- Electricity 28%
- Commissioned Health Services 10.7%
- Staff commuting 9.4%
- Medical equipment 7.4%
- Tenancy energy 7.2%
- Pharmaceuticals 4.2%
- Capital works and maintenance 4.2%
- Food and catering 4.1%
- Natural gas 3.6%
- Waste 3.2%



Scope 1	Direct GHG emissions from operations that are owned or controlled by NSLHD. For example, fuel burned on site plant/fleet, fugitive emissions from refrigerants and medical gases
Scope 2	Indirect GHG emissions from the generation of purchased or acquired electricity consumed by NSLHD.
Scope 3	All other indirect emissions that occur in NSLHD's value chain, including both upstream and downstream emissions. For example, all purchased products & services, staff commuting, business travel, pharmaceuticals, repairs and maintenance

Figure 1: FY19 NSLHD Greenhouse Gas Emissions (GHG) Footprint, by Scope

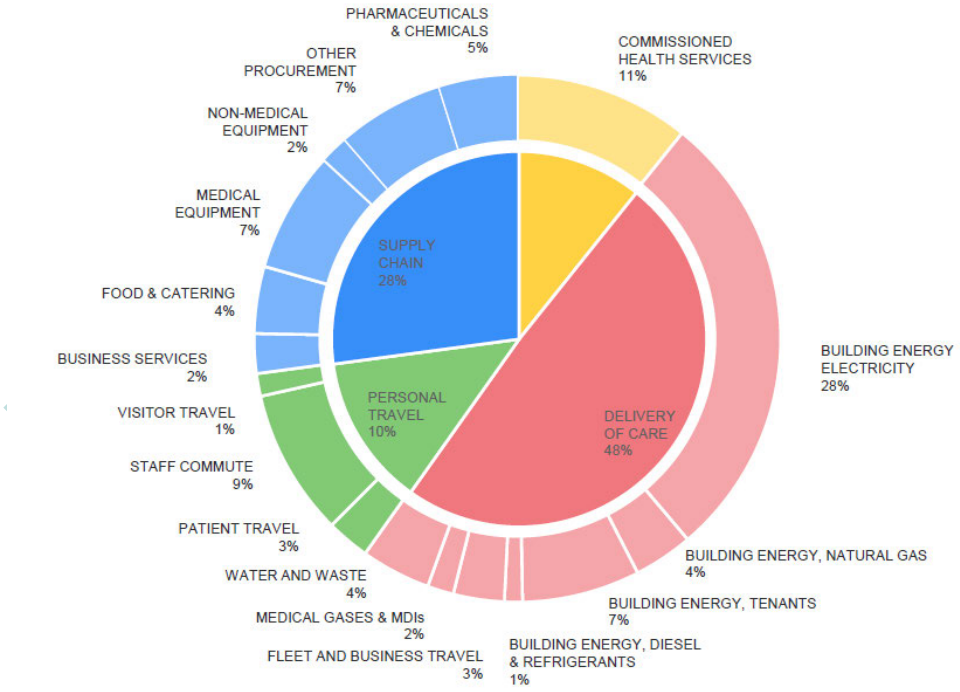


Figure 2: FY19 NSLHD GHG Footprint, mapped by NHS Category

NSLHD Planetary Health Framework

The NSLHD Planetary Health Framework 2021-23, overseen by the NSLHD Planetary Health Committee and Board, sets out our organisational vision for planetary health and includes five Priority domains; Sustainable organisation, Waste management and resource recovery, Capital works and procurement, People and places, and Models of care (see figure 3). The Framework is due to be evaluated and updated this year.



Figure 3: NSLHD Planetary Health Framework Priority domains

NSLHD Net Zero Leads Program

NSLHD has established an Australian-first Net Zero Leads Program which supports clinicians to lead a project to reduce emissions in their speciality or service. Twelve clinicians from anaesthetics and surgery, endocrinology, respiratory medicine, paediatrics, nursing, pharmacy and physiotherapy are being backfilled one or half a day per week to research and deliver their project which aims to reduce low value/harmful care, decarbonise high value care, or promote primary prevention.

Overall feedback

NSLHD commends the Department of Health and Aged Care for developing Australia's first National Health and Climate Strategy, in recognition of the urgent need to mitigate health system emissions and support the health system and the community be better prepared for and resilient to the health impacts of climate change.

In this submission, we provide further recommendations to strengthen the links to population health, primary prevention and the social determinants of health, to maximise the health benefits of the Strategy. NSLHD welcomes the opportunity to partner and work with the National Health, Sustainability and Climate Unit on the Strategy development and implementation.

Recommendations:

1. Elevate population health and primary prevention in the Strategy, which currently is focused on emissions reduction but is lacking the importance of the social determinants of health and the health impacts of climate change.
2. Provide a draft Strategy for consultation before the final Strategy is released.
3. Develop measurable targets and timelines for achievement in the short, medium and long-term.
4. Conduct genuine engagement with First Nations Elders and communities and incorporate cultural knowledge and practice into implementation through a co-design model.
5. Consult with affected communities including consumers and patients, workforce, supply chain/suppliers, people living in rural and remote areas, and those experiencing vulnerability and disadvantage, to understand their lived experiences.
6. Underpin the Strategy with the best evidence and expert guidance, including drawing upon international examples such as the United Kingdom National Health Service.
7. Ensure the Strategy takes a whole of government approach and is not siloed within the Department of Health and Aged Care and as the sole responsibility of the Department.

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8. Partner and work in close collaboration with NSLHD and other NSW Health agencies on the Strategy's development and implementation, including the creation of agreed upon and standardised metrics and data for calculating emissions and measuring change across government.

Questions for feedback from the Consultation Paper

Introduction

Q1. How could these objectives be improved to better support the vision of the Strategy?

- The Strategy should develop a clearly articulated vision statement and purpose to underpin its objectives and actions. It is recommended the vision should be: 'A healthy planet, healthy people, and a net zero healthcare system.'
- The current objectives lack sufficient detail. It is recommended the order and wording be adjusted to:
    - Objective 1: Promoting and protecting health and wellbeing – this Strategy will inform and guide the development of policy and initiatives that embed health and climate considerations across all portfolios at national, state and territory and local government level.
    - Objective 2: A climate resilient community – this Strategy will support the development of initiatives to build community, health and aged care system resilience and capacity to respond to the health impacts of climate change.
    - Objective 3: A net zero health and aged care system — this Strategy will guide the development of a national net zero plan for health and aged care, informed by a comprehensive assessment of the Australian health and aged care system's carbon footprint and reflecting best scientific evidence.

Q2. How could these principles be improved to better inform the objectives of the Strategy?

- The Strategy should replace Principle 4 'One Health' with 'Planetary Health'. Planetary Health is defined as the "highest attainable standard of health, wellbeing and equity through judicious attention to the human systems – political, economic, and social – that shape the future of humanity and the earth's natural systems" (The Lancet, 2015).
- The Strategy should expand Principle 6 to include collaboration with consumers and patients, workforce and supply chain/suppliers.

Q3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?

- NSLHD strongly supports inclusion of Scope 1, 2 and 3 emissions.
- The Strategy should have a greater emphasis on Scope 3 emissions, given 70% of total emissions in healthcare are made up of Scope 3 emissions – this is based on NSLHD's own carbon footprint recently completed by a global sustainability consultant.

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- The Strategy should investigate how we measure Scope 3 emissions, in particular the emission reduction opportunities from primary prevention activities, from reducing low value harmful care and decarbonising high value care, and how we quantify emissions from these interventions.
- The Strategy should provide a nationally consistent approach to measuring emissions for healthcare facilities, and guidance on emissions factors and data dashboards to track and report on emission reductions from various data sources over time.
- Query sentence *"The Australian Government has committed to reduce national emissions by 43% below 2005 levels by 2030, and to achieve net zero national emissions by 2050. These emission reduction targets cover all scope 1, 2 and 3 emissions occurring within Australia…"* – our understanding is the Australian Government's emissions targets include only Scope 1 and 2, not Scope 3.

Q4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?

- A western view of health is usually acknowledged as separate from the natural environment; however, many Aboriginal and Torres Strait Islander concepts of health and wellbeing are inclusive of environment.
- There is urgency to implement and strengthen the role that Aboriginal and Torres Strait Islander knowledge can play in reducing and improving climate change.

Q5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?

- Listen to and value knowledge that Aboriginal and Torres Strait Islander people have. Acknowledge that Aboriginal and Torres Strait Islander people have protected Country for thousands of years and as a people have survived a history of climate changes.
- Acknowledge Aboriginal and Torres Strait Islander people have and continue to be spiritually and intimately connected to lands, oceans and seas and that cultural practices and knowledge will endeavour to work towards solutions to the climate change issues.

Proposed Objective 1: Measurement

Q6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?

- NSLHD report on the NSW Government Resource Efficiency Policy (GREP).
- For the 23/4FY, NSW Health has provided new Environmental Sustainability KPIs for LHD's to meet related to:
    - Desflurane reduction
    - Nitrous oxide reduction
    - Waste reduction
    - Energy use reduction

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  - Passenger fleet vehicle optimisation.
- NSLHD is a member of the Global Green and Healthy Hospitals (GGHH) Network.
- NSLHD's net zero target has been developed based on projected NSW Government and global emissions reductions and is aligned to the internationally recognised Science-Based Targets initiative (SBTi) Net Zero Standard.
- Of note, NSLHD is yet to formally sign-up to any net zero certification program, such as the GGHH Race to Net Zero or the SBTi Net Zero Standard, as there are reporting requirements and data sharing required for an organisation to do so, which presents some level of risk for government.

Q7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?

- Measurement of the health system's carbon footprint should be informed by both top-down and bottom-up data (where available). More bottom-up evidence and data is needed, such as Life Cycle Assessments.
- Measurement must not rely solely on data available through Australia's Greenhouse Gas Accounts, as emissions from entities that are below the National Greenhouse and Energy Reporting Scheme reporting threshold will not be captured.
- The Strategy should provide guidance on establishing the carbon footprint of different models of care to help inform decision making.

Proposed Objective 2: Mitigation

Q8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?

- To avoid confusion with emissions categorisations and measurement, the Strategy should use either the UK National Health Service (NHS) or Greenhouse Gas (GHG) Protocol categorisations. NSLHD, in consultation with NSW Ministry of Health and NSW Treasury, has chosen to use the NHS categorisations as they are more relevant to healthcare.
- Objective 2 should clearly set out a target for decarbonisation of the health and aged care sector. It should include:
  - Strategies for communicating emission reduction targets
  - Identifying carbon hotspots
  - Prioritising mitigation actions based on evidence of best-practice
  - Establishing effective governance structures
  - Facilitating appropriate resource allocation and policy development
  - Preventing duplication of effort and set a common pathway for decarbonisation of the Australia's health and aged care system (inclusive of public, private, tertiary, and primary care, supply chains and services).

*Q9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?*

- The Strategy should align to the upfront carbon reductions target of the World Green Building Council for all new hospital builds, which is 40% reduction by 2030.

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- The Strategy should require all new hospital facilities to be 100% electric with onsite renewables and low global warming potential (GWP) refrigerants.
- The above are two recommendations from a recent Whole of Life Carbon Assessment that was completed for NSLHD's Ryde Hospital Redevelopment, commissioned by Health Infrastructure NSW.

*Q10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?*

- The Strategy should support promotion of active travel which not only reduces emissions but increases incidental physical activity and improves population health and wellbeing.
- The Strategy should support collaboration between state and territory government, local government and health services to improve active and public transport access and incentives for patients, staff and visitors at existing and new facilities.
- The Strategy should consider the cost of leasing electric fleet vehicles, which is currently twice the cost of internal combustion engine (ICE) vehicles, and is therefore a cost-prohibitive emissions reduction strategy with minimal carbon reduction benefit towards our own net zero by 2035 target.

*Q11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?*

- The Strategy should include specific targets for reducing emissions from the health system's supply chain. Targets should align with the UK National Health Service Net Zero Supplier Roadmap and the NSW Government Sustainable Procurement Policy currently in development by NSW Treasury and the NSW Ministry of Health Strategic Procurement Branch. This will provide direction and certainty for health services, manufacturers and suppliers.
- The Strategy should support the development of a universal methodology for healthcare's supply chain to measure and report on their emissions consistently.

*Q12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?*

- Action 2.4.1 should include a target for eliminating the use of desflurane.
- Action 2.4.2 should include a target for reducing leakage from piped nitrous oxide.
- The Strategy should outline actions for emissions reduction of medications, including:
    - Investment in emerging technology platforms designed to improve pharmaceutical stock management and reduce waste
    - Supporting research to determine environmental impacts of medications to establish environmentally preferred options, and communicate this to clinicians.
    - Support and scale up Choosing Wisely
    - Work with the Therapeutic Goods Administration to review packaging and information requirements for medicines to reduce waste and carbon emissions.

*Q13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?*

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- Actions 2.5.1 – 2.5.4 should include a target for each action.
- The Strategy should focus on minimising waste and encouraging circularity across all waste streams.
- The Strategy should align with the National Waste Action Plan which requires Government Agencies to achieve 80% average resource recovery rate from all waste streams (excluding hazardous waste) by 2030.

*Q14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?*

- Actions 2.6.1 – 2.6.4 should include a target for each action.
- Promoting health and preventing illness are major ways to reduce greenhouse gas emissions by reducing illness and so demand for health care services while improving wellbeing. This can be done by:
    - Increasing funding for primary prevention including the National Preventive Health Strategy, the National Strategy for Injury Prevention, the National Obesity Strategy and the Australian Centre for Disease Control
    - Increasing funding for beneficial screening and health promotion, while regulating adverse influences from commercial entities (primary prevention)
    - Reforming primary care organisation and funding to support non-communicable disease management (secondary and tertiary prevention) and high value primary care
    - Reviewing and reforming hospital care practices to optimise high value care and prevent low value and harmful care
    - Supporting policy monitoring and evaluating through funding research.

Q15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?

- The Strategy should develop a clear, ambitious decarbonisation plan that sets out responsibilities and opportunities for the private sector, provide certainty and help guide decisions and investment.

Q16. Where should the Strategy prioritise its emissions reduction efforts?
a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas?
b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?

- The Strategy should seek to provide an emissions reduction strategy that is informed by best practice and based on best 'bang for buck' including emissions reductions, financial costs and savings, efforts, health benefits and cost of inaction.
- Scope 3 emissions, which the health system has indirect control of, make up most of our carbon footprint and should not be ignored. Government is best placed to lead industry and our suppliers to reduce their emissions and set policy around this.

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Q17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?

- No specific recommendation provided.

Proposed Objective 3: Adaptation

Q18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

- Adaptation will only be effective if the wider community understands the risks to health from climate change, and are empowered to take health protective actions. As such, the Strategy should include a public education campaign that highlights the risks to health and the health benefits of adaptation as critical to the success of any adaptation action.
- The Strategy should recognise the overall increase in burden of disease because of climate change, and include goals and targets as part of resilience planning.
- The Strategy must focus on planning for building resilient communities — not just developing emergency event response plans.
- Of note, NSLHD has not yet developed an adaptation strategy/framework. We will be seeking guidance from the NSW Ministry of Health in relation to climate adaptation.

Q19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes:
a. What are the key considerations in developing a methodology?
b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally?
c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

- No specific recommendation provided. NSLHD has not yet developed an adaptation strategy/framework. We will be seeking guidance from the NSW Ministry of Health in relation to climate adaptation.

Q20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?

- As above.

Q21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?

- As above.

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Proposed Objective 4: Health in All Policies

Q22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?

- A priority for the Strategy should be to require the Productivity Commission to produce an evaluation of the economic costs of climate change under current emissions reduction scenarios along with modelling the economic savings associated with the health benefits of emissions reductions across a range of sectors. For example, this should evaluate the budgetary savings associated with the avoided ill health and productivity gains from strategies to reduce emissions in the electricity and transport sector related to improvements in air quality and from the adoption of more active and public transport options.
- Much greater benefits for health could be achieved through actively planning to maximise health co-benefits associated with climate adaptation and mitigation strategies at the outset when defining policies.

Q23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?

- The Strategy should seek to establish an overarching working group or National Committee that consists of experts representing the most relevant facets of health, climate science and implementation science and Commonwealth, state and territory Ministers with portfolio responsibility for Health, Environment, Climate Change and Energy. There should also be regular engagement and Consultation with Ministers with responsibility for related portfolios, such as Mental Health, Resources, Emergency Services, Planning, and Infrastructure with respect to policies, programs and initiatives in these portfolios that align with the Strategy.
- The Strategy itself must be integrated with other significant national health strategies, including the Long Term National Health Plan and the National Preventive Health Strategy.
- The Ministerial Committee should be responsible for monitoring and reporting to the National Cabinet (or any subsequent body) on the progress and outcomes from the Implementation of the Strategy, which should be outlined in detail in a publicly available annual report.

Enablers

Q24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?

- Workforce, leadership and training – the Strategy must include adequate support for workforce involvement in the change process beyond training.
- Research – there is a high priority need for better data on climate related health and wellbeing outcomes.

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- Collaboration – the health sector has self-organised to collaborate on responding to climate change and health and health care decarbonisation, but these efforts require government investment in order to scale up and be more effective.
- Monitoring and reporting – regular assessment and forecasting of climate related health impacts across the country is vital. Monitoring over long time periods with robust indicators would help governments and services understand climate change risk, identify specific vulnerabilities, highlight region-specific climate mitigation and adaptation challenges, and track how communities and organisations are responding. Monitoring of the implementation of solutions is also required, in terms of implementation progress, impact and cost benefit analyses.
- It is recommended the enablers be expanded to include governance, finance and implementing planning. All of these are crucial aspects in the successful implementation of any national strategy.
- It is recommended that 'measurement' should become an enabler, as opposed to a standalone objective.

Q25. For each of these enablers:
a. What is currently working well?
b. What actions should the Strategy consider to support delivery?

- As above.

Thank you for considering our submission. Should you have any further queries please don't hesitate to contact NSLHD's Manager Planetary Health, [redacted]

Yours sincerely,

[redacted]

[redacted]
Director Population and Planetary Health
Northern Sydney Local Health District

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Australian Government
Department of Health and Aged Care

NATIONAL HEALTH AND CLIMATE STRATEGY

Detailed submission form

This form allows you to provide responses to the full set of questions in the Consultation Paper available here.

Alternatively, you may wish to complete the briefer online survey available here.

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

Respondent details

What is your name?
[redacted]
What is your email address?
RANZCOG President [redacted]
What is your organisation?
The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG)
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
[redacted]
Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☐ Academic or Researcher ☐ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☒ Medical College or Peak professional body

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Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
RANZCOG supports the objectives as written.
2. How could these principles be improved to better inform the objectives of the Strategy?
RANZCOG supports the principles as written.
3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?
RANZCOG is of the view that Scope 1, Scope 2 and Scope 3 emissions should all be within the scope of the Strategy's emission reduction efforts.
4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?
No comment.
5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?
No comment.

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Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?
RANZCOG is currently in the process of forming an Environmental Sustainability working Group which aims to: • Oversee the College's Carbon Neutral Project and advise on strategies to improve environmental sustainability and reduce the College's environmental footprint through College activities, events, building design and travel; • Embed environmental sustainability practices into College operations and Initiatives; • Advocate for the reduction of the environmental footprint within the Obstetrics and Gynaecology profession and health services more broadly; • Provide advice in relation to the RANZCOG training curriculum and support the introduction of sustainable practice modules; • Provide advice during the development and introduction of an environmental sustainability Continuing Professional Development (CPD) module; • Develop resources for members, staff, and consumers to raise awareness about the known impacts of climate change, air pollution and other toxic environmental exposures on pregnant women and babies.
7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?
RANZCOG notes that further data is required regarding the barriers to institutional and individual changes that support emissions reduction, and the strategies/ pathways to overcome these.

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Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?
RANZCOG is of the view that the Strategy is quite comprehensive and have no further recommendations on the proposed focus areas.
9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?
RANZCOG suggest further research and communication be carried out regarding the links between emissions reduction in the built environment, financial savings, and health.
10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?
RANZCOG proposes researching and communicating the links between emissions reduction in travel and transport, financial savings, and health.
11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?
No comment.
12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area? 13.
No comment.
14. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?
It is noted that efforts at minimising waste in the health care space tend to be thwarted by concerns about hygiene/infection control, and about the perceived costs of sterilising re-usable equipment. Health practices and institutions would benefit from appropriate guidance on assessing and balancing these competing considerations.
15. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?
No comment.
16. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?
RANZCOG is of the view that it would be helpful to have a formal program that assists private providers in reducing emissions. Ideally, this would offer streamlined and cost-effective ways to institute change. For instance, certificates confirming attendance or membership of the program could be displayed by practices. A system for awards could also be established to encourage ongoing participation.

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17. Where should the Strategy prioritise its emissions reduction efforts? a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas? b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?
In general, RANZCOG feel that prioritising areas that engage the public and health system staff in a positive, noticeable, and active way will give the most favourable results. These areas include travel and transport, procurement (notably food), waste, and optimising models of care. We anticipate that addressing these areas whilst leveraging community pride and personal engagement will evoke a sense of awareness that will help facilitate the ongoing management of complex, long standing issues.
18. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?
The issue of waste seems to create the greatest concern amongst staff and the public.

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Proposed Objective 3: Adaptation

19. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?
RANZCOG suggests focussing on the risks posed by multiple, interacting vulnerabilities. For example, pregnant women who have health co-morbidities and other risk factors such as housing insecurity or social isolation.
20. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes: a. What are the key considerations in developing a methodology? b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally? c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?
RANZCOG supports the development of a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan.
21. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?
RANZCOG supports a nationally consistent approach, which would minimise inequities between states, maximise the use of available planning resources, and assist health professionals who move between states.
22. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?
RANZCOG believe the following areas are high-priority health system adaptations that should be prioritised in the immediate future: • the identification and support of groups at the highest risks from climate related events, • assisting health systems in planning for climate related (and other) disasters, and • employing communication strategies to engage and inform the public and health professionals.

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Proposed Objective 4: Health in All Policies

23. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?
Housing security stands out as a particularly important issue.
24. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?
No comment.

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Enablers

25. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
RANZCOG is eager to participate in developing and delivering enablers as described in the document. We see collaboration – between medical colleges, government bodies and stakeholders – as being particularly important in achieving this.
26. For each of these enablers: a. What is currently working well? b. What actions should the Strategy consider to support delivery?
No comment.

Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

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Australian Government
Department of Health and Aged Care

NATIONAL HEALTH AND CLIMATE STRATEGY

Detailed submission form

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Respondent details

What is your name?
[redacted] – Program Manager
What is your email address?
[redacted]
What is your organisation?
Western Sydney Health Alliance
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
[redacted]
Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☐ Academic or Researcher ☒ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

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Western Sydney Health Alliance (WSHA) – Overview

Recognition and Commitment

We recognise Aboriginal and Torres Strait Islander People as the traditional custodians of the land on which we live and work and acknowledge that the sovereignty of the land we call Australia has never been ceded. We commit to listening to and learning from Aboriginal and Torres Strait Islander people and groups about how we can better reflect Indigenous ways of being and knowing in our work.

Established in 2019, the purpose of the WSHA is to drive active commitment and effective collaboration between all three levels of government to maximise improved health outcomes of the Western Parkland City.

Core members of WSHA include the Councils of the Blue Mountains, Hawkesbury, Penrith, Fairfield, Liverpool, Camden, Campbelltown and Wollondilly, South Western Sydney Local Health District (SWSLHD), Nepean Blue Mountains Local Health District (NBMLHD), South Western Sydney Primary Health Network and Nepean Blue Mountains Primary Health Network.

The WSHA Strategic Plan 2022 – 2025 identifies three outcomes, each with its own set of guiding principles and measurable deliverables which will contribute towards achieving the outcomes. Each outcome is operationalised through the establishment of a dedicated working group.

Outcome 1:	Outcome 2:	Outcome 3:
Access to Health & Wellbeing Services	Liveability & Connections	Healthy Lifestyles
Priorities: ☺ Local health services are accessible and reliable, and emphasis preventative health ☺ Local health services are culturally competent ☺ Specialist healthcare is wide-ranging and accessible ☺ Local mental health services are equitable and meet local needs	Priorities: ☺ Incorporation of natural environments in open spaces ☺ Active transport infrastructure connects the WPC ☺ Equitable access to technology addresses changing community needs ☺ Local identities and cultures are recognised and celebrated	Priorities: ☺ Free physical activity opportunities are enabled and encouraged ☺ Public open spaces are safe and accessible ☺ Local healthy food options are culturally appropriate and equitably accessible ☺ Active transport is supported by public infrastructure

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Work of the WSHA - A practical 'health lens' on climate issues, that could benefit the vision and objectives of a National Strategy. A Local Government case study

Health impacts arising from changes in climate and the physical environment are not single-issue problems. They are complex and embedded within a wider social-ecological system that includes multiple interrelated and interconnected scales, from an individual, to the planet.

Addressing this complexity therefore requires a 'big picture' system thinking approach. A collaborative approach working holistically with key stakeholders will support the identification of a spectrum of challenges and balanced solutions to adapt and create positive change[1].

In line with this systems thinking approach, the Western Sydney Health Alliance (WSHA) has developed a Local Council Guidance for Climate, Health & Wellbeing in the Western Parkland City. The resource is titled *The Increasing Resilience to the Health Impacts of a Changing Climate: A local council resource for the Parks Councils.*

This guidance document has been designed in partnership with the Climate and Health Alliance (CAHA) and underpinned by research by the Western Sydney University (WSU) for the Western Sydney Health Alliance (WSHA) as part of the NSW Governments Increasing Resilience to Climate Change Project. The Guidance document and evidence-based research is available at https://wshealthalliance.nsw.gov.au/increasing-resilience-to-climate-change-ircc/

Designed for use at any stage of planning and policy development the guidance describes the health implications of our changing climate and relevance to the Western Parkland City stakeholders and has been developed for councils to:

- increase Council knowledge of health and wellbeing issues related to climate change and offer a range of strategies to adopt in decision making, policy development and service delivery. It can also be used to advocate for resources and policies to promote health and wellbeing.
- assist in meeting their legislative obligations in facilitating strong, healthy, and prosperous local communities as per the Local Government Act 1993, by implementing actions to promote health and wellbeing in the context of a changing climate.
- continue or scale up current climate mitigation and adaptation activities to simultaneously benefit health and wellbeing - and offer new perspectives for strategic planning and service delivery.

Although the science of a changing climate provides the evidence base for the guidance document, the resource provides a practical 'health lens' on climate issues that could also benefit the objectives of a National Strategy. This provides a new perspective that may not have been considered as part of Councils or health services' usual approach to climate mitigation and adaptation. This approach will be useful for all areas within a council and health services, but particularly relevant for resilience, sustainability and environment teams, city strategy, urban design revitalisation and social planning, and statutory and land use planners. It is a blueprint for Local Government that could assist in the development and implementation of a National Health and Climate Strategy.

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[1] Ramia, I., Powell, A., Stratton, K., Stokes, C., Meltzer, A., Muir, K. 2021, Roadmap to outcomes measurement. Your step-by-step guide to planning, measuring and communicating social impact. Centre for Social Impact, viewed 15th December 2021, <https://www.csi.edu.au/research/project/roadmap-social-impact/ >.

The Western Parkland City framework, presents nine interrelated Strategic Action Areas, drawing on the Climate and Health Alliance's Framework for a National Strategy on Climate, Health and Wellbeing for Australia and is informed by research undertaken by WSU[2], consultation and co-design with local government, climate and health experts and health stakeholders.

The nine Strategic Action Areas could assist in enhancing the objectives and support Local Governments to implement the vision of the National Health and Climate Strategy. They are:

1. Leadership and governance
2. Climate health data, research, and information
3. Collaboration and partnership for action
4. Education and communication about the health impacts of climate change
5. Supporting Healthy and Resilient Communities
6. Health-Promoting Emissions-Reducing Strategies
7. Emergency and Disaster-preparedness
8. A Sustainable and climate-resilient local government and health sector
9. Thriving Ecosystems

The first four foundational Strategic Action Areas form the essential building blocks in the framework. The remaining five areas are specific topic areas for building climate health resilience. Importantly, these nine Strategic Action Areas are interrelated and cannot be addressed in isolation. They have also been aligned with the current Strategic Planning framework of The Parks Councils Delivery Program giving a robust local government perspective. Together, they form a comprehensive approach to increasing resilience to health impacts of climate change. (See Figure 1 & 2).

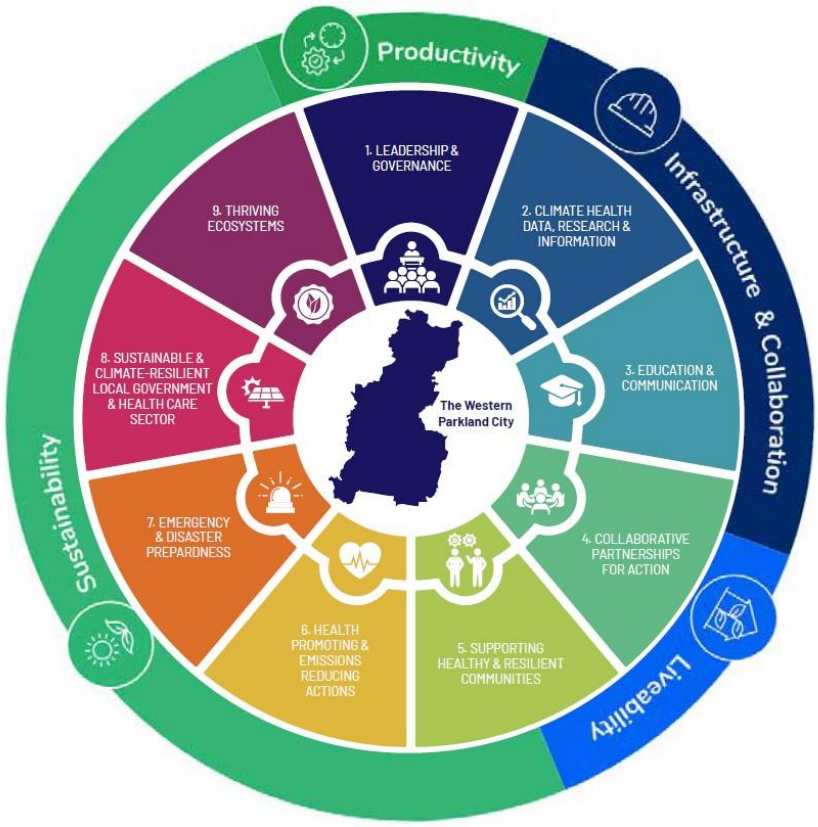


Figure 1.

[2] Morrison, N., McIntyre, E., Reynolds, N., Al Qayem, R., & Harris, P. 2022, Increasing Resilience to Climate Change (IRCC) Project: Review of Local Council Strategies for Climate, Health & Wellbeing in the Western Sydney Region. Western Sydney University

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Summary of the Climate, Health and Wellbeing Framework for Western Parkland City Councils nine strategic action areas



Leadership and Governance
Establishing effective leadership and governance is needed to ensure that climate health and wellbeing impacts are integrated into all levels of local governments planning and operational systems



Climate Health Data, Research & Information
Collaboratively working across council departments and sectors to evaluate specific health threats, priority needs and to monitor trends and opportunities for maximising multi-sector benefits



Education and Communication
Educating and raising awareness of the impacts of climate on health and wellbeing within the local governments and health workforce, and the wider Western Parkland City community



Collaborative Partnerships for Action
Building strong alliances for change and being better connected with each other is essential for us to be able to tackle climate health and wellbeing impacts, particularly in times of emergency or extreme events



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



Health-Promoting and Emissions-Reducing Actions
Actions that reduce the risks to people's health and well-being while simultaneously reducing greenhouse gas emissions



Emergency and Disaster-preparedness
Supporting the identification of vulnerable populations and gaps in infrastructure in order to adequately prepare for the impacts of climate, health and wellbeing



Sustainable and Climate-resilient Local Government and Health Care Sector
A zero carbon, environmentally sustainable, climate-resilient local government and health sector which can effectively respond to the impacts of climate health and wellbeing



Thriving Ecosystems
Healthy and resilient communities rely on a healthy natural environment and thriving ecosystems. Intact ecosystems are the fundamental basis of human health and livelihoods

Figure 2.

1. National Strategy Objectives - Measurement Tools, Reporting, Training, Mitigation and Health in All Policies Approach

- **Measurement tools for social health and well-being** are essential in performance monitoring so that all levels of government, in particular local governments can adapt and respond to changes in community needs and the business environment. The WSHA is recommending the use of measurements in relation to the social determinants of health.

- **Monitoring and evaluating action** in relation to the social determinants of health is a complex and challenging task, however critical, as they provide valuable insights into the underlying factors that influence individuals' health and well-being. These determinants are the conditions in which people are born, grow, live, work, pray and age, and they encompass a wide range of social, economic, and environmental factors.

- A **commitment to robust, well-defined, and coordinated set of measures** that are both qualitative and quantitative and invested in overcoming the challenges associated with inter-disciplinary research and complex interventions. There is a need for a balance between both quantitative and qualitative measures to be able to provide robust analysis and understanding. Quantitative measures are more often valued and used in policy and decision-making contexts as they are easily summarised, compared, communicated and align with traditional research paradigms and methodologies that have historically received more funding and support.

- The WSHA is recommending **a balanced approach to measures** and the use of qualitative measures to allow and encourage voices of the most vulnerable to be heard adequately. They help to provide a holistic perspective, shed light on health disparities and inequities, help in developing effective prevention strategies and interventions, and provide evidence for policy development and advocacy. This approach also has immense significance for our indigenous populations, highlight the importance of sustainable practices, environmental stewardship, and the need to protect and care for the land.

- By using **visual reporting of measures and collecting stories and best practice outcomes** this will strengthen the vision of health in the community and stakeholders in relation to the changing climate. It puts people at the centre of decision-making. This approach should be backed up by legislation to ensure coordination and collaboration to the collection and reporting of data and measurements and should be linked to Australia's emissions reporting under the Paris Agreement.

- Resourcing to assist and **ensure a smart system** is in place for this collection and reporting system.

- A link to mandatory reporting for **Local Governments** through the NSW legislative **Integrated Planning and Reporting framework**.

- A link to health services **mandatory reporting along with incentive schemes** and grant funded opportunities to gain a collaborative approach to reduce emissions to net zero by 2030.

- **Training and support** for health agencies and local governments to analyse emissions data to identify trends, hotspots, and areas of opportunity for emissions reduction. Preparation

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of regular reports detailing the health system's GHG emissions, progress towards targets, and any initiatives or actions taken to reduce emissions.

- **Set emission reduction targets**: Define specific targets and goals to guide the reduction of GHG emissions in the health system. These targets should be ambitious, time-bound, and aligned with broader national or international climate goals

- **Implement mitigation strategies**: Develop and implement targeted strategies to reduce emissions across the health system. This can include energy efficiency measures, renewable energy adoption, waste reduction and recycling programs, sustainable procurement practices, and transportation optimisation.

- **Engage stakeholders**: Collaborate with relevant stakeholders, such as healthcare providers, policymakers, and environmental experts, to raise awareness, foster engagement, and encourage actions to reduce emissions. Engage in discussions and knowledge-sharing forums to develop best practices for emissions reduction in the health sector.

- **Continuous improvement**: Foster a culture of continuous improvement by learning from experiences, sharing best practices, and adopting innovative technologies and practices to further reduce GHG emissions. Regularly review and update emission reduction strategies based on new insights, emerging technologies, and evolving sustainability practices

- **Health in All Policies approach**: Viewing the changing climate through a health lens enables people to be placed at the centre of decision-making activities. The Health lens analysis over all policy areas exposes decision-makers, senior public servants and on the ground service deliverers to a greater understanding of the intersection and impacts between health and wellbeing and climate change. This results in greater inclusion of health considerations in work programs, targets and milestones of a number of strategies and priority areas.

- Resources need to be dedicated to **systematic research** on the practical implementation of interventions in relation to social determinants of health inequities and towards providing people with more practical information about interventions and tools to evaluate those interventions.

- **Health lens in Landuse Planning and asset management** needs to be strengthened to increase understanding and action. The development of a network of collaborative working alliances, use of social and health impact assessments in City wide upgrades will enhance the quality and accessibility of community infrastructure, open spaces, and community corridors. WSHA is a best-practice example of this approach.

- The **development of guidance documents, resources and toolkits** which aim to tackle the challenges of climate change, with a focus on improving health in local communities. The *Increasing Resilience to the Health Impacts of a Changing Climate: A local council resource for the Parks Councils* Guidance document is a best-practice example of this and provides an important framework for meaningful actions to address the impacts of climate change on health and builds on the work already being undertaken by many Councils who are using an evidence-based approach to help guide decision making in the coming years.

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- **Indicators and measures for climate health -** The following indicators were developed by researchers and organisations within Australia and internationally and have also been extracted from the Victorian Government's Tackling climate change and its impacts on health through municipal public health and wellbeing planning. They are typically grouped into a number of categories or domains, with vulnerability of exposed populations informed by two main factors: sensitivity – the degree to which populations are affected by climate variability or change; and adaptive capacity – the capability of populations to adjust to change, to minimise harm, to act on opportunities or to cope with the consequences.

Example exposure indicators

- Projected number of extreme heat days
- Percentage of population
- living in designated bushfire-prone areas
- Percentage of population
- living in areas experiencing drought
- Percentage of population
- living in coastal areas that may be exposed to sea level rise
- Percentage of population
- living in flood-prone areas

Example sensitivity indicators

- Percentage of population aged 14 years or younger
- Percentage of population aged 65 years or older
- Percentage of older adults who live alone
- Percentage of population with one or more chronic conditions (for example, asthma, chronic obstructive pulmonary disease, cardiovascular disease, heart disease)
- Proportion of people living in households below the poverty line
- Proportion of adults who ran out of food and could not afford to buy more
- Percentage of population experiencing homelessness or insecure housing
- Rate of incidents of family violence recorded by police
- Percentage of new migrants (for example, who may experience language barriers or have limited knowledge of local warning systems, health and social services)
- Percentage of Aboriginal and/or Torres Strait Islander people
- Number of residents receiving home and community care services
- Number of aged care facilities

Example adaptive capacity indicators

- Percentage of areas covered by impervious surfaces
- Percentage of areas not covered by tree canopies
- Percentage of population residing within a specified distance from public transport, amenities (such as supermarkets) and key health, medical and emergency services
- Number of general practitioners per x number of people
- Number of community service
- organisations per x number of people
- Proportion of population who volunteer or support community programs
- Number of refuge centres (for example, air-conditioned leisure centres, libraries, and community centres)
- Proportion of adults unable to raise $2,000 within two days in an emergency
- Proportion of adults who do not have someone outside their household that they can rely on to care for them or their children in an emergency
- Proportion of households or businesses with private water supplies

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Other potential indicators for specific climate health hazards are suggested below:

Bushfires

- Number of admission for Injuries, burns and death
- Self-reported health impacts associated with the displacement of populations and crowding in emergency relief centres
- Number of hospital admissions for exacerbations of heart and lung conditions, including asthma and increased eye, nose and throat conditions
- Higher incidence of mental health impacts, trauma and longer term disruptions to social systems – for example, due to lost income and property damage or loss
- Higher incidence of family violence

Flood and heavy rainfall events

- Incidence of injuries, drowning and other accidental deaths
- Self-reported health impacts associated with the displacement of populations and crowding in emergency relief centres
- Number of emergency department presentations for food- and water-borne illness due to contamination or disruption to essential services such as electricity, water, and sewerage
- Number of case with mosquito-borne diseases due to increased breeding following flooding
- Incidence of respiratory illness due to greater exposure to moulds
- Incidence of mental health impacts, trauma and longer-term disruptions to social systems, for example, due to lost income and property damage or loss

Heat and heatwaves

- Incidence of heat-related illnesses such as exhaustion and heatstroke and related effects such as falls
- Number of premature deaths
- hospital admission for existing health conditions including respiratory, cardiovascular and kidney diseases
- Incidence of food, water and vector borne diseases due to altered distribution of vectors (including mosquitos), increases in climate-sensitive food and water-borne pathogens and toxin-producing algal species
- Incidence of allergies caused by pollen
- Incidence of mental health impacts
- Incidence of family violence
- Self-reported health impacts from reduced physical activity due to high outdoor temperatures

Drought and overall decreased average rainfall

- Incidence of mental health impacts and longer-term disruptions to social systems, for example, due to lost income
- Increase hospitalisations for exacerbations of heart and lung conditions including asthma, for example, due to exposure to dust storms
- Self-reported health impacts associated with food or water shortages including reduced access to fresh, healthy, and affordable food due to reduced food yield
- Increased number of cases with illnesses related to drinking water and recreational water, for example, due to increases in blue-green algae
- self-reported health impacts from reduced physical activity due to degradation of public open space and sporting and recreation grounds

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2. Improving principles to better inform the objectives of the National Strategy

1. ***First Nations leadership**:*

   - First Nations leadership in **collaboration** with policy makers and decision makers for meaningful engagement, inclusive governance, and effective policy development. Long-term relationship building and working hand in hand in a collaborative way will foster positive change.

   - **Awareness of our interdependence** on nature and inclusion of First Nations knowledge of land and water in climate health education strategies that engage with traditional owners and integrate learning about Aboriginal culture, land stewardships, caring for Country and cultural safety as an internal and external priority education focus.

   - Collaboration built on **a foundation of partnership and co-creation** to increase understanding of policy processes and access to resources that enhance capacity to engage effectively in decision making.

   - Collaboration includes mechanisms for **accountability and monitoring** of policy outcomes.

   - **Relationships** with Aboriginal elders and work with First Nations organisations to identify how climate health will impact Aboriginal people and identify culturally safe practices etc. to address discrimination and increase inclusion.

2. ***Tackling health inequities:***

   - Include recognition of the **right to health**, healthy environments and a healthy planet as core principles and values to underpin operations.

   - **A lived experience perspective** is included in strategic planning and decision-making processes to recognise how populations are building their resilience and contributing to improving health and wellbeing at the local level.

   - Ongoing **data audits** to determine which indicators are relevant to include in local climate-health datasets to identify at-risk and vulnerable groups.

   - **Investing together** in developing a climate health education and communication strategy and program targeting difficult to reach communities, the general community and other key stakeholders and action to address climate change at home, in councils, organisations, businesses and communities that facilitates resilience.

   - A **shared understanding** of climate risks to service delivery and the population groups they serve, especially vulnerable groups such as older people, children, and younger people and those on low incomes/ impacted by socioeconomic status and rurality.

3. ***Population health and prevention:***

   - **Climate issues are presented as health issues** and are framed as a wellbeing priority.

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- **Embed a strengths-based approach** (i.e., an approach that highlights the positive changes being made to increase resilience and adapt and mitigate climate health events) and celebrate what is working and the early wins

- **Climate and health impact assessment**, adaptation and mitigation planning are integrated into planning approval processes and embedded decisions

- **Resilience thinking** that includes short, medium, and long-term strategies preparing communities for climate events to build resilience in mitigating and adapting to climate change over the short, medium, and long term. Strategies consider the social and ecological determinants of health as building blocks for resilience.

- **Community resilience** is enhanced through the implementation of policies and programs that address the impacts of climate change on social and ecological determinants of health

4. ***One Health:***

- Incorporate the concept of **planetary boundaries and planetary health** into strategic plans and decision-making, including planetary health targets and indicators.

- Establishment of **climate health working groups and alliances** to ensure the sharing of interdisciplinary knowledge.

- The establishment of **climate health minimum datasets** to assist the identification of relationships between human health, animal health, urban design, transport, energy and water security to identify potential solutions to support evidence-based actions.

- **Nature-based solutions and nature-based thinking** education projects as part of health and wellbeing and community engagement initiatives.

- Recognising the **Rights of Nature principles** and include them in all strategic documents, planning and decision-making processes and operational delivery plans.

- Build the **green economy and green infrastructure** and include this in economic development plans.

- Support the promotion of **biodiversity and human health in urban environments** through the creation and expansion of green corridors, green roofs, and green spaces, and engaging the community.

- Prioritise services and projects that **reduce greenhouse gas emissions** such as through land restoration, revegetation of forests, rivers and wetlands, and biodiversity conservation.

- Support the **expansion of national programs** to preserve natural environments, including wilderness areas and national parks, recognising their vital role in healthy human development and long-term health and wellbeing, as well as the profound benefits for mental and physical health, from interaction with nature.

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- **Invest in education and awareness raising campaigns** to promote greater understanding of the fundamental links between human health and healthy ecosystems. This will help promote connection with nature, positive stewardship of natural resources and reinforce environmental protection as a health promotion initiative.

5. ***Evidence-informed policymaking:***

- **Empower leadership** at all levels to plan and implement responsible, evidence-based, locally relevant climate change mitigation and adaptation strategies.

- Local government and health care services **embed corporate sustainability culture** underpinned by climate health risk assessments that are incorporated into all aspects of policy decision making. This approach limits adverse impacts on health, enhances climate preparedness, builds climate resilience, and informs decision-making to support transition to low and zero carbon operations.

- Follow a **Model Code of Conduct** which provides the foundation for ethical decision-making.

- Awareness of a **duty of care**. Climate change hazards and risks are significant and foreseeable, so decision-makers are accountable for considering these matters in exercising their duty of care.

- **Use of tools** (such as *NSW Government Healthy Built Environment Checklist - A guide for considering health in development policies, plans and proposals (2020)*) to guide planning process and provision of a method to work collaboratively with external stakeholders.

- **Financial regulation measures** to support climate change and health impact programs and initiatives which include assessment of all relevant health costs and benefits.

- **Resources are allocated to support community resilience** activities that continue providing services to mitigate and adapt to climate health risks.

- **Policies and funding streams** support healthy and resilient communities (in addition to emergency and disaster preparedness) at the State and National levels. Activities include community engagement activities such as multicultural festivals, Sustainable Living Festivals or Transition Town events.

- **Government incentives** to encourage low and zero carbon, climate resilient buildings and infrastructure.

6. ***Partnership-based working across all levels of government and beyond*:**

- **Cross sector, interdisciplinary approach** from individuals and communities to organisations and policy systems at the local, regional, state, national and global levels.

- **Principles of collaborative planning methodologies**, co-design to reach all sections of the community to understand their experiences of climate change and its impacts on health, including key concerns and opportunities and suggestions for action.

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- Demonstration of **leadership** in climate action by committing to net zero by 2050.

- Acknowledgement that **climate health impacts cut across almost all areas of local government** responsibility, including the critical assets, infrastructure, and essential services that Councils provide for their local communities.

- **Local government has a key role to play** in creating the conditions to enable health and wellbeing to flourish. The overarching legislative framework for local government in NSW makes it clear that councils' core functions are to create and maintain healthy places for people to live. Councils have an in-depth understanding of their local government area, its geography, environment, economy, and its people, they are well placed to take action and support the community to address the climate health challenge.

- **Acknowledgement Councils organisational structure**, workplace and in-depth knowledge of the economic and environmental context of their local government area places them well to build collaborative partnerships for positive climate health action.

- **Councils are place shapers and place leaders.** Health improvement is generated with civic leadership and local government has responsibilities relating to most of the factors that affect people's health. Councils take the lead in local developments and partnerships, building up the assets of communities. This encompasses building up communities through support for local voluntary sector organisations and leadership.

- Local government has the opportunity to be **the champion for prevention** in its place and locality, taking the lead for health improvement through tackling social determinants.

- **Integration of climate health targets and indicators** into the Local Government Integrated Planning and Reporting Framework to ensure climate health risk management strategies and practices are being effective, consultation is undertaken in all stages of the process, and decision-makers are demonstrating climate health leadership in decision making, resource allocation and delivery programs.

- **Dedicated sustainability roles and teams** within organisations to lead sustainability projects and services

- Climate, health and wellbeing issues in **briefing papers and business cases** to motivate decision-makers to prioritise resources supporting increased resilience to climate-health and wellbeing impacts

- Collaboratively **work across all sectors** to evaluate specific health threats, priority needs and monitor trends and opportunities for maximising multi-sector benefits.

- **Knowledge sharing networks** that share data and information through open data portals.

- **Showcasing of partnership case studies** of climate, health and wellbeing actions that provide co-benefits both in terms of mitigating climate change and improving health outcomes

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- **Education and communication strategies** to increase understanding of vulnerabilities to climate change, how protective action can be implemented to avoid health risks and improve health outcomes, and develop new skills required to adapt to a changing world.

- Local government and health care services work together to **share ideas and corporate experience,** including climate change risk assessments and responses in their strategic and operational plans to building sustainable services for their communities

- **Partnerships with other cities**, international partners and global networks with shared ambitions

3. Greenhouse Gas emissions and the National Strategy's emission reduction efforts

- It is important to **target greenhouse gas emissions** that have a significant impact on human health and contribute to climate change.

- The largest proportion of greenhouse gas emissions in the Western Parkland City come from **energy and transport**. This contributes to high rates of asthma, acute respiratory infections (particularly among 0–4-year-olds), and circulatory diseases (like heart, stroke, and high blood pressure) in the Western Parkland City population. All of these are worsened by rising temperatures and associated local air pollution.

- The main sources of greenhouse gas emissions in NSW that should be targeted are:
  1. Stationary energy for electricity generation - 52 Mt (37% of total NSW emissions)
  2. Transport - 28 Mt (20%)
  3. Agriculture - 16 Mt (12%)
  4. Stationary energy (other) - 15 Mt (11%)
  5. Fugitives from fuels - 13 Mt (9%)
  6. Industrial processes and product use - 13 Mt (9%)
  7. Waste - 5 Mt (3%) [3]

- It is important to note that targeting greenhouse gas emissions alone may not be sufficient to address public health concerns comprehensively. Other factors, such as air pollution, water pollution, and environmental degradation, also have significant impacts on human health and should be considered in health reduction efforts. A holistic approach that combines emission reductions, sustainable practices, and pollution control measures is necessary for effective health and climate action.

4. First Nations policies, initiatives, expertise, knowledge and practices the National Strategy should align with or draw upon to address climate change and protect First Nations country, culture and wellbeing.

- Our **First Nations people have a unique position** as the world's longest continuous living culture, the collective knowledge of Indigenous people offers powerful lessons for others.

[3] Department of Industry, Science, Energy and Resources State and Territory Greenhouse Gas Inventories 2018, Australian Government. viewed 29th Sept 2021 < https://www.industry.gov.au/sites/default/files/2020-05/nga-state-and-territory-greenhouse-gas-inventories-2018.pdf >.

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Over millennia, Indigenous peoples around the world have observed the land, sea and sky, and lived within the ecological limits of the land, so there is clearly significant adaptive capacity in Indigenous Australians[4].

- **Traditional Ecological Knowledge** (TEK) should be drawn upon in the National Climate and Health Strategy. First Nations people hold deep knowledge and understanding of their environments, gained through generations of lived experiences and close connections with the land. TEK encompasses a holistic approach to managing ecosystems sustainably. This knowledge can inform climate change adaptation and mitigation strategies by integrating traditional practices, such as controlled burning, sustainable land management, and conservation techniques.

- **Land Stewardship**: First Nations people have a strong connection to their ancestral lands and are stewards of the environment. Many communities have implemented policies and initiatives to protect and restore lands, emphasising sustainable resource management, reforestation, wildlife conservation, and the revitalisation of traditional practices such as seed-saving and medicinal plant cultivation. These efforts not only mitigate climate change but also preserve cultural traditions and enhance community well-being.

- **Climate Adaptation and Resilience**: First Nations communities are at the forefront of climate change impacts, including rising sea levels, extreme weather events, and disruptions to ecosystems. Many Indigenous communities are developing adaptation strategies based on traditional knowledge and practices. These strategies include community-based climate monitoring, disaster preparedness plans, the restoration of traditional food systems, and the preservation of cultural heritage sites.

- **Policy and Advocacy**: First Nations people engage in policy and advocacy at local, regional, national, and international levels to ensure that their voices are heard in climate change discussions and decision-making processes. Their advocacy seeks to influence policies related to land rights, natural resource management, climate justice, and the recognition of Indigenous rights and sovereignty.

- **Partnerships and Collaboration**: First Nations people recognise the importance of collaboration with governments, NGOs, researchers, and other stakeholders to address climate change effectively. Partnerships and alliances can facilitate the sharing of knowledge, resources, and capacity-building initiatives that benefit both Indigenous communities and broader society.

- **The expansion of the Indigenous Ranger Program** in management and protection of natural and cultural resources on traditional lands would play a crucial role in environmental monitoring, fire management, pest control, and the preservation of cultural heritage. The Indigenous Ranger Program not only contributes to climate change resilience but also provides employment and training opportunities for Indigenous communities.

- **Increased awareness and funding of Indigenous Protected Areas (IPAs).** IPAs contribute to climate change mitigation by protecting carbon-rich ecosystems such as forests and wetlands, and they also enable Indigenous communities to maintain their cultural practices and connections to country.

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[4] Ford, J 2012,' Indigenous health and climate change'. American Journal Public Health; 102:1260-1266. doi:10.2105/AJPH.2012.300752

- **Addressing challenges to current policies and initiatives**: Ensure meaningful Indigenous participation, addressing institutional barriers, and respecting Indigenous rights and knowledge systems. Continued collaboration and the recognition of Indigenous sovereignty and self-determination are crucial for effective policies that address climate change and protect Indigenous culture and well-being.

5. Governance forums and the co-design of the National Strategy with First Nations people ensuring First Nations voices, decision-making and leadership are embedded in the National Strategy

- **National Aboriginal and Torres Strait Islander Health Leadership Forum**: This forum brings together key Indigenous health organisations and leaders to discuss and advise on health policy and programs affecting First Nations peoples. It provides a platform for Indigenous communities to articulate their health priorities, contribute to policy development, and ensure culturally appropriate health services are delivered.

- **Regional and Local Indigenous Governance Structures**: Many Indigenous communities in Australia have established their own governance structures at the regional or local level. These structures, such as Native Title Representative Bodies, Land Councils, and Aboriginal Community Controlled Organisations, provide platforms for community-led decision-making and governance. They play a crucial role in shaping local policies, managing land and resources, and preserving cultural heritage.

- It is important to note governance forums are not exhaustive, and the specific mechanisms and structures for co-design and Indigenous leadership may vary across different regions and contexts within Australia. Furthermore, the effectiveness of these forums can vary, and ongoing efforts are needed to ensure that First Nations voices are genuinely heard and that Indigenous knowledge and perspectives shape policies and programs in meaningful ways.

- **Local Governments play a significant role** in the processes of co-design, decision-making, and leadership involving First Nations peoples in Australia. Local Government bodies are often responsible for delivering services and making decisions that directly impact Indigenous communities within their jurisdictions.

- Use of **Local Government community engagement processes** to ensure there is co-design, an integrated planning process and inclusion of strategies into Councils strategic and land use planning documents. It is important these processes consider cultural heritage, land use, and aspirations of First Nations communities. Collaboration with Indigenous communities can help ensure that local planning aligns with cultural values, sustainable development practices, and the protection of sacred sites.

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6. WSHA existing and planned initiatives to measure and report on health system emissions and/or energy use

- Following are some initiatives the WSHA is focusing on to measure and report on health system emissions and/or energy use:

    - **Completion of the Increasing Resilience to the Health Impacts of Changing Climate Guidance document for The Parks Councils Project**– https://wshealthalliance.nsw.gov.au/increasing-resilience-to-climate-change-ircc/ This project was a grant funded Climate Change initiative through LGNSW and auspice by Wollondilly Shire Council. The project was overseen by the WSHA Liveability & Connections Working Group. A community of practice is to be established and implemented during the implementation of the Guidance document in 2023/24.

    - **WSHA Evidence-Based Advocacy Agenda** - https://wshealthalliance.nsw.gov.au/projects-initiatives/evidence-based-advocacy/ Development of Issues papers including statistics, data infographics for each issue, place-based initiatives being implemented by the Parks Councils in relation to the issues and how the WSHA will influence for change.

    - **Health in Land Use Planning Digital online resources** – 4 min & 18 min case studies found at https://wshealthalliance.nsw.gov.au/the-health-lens-integrating-health-and-wellbeing-indicators-into-the-built-environment/

    - **Toolkit of resources** – frameworks, statements, checklists. Found at https://wshealthalliance.nsw.gov.au/resources/

    - **Submissions to The Parks Councils review of their Integrated Planning and Reporting reviews and processes** to advocate for the inclusion of climate and health risk clauses in the Parks Councils Local Environment Plans, Development Control Plans and mandating a climate health risk impact assessment as part of development controls. e.g., using the UNSW Healthy Urban Design Checklist would ensure these considerations are embedded in planning controls.

    - **Advocating for DCPs to include specific measures for community wellbeing** as well as infrastructure / design to reduce greenhouse gas emissions, minimise waste, increase tree canopy / urban greening/ green infrastructure / water management, sustainable infrastructure and precincts that enhance physical and mental wellbeing whilst strengthening environmental protection and conservation.

    - **Advocating to incorporate climate, health, and wellbeing into the NSW Local Government planning system.** A considerable amount of work is being undertaken in NSW to review and update State Planning processes and to enable local governments to learn from each other in responding to climate change. For example, podcasts available from Local Government NSW share a range of content on local government initiatives on planning and engagement, adapting to heat and drought, adapting to floods and storms, and reducing emissions - https://www.lgnsw.org.au/Public/Public/Policy/IRCC-2/IRCC_grants.aspx

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- **Ongoing support to the 8 Parks Councils** – Health in Planning Initiatives, Local Health Alliance and Health Action Plan support, IP&R review support – ongoing meetings with the 8 Councils Strategic Planners and IP&R Teams etc.

7. Additional data and information required to support targeted emissions reduction efforts within health and aged care.

- **Emissions Inventory:** Conducting a comprehensive emissions inventory is crucial to identify and quantify the sources of greenhouse gas emissions within health and aged care facilities. This inventory should encompass direct emissions from onsite sources (e.g., energy use, waste management) as well as indirect emissions from purchased electricity, water consumption, and supply chains. Collecting data on energy consumption, fuel use, waste generation, and other relevant parameters is necessary for accurate emissions assessment.

- **Energy Use and Efficiency**: Detailed information on energy consumption patterns and energy efficiency measures is important to identify areas for emissions reduction. This includes data on electricity, natural gas, and fuel oil consumption, as well as energy-intensive processes and equipment within healthcare facilities. Data on building characteristics, HVAC systems, lighting, and equipment efficiency can help target energy-saving measures and prioritize investments in energy-efficient technologies.

- **Waste Management:** Gathering data on waste generation, disposal methods, and recycling practices is crucial to address emissions associated with waste management. This includes data on medical waste, hazardous materials, pharmaceutical waste, and general waste streams. Information on waste volumes, segregation practices, recycling rates, and waste treatment processes can guide strategies to reduce emissions from waste management activities.

- **Water Consumption:** Understanding water consumption patterns and identifying opportunities for water conservation can indirectly contribute to emissions reduction. Data on water usage, wastewater treatment, and water management practices within healthcare facilities can inform strategies to optimize water efficiency, reduce energy use for water heating and treatment, and minimize the carbon footprint associated with water consumption.

- **Procurement and Supply Chain**: Evaluating the emissions footprint associated with procurement and supply chain activities is essential. Data on the lifecycle emissions of products, equipment, and supplies used in healthcare facilities can help identify environmentally preferable alternatives and support sustainable procurement decisions. Information on supplier emissions, transportation modes, and distance travelled can inform efforts to reduce emissions associated with the supply chain.

- **Behavioural and Cultural Factors**: In addition to quantitative data, understanding the behavioural and cultural factors influencing emissions-related practices is crucial. Collecting qualitative information through surveys, interviews, and focus groups can shed light on staff behaviours, attitudes, and awareness of sustainability practices. This data can help design targeted education and engagement programs to drive behaviour change and foster a culture of sustainability within health and aged care settings.

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8 &9. Proposed focus areas for emissions reduction

9 Built environment and facilities (including energy and water):

- **Energy Efficiency in Healthcare Facilities**: Improving energy efficiency within healthcare facilities can lead to significant emissions reduction. Implementing energy-efficient lighting, optimising heating, ventilation, and air conditioning (HVAC) systems, and upgrading insulation. Conducting energy audits, monitoring energy consumption, and implementing energy-saving measures to help identify opportunities for improvement and track progress over time.

- **Renewable Energy Integration**: Transitioning to renewable energy sources can help decarbonise energy consumption in healthcare facilities. Installing solar panels, utilising geothermal systems, or procuring renewable energy through power purchase agreements (PPAs) can help reduce reliance on fossil fuel-based electricity. Implementing renewable energy systems and exploring renewable energy partnerships can contribute to emissions reduction.

- **Water Conservation and Management**: Implementing water conservation measures can reduce water consumption and associated energy use. Installing water-efficient fixtures, implementing rainwater harvesting systems, and optimising water management practices. Monitoring water usage, identifying leaks, and promoting water-saving behaviours can contribute to sustainability in healthcare facilities.

- **Sustainable Waste Management**: Implementing recycling and composting programs, reducing single-use plastics, and properly managing hazardous waste. Educating staff and patients about proper waste segregation and disposal practices can support sustainable waste management efforts.

- **Green Building Design and Retrofits**: Incorporating sustainable design principles into healthcare facilities by using energy-efficient building materials, optimising natural lighting and ventilation, and incorporating green spaces. Retrofitting existing facilities with energy-saving technologies and pursuing green building certifications can contribute to a sustainable built environment.

- **Resilience and Adaptation Measures:** assessing vulnerabilities to extreme weather events, implementing measures to withstand climate-related risks, and incorporating resilient infrastructure and design. Enhancing emergency preparedness plans and ensuring continuity of care during climate-related events can support resilience efforts.

- **Staff and Patient Engagement**: Engaging staff and patients in sustainable practices is essential for driving change. Providing education and training on energy and water conservation, waste reduction, and sustainable behaviours can promote a culture of sustainability. Encouraging active participation, establishing green teams, and recognising sustainable achievements can help engage staff and patients in sustainability initiatives.

- **Collaboration and Partnerships:** Collaborating with local governments, energy providers, and sustainability organisations can enhance sustainability efforts in healthcare facilities. Sharing best practices, participating in energy-saving programs, and seeking funding opportunities can support the implementation of climate change actions. Collaborative

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partnerships can also foster knowledge exchange and accelerate the adoption of sustainable practices.

10. Travel and transport:

- **Sustainable Patient Transportation**: Promoting sustainable modes of transportation for patients, such as arranging for accessible and efficient public transportation options or providing shuttle services, can reduce the carbon footprint associated with patient travel. Coordinating with transportation providers and integrating sustainable transport options into patient care plans can support emissions reduction.

- **Green Healthcare Fleet**: Transitioning healthcare fleets, including ambulances and medical transport vehicles, to electric or low-emission vehicles can significantly reduce transportation-related emissions in the health sector. Investing in electric vehicle infrastructure, exploring partnerships with EV charging station providers, and securing funding for fleet upgrades can facilitate this transition.

- **Medical Supply Chain:** Addressing the carbon footprint associated with the transportation of medical supplies, pharmaceuticals, and equipment is important. This can involve optimising supply chain logistics to minimise transport distances, exploring regional sourcing options, and working with suppliers to adopt sustainable transportation practices. Collaboration with logistics providers and adopting green procurement practices can support emissions reduction in the medical supply chain.

- **Telemedicine and Remote Consultations**: Expanding the use of telemedicine and remote consultations can reduce the need for patient travel to healthcare facilities. Encouraging healthcare providers to offer telehealth services, improving infrastructure for virtual consultations, and promoting remote monitoring technologies can reduce travel-related emissions while maintaining access to healthcare services.

- **Active Transport for Healthcare Professionals:** Encouraging healthcare professionals, such as doctors, nurses, and staff, to use active modes of transport, such as cycling or walking, for commuting or short-distance travel can have multiple benefits. Supporting infrastructure for bike parking, providing shower facilities, and promoting active transport initiatives can improve staff health, reduce emissions, and create a culture of sustainability within healthcare institutions.

- **Education and Training**: Providing education and training to healthcare professionals on sustainable travel practices and the link between transportation emissions and public health can raise awareness and promote behaviour change. Integrating sustainable transport principles into healthcare curriculum and offering training on sustainable mobility options can help drive sustainable travel practices among healthcare professionals.

- **Collaborations and Partnerships:** Collaborating with local transportation authorities, community organisations, and other healthcare facilities can leverage resources and expertise to develop sustainable transportation solutions. By working together, opportunities for shared transportation services, pooled resources, and coordinated planning can be explored to reduce overall emissions in the healthcare sector.

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11. Supply chain:

- **Sustainable Procurement:** By prioritising suppliers that adhere to environmental standards, ethical sourcing practices, and sustainable production methods can significantly reduce the carbon footprint and environmental impact of the healthcare supply chain. Implementing green procurement policies, conducting supplier assessments, and providing training on sustainable procurement can drive positive change.

- **Carbon Footprint Analysis**: Conducting a comprehensive analysis of the carbon footprint can help identify emission hotspots and prioritise mitigation efforts. Gathering data on transportation, packaging, manufacturing, and waste generation throughout the supply chain. Understanding the carbon intensity of different products and materials can inform decisions on sourcing and alternative options.

- **Green Packaging and Waste Reduction**: Implementing strategies to reduce packaging waste and promote sustainable packaging can lead to emissions reduction. Sourcing products with minimal packaging, using recyclable or biodegradable materials, and encouraging suppliers to adopt sustainable packaging practices. Implementing waste management programs to recycle or properly dispose of packaging materials can further contribute to sustainability.

- **Supply Chain Logistics Optimisation:** Optimise delivery routes, utilise shared transportation options, and exploring consolidation strategies. Collaborating with suppliers, logistics providers, and local transportation authorities can help identify opportunities for efficiency improvements.

- **Local Sourcing and Regional Collaboration**: Promoting partnerships with local suppliers and regional networks can support shorter supply chains, reduce transportation emissions, and enhance local economic development. Supporting local farmers, producers, and manufacturers can contribute to a more sustainable and resilient supply chain.

- **Life Cycle Assessments**: Conducting life cycle assessments (LCAs) for products and materials used in healthcare can help identify environmental impacts throughout their life cycle, from raw material extraction to end-of-life disposal. Understanding the carbon footprint and other environmental considerations of products can inform procurement decisions, support the selection of environmentally friendly alternatives, and encourage suppliers to adopt sustainable practices.

- **Collaboration and Engagement:** Collaborating with suppliers, industry associations, and sustainability organisations can help drive sustainability initiatives in the healthcare supply chain. Participating in sustainability networks, sharing best practices, and engaging in dialogue with suppliers can create opportunities for knowledge exchange, innovation, and collective action.

- **Continuous Improvement and Reporting:** Establishing monitoring and reporting mechanisms for supply chain sustainability performance can support ongoing improvement efforts. This includes setting targets, tracking progress, and regularly communicating sustainability achievements and challenges. Engaging stakeholders and sharing sustainability reports transparently can demonstrate commitment and encourage accountability across the supply chain.

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12. Medicines and gases:

- **Sustainable Medicine Procurement**: Prioritising suppliers that adhere to environmental standards, support ethical sourcing, and promote sustainable manufacturing practices. Green procurement policies, considering life cycle assessments of medications, and supporting the use of environmentally friendly packaging can help drive sustainable medicine procurement.

- **Waste Reduction and Proper Disposal:** Strategies to reduce pharmaceutical waste and ensure proper disposal. Minimising overstocking and expiration of medications, promoting appropriate prescribing practices, and implementing medication return and recycling programs. Collaborating with pharmacies, healthcare providers, and local authorities can facilitate proper disposal and prevent the release of pharmaceuticals into the environment.

- **Sustainable Gases:** Transitioning to sustainable gases used in healthcare procedures, such as anaesthetic gases, can contribute to emissions reduction. This involves exploring alternatives to high-global-warming-potential gases, such as nitrous oxide, and adopting more environmentally friendly options. Collaborating with suppliers and anaesthetic gas manufacturers can support the adoption of sustainable gas options.

- **Efficient Medicine Distribution**: Inventory management to minimise transportation needs, adopting cold chain management practices to reduce spoilage and waste, and exploring shared distribution networks or centralised hubs to improve efficiency. Collaborating with logistics providers and suppliers to identify opportunities for efficiency improvements can support sustainable medicine distribution.

- **Carbon Footprint Assessments:** Analysing the emissions associated with the entire life cycle, including manufacturing, transportation, use, and disposal. Understanding the carbon footprint of different medications and gases can inform procurement decisions, support the selection of lower-carbon alternatives, and promote sustainable choices.

- **Sustainable Inhalers**: Promoting the use of inhalers with lower global warming potential or propellant-free alternatives can contribute to emissions reduction. Raising awareness among healthcare professionals and patients about sustainable inhaler options and proper disposal methods can support sustainable inhaler practices.

- **Education and Awareness**: Providing education and awareness campaigns to healthcare professionals, patients, and the public about sustainable medicine practices, waste reduction, and proper disposal can drive behaviour change. By raising awareness about the environmental impact of medicines and gases, promoting responsible use, and encouraging participation in medicine take-back programs. Engaging healthcare professionals through continuing education programs and integrating sustainability principles into medical training can further support sustainable medicine practices.

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13. Waste:

- **Waste Reduction and Segregation**: Promoting waste reduction initiatives, encouraging staff and patient participation, and providing clear instructions for waste sorting. Engaging waste management staff, implementing proper signage and color-coded bins, and providing training on waste segregation can support effective waste reduction and management.

- **Recycling and Composting**: Identifying recyclable materials commonly used in healthcare settings, such as paper, plastic, and glass, and providing separate recycling bins. Composting organic waste, such as food scraps and plant matter and collaborating with waste management partners and local authorities to ensure proper recycling and composting infrastructure is in place.

- **Pharmaceutical Waste Management**: Implementing proper disposal and management protocols and developing procedures for segregating, collecting, and disposing of expired or unused medications. Collaborating with pharmacies, healthcare providers, and regulatory bodies to establish medication return programs, supporting safe disposal options, and educating staff and patients on proper pharmaceutical waste management can promote sustainable practices.

- **Hazardous Waste Management:** A system to ensure compliance with regulatory requirements for hazardous waste disposal, providing appropriate waste containers, and training staff on safe handling and disposal practices. Collaborating with specialised waste management services and ensuring proper documentation and tracking of hazardous waste disposal can support environmentally sound practices.

- **Circular Economy Approaches**: Adopting circular economy principles in waste management such as waste reduction strategies, promoting reuse of materials and equipment, and exploring opportunities for remanufacturing or refurbishing medical devices. Collaborating with manufacturers, suppliers, and waste management partners to support closed-loop systems and circular economy initiatives can contribute to a more sustainable approach to waste management.

- **Waste Audits and Data Tracking**: Conducting waste audits and implementing robust data tracking systems can provide insights into waste generation, composition, and trends. This data can inform waste reduction strategies, target areas for improvement, and monitor progress over time. Regular waste audits, data analysis, and reporting can support evidence-based decision-making and continuous improvement in waste management practices.

- **Education and Awareness**: Providing education and awareness campaigns to staff, patients, and visitors about proper waste management practices, recycling guidelines, and the environmental impacts of waste can drive behaviour change. Implement the distribution of informational materials, training sessions, and incorporating sustainability principles into staff orientation programs. Engaging stakeholders through educational initiatives.

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14. Prevention and optimising models of care:

- **Preventive Healthcare**: Prioritising preventive healthcare measures can reduce the need for resource-intensive treatments and hospitalisations, leading to lower emissions. Promotion of vaccination programs, implementing screening and early detection initiatives, and encouraging healthy lifestyle behaviours. Investing in public health programs, community outreach, and education can support prevention-focused models of care.

- **Telemedicine and Remote Care**: Expanding the use of telemedicine and remote care can reduce the carbon footprint associated with patient travel and in-person visits. Virtual consultations, remote monitoring technologies, and digital health platforms can enable more efficient and sustainable delivery of healthcare services. Promoting the adoption of telemedicine within healthcare systems and providing necessary infrastructure and training.

- **Chronic Disease Management:** Evidence-based interventions, promoting self-management and patient education, and facilitating remote monitoring and virtual consultations. Collaborating with multidisciplinary teams, community organisations, and patients themselves can support holistic and sustainable chronic disease management.

- **Integrated and Coordinated Care**: Implementing integrated care models and care coordination initiatives can improve efficiency, reduce duplication of services, and enhance patient outcomes. Breaking down silos between healthcare providers and services, promoting interdisciplinary collaboration, and leveraging technology for seamless information sharing. Enhancing communication and collaboration among healthcare professionals can optimise care delivery and reduce unnecessary resource use.

- **Health Promotion and Education**: Providing resources on healthy lifestyle choices, environmental impacts on health, and sustainable behaviours. Collaborating with community organisations, schools, and public health agencies can support comprehensive health promotion efforts.

- **Patient and Community Engagement**: Engaging patients and communities in decision-making processes and care planning can lead to more patient-centred and sustainable models of care. Involving patients in shared decision-making, integrating patient perspectives into care design, and establishing patient advisory groups. Encouraging patient feedback, providing accessible health information, and fostering a culture of patient engagement can support sustainable healthcare practices.

- **Data-Driven Decision Making**: Utilising data and analytics to inform decision making and optimize models of care can improve efficiency and reduce waste. Electronic health records and data analytics to identify areas for improvement. Implementing quality improvement initiatives and fostering a culture of continuous learning and evaluation can support data-driven decision-making practices.

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15 & 16. Involvement of private providers in the National Strategy's emissions reduction efforts:

- **Sustainability Commitment**: Private providers can make a commitment to sustainability by integrating environmental considerations into their mission, vision, and values. Establishing sustainability goals and targets, developing sustainability policies and strategies, and allocating resources for their implementation.

- **Sustainable Infrastructure and Operations:** Incentives to adopt energy-efficient technologies, implement renewable energy systems, optimise water and waste management practices, and promote sustainable procurement and supply chain practices. Encouragement of Private providers to explore green building certifications and sustainable building design principles to enhance the energy and resource efficiency of their facilities.

- **Collaboration and Partnerships:** Private providers can collaborate with other stakeholders, including public healthcare institutions, government agencies, non-profit organisations, and sustainability initiatives, to drive climate change action in the healthcare sector. Participation in collaborative projects, sharing best practices, and supporting knowledge exchange platforms. Collaborations can also help leverage resources, expertise, and influence to address shared sustainability challenges.

- **Sustainable Product and Service Offerings:** Private providers can develop and offer sustainable products and services that support climate change mitigation and adaptation efforts. This can include promoting environmentally friendly medical devices and equipment, eco-friendly consumables, and low-carbon pharmaceuticals. Private providers can also implement innovative technologies and solutions that contribute to sustainable healthcare practices, such as telemedicine platforms and digital health applications.

- **Education and Awareness:** Private providers can play a role in raising awareness and educating their staff, patients, and communities about the relationship between climate change and health. Providing training on sustainability practices, organising educational campaigns, and disseminating information on sustainable lifestyle choices. Private providers can also engage in public outreach activities to promote sustainable healthcare practices and the importance of climate action.

- **Reporting and Transparency:** Private providers can demonstrate their commitment to climate change action by adopting transparent reporting practices. Measuring and disclosing environmental performance, tracking progress towards sustainability goals, and reporting on emissions reduction efforts. Publicly reporting on sustainability initiatives and outcomes can enhance accountability and transparency while inspiring others in the sector to take action.

- **Advocacy and Policy Engagement:** Private providers can advocate for policies and regulations that support climate change mitigation and adaptation in the healthcare sector. Pathways for private providers to engage in policy discussions, supporting initiatives that promote sustainable healthcare practices, and collaborating with industry associations and advocacy groups to influence policy development. Private providers can also contribute their expertise and experiences to inform the development of regulations and guidelines that address climate change in healthcare.

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17. 'Quick wins' in relation to emissions reduction in the first twelve months:

- **Energy Efficiency Upgrades**: Implementing energy efficiency measures can yield immediate emission reductions. Focusing on upgrading lighting systems to energy-efficient LEDs, optimising HVAC systems, and improving insulation. These measures can quickly reduce energy consumption and associated emissions.

- **Renewable Energy Procurement**: Transitioning to renewable energy sources can have an immediate impact on emissions. Prioritising the procurement of renewable energy through power purchase agreements (PPAs) or partnering with renewable energy providers to switch to clean energy sources like solar or wind power.

- **Behavioural Changes and Awareness Campaigns**: Promoting behaviour change among staff and patients can lead to quick emission reductions. Encourage energy-saving behaviours like turning off lights and equipment when not in use, optimising thermostat settings, and promoting the use of stairs instead of elevators. Launch awareness campaigns to educate staff and patients about the environmental impact of their actions and the benefits of sustainable practices.

- **Waste Management Optimisation**: Implement effective waste management practices to minimise emissions from waste. Prioritise waste reduction strategies, such as reducing single-use plastics, improving recycling programs, and composting organic waste. Proper waste segregation and disposal can contribute to both emission reductions and improved sustainability.

- **Sustainable Transportation**: Promote sustainable transportation options to reduce emissions from staff and patient travel. Encourage carpooling, use of public transportation, and active transportation like walking or cycling. Provide incentives for staff to adopt low-carbon transportation methods and support the development of bike-sharing programs or electric vehicle charging infrastructure.

- **Telemedicine and Remote Consultations**: Expand the use of telemedicine and remote consultations to reduce travel-related emissions. Encourage healthcare providers to offer virtual appointments when appropriate, reducing the need for patients to travel to healthcare facilities. This can also improve access to care and increase efficiency in service delivery.

- **Green Procurement**: Prioritise the procurement of sustainable and low-carbon products and services. Source environmentally friendly medical supplies, equipment, and pharmaceuticals that have lower carbon footprints. Collaborate with suppliers to encourage sustainable packaging, reduce waste, and adopt greener practices throughout the supply chain.

- **Data Monitoring and Benchmarking**: Establish a system to monitor energy consumption, waste generation, and emissions in healthcare facilities. Set emission reduction targets, track progress, and regularly benchmark performance against industry standards. This data-driven approach can help identify areas for improvement and prioritise action for emissions reduction.

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18. Prioritising health impacts, risks and vulnerabilities for adaptation

- **Respiratory Health:** Climate change can worsen air quality, increase the frequency and intensity of bushfires and contribute to the spread of air pollutants and allergens. This can exacerbate respiratory conditions such as asthma and respiratory allergies. Prioritise adaptation actions to improve air quality monitoring, implement strategies for pollution reduction, enhance public health messaging about air pollution, and strengthen respiratory healthcare services.

- **Mental Health and Well-being:** Climate change can have adverse impacts on mental health and well-being, including increased stress, anxiety, depression, and post-traumatic stress disorder. Prioritise adaptation actions to enhance mental health support systems, build community resilience, and provide psychological support in the aftermath of climate-related events.

- **Heat-related Illnesses and Deaths**: Heatwaves and increased temperatures are on the rise. Adaptation actions such as the provision of cooling centres, improve heatwave early warning systems, and enhance public awareness and education about heat-related health risks.

- **Healthcare Infrastructure and Systems**: Strengthen the resilience of healthcare infrastructure and systems to withstand climate-related hazards, such as extreme weather events. Prioritise adaptation actions to ensure the continuity of healthcare services during emergencies, enhance health system capacity for surge events, and promote infrastructure designs that consider climate resilience.

- **Vulnerable and Marginalized Populations**: Prioritise adaptation actions for populations that are more vulnerable to climate change impacts, including children, the elderly, pregnant women, low-income communities, indigenous populations, and those with pre-existing health conditions. Consider equity considerations and address health disparities by improving access to healthcare, ensuring culturally sensitive care, and promoting social and economic resilience.

- **Water and Food Security**: Climate change can affect water availability, quality, and food production, leading to impacts on nutrition and food security. Prioritise adaptation actions to ensure access to safe drinking water, promote sustainable water management practices, enhance food security measures, and support agricultural resilience to climate change.

- **Vector-Borne Diseases**: Climate change can affect the distribution, abundance, and seasonality of disease vectors like mosquitoes and ticks, increasing the risk of vector-borne diseases such as malaria, dengue fever, Lyme disease, and Zika virus. Adaptation actions to strengthen vector control measures, improve surveillance and monitoring systems, and enhance public health awareness and responses to vector-borne diseases.

- **Infectious Diseases**: Changes in temperature, rainfall patterns, and ecosystems impact the transmission dynamics of various infectious diseases, including waterborne and foodborne illnesses. Prioritise adaptation actions to address the increased risks of infectious diseases, enhance disease surveillance systems, improve water and sanitation infrastructure, and promote hygiene practices.

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18. Process and methodologies to adopt to prioritise impacts, risks and vulnerabilities for adaptation action

- **Health Vulnerability Assessment**: Systematic vulnerability assessment specific to health systems and populations to identify and prioritise areas most at risk from climate change impacts. This assessment considers the exposure of health infrastructure, services, and populations to climate hazards (e.g., heatwaves, extreme weather events, vector-borne diseases), their sensitivity to those hazards, and their adaptive capacity. It helps identify priority areas where adaptation actions are most urgently needed to protect public health.

- **Health Risk Assessment**: Comprehensive risk assessments that specifically focus on health risks associated with climate change impacts. Analyses the likelihood and consequences of climate hazards on human health, healthcare facilities, and health systems. The assessment considers factors such as the potential magnitude of health impacts, the probability of occurrence, and the level of vulnerability of specific populations. Prioritisation is based on the highest health risks or the most critical health systems and populations at risk.

- **Stakeholder Engagement and Participatory Processes**: Engage relevant stakeholders in the health and health service sector to ensure their perspectives and expertise are considered in prioritising adaptation actions. Ensure the involvement of healthcare providers, public health agencies, community organisations, policymakers, and affected communities. Stakeholder engagement processes ensure that local knowledge, experiences, and health priorities are integrated into decision-making and adaptation planning.

- **Multi-Criteria Decision Analysis (MCDA) in Health**: Apply a structured decision-making approach like MCDA, tailored to the health context, to prioritise adaptation actions. This enables the consideration of multiple criteria relevant to health, such as health impacts, equity, feasibility, cost-effectiveness, and community priorities. Stakeholders' preferences and expert inputs are incorporated to assess alternative options based on these criteria. MCDA helps facilitate transparent and systematic decision-making to prioritise health adaptation actions.

- **Cost-Benefit Analysis (CBA) in Health**: Conduct a cost-benefit analysis specific to health impacts and interventions to evaluate the economic feasibility and prioritise adaptation actions. This evaluation estimates the costs of implementing health adaptation measures and assessing their potential health benefits, including avoided health burdens, improved healthcare resilience, and reduced healthcare costs. Prioritisation is based on the highest benefit-cost ratios or the greatest net health benefits.

- **Expert Judgment and Scientific Evidence in Health**: Seek input from health experts and rely on scientific evidence to inform the prioritisation process. Experts in public health, epidemiology, climate science, and healthcare delivery can provide insights into the potential health impacts, risks, and vulnerabilities associated with climate change. Expert panels, scientific assessments, and literature reviews specific to health can inform the prioritisation of health adaptation actions.

- **Alignment with Health Policy Objectives and Goals**: Ensure that the prioritisation process aligns with health policy objectives, goals, and frameworks. Consider the priorities and

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targets established in national, regional, or local health policies, public health plans, and climate change strategies. This alignment helps identify areas where adaptation actions can have the most significant impact on health outcomes and contribute to broader health and sustainability goals.

19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan?

Yes.

a. What are the key considerations in developing a methodology?

b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally?

c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

19 (a). Key considerations in a methodology should include:

- **Stakeholder Engagement**: Ensure active involvement and collaboration with relevant stakeholders, including national health agencies, policymakers, researchers, healthcare providers, community organisations, and vulnerable populations. Engage stakeholders early and throughout the process to incorporate diverse perspectives, local knowledge, and ensure ownership and buy-in.

- **Climate and Health Data Collection:** Gather relevant climate and health data to understand the current and projected climate change impacts on public health. This includes collecting climate projections, epidemiological data, health system data, and socioeconomic information. Analyse the data to identify linkages between climate variables and health outcomes.

- **Vulnerability Assessment**: Conduct a comprehensive vulnerability assessment to identify populations, geographic areas, and health sectors that are most vulnerable to climate change impacts. Evaluate exposure to climate hazards, sensitivity of health systems and populations, and adaptive capacity. Analyse the potential health risks and prioritise areas for adaptation action based on vulnerability levels.

- **Health Impact Assessment:** Assess the potential health impacts of climate change in various sectors, including heatwaves, extreme weather events, air quality, water and food security, vector-borne diseases, and mental health. Quantify the health burden associated with these impacts, considering morbidity, mortality, and other health-related indicators.

- **Adaptation Options Identification**: Identify a range of potential adaptation options to address the identified health impacts and vulnerabilities. Explore both traditional and innovative strategies that encompass primary prevention, healthcare system resilience, community-based interventions, policy and governance approaches, and technological solutions. Consider the effectiveness, feasibility, cost-effectiveness, and co-benefits of each option.

- **Prioritisation and Decision-Making**: Develop a systematic framework for prioritising adaptation options. Consider multiple criteria, such as health impact, vulnerability, cost,

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feasibility, equity, and social acceptability. Utilise decision-support tools, such as multi-criteria decision analysis, to assess trade-offs and facilitate decision-making. Engage stakeholders to collectively determine priority actions based on shared values and goals.

- **Adaptation Plan Development**: Develop a comprehensive National Health Adaptation Plan that outlines strategies, objectives, and actions to address the identified health risks and vulnerabilities. Define clear goals, targets, and indicators to monitor progress. Integrate adaptation into existing health policies, plans, and programs. Coordinate with other sectors, such as environment, disaster management, and urban planning, to foster a multisectoral approach.

- **Implementation and Monitoring**: Establish mechanisms for plan implementation, coordination, and monitoring. Define responsible institutions, assign roles and responsibilities, and allocate resources for implementation. Develop a robust monitoring and evaluation framework to track progress, measure effectiveness, and ensure accountability. Regularly review and update the plan based on new evidence, emerging risks, and changing priorities.

- **Capacity Building and Awareness:** Incorporate capacity building efforts to enhance knowledge, skills, and awareness of climate change and health among health professionals, policymakers, and communities. Provide training programs, workshops, and awareness campaigns to promote understanding of climate-health linkages, adaptation strategies, and best practices. Foster collaboration and knowledge-sharing networks among stakeholders.

- **Evaluation and Review**: Evaluation processes setup at the very beginning of the program and conduct periodic evaluations and reviews of the NHVAA and NHAP to assess their effectiveness, relevance, and impact. Use feedback and lessons learned to refine and improve future iterations. Foster continuous learning and adaptive management to ensure the long-term effectiveness of adaptation efforts.

20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems?

- **Yes.** Providing a nationally consistent approach to vulnerability assessment and adaptation planning for the health system has numerous benefits, including improved coordination, equity, policy alignment, resource optimisation, and long-term resilience. It enables a comprehensive and systematic response to climate change impacts on health and fosters collaboration and partnership among stakeholders at all three levels of Government. It allows for the sharing of knowledge, best practices, and lessons learned, leading to more efficient and effective responses to climate change impacts on health.
- National guidance would be useful, but over and above this, governance of the system is critical – deciding who is responsible for assessing vulnerable, finding vulnerable, and reaching them when it counts. Strong collaborations with local government and emergency services are going to help here.

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20. Topics that should be covered to promote a nationally consistent approach and examples of existing guidance:

- **Standardised Methodologies**: Develop standardised methodologies for conducting vulnerability assessments and adaptation planning, including common indicators, data collection methods, and analytical frameworks. This ensures consistency in approach and allows for meaningful comparisons between different regions and jurisdictions.

- **Climate and Health Data**: Provide guidance on the collection, analysis, and interpretation of climate and health data, including climate projections, epidemiological data, and health system information. This guidance should include standardised data sources, quality control measures, and methodologies for assessing climate-health linkages.

- **Vulnerability Assessment Frameworks**: Establish a framework for assessing vulnerability to climate change impacts on health. This framework should consider exposure to climate hazards, sensitivity of health systems and populations, and adaptive capacity. It should also incorporate considerations of equity and social determinants of health.

- **Health Impact Assessment:** Develop guidance on conducting health impact assessments to evaluate the potential health impacts of climate change and inform adaptation planning. This includes assessing both direct health impacts (e.g., heat-related illnesses) and indirect impacts (e.g., changes in vector-borne diseases) on population health.

- **Adaptation Options and Best Practices**: Compile a comprehensive list of adaptation options and best practices for addressing climate change impacts on health. This should include strategies for prevention, healthcare system resilience, community engagement, policy and governance, and capacity building. Examples of successful adaptation measures from various regions should be highlighted.

- **Policy Integration**: Provide guidance on integrating health vulnerability assessments and adaptation planning into broader climate change policies, strategies, and plans at the national, regional and local levels. This includes aligning health adaptation goals with national climate targets, coordinating efforts across sectors, and promoting policy coherence.

- **Stakeholder Engagement**: Promote guidance on engaging stakeholders throughout the vulnerability assessment and adaptation planning process. This includes guidelines for conducting consultations, workshops, and collaborative decision-making processes involving health agencies, policymakers, researchers, healthcare providers, and communities. Examples of effective stakeholder engagement approaches should be included.

20. Examples of existing guidance that can be drawn from include:

- **Climate Change and Health Adaptation Planning Guidelines from the World Health Organization (WHO):** These guidelines provide a framework for assessing health vulnerabilities, developing adaptation strategies, and integrating health into climate change policies and plans.

- **Adaptation in Action:** Case Studies from the Climate Change Adaptation for Health and Well-being Program in Canada: These case studies showcase examples of adaptation initiatives addressing climate change impacts on health in various regions of Canada.

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- **Guidance and toolkits developed by Local Government, states/territories in Australia:** Western Sydney Health Alliance has developed a Local Council Guidance document for The Parks Councils for Climate, Health & Wellbeing in the Western Parkland City. This research and guidance document has been designed in partnership with the Climate and Health Alliance (CAHA) underpinned by research by the Western Sydney University (WSU) for the Western Sydney Health Alliance (WSHA) as part of the NSW Governments Increasing Resilience to Climate Change Project. *The Increasing Resilience to the Health Impacts of a Changing Climate: A local council resource for the Parks Councils* Guidance document is a best-practice example and provides an important framework for meaningful actions to address the impacts of climate change on health. It builds on the work already being done by many Councils who are using an evidence-based approach to help guide decision making in the coming years. The resource provides valuable examples of approaches and methodologies that can be adapted for a national context.

- Other states and territories in Australia, such as New South Wales, Victoria, and Queensland, have developed guidance and toolkits on climate change and health adaptation that can also be used as reference points for a National guidance document.

21. The immediate high-priority health system adaptation actions required in the next 12 to 24 months

- **Heatwave Preparedness**: Develop and implement heatwave preparedness plans in healthcare facilities, focusing on ensuring adequate cooling systems, staff training on heat-related illnesses, and public awareness campaigns about heatwave risks and preventive measures. This includes establishing cooling centres in vulnerable communities and ensuring access to cool, safe spaces for those without adequate cooling at home.

- **Strengthening Health Infrastructure Resilience**: Assess the resilience of health infrastructure to climate-related hazards and implement necessary measures to enhance their capacity to withstand extreme weather events, such as bushfires, floods and storms. This may include retrofitting healthcare facilities, improving backup power systems, and ensuring the availability of essential medical supplies during emergencies.

- **Health Workforce Capacity Building**: Provide training and capacity building programs for healthcare professionals to enhance their knowledge and skills in addressing climate-related health risks. This includes education on recognising and managing climate-related health conditions, such as heat-related illnesses, respiratory diseases, and vector-borne diseases. Training can also cover the incorporation of climate change considerations into clinical practice and public health strategies.

- **Enhancing Disease Surveillance and Early Warning Systems**: Strengthen disease surveillance systems to detect and respond to climate-sensitive diseases, such as vector-borne diseases and waterborne illnesses. This includes improving data collection, analysis, and reporting mechanisms, enhancing communication channels between health authorities, and integrating climate and environmental data into surveillance systems for early detection and response.

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- **Community Engagement and Education**: Launch targeted public awareness campaigns to educate communities about climate-related health risks and promote preventive measures. This includes providing information on heatwave safety, promoting vector control practices, encouraging sustainable behaviours, and raising awareness about the links between climate change and health. Engage with community organisations, schools, and local leaders to foster behaviour change and build resilience at the community level.
- **Collaborative Partnerships and alliances**: Foster collaborations, partnerships and alliances between health agencies, environmental agencies, emergency management agencies, and other relevant stakeholders to strengthen the integration of climate change considerations into health systems and policies. Establish platforms for knowledge exchange, data sharing, and coordination of efforts to leverage resources and expertise.
- **Research and Data Collection**: Support research initiatives to fill knowledge gaps related to climate change and health impacts specific to the local context. This includes studying the health risks associated with climate change, evaluating the effectiveness of adaptation measures, and developing evidence-based interventions. Improve data collection on climate-sensitive health indicators to support monitoring, evaluation, and evidence-based decision-making.
- It is important to prioritise actions **based on the specific vulnerabilities, risks, and needs of the local context**. Close collaboration with local health authorities, communities, and stakeholders is essential to ensure that adaptation actions are contextually appropriate and effectively address immediate health system challenges posed by climate change.

22. The key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions

A Health in All Policies (HiAP) approach can play a crucial role in addressing the health and well-being impacts of climate change and reducing emissions key areas for consideration include:

- **Climate Change Mitigation Strategies**: HiAP can promote the integration of health considerations into policies and strategies aimed at reducing greenhouse gas emissions. It can facilitate the development of sustainable energy plans, transportation policies, and urban planning guidelines that prioritse public health outcomes. This can lead to the promotion of active transportation, renewable energy adoption, energy-efficient buildings, and sustainable land use practices.
- **Sustainable Agriculture and Food Systems**: HiAP can support the development of sustainable agriculture and food systems that mitigate climate change impacts while improving nutrition and food security. It can promote practices such as regenerative agriculture, organic farming, and local food production to reduce emissions, enhance biodiversity, and improve access to healthy and sustainable food options.

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- **Urban Planning and Green Infrastructure**: HiAP can advocate for urban planning policies that prioritise green infrastructure and nature-based solutions to mitigate climate change impacts. It can encourage the development of green spaces, urban forests, and green roofs that enhance air quality, regulate temperature, and promote physical activity. These measures contribute to both climate change adaptation and improved health outcomes.

- **Active Transport and Active Living:** HiAP can support initiatives to promote active transportation, such as walking, cycling, and public transit, to reduce emissions and improve population health. It can advocate for the development of walkable and bike-friendly communities, accessible public transportation networks, and safe infrastructure for active travel. These measures have the potential to reduce air pollution, increase physical activity, and improve cardiovascular and respiratory health.

- **Social Determinants of Health**: HiAP can address the social determinants of health that are exacerbated by climate change, such as socioeconomic disparities, housing quality, and access to healthcare services. It can advocate for policies that reduce health inequities, improve housing conditions, enhance access to healthcare in vulnerable communities, and support social safety nets to reduce the health impacts of climate change on disadvantaged populations.

- **Climate Resilience and Disaster Preparedness**: HiAP can promote strategies to build climate resilience and enhance disaster preparedness in the health sector. It can advocate for the integration of climate change considerations into emergency management plans, development of heatwave response strategies, and enhancement of healthcare system capacity to respond to climate-related disasters. This ensures the health system's ability to withstand and recover from climate change impacts.

- **Health Promotion and Education**: HiAP can facilitate health promotion and education initiatives to raise awareness about the health impacts of climate change and the importance of sustainable behaviours. It can support public campaigns, educational programs, and community engagement activities that promote sustainable lifestyles, climate-friendly practices, and resilience-building measures.

23. Effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy and some successful examples of collaboration in this area.

- **Establishing Interdisciplinary Platforms:** Create interdisciplinary platforms or working groups that bring together experts from climate science, public health, policy, and other relevant fields. These platforms provide a space for collaboration, knowledge exchange, and joint problem-solving. They can facilitate dialogue, identify common goals, and develop integrated strategies to address climate change and public health challenges.

Example: The Lancet Countdown on Health and Climate Change is an interdisciplinary collaboration between academic institutions, UN agencies, and other organisations. It brings together climate scientists, public health researchers, and policymakers to track progress on climate change and health and inform evidence-based policies.

- **Engaging Stakeholders from Multiple Sectors**: Involve stakeholders from various sectors, including government agencies, public health departments, climate change offices,

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environmental organisations, healthcare providers, academia, community groups, and affected communities. Engaging a diverse range of stakeholders ensures a comprehensive understanding of issues, fosters inclusive decision-making, and encourages ownership and commitment to collaborative solutions.

Example: The Global Covenant of Mayors for Climate and Energy is a coalition of cities committed to climate action. It brings together local governments, public health agencies, and other stakeholders to implement climate policies that address both greenhouse gas emissions reduction and public health goals.

- **Sharing Data, Information, and Research Findings**: Encourage the sharing of data, information, and research findings between climate and public health sectors. This promotes evidence-based decision-making and strengthens the knowledge base for collaborative action. Collaborative research projects, joint publications, and data sharing platforms facilitate the exchange of insights, allowing stakeholders to better understand the connections between climate change and health and develop effective policies and interventions.

Example: The U.S. Centres for Disease Control and Prevention (CDC) collaborates with the National Oceanic and Atmospheric Administration (NOAA) to share climate and health data, develop research initiatives, and provide guidance for adaptation actions. This collaboration enhances the understanding of climate-related health risks and supports the development of evidence-based interventions.

- **Integrating Climate and Health Considerations into Policies**: Encourage the integration of climate and health considerations into policies and strategies at all levels. This involves identifying opportunities for synergistic action and aligning goals and targets. Collaborative policymaking ensures that climate policies prioritize public health outcomes, and public health policies incorporate climate change considerations.

Example: The Health and Climate Declaration is an international initiative that brings together health professionals, organisations, and policymakers to advocate for policies that address climate change and promote public health. The declaration calls for the integration of health considerations into climate policies and vice versa.

- **Promoting Cross-Sectoral Collaboration in Implementation**: Collaborate across sectors in the implementation of climate and public health initiatives. This includes joint projects, coordinated action plans, and resource-sharing. By leveraging the strengths and resources of multiple sectors, collaboration can lead to more efficient and effective implementation, ensuring that climate and health goals are achieved together.

Example: The Healthy Air Coalition in the United States is a collaboration between public health, environmental, and social justice organizations. The coalition advocates for policies that reduce air pollution and greenhouse gas emissions, benefiting both climate and public health outcomes.

- **Building Capacity and Knowledge Sharing:** Facilitate capacity-building activities, training programs, and knowledge-sharing platforms to enhance collaboration among stakeholders. This enables the development of common frameworks, shared language, and mutual understanding of climate and health concepts. It empowers stakeholders to engage in collaborative decision-making and implement climate and health interventions effectively.

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Example: The Climate Change and Health Learning Collaborative, led by the American Public Health Association (APHA), provides a platform for public health professionals to share knowledge, experiences, and best practices in addressing climate change and health. The collaborative fosters peer-to-peer learning and builds the capacity of participants to engage in collaborative action.

Successful examples of collaboration in this area demonstrate the power of partnerships and interdisciplinary approaches in addressing climate change and public health:

- **The Climate and Health Alliance (CAHA)** in Australia brings together health and medical organisations to advocate for policies that address climate change and protect public health.

- **Western Sydney Health Alliance (WSHA)** is a commitment and partnership across three tiers of government, working collaboratively to create healthy communities across the Western Parkland City. The Partnership comprises of the 8 Parkland Councils of Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Liverpool, Penrith and Wollondilly; and the Local Health Districts of South West Sydney and Nepean Blue Mountains; and the Primary Health Networks of South West Sydney and Nepean Blue Mountains; and a peak community service organisation Sector Connect. The Alliance supports dialogue between local government and Local Health Districts, Primary Health Networks and other stakeholders around climate impact.

  After experiencing devastating bushfires and floods, dangerous air quality and heatwaves, and an evolving disease pandemic the WSHA developed a resource that applies a health lens to understand how the measures we undertake can positively impact community health and wellbeing in a changing climate. The guideline provides tools and strategies, underpinned by a health lens, for the inclusion of strategies into Council Planning documents and these strategies are then socialised through Local Government engagement processes, to enhance and drive positive change. The guidance document is a result of the commitment between the agencies to do more to protect our people and planet. https://wshealthalliance.nsw.gov.au/

- **The Climate Ready Boston initiative in the United States** engages multiple stakeholders, including health agencies, in developing climate resilience strategies for the city, ensuring health considerations are integrated into climate planning.

- **The WHO-UNFCCC Climate and Health Country Profiles initiative** supports collaboration between health and climate change sectors at the national level, assisting countries in assessing the health risks of climate change and developing adaptation strategies.

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24. Enablers how can they be improved?
Should any enablers be added or removed?
25. What is currently working well?
What actions should the Strategy consider to support delivery?

Enablers are factors or elements that facilitate the successful implementation and achievement of strategic objectives. They create an environment conducive to effective strategy execution and support the desired outcomes.

Workforce, leadership, and training

- Strong leadership and effective governance are essential enablers for strategy implementation. Leadership can be enhanced by ensuring clear strategic direction, aligning leaders' behaviours and actions with the strategy, and fostering a culture of accountability.

- Ensuring the workforce have the necessary knowledge and skills to translate the strategic vision into tangible outcomes is a crucial enabler. A skilled and engaged workforce can contribute to innovation and problem-solving efforts during strategy implementation, offer unique perspectives, creativity, and expertise to address challenges, identify opportunities, and develop novel approaches. Knowledge and skills development can be enhanced through training programs, capacity building initiatives, and knowledge sharing platforms.

- The provision of learning opportunities to close skill gaps, promote cross-functional collaboration, and support professional development aligned with strategic objectives.

Research

- Research provides a foundation of knowledge and evidence that informs strategy development and implementation. It helps in understanding the context, identifying best practices, and assessing the potential impact of strategic initiatives.

- Access to quality data, research, and evidence is crucial for informed decision-making and effective strategy implementation. Enabling data collection, analysis, and sharing mechanisms supports the integration of health and climate data, enhances understanding of climate-health linkages, and informs evidence-based policies and interventions. Robust research and monitoring systems contribute to ongoing learning, evaluation, and improvement of the strategy.

- Research can support and guide resource allocation and validate the effectiveness of chosen strategies. By staying abreast of the latest research and incorporating evidence-based insights into the strategy, organisations can enhance the quality and relevance of their strategic actions.

Communication and engagement

- Engaging stakeholders is crucial for strategy success. This enabler can be enhanced by fostering open communication channels, actively involving stakeholders in the strategy development and implementation process and addressing their concerns and feedback.

- Effective communication is vital for strategy implementation. Enhance communication by developing a comprehensive communication plan that ensures the strategy's purpose, goals, and progress are effectively communicated to stakeholders. Foster alignment by creating a shared understanding of the strategy's importance, benefits, and expected outcomes.

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Collaboration

- Collaboration fosters engagement, shared ownership, and collective problem-solving. It brings together diverse perspectives, expertise, and resources to drive strategy implementation. Collaborative partnerships with stakeholders can provide valuable insights, contributions, and support throughout the strategy execution process. By leveraging collective wisdom and pooling resources, collaboration enhances innovation, efficiency, and the overall effectiveness of strategy implementation.

- For the National Climate and Health strategy it will be critical to focus on Intersectoral Collaboration between health and climate sectors, as well as other relevant sectors. Enabling intersectoral collaboration fosters information sharing, joint decision-making, and coordinated action. It ensures that health considerations are integrated into climate policies and vice versa. Collaboration can involve government agencies, public health departments, environmental organisations, climate change offices, healthcare providers, academia, and community groups.

- Through collaboration, organisations can tap into complementary strengths, access specialised knowledge, and leverage shared networks for greater impact. Collaboration also enhances transparency, trust, and accountability among stakeholders, promoting a sense of collective ownership and commitment to the strategy's success.

Monitoring, evaluation and reporting

- Establishing a robust performance management system is essential for tracking progress and ensuring accountability. By setting clear and measurable objectives, establishing key performance indicators (KPIs) aligned with the strategy, regularly monitoring performance, providing timely feedback, and fostering a culture of continuous improvement will enhance this enabler.

- Embed a culture of continuous learning and evaluation to drive ongoing improvement and adaptation. Enhance learning and evaluation by conducting regular reviews and assessments of strategy implementation, collecting feedback from stakeholders, and incorporating lessons learned into future iterations of the strategy. Use evaluation findings to inform decision-making, course corrections, and the refinement of strategic objectives.

Additional enablers:

- **Policy Integration**: Integrating health and climate considerations into policies, plans, and strategies at all levels is an important enabler. This involves aligning health objectives with climate change mitigation and adaptation goals, as well as incorporating climate change considerations into health policies and programs. Policy integration ensures that actions in both sectors are mutually reinforcing, promoting health co-benefits while addressing climate change challenges.

- **Governance, Policy Consistency and Long-Term Commitment:** Governance establishes robust decision-making processes, defines roles and responsibilities, and can provide adequate resources and support for implementation. Ensuring policy consistency and long-term commitment is crucial for the sustained implementation of a health and climate

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strategy. Enabling supportive policy frameworks, legislative measures, and institutional mechanisms provides stability and continuity. Long-term commitment from governments, organisations, and stakeholders fosters resilience, adaptability, and the ability to respond to evolving challenges and opportunities.

- **Organisational Culture and Change Management**: An organisational culture that promotes agility, innovation, and adaptability is an important enabler. It promotes a clear strategy-driven mindset, fosters a learning culture, and provides empowering processes for workers to embrace change. Implement effective change management practices to address resistance, build readiness, and support the adoption of new behaviours and ways of working.

- **Resource Allocation and Management**: Adequate resources, including financial, human, and technological resources, are critical enablers for strategy implementation. This enabler ensures resource allocation and management by conducting thorough resource assessments, aligning resource allocation with strategic priorities, optimising resource utilisation, and exploring opportunities for collaboration or resource sharing. This enabler explores innovative financing mechanisms, leveraging public-private partnerships, and accessing external funding sources that can further support strategy implementation.

- **Risk Management and Resilience**: Identifies and manages risks that could impede strategy implementation. This enabler can be enhanced by conducting risk assessments, developing mitigation strategies, and building resilience to adapt to unforeseen challenges or changes in the external environment. Regularly review and update risk management plans to address emerging risks and ensure the strategy's continuity.

Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

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AHHA response to the National Health and Climate Strategy Consultation Paper

Submission

24 July 2023

OUR VISION

A for a healthy Australia supported by the best possible healthcare system.

OUR MISSION

To conduct research, educate and influence the healthcare system to achieve better health outcomes, improved patient and provider experience, greater equity and sustainability.

OUR GUIDING PRINCIPLES

Healthcare in Australia should be:

Effective
Accessible
Equitable
Sustainable
Outcomes focused

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INTRODUCTION

The Australian Healthcare and Hospitals Association (AHHA) welcomes the opportunity to provide input to the National Health and Climate Strategy (the Strategy) Consultation Paper. AHHA commends the government on taking this important and long called for step of recognising and prioritising the impacts of climate on health and health care.

ABOUT AHHA

AHHA has been the national voice for public health care for more than 70 years, maintaining its vision for an effective, innovative, and sustainable health system where all Australians have equitable access to health care of the highest standard when and where they need it.

AHHA is Australia's national peak body for public hospitals and healthcare providers. Our membership includes state and territory health departments, Local Hospital Networks (LHNs) and public hospitals, community health services, Primary Health Networks (PHNs) and primary healthcare providers, aged care providers, universities, individual health professionals and academics. As such, we are uniquely placed to be an independent, national voice for universal high-quality healthcare to benefit the whole community.

In 2019, AHHA established the Australian Centre for Value-Based Health Care to support thought leadership in driving person-centred, outcomes-focused, value-based health care. Through the Centre we engage public and private health service providers around embedding a sustainability lens in designing models of care, that consider the person, the provider and the planet.

AHHA AND ENVIRONMENTAL SUSTAINABILITY

AHHA has a long history in the climate and health policy arena. More than a decade ago AHHA was a founding member the Global Green and Healthy Hospitals Network and has been a long-standing member of the Climate and Health Alliance.

AHHA is currently represented on the Chief Medical Officer's Advisory Group for the development of the National Health and Climate Strategy and co-leads the 'health systems resilience and sustainability' stream of the *Healthy Environments And Lives (HEAL)* Network, a broad research coalition which aims to catalyse research, knowledge exchange and translation to bring measurable improvements in health, health systems, and the environment. AHHA is also an active contributor as part of the Health Working Group to the Better Futures Australia Initiative, a cross sector initiative aimed at reducing Australia's carbon footprint.

Globally, AHHA is represented on the Steering Committee for the Geneva Sustainability Centre – an initiative of the International Hospital Federation with a vision of supporting hospitals to become leaders for sustainability in their communities, as well as the World Health Organization's Alliance for Transformative Action on Climate and Health (ATACH).

The AHHA research arm, the Deeble Institute for Health Policy Research has published several policy briefs exploring key elements of healthcare environmental sustainability including:

- Deeble Issues Brief No. 51: Promoting mental health in a changing climate: children and young people as a priority
- Deeble Issues Brief No.48: Decarbonising clinical care in Australia
- Deeble Issues Brief No. 41: Transforming the health system for sustainability: Environmental leadership through a value-based health care strategy.
- Deeble Issues Brief No. 1: Australian healthcare services and the climate change debate

AHHA also has knowledge and experience working with services and health professionals at the coalface through partnering with our members to develop and support the implementation of organisational climate and health strategies and action plans that consider the current and emerging evidence, identify critical areas of need, establish sustainability measurement approaches, and support the significant cultural change necessary to promote meaningful action.

Our experience in sustainability research, policy and practice has imbued AHHA with important insights on what is needed to develop a practical and meaningful National Health and Climate Strategy.

AHHA RESPONSE TO CONSULTATION PAPER

CONSULTATION PROCESS

AHHA would like to highlight the importance of hearing from a diversity of voices and ensuring meaningful co-design in the development of the Strategy.

We feel it is a missed opportunity that an Aboriginal and Torres Strait Islander voice was not included within the Chief Medical Advisory Group (CMOAG) given the prominence of First Nations leadership throughout the draft strategy and the identified impact that climate change is expected to have on First Nations Health.

For the strategy to be effective it must ensure that consultation process is broad and incudes the diversity of the health sector. This should include, but not be limited to:

- The breadth of the health and aged care workforce working at the coalface, including allied health, primary care, nursing, community care, rural and remote health workers and more.
- Healthcare leaders and executives.
- Health administrators, finance, procurement, environmental services, supply chain, transport and urban planning professions.
- Aboriginal and Torres Strait Islander peoples and communities.
- Young people as they will be the most impacted by inaction.
- Consumer voices.
- State and territory representatives.
- Rural and remote voices.

Recent research on the progress of the NHS towards decarbonisation has found that initial gains towards becoming more sustainable and less carbon-intensive, achieved through actions targeting energy and transport greenhouse gas (GHG) emissions (quick wins), have stalled. They highlighted a lack of emphasis on engagement activities with clinicians, patients and partners in the process of developing plans and finding solutions as a barrier to continued progress.[1]

Australia has an opportunity to learn from the NHS experience and embed co-design and engagement from the Strategies inception. This will ensure the creation of a more meaningful document that can support practical implementation within services delivering care. It will also act to support the creation of a community of champions who feel ownership over the Strategy and can lead change within their individual services and broader spheres of influence.

CONSULTATION PAPER INTRODUCTION

The Strategy would be enhanced by the inclusion of a clear vision statement to guide the direction of the strategy and commit Australia to values that support a climate resilient community and a net zero health care system. The Strategy's purpose 'of protecting the health and wellbeing of Australians from the impacts of climate change' should be made more explicit within the document.

AHHA recommends a greater emphasis on the consideration of young people as a priority population within the strategy, as an increasing body of evidence demonstrate that younger people are disproportionately reporting mental health impacts as a result of climate change.[2]

AHHA would also like to call attention to 'An Australian glossary on Health and Climate Change'. Developed by academics and informed by end user stakeholders, the glossary provides a shared understanding of the terminology used to enhance cross-disciplinary research and collaboration on health and climate change. This should be used to guide the language used within the Strategy, and the sector more broadly.

AHHA also supports the need for clear timeframes and accountability processes to be articulated early within the document.

OBJECTIVES

Question 1: How could these objectives be improved to better support the vision of the strategy?

MEAURMENT

AHHA strongly supports the inclusion of measurement as an objective of the strategy. However, given that clinical care accounts for the majority of healthcare's carbon footprint (>60%), the objective should be reworded to specifically reflect the need for "accurate" measurement of healthcare products and services that comprise clinical practice.

Evidence from the NHS supports this need for accurate and consistent measurement and carbon monitoring processes, where it has been shown that a lack of evidence is inhibiting progress to net zero through impeding benchmarking between services and undermining accurate assessment of progress towards national targets.[3]



The Deeble Institute for Health Policy Research Issues Brief Decarbonising clinical care in Australia addresses this issue and highlights the 'limited of evidence available to enable health services to accurately monitor usage and evaluation of carbon emission reduction initiatives across healthcare facilities'. It goes on to state:

> "*There are no measures in place to guide clinician decisions or promote an informed transition to low carbon clinical care; as well as informing the development of health policy. A successful strategy to decarbonise healthcare is not feasible without granular information of the sector's GHG emissions. Establishing capacity and infrastructure for the Australian healthcare sector to measure and report its carbon footprint is essential for aligning the sector with international sustainability pledges.*"

Any strategy to reduce the health sector impact on the planet and improve community resilience to the health impacts of climate change cannot be successful if we do not first prioritise the development of evidence-based measurement approaches.

It is therefore essential the National Health and Climate Strategy include the development of effective measurement approaches as an objective.

CLIMATE IN ALL HEALTH POLICIES

In addition to 'health in all policies', AHHA recommends the inclusion of the objective 'climate in all health policies'. This would signal to the health sector and the Australian community at large that reducing the impact of health care on the planet is everyone's responsibility and should be embedded in all health policy and practice decisions.

This will be critical to support the significant cultural change that will be necessary at the service delivery level to shift practice away from care that produces unnecessary waste, is inefficient or of low value, towards care that balances patient safety with the ethical responsibility to protect population health through limiting the impacts of healthcare on the planet.

The greatest opportunity that Australia has to reduce the impacts of climate on health is to work collaboratively across sectors, jurisdictions and within the health sector to share information and prioritise collaborative action. To date, however, this collegiality has been hampered by long standing policy silos and poor sector communication. Consequently, elements of the health system remain unaware, or have not considered, the role they could play through existing structures to incentivise climate action and support the creation of a climate resilient health system that protects the health and wellbeing of communities.



An example of a 'Climate in all Health Policies' approach is for Health Technology Assessment processes to embed carbon costs as part of the value assessment of health products, services, and clinical pathways in Australia. Health technologies could then be required to comply with GHG emissions impact thresholds to be considered eligible for public subsidies and rated on environmental impact criteria within the tendering process.

The inclusion of 'climate in all health polices' objective in the Strategy is therefore critical to underpinning the significant cultural change necessary at the service delivery level to shift practice away from care that produces unnecessary waste, is inefficient or of low value, towards care that protects population health through reducing the impacts of healthcare on the planet.

PRINCIPLES

Question 2: How could Principles be improved to better inform the objectives of the strategy?

Principle 3, Population Health and Prevention: This principle should consider the inclusion of prevention that refers to avoiding the development of risk factors in the first place (primordial prevention). At a population level, primordial prevention includes a focus on health and environmental conditions and recognises that determinants of health are influenced by activities outside of the health system itself.

Principle 5, *Evidence- informed policy making:* This Principle could be enhanced through recognition of the importance of life cycle assessments, along with the principles of cost-effectiveness analysis when considering where resources can be allocated to maximise population health gains.

The collection and reporting of the lifecycle carbon footprint of healthcare at both an aggregate level and at the individual care level will provide the foundation for the identification and development of effective interventions and targeted mitigation strategies.[4]

Principle 6 Partnership- based working across all levels of government and beyond: This Principle should also highlight the importance of working across sectors to leverage the skills and expertise of other industries. This will better ensure the creation of a holistic and nationally consistent response and mitigate the risk of duplication. The need for all government departments and their respective branches to be working closely together, sharing information and resources should be emphasised.

GREENHOUSE GAS EMISSION SOURCES

Question 3: Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?

In health care, there may be complex interplay between different types of GHG emissions. Therefore, all GHG emissions should be within purview of the Strategy, including action to reduce scope 2 and 3 GHG emissions, where the evidence tells us that 80-90% of healthcare emissions are generated.[5] Measuring Scope 3 emissions via life cycle assessment (LCA) will be vital.

FIRST NATIONS HEALTH AND CLIMATE CHANGE

AHHA strongly supports the emphasis on First Nations health and climate change. It is critical that First Nations voices and cultural knowledge are recognised and included in all stages of the policy development process and are clearly articulated in the strategy.

AHHA recommends that the objective 'take action to improve food security' should be expanded to also consider water security.

PROPOSED OBJECTIVE 1: MEASURING HEALTH SYSTEM GREENHOUSE GAS EMSISIONS

Question 7: What additional data and information is required to support targeted emissions reduction efforts within health and aged care?

Measuring the healthcare footprint of the Australian health system must go beyond measuring GHG emissions across the system to considering the emissions of specific health care products and practices. This will enable the identification of targets for improvements and guide changes to practice.

As highlighted in the Deeble institute for Health Policy Issues Briefs No. 41: Transforming the health system for sustainability: Environmental leadership through a value-based health care strategy and No. 48: Decarbonising clinical care in Australia, leveraging funding mechanisms, such as health technology assessment processes and procurement contracts, to consider the carbon footprint of health goods and services, could demonstrate an important structural enabler to drive better value and low carbon sustainable healthcare.

To enable the inclusion of carbon costs in the value assessment of health products, services, and clinical pathways in Australia, healthcare funders PBAC and MSAC will require product level emissions data along with information on clinical outcomes, costs of healthcare tests and treatment.

This will not only provide a mechanism for environmental sustainability to be considered in resource allocation, but will support the early development of a carbon footprint inventory/database for health care.

A stronger emphasis is also needed on understanding the carbon footprint of clinical care activities, and models of care. This will better enable the health sector to prioritise high value care and give due consideration to low GHG emissions models of care in clinical decision making.[6]

PROPOSED OBJECTIVE 2: MITIGATION

Question 8: What do you think of these proposed focus areas for emissions reduction? Should anything else be included?

AHHA supports the proposed focused areas articulated in the strategy as they align with current evidence and AHHA's experience with health services seeking to decarbonise.

However, AHHA recommends that low value care also be included as a mitigation focus area.

AHHA understands that low and no value care is referred to in section *2.6 prevention and optimising models of care*. However, given the evidence demonstrating that approximately >60% of healthcare emissions are generated from clinical care, actions that address removal of harmful and low-value care, will be critical to reducing health system GHG emissions.

LOW VALUE CARE

Low value care provides little or no benefit to patient health, may cause harm, or provides marginal benefits at a disproportionately high cost.[7] Low value health services may include, for example, the prescription of unnecessary medications, the provision of unnecessary screening and/or diagnostic tests, as well as the delivery of avoidable or unjustified medical procedures.[8] [9]

It has been estimated that over 8,000 kg tonnes of CO_2e emissions could be saved annually in Australia by reducing low value care.[10] Pathology testing and diagnostic imaging alone may contribute to 9% of healthcare's carbon footprint in Australia.[11] Overall, researchers estimate that up to 30% of health care is low value, and a further 10% is harmful.[12],[13] Consequently, eliminating



harmful and low value care can reduce GHG emissions whilst improving patient outcomes and lowering overall health expenditure. [14]

Priority actions within a focus area of low value care should include:

- *Reduce low-value pathology*

Global estimates indicate that 12-44%[15] of pathology tests are clinically unnecessary. [16],[17] Since each individual test has a carbon footprint, unnecessary pathology testing is related to substantial GHG emissions.[18] For example, an Australian study of five common hospital pathology tests recently found GHG emissions of between 0.5 and 116 g CO_2e associated with each test, equivalent to driving a car between 3–800 metres.[19] Although the individual carbon footprints were small, millions of tests are performed each year in Australia. [20] Reducing unnecessary testing can be achieved by training clinicians to recognise instances where pathology testing provides low value. [21],[22]

- *Reduce low-value diagnostic testing (medical imaging)*

A review into the overuse of diagnostic testing in Australian hospitals found that between 34-62% of computed tomography (CT) scans of pulmonary arteries in suspected pulmonary thromboembolism, 36-40% of imaging tests in patients with low back pain, and 54% of imaging tests in patients with abdominal pain were unnecessary.[23],[24] Furthermore, an assessment of CT, chest X-ray (CXR), mobile chest X-ray (MCXR), magnetic resonance imaging (MRI) and ultrasound (US) found that MRI and CT scanners have proportionally large carbon footprints compared to the other imaging modalities. [25]

Health services can reduce GHG emissions associated with low-value care by reducing the ordering of unnecessary imaging, ordering lower-impact imaging (X-ray and US) in place of high-impact imaging when clinically appropriate, and ensuring scanners have high utilisation rates to reduce time spent in standby.[26]

- *Prioritise developing structured processes for reassessment of health technologies, products and models of care throughout their lifecycle to allow for disinvestment in low value goods and services.*

Frameworks for disinvestment and de-implementation are necessary to ensure that products, services and models of care that are outdated, having been replaced by new and better



alternatives, or are found to be harmful or of low value can be removed from public funding mechanisms.

Additionally, dedicated actions to decarbonise clinical care must be identified within each focus area. For example, targets in the medicines and gases focus area must go beyond reducing medicine waste to also focusing on changing prescribing behaviour and redesigning models of clinical care to reduce the need for medications to be prescribed in the first place.

Actions that target clinical care will require significant clinical engagement and cultural change. Recognition of this and the articulation of actions and mechanisms to support these processes is currently lacking throughout the draft Strategy.

This must be strengthened as the evidence clearly demonstrates that engaging clinicians and healthcare staff early and often in the process of change is a critical enabler for success.[27,28]. This is backed by the **experience of the NHS, where healthcare decarbonisation has stalled due to insufficient focus on clinical engagement and actions targeting clinical care.[29]**

If the Strategy is to achieve meaningful change, a priority of the mitigation objective must be to support and enable clinical engagement and the co-design of place-based targets, initiatives and actions designed to deliver healthcare GHG emissions reductions.

TRAVEL AND TRANSPORT

Question 10: Which specific action areas should be considered?

AHHA recommends the inclusion of an action within the travel and transport focus area that highlights the importance of redesigning models of care to reduce the need for transport at all (e.g., though virtual models of care, remote monitoring, telehealth).

Fostering integrated team-based care supported by shared data systems can also act to reduce transport emissions though reducing the need for patients to travel to multiple appointments across diverse locations.

SUPPLY CHAIN

Question 11: Which specific action areas should be considered relating to supply chain, over and above any existing policies or initiatives in this area?

Actions within the supply chain focus area must focus on improving procurement processes. Value based procurement (VBP) presents a framework though which this can be approached.

VBP awards a supplied contract on the basis of what matters to people and communities. It focuses on how a product or solution can best deliver outcomes, reduce the total cost of care and provide long term benefits to the health ecosystem, as opposed to focusing exclusively on the initial cost of a product (the price).[30]

As highlighted in the Deeble institute for Health Policy Issues Briefs **No. 41: Transforming the health system for sustainability: Environmental leadership through a value-based health care strategy,** environmental sustainability should be inherently considered in both the outcomes and costs domains of the value equation. As such actions to reorient the health systems and services towards value-based procurement presents an opportunity to both improve outcomes for people and communities, and reduce impacts on the planet.

Carbon labelling of healthcare products, together with carbon cost information should be introduced as a counterpart to relevant economic evaluations.

AHHA recommends a specific action here to embed carbon footprint indicators in PBAC and MSAC assessment processes. Life cycle assessments should be required for all new technology and pharmaceutical products allowing a product's environmental impact to be considered along with quality, safety, ethical, efficacy and cost effectiveness in the value assessment of new products. This will allow decision makers to make informed decisions about optimal use.[31]

MEDICINES AND GASES

Question 12: Which specific action areas should be considered relating to medicines and gases, over and above any existing policies or initiatives in this area?

The Strategy must include consideration of all medicines, beyond those listed in the strategy and include actions to target unnecessary pharmaceutical over-prescription and waste.

Research demonstrates that pharmaceuticals contributed to 20% of total healthcare CO_2e emissions.[32] Factors that contribute to unnecessary pharmaceutical emissions include over-prescription, pharmaceutical waste, and drugs prescribed often due to a lack of preventive healthcare.[33]

Initiatives such as Choosing Wisely Australia[34] and NPS MedicineWise[35] have to some extent raised the profile of issues such as overprescribing and pharmaceutical waste, however their effectiveness



at delivering meaningful reductions and long-term behaviour change has proven to be limited due to a lack of accountability and the voluntary nature of the programs.

Actions must be embedded within the Strategy to target a reduction in pharmaceutical over-prescription that leverage existing health system structures where possible, are underpinned by strong evidence and build in transparent accountability mechanisms. Clinical engagement in the development of these processes will be critical.

AHHA suggests the inclusion of the following actions:

- Identify and embed policy levers, incentives and accountability mechanisms that target low value and unnecessary pharmaceutical prescribing practices.
- Support and resource population health prevention initiatives that prevent or delay medication usage.

PREVENTION AND OPTIMISING MODELS OF CARE

Question 14: *Which specific action areas should be considered relating to prevention and optimising models of care, over and above any existing policies or initiatives in this area?*

AHHA recommends that prevention and optimising models of care should be separate areas of focus within the Strategy, as the actions that would need to be developed to address each of these areas are distinct, yet of equal importance.

Prevention necessitates a population, health in all policies approach that targets the determinants of health in order to keep people healthy and reduce their need to access health services.

Optimising models of care requires a value-based health care approach that consider outcomes that matter to people and communities for the cost of achieving those outcomes across the entire pathway of care.

Mapping and considering the entire patient pathway will allow for the identification of efficiencies that reduce the carbon cost of care (e.g., reduce duplication and unnecessary care), and prevent emissions reduction activities in one area of the pathway creating unintended consequences in another area (e.g., initial reductions in carbon emissions create further healthcare utilisation downstream). More integrated value-based models of care can then be developed, or existing models optimised, to overcome inefficiencies and reduce environmental impacts, while more effectively delivering the outcomes that matter to people and communities.

This will also require consideration of workforce capability and capacity to initiate and implement mitigation measures, particularly in locations at greater risk from climate change and also with vulnerable population groups.

AHHA recommends the following actions be included in the optimising models of care focus area:

- Develop frameworks to support the development, implementation and assessment of models of care to reduce the environmental impact.
- Identify and leverage policy levers to enable integrated, person-centred team-based care. This must include supporting the development and implementation of interoperable data systems and technology.[36]

MITIGATION PRIORITIES

Question 16: Where should the Strategy prioritise its emissions reduction efforts?

b. Which of the six sources of emissions discussed above are the highest priorities for action?

AHHA recommends that optimising models of care and reducing low value care be high priority areas for action. While their areas are more complex and will take longer to generate buy-in and momentum, the capacity for impact is much higher given the proportion of GHG emissions that are generated through clinical care.

Question 17: What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the 12 months following publication of the Strategy?

Based on AHHA's experience working with services developing and implementing climate and health and decarbonisation strategies AHHA recommends 'Waste' as an area where quick wins will be able to be demonstrated. It is our experience that given the high visibility of health sector waste there is significant health professional and community buy-in to combat this isseus which could be rapidly harnessed to deliver quick wins.

Other areas of focus for quick wins are related to anaesthetic use and include the banning of desflurane anaesthetic use and new nitrous oxide piping in hospitals. .[37], [38]

PROPOSED OBJECTIVE 3: ADAPTATION

Question 18: What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

Workforce shortages resulting from climate change must be prioritised as an area for adaptive action within the Strategy.

Evidence demonstrates that climate change is exacerbating health workforce shortages, particularly in rural and remote areas that are already vulnerable to issues of health workforce maldistribution and inequitable healthcare access. A 2021 study of registered medical professional practicing in the Northern Territory found that over a third (34%) of respondents indicated that climate change is already causing, or is likely to cause, them to consider moving elsewhere for work.[39] Climate related workforce stressors are also reflected in a 2023 paper examining the impact of floods on the community-based health services research workforce. [40] This presents an equity risk for the health system and as such should be a target area for action.

The mental health impacts of young people in response to climate change must also be a priority area of adaptive action.

The Deeble Institute for Health Policy Issues Brief 'Promoting mental health in a changing climate: children and young people as a priority population', demonstrates that young people are particularly vulnerable to mental health impacts from climate change stating:

> *In 2021, a survey of 10,000 young people from 10 countries including Australia[41] found that:*
>
> - *84% of the young people were at least 'moderately' worried, including 59% who were 'very' or 'extremely' worried about climate change and the government's response to climate change.*
> - *Over 50% of respondents reported feeling sad, anxious, angry, powerless, helpless, and guilty about climate change.*
> - *More than 45% of respondents expressed that climate change-related feelings negatively affected their daily life and functioning.*
>
> *Participants recorded a range of negative thoughts about climate change directly*.

Yet to date, very little research has been done 'exploring the impact of climate change on children's and young people's mental health. This lack of knowledge and awareness on mental health impacts



of climate change is a major barrier in managing this issue and developing early intervention aimed at children and young people'.[42]

The mental health impacts of climate change on young people must be prioritised for adaptive action.

AHHA also recommends that action 3.3.2 be broadened to ensure that wider emergency response plans for climate-related disasters and extreme weather events not just 'consider' but also 'embed' health and aged care voices in the preparation, planning, response and recovery phases of climate related disasters and emergencies.

The Strategy must support the establishment of governance mechanisms that enable continuous engagement of all stakeholders, especially the population groups most vulnerable, in the collaborative design and decision-making process concerning the priorities for adaptation within the Strategy. Additionally, these mechanisms should ensure the effective implementation of these priorities in terms of policies and service provision.

To be effective, the Strategy should include focus on the essential role of health systems in education and advocacy within the Australian community regarding the impacts of climate change on health and wellbeing.

Q 20: Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system.

The Australian government should promote a uniform and cohesive strategy towards vulnerability assessment and adaptation planning for the health system and by extension, across sectors and including industry.

Q 21. What immediate high-priority health system adaptation actions are required in the next 12-24 months?

Immediate high-priority health system adaptation actions are necessary to address the anticipated impacts of more intense El Niño and La Niña events, such as hot fire-prone summers or increased rain and flooding. Areas of priority include:

Establishing surge capacity in emergency departments to handle increased patient volumes during heatwaves and enhancing public health unit resources to effectively support emergency responses. Hospitals should develop adaptation action plans based on vulnerability assessments and community

needs assessments. Special attention should be given to prioritising elderly care facilities in these adaptation plans, as they are particularly vulnerable to extreme weather and disaster events.

Providing support to primary care in affected areas, including surge capacity to bolster local services and implementing protective measures; and support for staff trained in emergency response plans, ensuring engagement with local primary care health networks.

Adaptation plans for workers exposed to high heat should also be prioritised for development and implementation.

Public health modelling to predict changes in infectious disease prevalence and incidence should be conducted. This information should be translated into alerts and guidelines for healthcare practitioners. This should be supported through implementation of public education and information campaigns to facilitate quicker and clearer responses within communities.

It will be crucial to avoid constructing new healthcare facilities in areas prone to climate change-induced damages.

PROPOSED OBJECTIVE 4: HEALTH IN ALL POLICIES

Q22: What are the key areas in which a Health in all Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?

AHHA strongly supports the inclusion of a health in all policies objective.

To realise this objective, AHHA recommends the adoption of value based public health (VBPH) framework to structure implementation in this area.

As highlighted in the recent paper Value-based public health: Moving beyond value-based health care to support a wellbeing economy, VBPH builds upon a health-informed conceptualisation of value and provides a framework to define and measure the value of health and wellbeing interventions at population and societal levels.

A VBPH Framework would provide a structure for defining key enablers of high value, public health in areas of shared governance, community engagement, costing and evaluation, that could be shared across all sectors to enable a health in all policies approach. It would provide a mechanism to establish governance, leadership and accountability mechanisms that allow government agencies to recognise and understand the health and health equity impacts of their policies and support

collaborative approaches to the design and implementation of joint policies that improve health and wellbeing outcomes.

It will also be important that a health in all policies approach is supported by adequate resourcing, strong partnerships and processes for the use of scientific evidence.[43]

The integration of research, data, and real-world patient care, through a learning health system approach would allow a systematic analysis of the effectiveness of climate response strategies and identification of best practices, valuable lessons and opportunities for improvement.

ENABLERS

Question 24: How could these enablers be improved to better inform the objectives of the strategy?

Question 25: For each of these enablers, what is working well and what actions should the Strategy consider to support delivery?

GOVERNANCE

AHHA recommends the addition of a 'Governance' enabler within the Strategy.

In AHHA's experience with health services seeking to implement and develop net zero and/or sustainability strategies, the most important enabler of success is the development of effective governance structures that signal leadership intent for action and support change management processes that promote cultural shifts.

While GHG emission reduction activities can be found occurring in health services across Australia, most are occurring in silos, even within single organisations. Effective governance processes will therefore be essential to embedding sustainability practices within services to be business as usual. Implementation of effective governance will additionally foster the dissemination and scaling of innovation and greenhouse gas (GHG) emission reduction initiatives.

Ensuring adequate support and resources for health organisations to integrate environmental sustainability into their governance and decision-making processes is essential. This will play a vital role in fostering cultural change within the health system, mitigating risks associated with suboptimal change outcomes, safeguarding workforce wellbeing (e.g., reducing hostility, turnover, bullying, low morale, resistance to future change), and protecting budgets.

AHHA recommends the addition of a Governance enabler within the Strategy.

ENABLER 2: RESEARCH

Evidence-based findings play a crucial role in guiding decision-making and in the context of the strategy, research as an enabler holds immense significance. However, moving towards a more sustainable health system and a healthy Australia will require a greater number of climate change and health researchers who can conduct cutting-edge research, including those with expertise in conducting life cycle assessments. Research efforts must be translational, where findings can be efficiently applied in practical ways. Encouraging, attracting and retaining researchers in this field should be a priority for the government.

ENABLER 3: COMMUNICATION AND ENGAGEMENT

Communication and engagement should involve stakeholders from all communities, particularly communication and community engagement with the Elders of the First Nations people.

Enabler three must be broadened to highlight the importance of communication and engagement with and within the health sector and the health workforce.

'Organisations do not change, people do'[44] strategic approach to communication with those affected by the changes in practice is necessary. Guidance will be important to encourage understanding, acceptance and behaviour change necessary to protect the health and wellbeing of Australians from the impacts of climate change.

ENABLER 4: COLLABORATION

Collaborating towards a common goal enables governments across all levels, service providers and communities to harness their strengths, expertise, and knowledge, leading to successful delivery of the Strategy. The Department of Health and Aged Care plays a critical role in fostering multi-sectoral collaboration.

However, coordination through elected officials with the authority to enforce proper procedures may also be required, especially for agencies hesitant to incorporate the Health in All policy concept into their policies.

ENABLER 5: MONITORING AND EVALUATION

A commitment to transparency and public reporting of progress against the objective of the strategy must be included.



It will also be important to ensure that any indicators that are developed align with international monitoring and reporting frameworks. AHHA is aware that the WHO Alliance for Transformative Action in Climate and Health (ATACH) is progressing work in this area.

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Australian Government
Department of Health and Aged Care

NATIONAL HEALTH AND CLIMATE STRATEGY

Detailed submission form

This form allows you to provide responses to the full set of questions in the Consultation Paper available here.

Alternatively, you may wish to complete the briefer online survey available here.

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

Respondent details

What is your name?
[redacted]
What is your email address?
[redacted]
What is your organisation?
Health Support Services
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
[redacted]
Please select which applies to you: ☐ Individual citizen ☒ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☐ Academic or Researcher ☐ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

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Introductory Statement

This submission was prepared by the Office of the Chief Procurement Officer within the WA health system. Our remit is to develop and maintain procurement policies, practice advice, systems and education for the WA health system.

In preparing this response, we have drawn on experience from developing and participating in sustainability initiatives, and from experience in rolling out policy and practice changes in the WA health system.

A key learning from our experience is that it is difficult to make significant sustainability impacts through initiatives that work within existing jurisdictional and organisational boundaries. In the context of supply-chain management, individual health systems often have insufficient leverage to materially influence the activities of stakeholders across the supply chain who often operate in global markets. More broadly, and as noted in the Consultation Paper, the determinants to sustainability in health stretch beyond any single policy area.

As this Strategy is targeted at a national level, this presents an opportunity to pursue initiatives and actions targeted at influencing Australia-wide outcomes that would not be achievable by individual organisations.

This submission seeks to highlight the importance of systemic change and policy interventions as a means of achieving and sustaining improvement in national health and climate outcomes. It encourages the Australian Government to leverage the combined resources and powers of Australian health systems and other agencies and organisations through centrally coordinated initiatives and policy interventions. Individual health systems can make incremental improvements when working in isolation, but outcomes will be far greater when they can work collaboratively on long-term, systemic, and cross-jurisdictional change.

Three key areas of action are discussed:

- A coordinated and integrated approach to policy development consistent with the “Health in All Policies” objective,
- A coordinated approach to health procurement across State and Commonwealth Governments, and potentially extending to private sector health providers, that seeks to drive changes in industry behaviour, and
- A national, geospatial assessment of climate risk and vulnerability encompassing key sectors (including health), to facilitate informed long-term planning, risk management, and cross-sector engagement.

This submission further seeks to highlight the importance of effective coordination and collaboration when seeking to pursue inter-jurisdictional initiatives consistent with the Strategy’s stated principle of “One Health” and objective of “Health in All Policies”. Collaboration under the aegis of this strategy will require more than a forum to exchange ideas or best practice. Instead, we consider that meaningful collaboration will need to be coordinated and supported through central resources and tools. This would require a central body and supporting governance structures to develop nation-wide initiatives into which Australian health systems and other agencies can contribute.

We have provided detailed responses to the specific consultation questions below.

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Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
The stated objectives would benefit from a careful consideration of the practical pathways for implementation. **Objective 1: Measuring & Reporting of Emissions** While there is widespread support for this as a concept, anecdotally there appears to be significant uncertainty and lack of clarity regarding the practical steps needed to establish a means for measuring and reporting on emissions in a manner that would: a) provide healthcare organisations with visibility over their own emissions profile to inform prioritisation and decision making; and b) allow for individual healthcare organisations/facilities to meaningfully evaluate the impact of actions taken to reduce emissions. **Objective 3: Adaptation** It may be useful to recognise and acknowledge the likelihood that substantial investment (beyond what would ordinarily be contemplated during business as usual) will be required over the long term to adapt to a changing climate. **Objective 4: Health in All Policies** This concept is critical to successfully embedding systemic change and achieving a material impact on outcomes at a national level. Achieving this objective will require more than just a policy paper, recommendation or strategy targeted at the health sector. It will require a combination of a formal mandate, active engagement, and resourcing to support effective collaboration between the health sector and other areas of Government. It is important to ensure that the mandate is appropriately resourced so that health considerations in policy development are informed by relevant expertise and advice. In seeking to embed 'Health in All Policies', the Strategy should recognise that this objective should not be constrained to the notion that health is considered as a factor in policy development. Instead, the consideration of health in as a factor in policy development should serve as a means of shaping the broader environment in which the community and industry live, operate and make decisions within; with a view to creating an environment where more sustainable/health oriented options/behaviours become more attractive, or otherwise the default choice.
2. How could these principles be improved to better inform the objectives of the Strategy?
Partnerships / Population Health and Prevention The principle of partnership should entail more than a "consistent" response to climate change and "sharing and adoption of best practice approaches" by individual health systems. Effective partnership in the long-term goes beyond discrete projects and initiatives being undertaken by individual organisations. Following from the "Health in All Policies" objective and a "Population Health and Prevention" principle, the Strategy should recognise that a wide range of policy and regulation areas affect the social and environmental determinants of health.

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Effective partnership should entail ongoing collaboration between the parties in a manner which drives meaningful action toward better health outcomes.

This is likely to require:

- greater recognition of how population health outcomes are influenced by other (non-health) sectors; and
- ongoing input and engagement by the health system with these other areas,

to permanently integrate health and climate considerations in normal strategic planning and policy development by public agencies.

3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?

The Strategy should aim to reduce all emissions (covering scopes 1 - 3) irrespective of the source of emissions, while recognising that we have greatest control over what happens within Australia.

Initiatives to measure and/or reduce emissions within Australia (aligning with what is within our direct control), should not preclude the pursuit of initiatives that would drive a reduction of emissions outside of Australia (or otherwise outside our direct control).

It should be noted that the actions and approaches needed to drive a reduction in greenhouse gas emission for different areas (e.g. Scope 1, compared with Scope 3) will likely be materially different in nature, and accordingly involve different resourcing. For example, the relevant skills and expertise needed to understand, measure and drive reductions in Scope 1 emissions for healthcare facilities is likely to be materially different from that needed to collaborate effectively with regulatory agencies outside of Health, or to engage with suppliers to drive reductions in Scope 3 emissions.

With appropriate support, the Strategy could reasonably pursue emission reduction initiatives across all 3 scopes concurrently.

4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?

No response

5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?

No response

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Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?
No. However, the Department of Water and Environmental Regulation (Government of Western Australia) has recently circulated a draft Emissions Reduction Framework which included guidance to Government Departments on how an emissions profile could be developed at an organisational level. It should be noted that this framework was not designed to be specific to a health system.
7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?
Much of the discussion in sustainability appears to assume the existence of a mechanism to accurately measure the actual impact of sustainability initiatives on emissions produced. It is not clear that such a mechanism for measurement exists within the healthcare space (though as noted in the response to Question 6, the concept of a system for measurement of emissions at an organisational level has recently been floated). Neither the National Greenhouse and Energy Reporting scheme, nor the Climate Active program referenced in the Consultation Paper appear to provide details on how healthcare facilities can accurately measure emissions. Moreover, in sustainability discussions to date, it is not clear that any stakeholder has developed or implemented a mechanism/system for how emissions can be accurately measured within the healthcare sector. If there is a practical methodology for healthcare organisations to measure emissions, this should be highlighted and made clear as part of the Strategy. Practical guidance and methodological details would: • help healthcare organisations to develop visibility over their own emissions profile • inform decision making on what opportunities exist and where to focus attention and resources, • enable a consistent approach to measurement of emissions across Australia, • enable a degree of confidence around comparability of data, and • facilitate Australia-wide reporting to support evidence-informed policy development. In addition, consideration should be given to the granularity of emissions measurement and reporting that is likely to be achieved across different health systems in Australia. The level of detail - whether at an organisational level, against individual facilities or otherwise for specific activities or areas, will affect the extent to which proposed emissions mitigation initiatives can be evaluated, and in turn determine what information is available to inform ongoing review, planning and implementation of emissions reduction measures into the future. As part of the provision of practical guidance on emissions measurement (as noted above), the Strategy should also seek to:

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- ensure that emissions unique to health systems (e.g. anaesthetic gases and metered dose inhalers) are identified and addressed;
- identify a recommended level of granularity for emissions measurement and reporting; and
- provide guidance on how the recommended level of granularity might be achieved.

If there is no practical means of implementing a mechanism, or a meaningful level of granularity for emissions measurement and reporting, this limitation needs to be acknowledged in the development and framing of emissions reduction strategies.

This will of particular relevance, given the measurement of emissions is the stated first objective of this Strategy.

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Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?
This Strategy provides an opportunity to pursue systemic changes that can meaningfully influence population health and climate outcomes at a national level. Initiatives of this nature should be the primary focus of the Strategy. While the Strategy could also identify initiatives that are primarily relevant for action by individual healthcare organisations, these should be understood to supplement strategic initiatives designed to drive systemic change. In examining the proposed focus areas, the Consultation Paper principally focuses on actions within the direct control of the health sector. However, a more systemic approach to driving sustainability outcomes (consistent with the objective of 'Health in All Policies', and the principle of Partnership across all levels of Government) should place greater emphasis on opportunities to work with other sectors to influence standards, regulations, and industry practices. For example, the Consultation Paper proposes that health facilities could be made more sustainable through better design decisions. While the benefit of individual facilities being designed in a more sustainable manner should not be discounted, a more systemic initiative that seeks to amend building design standards would influence not only the design of health facilities, but all buildings subject to a given standard. This would drive the improvements in desired outcomes on a sector-wide or national basis, consistent with the national framing of the Strategy. Similarly, when addressing travel and transport, the Consultation Paper focuses on directly actionable initiatives, such as an increase in the adoption of electric and zero emission vehicles within the health system. While this would make for a "greener" fleet of vehicles within the health system, it is unlikely to drive a material change in the aggregate emissions profile associated with transport activity for Australia. A more systemic approach would entail engagement with the relevant agencies to adopt policy settings that encourage an increase in active modes of transport, use of public transport, more rapid uptake of electric and zero emission vehicles. In pursuing a more systemic approach to driving change within a given area, the objective should be to shape the decision-making environment for the 'end user' (whether a consumer, healthcare organisation or other company/entity within Australia) such that 'sustainable'/health orientated options become more attractive or otherwise become the 'default' option.
9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?
The built environment represents a major area of opportunity for systemic changes to drive improved population-level health and climate outcomes – both in terms of mitigation, and adaptation. Policy development in urban planning, building codes and other standards relevant to the built environment will necessarily seek to strike a balance between competing interest and priorities. It is important that the relevant regulatory bodies undertake their work with a clear recognition and understanding of the relationship between population health and the

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built environment; and a recognition of the effect on population health (and impost on the broader health systems).

As outlined in the response to Question 8, the Strategy should seek to establish a mechanism that facilitates effective input and engagement between health and other policy/regulatory domains, so as to ensure that population health and climate outcomes are appropriately considered in ongoing policy design and development. The nature of such a mechanism is further discussed within the response to Question 14.

In the context of the built environment and facilities, specific areas that could warrant further consideration of climate and health factors include building standards and land use/urban planning.

The projected effects of climate change (e.g. higher temperatures and increased incidence of heatwaves), and corresponding impact on building occupants should be accounted for when setting building codes/standards. Taking account of these implications should drive:

- an increase in the minimum energy efficiency and thermal performance of buildings (both commercial and residential);
- improved ventilation/air circulation in building design; and
- consideration for how this can be achieved through passive building design, to reduce carbon footprint.

Climate and preventative health objectives could also be integrated into urban planning/land use policy. For example:

- planning to increase population density of neighbourhoods has a range of secondary implications in terms of:
    - viability of businesses/amenities being located within walking/cycling distance of residents of a neighbourhood;
    - viability/frequency of public transport services.
- Increase in green spaces/trees canopy cover serves to:
    - Mitigate the 'heat island' effect of urban areas;
    - Improve mental health of residents in the area;
    - Increase likelihood of physical activity in the area; and
    - Reduce disease prevalence of residents in the area.

In seeking to collaborate and provide input into the development of policies and standards in other domains, the Australian health system should work with relevant agencies/bodies to ensure that there is a clear vision of what the ultimate community environment should look like. This vision should provide guidance and direction to policy development, instead of framing policy development in terms of accommodating projected trends in existing behaviours/activities.

10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?

Transport policy represents a significant area of opportunity to advance both health and climate related outcomes, as part of a 'Health in All Policies' approach.

As noted in the response to the prior Questions 8 and 9:

- the Strategy should seek to establish a mechanism that facilitates effective input and engagement between health and other policy/regulatory domains. The nature of such a mechanism is further discussed within the response to Question 14.

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- The built environment exerts considerable influence on population transport behaviour.

An integrated approach to urban planning and transport policy can influence community engagement with active modes of transport, usage of public transport, and type of vehicles purchased and driven. In turn, this can drive improvements in national health and climate outcomes in terms of levels of physical activity, and aggregate transport related emissions.

In engaging with transport policy, the health sector should seek to advance policy settings that prioritise people over vehicles. In relation to passenger commutes, this would entail policy settings that aim to:

- reduce the use of motorised vehicle transport (in favour of active modes of transport);
- where motorised transport is required, shift to more efficient modes of transport (e.g. public transport); and
- improve the emissions profile of vehicle transport (e.g. encouraging electric or zero emission vehicles).

As part of an ongoing engagement with transport and infrastructure policy, there should also be recognition that changing population transport behaviour will require:

- investment in infrastructure;
- improved quality of passenger mobility/transport experience; and
- an information campaign to support behavioural change.

While the above points been discussed from a national policy perspective, they have specific relevance to the design and planning of healthcare facilities/infrastructure. In particular, consideration should be given to how long term infrastructure and transport planning could be provide better public transport access to healthcare facilities, including consideration for how passenger experience could be improved.

11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?

Australian health systems procure within global markets for medical devices, technologies and pharmaceuticals. Working individually, Australian health systems often have limited leverage and influence with these global suppliers. As a result, past initiatives to improve the sustainability of the supply chain have been framed around organisations selecting more sustainable options: either in selecting a more sustainable product, or a supplier that is evaluated to be more sustainable. Both approaches rely on the idea that suppliers will pursue sustainability initiatives, with the expectation that this will provide some advantage when tendering in subsequent procurements.

However, it is not clear that such an approach will drive material improvements in supply chain sustainability outcomes. From the perspective of a supplier, different health systems will undertake procurements at various points in time, and some of these procurements may address the topic of sustainability. If sustainability is addressed, different requirements and approaches are put forward by each health system, and differences may exist even between procurements undertaken by the same health system. In such an environment, a supplier is unlikely to meaningfully amend its approach to sustainability to address any single procurement or health system. Instead, the supplier would be incentivised to rebrand its existing initiatives, or otherwise make superficial commitments to best address the requirements of a given procurement process.

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A centrally coordinated strategy across health systems in Australia has the potential to be significantly more effective in influencing market behaviour to address sustainability. By establishing an appropriately targeted approach to sustainability that is adopted by health systems across Australia, and making clear to industry that this will be consistently applied into the future, a coordinated strategy can communicate clear expectations, and provide the certainty needed for Suppliers to plan future initiatives. This creates an environment where Suppliers are incentivised to invest in substantive sustainability initiatives, instead of simply rebranding/marketing to meet the current advertised procurement.

As part of a centrally coordinated strategy, potential common initiatives could involve:

1. Targeting key product categories to facilitate innovative product development aimed at minimising waste and emissions.
2. Agreeing common methods for measuring suppliers' emissions and setting common targets for emission reduction.

1. Innovative Product Development

With central coordination, Australian health systems may be able to leverage economies of scale to influence industry investment in innovation and product design. Participating health systems could share spend and performance data to identify product categories of focus for improving sustainable outcomes. Once focus areas have been identified, a central body could coordinate engagement with industry, perhaps including through advertising for innovative proposals and pilots, with the potential of long-term contracts by participating health systems for products that perform well.

This coordinated engagement with industry could including looking at (for example):

- proposals for circular economy opportunities to replace/address waste associated with single use products;
- proposals for local manufacturing to minimise transport-related emissions; and
- proposals for products made of alternative materials to minimise emissions and waste in the manufacturing process.

2. Common standards

Australian health systems do not currently have a common standard for measuring the sustainability credentials of their suppliers. As previously noted, the criteria for assessing suppliers' sustainability varies from health system to health system and across individual procurement processes.

The fragmented nature of sustainability assessment makes it difficult for individuals within a health system to be confident in navigating suppliers' sustainability performance and makes it difficult for suppliers to invest in sustained effort to improve performance against a fixed set of measures.

A federal strategy could facilitate agreement to a standard framework for measuring supplier emissions and sustainability performance. Supported by consistent information and assessment measures, Australian health systems will be better placed to make sustainable procurement decisions when entering into contracts.

In the longer term, this could even evolve into allocating a green rating per product, to be considered alongside price in individual purchasing decisions. Once standard framework for measuring is established, health systems can better look at agreeing targets for improved performance with suppliers.

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12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?
No comments.
13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?
Given the prevalence of single use/disposable items within healthcare, consideration should be given to collaborating with industry to design more sustainable products aligned with the 'circular economy' concept. Such an approach would seek to embed sustainability considerations into the design of products, and throughout the product lifecycle. At the same time, this may be an opportunity to engage with other parts of government in terms of promoting other policy objectives, including industry development and encouraging innovation. Potential actions should be considered in the context of a coordinated national strategy for sustainability in procurement, as discussed in the response to Question 11.
14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?
Population health is affected by a range of factors that fall outside the traditional domain of health systems. While this is recognised and acknowledged as being important to driving preventative health outcomes, the lack of an effective mechanism to engage with these other domains means that preventative health initiatives are primarily focused on actions within the control of the health system. This is evident in the National Preventative Health Strategy 2021-2030, which highlights the importance of the wider determinants of health as a root cause of poor health, but principally focuses its proposed initiatives on actions within the domain of the health system. In seeking to improve preventative health outcomes, the Strategy should seek to establish a mechanism that facilitates effective ongoing engagement and collaboration in policy development between health systems and other domains relevant to the social and environmental determinants of health. Ideally this mechanism should take the form of a central body that provides leadership and guidance as needed to ensure cross-sectoral collaboration between different agencies consistently works toward a common vision. The concept of a central body as the mechanism for collaboration is further discussed in the response to Question 23. To support the establishment of an effective mechanism for cross-sectoral engagement, the Strategy should consider the following further actions/initiatives: • Establish a clear mandate for "health in all policies" – not simply as a strategic objective for health systems, but as a formal directive mandated across all policy areas and highlighting specific policy domains where particular attention and collaboration with health is warranted. • Ensure health systems are equipped to meaningfully engage with other policy domains, on an ongoing basis to:

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- Provide insight into potential relationship to and impact of existing/proposed policy on population health outcomes (taking account of the projected effect of climate change), and
- Act as a stakeholder in the ongoing cycle of policy updates, advocating for the interests of population health and ensuring that this is properly accounted for as part of decision making around trade-offs.

- Further to the above, ensure that non-health policy domains are appropriately supported in understanding the scale, nature and significance of population health and climate implications of their policy positions.
- Establish substantive and sustained policy engagement between health and non-health domains as a core element of strategy for preventative health and climate action over the medium to long term.

Potential areas for cross-sectoral policy engagement/collaboration have been addressed as part of the response to prior questions, and include:

- Urban planning
  - Higher neighbourhood density can support the viability of facilities/amenities being located at a distance accessible by active modes of transport.
- Public Transport
  - Higher neighbourhood density can also support increased frequency/financial sustainability of public transport
  - Seek to make use of public transport more attractive (better coverage in urban areas, more frequent services, better integration with infrastructure, safety and cleanliness)
- Vehicles
  - Adopt more ambitious policies that encourage uptake of electric/zero emission vehicles.
  - Plan for infrastructure that supports broad uptake of such vehicles.

It should be noted that health systems can separately seek to become more sustainable through individual initiatives (e.g. they may seek to replace an existing fleet of vehicles with electric vehicles), however this will not materially affect health or climate outcomes on a national level. A systemic, policy-based approach seeks to create an environment where decisions are made to select a more sustainable option primarily because that option represents the most attractive option (instead of that choice being made despite an otherwise more attractive alternative). Such an approach will naturally influence decision making across society, including within health systems.

15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?

Many of the initiatives, particularly in relation to supply-chain management, can easily accommodate participation from private providers within the health system. Where initiatives are centrally led and coordinated, private providers could be invited to participate both in the design and subsequent operation of such initiatives alongside public health systems. The benefit of a National Strategy is that there is an opportunity to leverage knowledge and economies of scale across the private and public sectors in developing and implementing initiatives, where there is a central coordination point.

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16. Where should the Strategy prioritise its emissions reduction efforts? a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas? b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?
16.a. A national Strategy presents an opportunity for change that is beyond the scale and scope of individual health systems, and beyond Australian health systems collectively. Material emissions reduction is not possible without long-term, policy-driven, systemic change, and the Strategy should take this opportunity to focus on the greater emissions-reduction challenges. While the Strategy should not dissuade actions within the direct control of the health system, these should be seen as complementary to initiatives that seek to drive achievement of outcomes on a national level. 16.b. Based on potential overall impact, the Built Environment, Travel & Transport, and Supply Chain emission sources are suggested as the highest priority areas for action. With a focus on long-term, preventative measures, a national Strategy has the potential to materially improve both environmental and health outcomes through appropriate policy interventions in areas.
17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?
While ‘quick wins’ may be progressed for early completion, this should not be at the expense of starting early progress on the long-term, systemic changes that, while harder to deliver, may make the biggest difference to environmental and health outcomes.

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Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?
The prioritisation of specific risks or vulnerabilities to be addressed should be informed by: • a clear understanding of expected scale and severity of potential impact; and • the implementation cost and timeframe associated with identified adaptation options to address risks. A national assessment on vulnerability (as discussed in the response to Question 19), should be designed to facilitate informed decision-making on the nature of climate risks across Australia. By combining information on the nature of risks with adaptation options analyses, organisations will be better equipped to undertake strategic planning, instead of simply reacting to address issues as they emerge. In the absence of clear data to facilitate an informed approach to prioritisation (as may be the case in the short term), the Strategy should focus on ensuring that the Australian health system commences engagement with other policy domains to begin the process of driving systemic change. Systemic policy change and inter-sector engagement is unlikely to be quick and will require appropriate resourcing and investment to establish the institutional structures and mechanisms to facilitate effective coordination and collaboration. For this reason, this work should be assigned the highest priority: the earlier the work commences, the sooner Australia will see the outcomes of the work.
19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes: a. What are the key considerations in developing a methodology? b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally? c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?
Yes. a) A Vulnerability Assessment may combine geospatial mapping with projected environmental and health risks over the medium to long term, based on best available modelling and science. That is, a detailed map of Australia which can be overlaid with information about projected risks in the area, such as flooding, temperature, extreme heat events, changes to air quality etc. The risk factors considered in the development of the tool may consider not just determinants of public health, but also infrastructure investment and other areas of policy development. Such an approach to vulnerability assessment would potentially be relevant to a range of sectors and stakeholders beyond the health systems, and would support better informed adaptation initiatives and risk management across the health system and community at large.

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For example:

- Flooding risks will be relevant to all stakeholders in a given geographic area whether it be healthcare facilities or other public/critical infrastructure.
- Projected future temperatures associated with may not only be relevant in terms of likelihood of extreme weather events (e.g. a heatwave), but could have epidemiological implications, or otherwise be inform long term planning for primary industries (e.g. agriculture).

When seeking to initiate a national Vulnerability Assessment as envisaged above, preliminary work should be informed by an understanding of:

- The stakeholder groups serving as a target audience for the resulting assessment;
- key risks relevant to these stakeholder groups; and
- the relevant data needed to evaluate the impact of climate change on identified risks over the medium to long term.

b) There may be some work already undertaken by the Bureau of Meteorology and CSIRO that could be drawn on in the development of this tool.

It is also likely that insurance companies (should they participate in such an initiative) would have relevant data on the nature of risk in any given area.

c) A national vulnerability assessment could be used to inform long-term planning across government and industry. For example, government agencies could use the data to model and plan for the delivery of relevant and place-based services to the community. Organisations could also use the information to assess where to invest in infrastructure, such as long-term storage facilities or distribution hubs.

20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?

Yes, guidance materials for a nationally consistent approach to vulnerability assessment and adaptation would be useful if local health systems cannot rely fully on a National Vulnerability and Adaptation Assessment.

Local health systems may need to undertake further, local analysis depending upon the scale and level of detail provided in a National Vulnerability and Adaptation Assessment. Consistent tools and guidance for doing this will better enable idea sharing and collaboration across organisational boundaries.

21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?

No response.

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Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?
This is a central idea for informing long-term, cross-sector and systemic change. Health in All Policies will assist in taking preventative actions to address health impacts and emissions that are often beyond the scope of health systems themselves. For example, improvements in the built environment, travel and transport, may make significant difference both to population health outcomes and emissions production.
23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?
Government agencies would be better enabled to recognise the health impacts of their policies and find ways to collaborate on public policy development with practical support and education. While establishing a policy and governance framework is a critical step in enabling a Health in all Policies approach, government agencies will likely need to have access to advice and education from a central resourcing body to give effect to Health in all Policies. Staff in government agencies will not necessarily have the background knowledge in health policy and public health determinants to apply a Health in all Policies mandate without support and access to advisors. Similarly, meaningful collaboration and the productive exchange of ideas would benefit from central coordination. While some collaboration may happen organically following from the introduction of a policy and governance framework, it is more likely that stakeholders will collaborate if they are participating in the delivery of shared outcomes. This may take the form of a central body bringing together identified stakeholders to provide input to specific initiatives that are centrally led and coordinated. Such a central body could also play a leadership role in establishing consensus around common vision/objectives underpinning cross-sectoral collaboration, and provide direction and guidance to ensure collaboration works in service to such a vision/achievement of intended outcomes. A commonly held vision would provide clear direction for policy development and collaboration. This would allow for policy development to consider not just planning to support existing trends, but instead seek to shape trends toward the intended vision.

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Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
While the Consultation Paper recognises the varied determinants of health and environmental outcomes, the enablers are currently framed in terms of how they can empower *health systems and individuals* to understand and take actions against the health impacts of climate change. Given this is a National Strategy, there is opportunity to look at enabling actions at a national level as well as at an individual level. As outlined throughout this response, the potential for improving outcomes is much greater when health systems, government agencies and other organisations can work collectively on systemic change. To facilitate collective action, it is suggested that enablers include a central body with a mandate to advise on policy development, develop and manage vulnerability assessment information, and coordinate industry development initiatives
25. For each of these enablers: a. What is currently working well? b. What actions should the Strategy consider to support delivery?
As above, the Strategy should consider centrally led and coordinated initiatives into which health systems and other organisations can contribute.

Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

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NATIONAL HEALTH AND CLIMATE STRATEGY

Detailed submission form

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Alternatively, you may wish to complete the briefer online survey available here.

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Respondent details

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[redacted] on behalf of the NHMRC-funded Wiser Healthcare Research Collaboration Executive
What is your email address?
[redacted]
What is your organisation?
Wiser Healthcare Research Collaboration
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
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Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
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Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☒ Academic or Researcher ☐ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

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Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
Objective 1 should be reworded to specify accurate measurement and the need for data measuring emissions related to individual healthcare products and practices. • **Measurement:** Accurately measure and report on health system greenhouse gas emissions (including from the individual healthcare products and services that comprise clinical practice), so progress in reducing emissions can be tracked and quantified This objective, and the entire measurement section, has a narrow focus towards measuring greenhouse gas emissions at a sector-, regional-, and facility-level. While this data has its uses, it lacks the specificity to identify carbon hotspots related to specific clinical care. This is critical as the majority of healthcare's footprint is coming from clinical practices (>60%), not from buildings' energy, waste and fleet[1].
2. How could these principles be improved to better inform the objectives of the Strategy?
It is essential that implementation of the strategy does not result in unintended consequences that negatively impact other aims of a value-based healthcare system[2]. We recommend an additional principle: • **Holistic view of value-based health care:** The strategy must be underpinned by the established principles of a values-based health care system, which include maximising health outcomes, financial sustainability, patient experience, healthcare professional well-being and experience, and addressing inequities. This recognises that adaptation and mitigation does not occur in a silo, and co-benefits or trade-offs between these aims needs to be appropriately considered. We are concerned that the current principles do not explicitly consider the broader aims of the healthcare system. The inclusion of this overarching principle will aid prioritisation of actions and minimise the risk of misallocating resources that harm the value and sustainability of health care. Further, this principle provides an important foundation for the Strategy to advocate for environmental concerns to be considered by Australia's Health Technology Assessment bodies (TGA, MSAC, PBAC).

[1] Malik at al. The carbon footprint of Australian health care. *Lancet Planet Heal* 2018;2:e27–e35

[2] Nundy et al. The Quintuple Aim for Health Care Improvement: A New Imperative to Advance Health Equity. *JAMA* 2022;327(6):521–522

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3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?
We recommend that all greenhouse gas emissions should be in scope, with recognition that 80-90% of emissions from health care are indirect scope 3 emissions related to the provision of clinical care.
4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?
5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?

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Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?
Suggest incorporating recommendations included in a recent issues brief co-produced with the Australian Healthcare and Hospitals Association around decarbonising clinical care in Australia[3].
7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?
Similar to our amendment to objective 1, this section would be improved by detailing the need for emissions data for individual tests, treatments, and pathways of care. This is essential as we "cannot manage what we can't measure". It is worth highlighting that the proposed mitigation actions around anaesthetic gases and respiratory inhalers are only possible as we have measured their environmental impact. The strategy is narrowly focused on measuring sector-level emissions, which are commonly assessed using Environmentally Extended Input-Output Life Cycle Assessments. These assessments rely on the assumption that there is a linear relationship between financial and environmental costs. This assumption may hold true when emissions are averaged across an entire sector but is incorrect when our focus is more granular towards specific clinical care[4]. It is important that the strategy highlights the need for Process-based Life Cycle Assessments for specific tests, treatments, and models of care that are consistent with international standards (ISO14040 an ISO14044). Our team has conducted a number of these for various tests[5] and interventions[6]. The Strategy should consider leveraging existing health technology assessment bodies (TGA, MSAC, PBAC) to mandate the measurement and reporting of emissions for new and existing health care. These data could be in the form of an Environmental Product Declaration, consistent with ISO standards, as used by other sectors[7]. The UK's National Institute for Health and Care Excellence has already pledged to explore ways to incorporate environmental impact data in their guidance[8]. The Strategy should consider proposing similar commitments to:

[3] Pickles & Haddock. Decarbonising clinical care in Australia. AHHA

[4] McAlister et al. Incorporating carbon into health care: adding carbon emissions to health technology assessments. *Lancet Planet Heal* 2022;6:e993–e999

[5] McAlister et al. The carbon footprint of hospital diagnostic imaging in Australia. Lancet Reg Health - West Pac 2022;24:9 10.1016/j.lanwpc.2022.100459

[6] McGain et al. The carbon footprint of treating patients with septic shock in the intensive care unit. *Crit Care Resusc* 2018;20(4):304-312

[7] https://www.environdec.com/home

[8] National Institute for Health and Care Excellence. The NICE strategy 2021 to 2026. April 2021

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- Signal to industry and other stakeholders that addressing the environmental impact of health care is a national priority;
- Build a publicly-accessible database, similar to HealthLCA, as a resource to identify the emissions related to individual care; and
- Develop methods and processes to incrementally incorporate carbon emissions within Health Technology Assessments.

Incorporating environmental considerations within these bodies is a crucial step to ensure that the Australian Government does not subsidize health care that is environmentally unsustainable.

***

We understand the Australian Government collects data on volatile anaesthetic gases, which have a large carbon footprint, with complete national coverage. These data are vital but have not been made available on request even for research purposes. A change in this policy to allow these data to be used for indicators to track progress is needed and in the public interest.

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Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?
The very first step should be for Australia to join 50+ other countries in committing to develop low carbon health systems. COP28 would be a good opportunity to do so. It is then important to ensure that the proposed focus areas align well with the international efforts to reduce emissions within the healthcare system.
9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?
The Australian Government should leverage health system funding agreements with States to aim towards 1) no gas for heating and instrument sterilisation in hospitals, and 2) reduce piped nitrous oxide and repairing of leaks in existing nitrous oxide piping.
10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?
11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?
We fully support the Strategy's proposed actions to use the healthcare systems' purchasing power to influence manufacturers to improve and report on the environmental performance and emissions footprint of the products they purchase. Engaging with the NHS to develop a similar roadmap for the Australian healthcare system is an important action from the strategy.
12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?
13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?

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14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?

Wiser Healthcare strongly supports efforts to reduce emissions by addressing the overutilisation of low-value care[9]. Policy initiatives that target the underuse of high-value care and overuse of low-value care will reduce emissions, generate cost-savings, and improve the health of the population. Our work has highlighted the potential magnitude of emission and financial savings in addressing unnecessary Vitamin D testing[10], with work being undertaken for other examples of low-value care.

***

The Strategy lacks a clear definition for models of care. Models of care are commonly defined as how care is delivered, coordinated, and accessed[11].

The Strategy also presents a narrow focus of addressing low-value care through alternative models of care. It is essential that the strategy explicitly highlights other effective approaches (e.g., changing funding arrangements, clinician and/or patient education, etc) in addressing low-value care and therefore emissions. An example includes the recent successful national factorial cluster randomised trial of audit and feedback provided to high requestors of low value musculoskeletal imaging performed by the Australian Department of Health and Ageing in partnership with Wiser[12].

***

We support action 2.6.2 to review existing health services and alternative models of care to reduce low-value care and mitigate the sector's emissions. While alternative models of care are promising, our group has highlighted that evidence is lacking on their effectiveness in improving quality of care or reducing emissions. Our soon-to-be published Cochrane review including 49 trials found low-to-moderate certainty evidence that alternative models result in little to no change in quality of care for low back pain[13]. Further, two reviews on behavioural change[14] and health service interventions[15] to reduce emissions revealed limited evidence of improved quality of care or reducing emissions.

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[9] Barratt et al. High value health care is low carbon health care. *Med J Australia* 2022;21:67-68

[10] Breth-Petersen et al. Health, financial and environmental impacts of unnecessary vitamin D testing: a triple bottom line assessment adapted for healthcare. *BMJ Open* 2022;12:e056997

[11] NSW Agency for Clinical Innovation. Understanding the process to develop a Model of Care: An ACI Framework. 2013

[12] O'Connor et al. Effect of an Individualized Audit and Feedback Intervention on Rates of Musculoskeletal Diagnostic Imaging Requests by Australian General Practitioners: A Randomized Clinical Trial. *JAMA* 2022;328(9):850-860

[13] Sridhar et al. Models of care for managing non-specific low back pain. *Cochrane Db Syst Rev* 2021

[14] Batcup et al. Behavioural change interventions encouraging clinicians to reduce carbon emissions in clinical activity: a systematic review. *BMC Health Serv Res* 2023;23:384

[15] Pickles et al. Clinician and health service interventions to reduce the carbon footprint of healthcare: A systematic review. In preparation.

Within a review of existing models of care, information needs to be provided that enables decision-makers to assess the appropriateness and effectiveness of potential interventions that can be implemented in their local setting.

We recommend that the following action is included:

- Develop or amend existing frameworks (e.g., ACI Framework) for evaluating the development, implementation and evaluation of alternative models of care that potentially reduce carbon emissions.

A new framework/guidance is needed to address how changes in emissions are measured through the implementation of an alternative model of care. We would recommend that process-based lifecycle assessments are essential to reliably estimate potential reductions in emissions related to alternative models of care. Further, the impacts of alternative models of care need to consider downstream impacts that may affect emissions. For example, the MEL-SELF trial[16] found that teledermatology reduced carbon emissions due to a reduction in patient transport to a melanoma clinic. But these reductions may be offset by patient travel due to higher downstream healthcare utilisation. Narrowly focusing on one aspect of care may risk the misallocation of resources.

***

It is vital that outcomes from action 2.6.2 are publicly available to support research and development in this area.

***

Within health, we suggest looking at end of life care. Although it is often said healthcare utilisation is driven up by an ageing population, this is not well supported by evidence. Instead, high healthcare utilisation occurs in the last 12 months of life (regardless of age at which death occurs). This is a more significant driver of healthcare utilisation, costs and emissions than an ageing population[17]. See UK Office for Budget Responsibility. Report on Fiscal Sustainability and Spending on Health, Licchetta and Stelmach 2016. https://obr.uk/fiscal-sustainability-analytical-paper-published-today/

15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?

Take account of GHG emissions when considering products for Australian Government subsidy under PBAC, MSAC and PLAC – these subsidises have the most impact on private providers. Noting 2.3.1 and 2.3.2, if requirements to report emissions can be applied to suppliers, the same approach should be applied to subsidies. The Australian Government should not be subsidising products and practices which are harmful to the health of future Australians.

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[16] Williams et al. Exploring the Integration of Environmental Impacts in the Cost Analysis of the Pilot MEL-SELF Trial of Patient-Led Melanoma Surveillance. *Appl Heal Econ Heal Policy* 2023;21:23–30

[17] UK Office for Budget Responsibility. Report on Fiscal Sustainability and Spending on Health. 2016

16. Where should the Strategy prioritise its emissions reduction efforts?

    a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas?

    b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?

17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?

Develop a campaign targeting healthcare providers and professionals, analogous to a cancer screening campaign, on the environmental impact of low value care and the environmental co-benefits of reducing it. The campaign aims would be to raise awareness and socialise the concepts.

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Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?
19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes: a. What are the key considerations in developing a methodology? b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally? c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

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20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?
21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?

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Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?
Adopt Health in All policies as soon as possible. The three areas suggested - transport food & agriculture and housing - are a good start. Mining, trade, and urban development and planning policies are also very important. For a great example of the health impacts of trade deals see the story of Turkey Tails[18].
23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?

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[18] Thow et al. Food supply, nutrition and trade policy: reversal of an import ban on turkey tails. *Bull World Health Organ* 2017;95(10):723-725.

Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
25. For each of these enablers: a. What is currently working well? b. What actions should the Strategy consider to support delivery?

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Healthy Futures
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Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
The Strategy's stipulated overarching purpose is "protecting the health and wellbeing of Australians from the impacts of climate change". The most effective way to achieve this is to rapidly reduce greenhouse gas emissions across *all* sectors in Australia while facilitating emissions reduction in other countries where possible. The current phrasing of objective 2: "Mitigation: Accelerate the reduction of greenhouse gas emissions from the health system" falls far short of this. Healthcare in Australia has been estimated to account for 7% of Australia's domestic greenhouse gas emissions, so by confining the scope of the Strategy to mitigate emissions in the health sector only, the Strategy would only address 7% of the domestic drivers of climate change and its health impacts and fail to address the other 93%. The greenhouse gas emissions and therefore climate-related harms attributable to fossil fuels extracted and exported from Australia are greater still. Therefore in order to protect Australians from the harms of climate change as intended, the Strategy should broaden its objectives to include rapid reduction in greenhouse gas emissions attributable to the entirety of Australia's domestic and export economies. This could be stipulated in objective 2, or otherwise in objective 4 if objective 2 was retitled as "Mitigation in the health sector…"
2. How could these principles be improved to better inform the objectives of the Strategy?
No comment.

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3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?
All of them, including emissions in other countries' jurisdictions when they are influenced by activities undertaken or decisions made within Australia, irrespective of rules and guidelines associated with the Paris Agreement. All of these emissions have the potential to exacerbate climate change and cause harm to people in Australia and all of them are within influence of the Australian government, who therefore have a responsibility to minimise them. If needed, emissions measured and/or mitigated according to conventions of the Paris Agreement can be tracked separately from emissions measured and/or mitigated not according to those conventions.
4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?
No comment on the specifics but the principle is appropriate.
5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?
No comment on the specifics but the principle is appropriate.

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Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?
Healthy Futures currently has a focus on advocating for hospitals to replace gas-based energy with renewable electricity. This entails collating available data and educating the public on gas burning within hospitals and estimates of associated greenhouse gas emissions, but not we do not directly measure these parameters.
7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?
No comment.

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Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?
As per the response to question 1, this section currently fails to address greenhouse gas emissions outside the health sector, which account for the vast majority of emissions from Australia's domestic and export economies that contribute to climate change and its health impacts. The Strategy should include objectives to reduce these emissions to net zero as fast as possible. Regarding health sector emissions specifically, this section gives appropriate examples of the immediate, local health co-benefits of measures to reduce greenhouse gas emissions (e.g. the local health gains from increasing active transport and reducing air pollution), and the focus areas suggested for the health system seem appropriate, but if prevention of ill health and consumption of health system resources is indeed the most efficient means of reducing greenhouse gas emissions attributable to the health sector then this could perhaps be given more emphasis in this section's preamble.
9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?
We particularly support the emphasis on electrification and use of renewable energy for all possible purposes as flagged in 2.1.2 "Building Operation" and subpoints, and urge all Australian governments to immediately commit to all future public health buildings (including hospitals) being powered by 100% renewable energy for their everyday energy needs, and for all existing health buildings (including hospitals) to be retrofitted to achieve this as soon as possible. No further comments.
10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?
The proposed focus areas (2.2.1 and 2.2.2) seem appropriate. In any circumstances in which fossil fuels remain necessary as an interim energy source for any transport while transport processes are being decarbonised, those fuels should be required to produce minimal harmful pollution. Consideration should also be given to avoiding transport altogether, where possible and appropriate, by utilising telephone and telehealth services, which may be both more environmentally sustainable and economical. Finally, consideration should be given to reducing greenhouse gas emissions from transport *outside* of the health sector, particularly with interventions that locally improve health by decreasing exposure to air pollution and increasing active transport, such as improving access to and effectiveness of low-emissions public transport systems.
11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?
As the English NHS plans to do, the Strategy should seek to minimise greenhouse gas emissions in the entirety of all supply chains regardless of whether those emissions are produced within Australia or internationally.

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12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?
As a general practitioner myself, I would strongly recommend altering systems that influence the prescribing of environmentally harmful medications rather than relying solely on education of healthcare workers. Examples could include: - adding PBS restrictions to medicines that are particularly environmentally harmful (e.g. pressurised metered dose inhalers) such that they are only available on the PBS in situations in which less environmentally harmful alternative treatments are ineffective and/or inappropriate - removing PBS restrictions from less environmentally harmful alternative treatments, if appropriate (e.g. potentially terbutaline dry powder inhaler) - removing over-the-counter access for environmentally harmful treatments and/or granting over-the-counter access for less environmentally harmful alternatives (e.g. potentially salbutomal pressurised metered dose inhalers and terbutaline dry powder inhalers) - adding warnings to prescribing software regarding particular environmental harms However, interventions that alter patients' access to medicines would require careful consultation with both health experts and consumers, e.g. via consumer representative bodies, to ensure patients are able to access treatments they need
13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?
All of the recommendations already made (2.5.1, 2.5.2, 2.5.3 & 2.5.4) seem appropriate. All materials that are appropriate to re-use, recycle and/or reprocess should be, not just medical equipment (which is specified in 2.5.1).
14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?
The proposals 2.6.1, 2.6.2, 2.6.3 and 2.6.4 all seem appropriate, although none of them address "primordial prevention" as outlined in section 2.6, which should perhaps be addressed by implementing more systemic / population-level changes to reduce illness and promote health and wellbeing, e.g. (i) further restriction or banning of advertising of alcohol, unhealthy foods and/or other contributors to ill health, and (ii) interventions to increase access to healthy foods for communities with high levels of diet-related conditions such as type 2 diabetes mellitus.
15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?
Australian governments have some scope to influence the behaviour of private practitioners e.g. through PBS mechanisms suggested in answer to question 12. Professional associations and organisations are also able to influence the behaviour of private practitioners through continuing professional development (CPD) requirements, which could be used or modified to encourage or require practitioners to undergo training in the purpose, principles and practices of greenhouse gas emissions reduction.

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16. Where should the Strategy prioritise its emissions reduction efforts? a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas? b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?
a) the Strategy should seek to reduce greenhouse gas emissions from Australia's entire domestic and export economies as fast as possible, and should therefore prioritise interventions that result in the largest emissions reductions within the smallest possible time, regardless of how "hard" the interventions are perceived to be. b) All of the sources of emissions discussed on pages 13-18, as well as sources of emissions that aren't discussed there (e.g. the remainder of Australia's domestic and export economies) are important to address. This question seems to presuppose that there are limited resources available with which to reduce emissions, and therefore interventions to reduce emissions must be prioritised so as to only allocate resources to interventions of highest priority. If resources do seem limited, then perhaps a better strategic approach is to build partnerships with and support any actors who are motivated to plan and execute emissions reductions interventions (whether within government, NGOs or the private sector), and assist them to build the necessary relationships and gather necessary resources to achieve this. Building collaborative networks of people and organisations motivated to take action may effectively unlock more resources to address all of the identified issues simultaneously, rather than postponing action on issues that are considered lower priority.
17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?
Given that renewable electricity is cheaper than gas, and hence that maximal long-term economic savings can be achieved if gas is replaced with renewable electricity as soon as possible, we would recommend that all Australian governments commit to all new public health service buildings (including hospitals) using 100% renewable energy for all of their energy needs (excluding any necessary backup generators), and that existing public health service buildings (including hospitals) are retrofitted urgently to also use 100% renewable energy for all of their energy needs (excluding any necessary backup generators). Australian governments should also ban any new fossil fuel exploration projects and wind down Australia's domestic and export fossil fuel economies urgently as the most immediately critical interventions to reduce greenhouse gas emissions and protect Australians' health from the impacts of climate change.

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Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?
No comment.
19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes: a. What are the key considerations in developing a methodology? b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally? c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?
No comment.

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20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?
No comment.
21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?
No comment.

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Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?
The most urgent and effective way to protect people from the health impacts of climate change is to reduce greenhouse gas emissions across all sectors and, where possible, internationally. The largest global emissions over which Australia has influence arise from the burning of fossil fuels extracted in and exported from Australia, so this is the most urgent source of emissions to eliminate, followed by Australian stationary energy use, transport, agriculture and other sources. A Health in All Policies approach should reduce emissions from sources in that order of priority.
23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?
No comment.

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Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
Regarding workforce, leadership and training, this may be facilitated by requiring education and training in climate change health impacts and mitigation practices as part of continuing professional development (CPD) and other forms of training for current healthcare workers, not just in training of new healthcare workers (as per answer to question 15).
25. For each of these enablers: a. What is currently working well? b. What actions should the Strategy consider to support delivery?
a) no comment b) see answer to question 24.

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Respondent details

What is your name?
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What is your organisation?
Healthy Environments and Lives (HEAL) National Research Network, supported by the NHMRC Special Initiative in Human Health and Environmental Change
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
☒ Yes (Assoc Prof Veronica Matthews on behalf of HEAL Indigenous Steering Committee) ☒ No ☐ Prefer not to say
Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☒ Academic or Researcher ☐ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider

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☐ First Nations Health Service Provider
☐ First Nations Community Group
☐ First Nations Peak or Advocacy
☐ Medical College or Peak professional body

Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?

About the HEAL Network

The vision of the Healthy Environments and Lives (HEAL) Network is to catalyse research, knowledge exchange and translation into policy and practice that will bring measurable improvements to our health, the Australian health system, and the environment.

The HEAL Network is a broad coalition of 100 investigators and more than 30 organisations from across Australia that aims to bridge the gap between knowledge and action by bringing together Aboriginal and Torres Strait Islander wisdom, sustainable development, epidemiology, and data science and communication to address environmental and climate change, and its impacts on health across all Australian states and territories.

HEAL focuses on participatory solutions-driven research that provides robust scientific evidence to underpin structural policy and practice changes. To meet this need, our collaboration includes Government health and environmental authorities; health sector organisations; Indigenous organisations; and data providers to integrate a complex social, environmental, economic and institutional ecosystem into a cohesive, multidisciplinary research network.

The Healthy Environments and Lives (HEAL) National Research Network has a strong capacity to provide strategic advice on policy for the health impacts of environmental and climate change, and we welcome the opportunity to provide this submission to the Consultation Paper on the National Health and Climate Change Strategy. The issues identified and recommendations below come from a number of HEAL investigators.

Response to Question 1

The four objectives are broadly supported by members of the Healthy Environments and Lives (HEAL) National Research Network.

Issue: The National Health and Climate Strategy (the Strategy) proposes four objectives which we consider to be of equal importance. However, the Consultation Paper has a strong bias towards Objective 2 Mitigation. Approximately 50% of the consultation questions (12 out of 25) relate to mitigation activities, while some 25% of the questions relate to adaptation (4 out of 25).

Recommendation: Ensure that the final Strategy has an equal number of implementation outputs under Objective 2 and 3, so as not to give the impression that mitigation activities are more important than adaptation activities. Adaptation activities should focus on healthcare delivery as well as on population health.

Issue: The bias towards mitigation in the Strategy is also reflected in the phrasing of Objective 1 Measurement. This objective seeks to “measure and report on health system

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greenhouse gas emissions"; we note the clarification in footnote 8 that "other measurement challenges related to climate change and health – such as measuring environmental exposures and vulnerability indicators… are listed under Objective 3 on adaptation." However, the current phrasing of Objective 1 gives the impression that the Strategy values mitigation above adaptation.

Recommendation: Amend the text of Objective 1 to include measurement of and reporting on adaptation actions implemented through the Strategy, including both the negative health impacts and positive improvements in health and wellbeing. Ensure that the Strategy's dual focus on healthcare delivery and population health are captured in the measurement and reporting indicators under this Objective.

Issue: Seventy countries internationally have formally committed to develop climate resilient and low carbon, sustainable health systems; 24 of these countries have made a net zero commitment, and have set a net zero target (source: WHO 2023a). Note that these 24 countries include high income as well as low and middle income countries, and that Australia does not feature on this list. Greenhouse gas emissions reduction targets are required in order to monitor the progress of Australia's health systems (at the state and territory as well as national level), and thus the effectiveness of the Strategy. It is clear that several public and private sector health organisations in states and territories are looking for direction-setting from the national Department of Health and Aged Care to guide their decarbonisation efforts. The Department can use its convening power to set a signal for public and private sector health systems in states and territories through Objective 1.

Recommendation: Amend the text of Objective 1 to commit Australia towards the establishment of agreed national, state and territory health sector emissions reduction targets. These should be projected out over future decades to match the Australian Government's national emissions reduction commitments of 43% below 2005 levels by 2030 and net zero national emissions by 2050.

Recommendation: Commit to Australia joining the list of countries that have made a commitment to net zero health systems, through participation in the Alliance for Transformative Action on Climate and Health (ATACH). The ATACH is a World Health Organization (WHO) initiative, an informal voluntary network for countries to exchange views, share information, and enhance technical and political co-operation. This would enable the Australian health sector to express the ambitions of the Strategy and to take on a leadership role internationally.

2. How could these principles be improved to better inform the objectives of the Strategy?

The six principles are broadly supported by members of the HEAL Network.

Issue: It is unclear whether these principles are ranked in order of importance. Several members of the HEAL Network emphasised the importance of Principle 6 Partnership-based working across all levels of government and beyond. This Principle is critical to the implementation of the Strategy, in a few different ways.

Effective governance arrangements will be critical to the implementation of the Strategy. The Strategy does not articulate the areas where the national Department of Health and Aged Care will develop programs and interventions, in contrast to the areas where the state and territory health jurisdictions will operate. Setting these expectations would be an important early task for implementing the Strategy.

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We note that some jurisdictions already have governance arrangements and programs in place that would complement the national Strategy. Within their respective Departments and Ministries of Health, New South Wales (NSW) has a "Climate Risk and Net Zero Unit"; Western Australia (WA) has "Sustainable Development Unit"; and Victoria has a "Climate Change and Environment team". On the contrary, several health jurisdictions have much lower levels of organisational maturity in responding to climate change and environmental sustainability in the health sector. The role of this Strategy and the national Department of Health and Aged Care in this context needs to be clarified.

Recommendation: Cleary articulate the roles and responsibilities under the Strategy for the national, state and territory health jurisdictions. Establishing the governance arrangements under the Strategy will be an important early task in the Strategy's implementation.

Issue: Principle 3 Population health and prevention is a highly supported element of the Strategy. The Strategy also references the National Preventive Health Strategy 2021-2030 and the upcoming Australian Centre of Disease Control. However, the interaction of the Strategy with these existing mechanisms for health protection, disease prevention and broader population health programs across Australia is not clear.

For example, the Strategy states "responses to climate change must be underpinned by a public health perspective". This would suggest that the Strategy needs to be integrated within the existing national public health governance structures through the Australian Health Protection Principal Committee (AHPPC), the Environmental Health Standing Committee (enHealth), and close engagement with state and territory Chief Health Officers.

The Strategy does not adequately reference the existing, legislated role of state and territory Departments and Ministries of Health in population health through Public Health Acts at the state and territory level. Identifying the interactions and existing work undertaken by different jurisdictions will enable the Strategy to focus its efforts on areas where the most gains are likely to be made and avoid duplication of efforts.

Recommendation: Identify and map out existing work undertaken by state and territory Departments and Ministries of Health in divisions and directorates of public and population health. This would be an important early task in the Strategy's implementation.

3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?

Members of the HEAL Network support a focus on all three scope of greenhouse emissions when developing the Strategy's emissions reduction efforts. We emphasise the focus on all aspects of activity across the health sector (including upstream procurement supply chain management and downstream management of health products and waste through circular economy approaches), as opposed to a more narrow focus on healthcare delivery only.

Different analytical methods for measurement of health sector greenhouse gas emissions are maturing, and have been applied at the national, state and hospital level in Australia. Both "top down" (environmentally-extended multi-regional input-output) and "bottom up" (process-based lifecycle analysis) methods are available, and their feasibility has been demonstrated, for quantifying the baseline and monitoring ongoing progress on greenhouse gas emissions reduction in the Australian health sector.

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Issue: There is an important role for the Strategy to set out different pathways or roadmaps for which of the various types of greenhouse gas emissions could be addressed by different health jurisdictions, given that jurisdictions with lower levels of organisational maturity and capacity in responding to climate change and environmental sustainability are looking for guidance from the national Department of Health and Aged Care.

A spectrum of approaches can assist less mature systems in commencing their work, for example:

- Taking a "central to distal" approach, by addressing the low hanging fruit of emissions under direct control of the health organisation (on-site scope 1 and energy supply contracts for scope 2 emissions), and then moving on to influence other parts of the business (such as health procurement, hospital meals and fleet management).
- Taking a "laissez faire" approach, whereby health organisations can focus on agenda-setting, awareness raising and creating an authorising environment, while transitions in other health jurisdictions and other sectors and industries will lead to reduction in scope 2 and scope 3 emissions. The health organisation will benefit from these broader transitions, albeit at a slower pace or direct benefit to them.

Recommendation: Develop a project early in the implementation of the Strategy to outline the decarbonisation roadmap options for different Australian health systems and health organisations (public and private) to take in their emissions reduction efforts.

4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?

The HEAL Network has national and regional Indigenous governance structures through a network of Communities of Practice. Our aim is to ensure Aboriginal and Torres Strait Islander communities' needs are prioritised in the Network, and that any research conducted with First Nations communities is done respectfully, protects communities intellectual and cultural property rights, data sovereignty rights and is aligned with relevant cultural protocols. We also aim to prevent duplication of effort so communities are not overburdened with research/consultation initiatives. In this context, we would welcome further and ongoing engagement to support the national Department of Health and Aged Care through the HEAL Communities of Practice in all jurisdictions.

One of the HEAL Network's three cross-cutting themes is Indigenous Knowledge Systems. This theme embeds systematic engagement of Indigenous people and organisations in environmental change preparedness, planning and co-design of mitigation and adaptation solutions. It integrates Indigenous knowledge structures that lie outside Western academic and intellectual paradigms into discourses, to shape research agendas within a framework that protects cultural and intellectual property.

There are three existing First Nations initiatives that can inform the Strategy:

(A) The Earth Systems and Climate Change Hub within the National Environmental Science Program at CSIRO holds national dialogues with Aboriginal and Torres Strait Islander people on Climate Change to bring together Indigenous and Western scientific knowledge for climate adaptation (source: NESP 2021a). A key document from CSIRO's collaboration with Indigenous communities is Our Knowledge, Our Way (source: NESP 2021b) that provides best practice guidelines to collaborate in caring for Country activities. Key principles are strong partnerships; sharing and weaving knowledge; and national and global Indigenous networks for peer-to-peer learning and support.

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However, there is limited consideration of health and wellbeing outcomes in CSIRO's partnerships with Indigenous communities given their focus on scientific aspects of healthy Country and environments. Collaboration is required across the Department of Health and Aged Care, Department of Climate Change, Energy, the Environment and Water and CSIRO to leverage Indigenous knowledge and adaptation efforts and to improve documentation of holistic outcomes covering health of community and Country.

(B) The Lowitja Institute held a national roundtable discussion in 2021 on climate change and Aboriginal and Torres Strait Islander health that centred the voices of Indigenous community leaders and advocates. The main themes identified from the Roundtable were to value and centre Indigenous knowledges and to partner with communities in place-based approaches to address climate issues. As the strategy consultation document highlights, many Indigenous communities are already challenged by access to safe water, housing and health services. As the roundtable delegates highlighted, first and foremost, these ongoing issues must be addressed to build adaptive capacity of these communities.

(C) The HEAL Network's priority action to develop a Story-Data Atlas that will apply participatory community-based mapping processes with urban, rural and remote Indigenous communities. Indigenous community map-makers will be trained and employed to gather traditional knowledges and experiences, documenting environmental changes and their impact on communities. These stories will be combined with environmental and health data into interactive digital maps to inform community co-design of mitigation and adaptation plans.

Recommendation: The consultation and involvement of First Nations voices is critical to the Strategy and that is a very welcome inclusion. The Strategy must now take care to balance two competing issues: (1) avoiding the duplication of existing structures for First Nations engagement where possible, while (2) avoiding collusion with some structures which we caution are simply not working for their intended purpose. Further detail is provided in the next response.

5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?

A substantial amount of work is already being undertaken in relation to caring for Country, climate change and Indigenous knowledges, each with their own governance forums which can inform the Strategy. Much of this work is occurring sporadically and requires some overlying communication and coordination channel. Importantly, consultation mechanisms need to be networked into local community in recognition of the different climate and cultural contexts across locations. One such example of local consultation is land and sea management ranger groups funded through the Australian Government and their links to local Land Councils. Another example of existing local governance initiatives by traditional custodians is the process undertaken by the Martuwarru Fitzroy River Council.

Having culturally safe, responsive, flexible governance structures would be important for proper engagement with Aboriginal and Torres Strait Islander communities. Having governance led by community-controlled organisations and the ability to bring organisations into decision making and provide policy advice as priority topics and locations change would be essential.

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Recommendation: The Strategy can share its development and intended directions by presenting to and engaging with existing structures such as:

- Community-controlled health organisations such as National Aboriginal Community Controlled Health Organisation (NACCHO) and their affiliates, and the Lowitja Institute who are leading advocates in climate change and Aboriginal and Torres Strait Islander health.
- The Lowitja Institute is currently undertaking a series of roundtable consultations across the country to yarn with Aboriginal and Torres Strait Islander people on their climate concerns with a view to developing a national strategy for advocacy.

Recommendation: The HEAL Network is able to facilitate consultation sessions with First Nations groups for the Strategy, recognising our focus on Aboriginal and Torres Strait Islander health and environmental research initiatives and knowledge translation.

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Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?

The HEAL Network has extensive expertise in the various methodologies for measurement of health sector greenhouse gas emissions. These studies have been undertaken at the jurisdictional level (in NSW and WA) and at the hospital level (in NSW and Victoria).

Members of the HEAL Network have several existing and planned initiatives with state and territory health jurisdictions as well as specific health organisations. Examples include:

- Measuring greenhouse gas emissions from respiratory inhaler use in Australia (based on metred dose inhaler and dry powder inhaler dispensing rates).
- Process based life cycle assessments of common tests and procedures such as common pathology tests, and radiology tests (CT and MRI).
- High resolution health system-specific "top down" carbon footprinting assessments to guide health system strategy setting and the development of decarbonisation roadmaps (in WA).
- Environmentally-extended "top down" footprinting assessments which moves beyond quantifying carbon emissions to considering other environmental impacts of healthcare delivery, such as waste generation and water utilisation (in NSW).

Issue: The HEAL Network's activity represents the leading edge of initiatives to measure and report on health system emissions and energy use in Australia. These initiatives and studies set the foundation for a better informed and nuanced approach to heath sector emissions reduction.

Recommendation: Utilise the Strategy and the convening power of the national Department of Health and Aged Care to disseminate existing efforts and findings, and subsequently standardise the approach across all state and territory health jurisdictions.

7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?

Issue: There are effective mechanisms in place for researchers to access nationally-held health data through organisations such as the Australian Institute of Health and Welfare (AIHW). However, the same is not the case for nationally-held data that can be used to support health sector emissions reduction (for example, national data on volatile anaesthetic gas utilisation). These data have not been made available on request for research purposes.

One of the HEAL Network's three cross-cutting themes is Data and Decision Support Systems. This theme will create a Findable, Accessible, Interoperable and Reusable (FAIR) database of health, population, climate and environmental datasets and analytic tools for assessment of past, current and future impacts of environmental change on health, vulnerability, equity and service delivery. It will generate durable, standardised and scalable protocols for sharing data between states, organisations and disciplines to inform responses at national, state, and local levels.

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Recommendation: The Strategy should include a strand of work to identify, collect and disseminate critical data sets that are required to support targeted emissions reduction efforts within health and aged care. The HEAL Network is ideally situated with the technical expertise to lead this work.

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Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?

All responses for Proposed Objective 2 Mitigation (Question 8 to 14) are summarised here. The six proposed focus areas are appropriate and cover the major categories responsible for health sector greenhouse gas emissions.

Recommendation: Consider sequencing efforts on specific focus areas over different periods of time. For instance, "prevention and optimising models of care" and "supply chain" are likely to require longer term and ongoing efforts over the life of the Strategy, whereas it may be possible to establish health sector standards for "waste" and "travel and transport" at an earlier stage. The sequencing of the six focus areas should be done through further consultation with stakeholders.

Issue: The focus area of "prevention and optimising models of care" is widely considered to be the highest yield area, as prevention of disease (and a healthier population) would mean reduced need for delivery of healthcare which, in turn, would mean reduced greenhouse gas emissions from health facilities, waste generation and supply chain requirements. Similarly, developing and standardising models of care that are environmentally sustainable would amplify emissions reduction over millions of patient encounters (in hospital and primary care settings) every year.

Recommendation: The Strategy should emphasise the focus area of "prevention and optimising models of care" by establishing programs aimed at changing clinician behaviour towards high value, low carbon care (and reducing low value, unnecessary medical interventions).

Issue: The focus area of "supply chain" currently has a lack of consensus among Australian health system managers regarding the optimal approach to reduce supply chain related emissions. There are concerns about insufficient purchasing power of individual health organisations or health jurisdictions, and (perhaps unfounded) expectations that international moves to decarbonise the health sector supply chain will trickle down to Australia. There is an important role for the national Department of Health and Aged Care in this setting to bring together state and territory Health Ministers to agree on supply chain decarbonisation commitments. This would enable Australia to impact health sector suppliers in a way similar to a centrally managed health system such as the National Health Service (NHS) in England.

Recommendation: Utilise mechanisms such as the Health Ministers' Meeting (HMM) and Health Chief Executives Forum (HCEF) to develop national consensus positions on health sector supply chain decarbonisation targets and approaches.

Recommendation: Involve government agencies such as the Medical Services Advisory Committee (MSAC), Therapeutic Goods Administration (TGA), and Pharmaceutical Benefits Scheme (PBS) to set requirements such as: mandatory reporting on greenhouse gas emissions of medical products and pharmaceuticals; weighting the carbon footprint of a product (through lifecycle assessment) alongside existing economic evaluation as a criterion for selecting medical products to be subsidised.

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9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?
The response to this question is summarised under Question 8.
10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?
The response to this question is summarised under Question 8.
11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?
The response to this question is summarised under Question 8.
12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?
The response to this question is summarised under Question 8.
13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?
The response to this question is summarised under Question 8.
14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?
The response to this question is summarised under Question 8.
15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?
The Strategy can consider two categories of private providers where the national Department of Health and Aged Care has substantial influence: individual health practitioners (such as general practitioners, specialist consultants, dentists, and allied health practitioners) and private health organisations (operating private hospital facilities). **Issue:** For private health organisations, state and territory health departments are the regulatory authority for privately owned and operated private health facilities in their jurisdiction. The Strategy can leverage this regulatory role and local relationships, by setting expectations for the implementation of emissions reduction initiatives in the publicly-funded health system to be applied in the privately-funded health system. It is encouraging that many private health organisations have already made commitments to decarbonise their operations, but there is a risk of greenwashing as not all private organisations may have the capability to deliver on their commitments. **Recommendation:** Establish a governance mechanism (such as a working group) that specifically focuses on both categories of private providers (individual health practitioners and private health organisations), to disseminate good practice from the public health system, and to set emissions reduction expectations on private providers.

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Issue: For individual health practitioners, the national Department of Health and Aged Care can directly influence practice through Medicare funding arrangements and the subsidisation of healthcare in Australia. While this is a highly contested issue with multiple competing professional and financial interests, the Strategy can nevertheless influence the direction of funding negotiations over the longer term.

Recommendation: Establish a governance mechanism (such as a working group) to shift practice away from low-value care. This can be achieved through several means, such as financial incentives or disincentives through the Medicare Benefits Schedule (MBS). A strong communications and engagement program will be particularly relevant to individual practitioners (such as general practitioners or dentists) who may not routinely access organisational messaging provided to salaried health practitioners.

16. Where should the Strategy prioritise its emissions reduction efforts?

    a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas?

    b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?

Given the broad scope of the Strategy, there is a risk that its efforts could become diluted by seeking to act in too many directions simultaneously, resulting in superficial achievements, and demonstrating unsatisfactory progress in the view of stakeholders. The Strategy should carefully consider the feasibility of leading on all aspects within the federated governance structures and mix of public and private delivery of healthcare in Australia.

It would be important for the national Department of Health and Aged Care to obtain a stronger understanding of what state and territory jurisdictions, academic research networks, and other non-government stakeholders are already intending to do, so that efforts are not duplicated. The Strategy has a unique opportunity to capitalise on pockets of excellence that have already emerged in Australia. However, a larger central workforce would be required to enable these efforts to achieve their intended outcomes.

Recommendation: The scale and urgency of decarbonising the health system and building up its climate resilience makes it an imperative that the National Health, Sustainability and Climate Unit and the Strategy more broadly receive increased funding and human resource support to implement programs and utilise its convening power. We would endorse a level of funding and resourcing commensurate with internationally leading, best practice health systems such as the National Health Service (NHS) in England.

17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?

The response to this question is summarised under Question 16.

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Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

The fifteen health impacts listed under Proposed Objective 3 Adaptation are appropriate and accepted areas that should be addressed through adaptation action.

Several different methodologies are available for assessment of climate change-related health impacts, risks and vulnerabilities. Some examples include:

- Vulnerability and Adaptation (V&A) assessment (source: WHO 2021).
- Burden of disease assessments and linkage methods for environmental health (and climate change) indicators (source: WHO 1996).
- Health Impact Assessment (source: WHO 2023b).
- Sectoral adaptation guidance such as the NSW Climate Risk Ready Guide (source: NSW Government 2023).

Members of the HEAL Network have expertise in these as well as other methodologies for health impact, risk and vulnerability assessment. Regardless of the methodology chosen, we highlight two issues that may impede progress.

Issue: Access to data on health indicators and environmental indicators across all state and territory jurisdictions. Currently there are difficulties in accessing data and, when accessed, the data is not harmonised across all parts of Australia. This makes quantitative assessments of the health impacts, risks and vulnerabilities difficult to carry out.

Recommendation: Utilise the Strategy to establish a system for nationally harmonised data collection for future climate change and health adaptation assessments. Mechanisms such as the National Climate Change Adaptation Research Facility (NCCARF) have been highly effective in the past. The HEAL Network's Data and Decision Support Systems theme is able to provide technical advice and implementation support for this purpose.

Issue: All major guidance on adaptation assessment highlights the critical importance of effective stakeholder engagement to appreciate the end user, individual, community and system-level impacts of proposed adaptation actions. This would ensure that the voices of First Nations people and vulnerable communities are heard, as well as the voices of health practitioners (who respond to climate-related health impacts), and ensures the valuing of the broader community- and population-level impacts to the health status of all Australians.

Recommendation: Enshrine the need for co-design and co-decision making through best practice stakeholder engagement in any future adaptation assessments undertaken through the Strategy.

19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes:
    a. What are the key considerations in developing a methodology?
    b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally?
    c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

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Response to Question 19(a) and 19(b).

We strongly endorse the development of a National Health Vulnerability and Adaptation Assessment (the Assessment) and National Health Adaptation Plan (the Plan), as key initiatives under the Strategy. The rationale for developing these two outputs is clear: it would put Australia in step with other countries internationally, and it would align and strengthen the Australian health sector's response under the forthcoming National Climate Risk Assessment and a National Adaptation Plan.

The World Health Organization (WHO) has indicated that these are both important components of the national health sector response to climate change, and that the Assessment is a precursor to the Plan. This is explained in the Quality Criteria for Health National Adaptation Plans (source: WHO 2021). Members of the HEAL Network have expertise in developing Climate Change Risk Assessments for the Health Sector and National Adaptation Plans, for example, work undertaken to develop the relevant plans for the United Kingdom, the Fiji Ministry of Health and Medical Services, and the Republic of the Marshall Islands.

Our experience in other jurisdictions has demonstrated the appropriateness of proceeding with a health-specific Assessment and Plan, even when the national Assessment and Plan may be in progress or incomplete. The Australian health sector is well positioned to be an exemplar to other sectors nationally by proceeding with these two key outputs.

Response to Question 19(c).

The national Department of Health and Aged Care could consider incorporating and supporting the HEAL Network's priority action to develop a National Environmental Health Risk Assessment. Integrating this as an output of the Strategy could provide a more robust and effective end product.

Recommendation: The Strategy could integrate the HEAL Network priority action to develop a National Environmental Health Risk Assessment of the current and future health burdens of environmental and climate change, using available environmental and health datasets. This will involve integrating epidemiologic, burden of disease, health impact, cost-benefit and equity analysis methods and indicators. Analyses will include impacts of regional and sectoral interventions. This should assess baseline and future health and economic impacts of bushfires, air pollution and heat under a range of adaptation and mitigation scenarios integrating high resolution spatiotemporal analysis methods.

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20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?

Issue: As stated in the response to Question 2, we reiterate the need for the Strategy to be mindful of the varying levels of health system maturity in different state and territory jurisdictions. This issue is compounded by differing service provision needs and existing health inequalities across geographical locations, both in terms of remoteness (metropolitan versus rural) and differences in ecology (coastal versus inland environmental health risks).

Some health jurisdictions are already progressing with their own sectoral mitigation and adaptation plans; examples include the NSW Climate Risk Ready Guide (source: NSW Government 2023) and the WA sectoral emissions reduction strategies (source: WA Government 2023). On the contrary, several health jurisdictions have much lower levels of organisational maturity in responding to climate change and environmental sustainability in the health sector. These jurisdictions are likely to be looking to the Strategy and the national Department of Health and Aged Care for guidance.

Recommendation: Establish a working group to investigate existing efforts and guidance, the topics to be covered, and the process for the development of a nationally consistent approach. Given the differences between jurisdictions, proceeding without this initial discovery work may risk the Strategy delivering a product that is not accepted or utilised by its intended audience.

21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?

Issue: We suggest that this is not the ideal approach to identifying high priority adaptation actions. As outlined in WHO guidance, the process of developing the Health National Adaptation Plan would be the time where adaptation actions are prioritised. Such a process can be completed within the span of three to six months, and this would be the opportunity to answer this question.

We urge the national Department of Health and Aged Care to be mindful of the role of Health Protection services within state and territory health jurisdictions. Through Chief Health Officers, state and territory health jurisdictions already undertake “business as usual” functions and have an existing regulatory mandate for environmental health issues, including climate change adaptation. Thus it would be appropriate for the Strategy to first undertake the preliminary work necessary before developing a list of prioritised adaptation actions through this Consultation Paper.

Recommendation: This question would be better answered by using the quantified findings from the National Health Vulnerability and Adaptation Assessment, in order to subsequently undertake an evidence-informed national prioritisation process through the development of the National Health Adaptation Plan.

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Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?

The Health in All Policies approach enables the development of healthy public policy, with an understanding that health is not merely the product of health care activities, but is influenced by a wide range of social, economic, political, cultural and environmental determinants of health (source: SA Health 2023). This approach is highly supported by members of the HEAL Network as an overarching approach that would reduce the health impacts of climate change.

Issue: However, because Health in All Policies is a whole-of-system way of working, it is not clear how this approach can be reduced or made specific to addressing "key areas" such as reducing emissions and health impacts of climate change. The focus of Health in All Policies is on all policies, and focuses beyond simply one particular strategy (in this case the National Health and Climate Strategy).

Further, it is not clear whether the intention is for Proposed Objective 4 Health in All Policies to be monitored, evaluated, and have an associated program of work. If this is the intention, then there is a risk of invoking the Health in All Policies approach, but not being able to demonstrate achievement of specific deliverables that can be related back to this objective. If framed as a Principle rather than a Proposed Objective, the Health in All Policies approach would enable the Strategy to inform and contribute to other Australian Government initiatives. Note the way in which the Indo-Pacific Centre for Health Security frames climate change as a cross-cutting theme across its activity (source: DFAT 2023).

Recommendation: Include Health in All Policies in the Strategy, but as a seventh Principle rather than a fourth Proposed Objective. When taken as a Principle within the Strategy, Health in All Policies can inform the way the national Department of Health and Aged Care frames its work around health and climate change.

23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?

The Strategy has a key role in encouraging cross-sectoral collaboration and partnerships on climate policy and public health policy. This can be done in several ways, and using Health in All Policies as a guiding principle is a good starting point. Specific mechanisms can include exploring models that promote translational research and science communication, similar to the Healthy Environments And Lives (HEAL) National Research Network and the National Climate Change Adaptation Research Facility (NCCARF). The Strategy could also be used to influence major research funding bodies such as the National Health and Medical Research Council (NHMRC) and Medical Research Future Fund (MRFF) to have larger ongoing and targeted calls for health and climate research.

The national Department of Health and Aged Care can establish a "national clearinghouse" function to enable all stakeholders (particularly state and territory health jurisdictions) to become familiar with latest developments under the Strategy, emerging guidance at a national level, capacity building and training opportunities, and research findings that can be rapidly taken to real-world implementation. This could be facilitated by the HEAL Observatory, an online knowledge-action hub on climate change and health, which is currently under development.

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Recommendation: The Strategy could integrate the HEAL Network priority action to develop a Healthy Environments and Lives (HEAL) Observatory. The Observatory would be a digital knowledge-action hub to support the health sector, policy makers and communities by providing: (a) links to existing databases, analytic tools and methods that will support local, state and national decision-making; (b) links to publications, training materials, factsheets, indicators and other communication tools; and (c) an online, open, interactive forum for knowledge exchange between researchers, practitioners and communities.

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Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
Members of the HEAL Network were broadly supportive of the five enablers. Enabler 2 Research could be expanded or another enabler added to focus on "research translation to policy". This would help set directions and create an enabling environment for further government-academic partnerships. This also has the benefit of taking research outputs beyond the publication stage, and to utilise the expertise of the Australian climate-health research community to deliver solutions that will fulfil the ambition of the Strategy. Enabler 3 Communication and engagement is critical for the success of the Strategy. One of the HEAL Network's three cross-cutting themes is Science Communication. This theme will improve understanding of climate change-related risk perceptions and barriers to attitudinal, behavioural and socio-economic change. HEAL's communication and outreach activities could contribute to this enabler. There are a number of existing networks and communities of practice across research networks (such as the HEAL Communities of Practice and Aboriginal Steering Groups), professional associations (such as clinician engagement through Doctors for the Environment and medical colleges), and local community initiatives. The Strategy can engage with these existing networks and use these mechanisms to amplify its messages. Enabler 4 Collaboration can be further expanded to focus on co-design and co-decision making, so that all aspects of the program of work under the Strategy are informed by this approach. The importance of social capital in achieving the outcomes of the Strategy and climate-health interventions generally can also be elevated by expanding the focus on this enabler.
25. For each of these enablers: a. What is currently working well? b. What actions should the Strategy consider to support delivery?
The response to this question is summarised under Question 24.

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Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.



Women With Disabilities Australia (WWDA)

WOMEN WITH DISABILITIES AUSTRALIA (WWDA)

Response to the National Health and Climate Strategy – Consultation Paper

National Health, Sustainability and Climate Unit

Australian Department of Health and Aged Care

July 2023

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Women With Disabilities Australia (WWDA) has Special Consultative Status with the Economic and Social Council of the United Nations.

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ABOUT WOMEN WITH DISABILITIES AUSTRALIA (WWDA)

Women With Disabilities Australia (WWDA) Inc is the national Disabled People's Organisation (DPO) and National Women's Alliance (NWA) for women, girls, feminine identifying, and non-binary people with disability in Australia. As a DPO and an NWA, WWDA is governed, run, and staffed by and for women, girls, feminine identifying and non-binary people with disability.

WWDA uses the term 'women and girls with disability', on the understanding that this term is inclusive and supportive of, women and girls with disability along with feminine identifying and non-binary people with disability in Australia.

WWDA represents more than 2 million women and girls with disability in Australia, has affiliate organisations and networks of women with disability in most States and Territories, and is recognised nationally and internationally for our leadership in advancing the rights and freedoms of all women and girls with disability. Our organisation operates as a transnational human rights organisation - meaning that our work, and the impact of our work, extends much further than Australia. WWDA's work is grounded in a human-rights based framework which links gender and disability issues to a full range of civil, political, economic, social, and cultural rights. All WWDA's work is based on co-design with and participation of our members. WWDA projects are all designed, governed, and implemented by women and girls with disability.

Disabled People's Organisations (DPOs), also referred to as Organisations of Persons with Disabilities (OPDs) are recognised around the world, and in international human rights law, as self-determining organisations led by, controlled by, and constituted of, people with disability. DPOs/OPDs are organisations of people with disability, as opposed to organisations which may represent people with disability. The United Nations Committee on the Rights of Persons with Disabilities has clarified that States should give priority to the views of DPOs/OPDs when addressing issues related to people with disability. The Committee has further clarified that States should prioritise resources to organisations of people with disability that focus primarily on advocacy for disability rights and, adopt an enabling policy framework favourable to their establishment and sustained operation.[1]

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WWDA'S RESPONSE TO NATIONAL HEALTH AND CLIMATE STRATEGY – CONSULTATION PAPER

1. Women With Disabilities Australia (WWDA) welcomes the opportunity to respond to the Australian Government's National Health and Climate Strategy Consultation Paper (**Consultation Paper**).[2]

2. WWDA commends the Government on its efforts to address the critical intersection of health, climate change, and social equity. It is increasingly clear that the impacts of climate change expose existing inequalities, and that those who face the greatest levels of risk are those who face the highest inequality in everyday life. This includes people with disability, women, children, older persons, First Nations peoples, people with chronic health conditions and other contextually marginalised people.[3] The risks are further heightened for those who face overlapping marginalisation, including women with disability.

3. The United Nations Human Rights Council has recognised that the human rights of people with disability are disproportionately affected by the negative impacts of climate change.[4] Extremes in weather can prevent access to medication, vital healthcare, and devices that require electricity. A lack of accessible information; accessibility in evacuation, response, and recovery efforts; and exclusion of disability issues in planning and preparedness, means that people with disability are also at higher risk of injury and death. The global mortality rate of people with disabilities in natural disasters is up to four times that of people without disabilities.[5] Research from the United Nations shows that only 20% of people with a disability could evacuate immediately and without difficulty, in the event of a sudden disaster; the remainder could only do so with a degree of difficulty and 6% would not be able to do so at all.[6] When able to evacuate, people with disability continue to face additional barriers, violence and discrimination, including a heightened risk of sexual violence in public shelters. They may also lose possession of assistive technology, or be separated from support systems.[7] Articles 9, 11 and 14 of the *Convention on the Rights of Persons with Disabilities* (**CRPD**) clearly stipulate that governments have a duty to ensure that people with disabilities have the information and supports they need to stay safe and protected in situations of risk.[8] However, people with disability continue to be excluded from, and marginalised within, government and non-government plans and responses to climate-related emergencies in Australia, including bushfires, floods, droughts and virus outbreaks.

4. Ultimately, good public policy is good climate adaptation policy, good health equity policy, and good disability policy.[9] This includes addressing everyday inequities, such as ensuring access to adequate healthcare; safe, secure and affordable housing; decent working conditions; social and community participation; income support, and inclusive infrastructure.

Objectives and Principles of the Strategy

5. WWDA supports the Objectives and Principles of the Strategy, and in particular, the focus on addressing health inequities and centring First Nations expertise. Efforts to strengthen the health system must recognise that particular demographics of people in Australia already experience inadequate access to healthcare regardless of a state of emergency. In addition to building a climate-resilient health system, efforts must be directed towards ensuring that the existing health system is accessible, equitable, and affordable. This requires a health system that takes into account the unique healthcare needs and accessibility requirements of people with disability. As identified by the Consultation Paper, this also requires a Health in All Policies approach.

6. WWDA also supports the Strategy's commitment to evidence-informed policymaking. However, in addition to measuring and reporting on health system greenhouse gas emissions, the Strategy should include measuring and reporting on the differential impacts of climate change and health system change on marginalised communities. This includes data that is disaggregated by gender and disability. Article 31 of the CRPD requires Australia to collect and use data to give effect to the rights set out in the Convention.[10]

7. Further, and contrary to the Consultation Paper's proposition, cost-effectiveness analysis should not take precedence over rights-based approaches to policymaking. 'Maximising population health gains', as described in Principle 5, will exacerbate health inequities unless ethical and rights-based frameworks are used for decision-making. Cost-effectiveness analysis can be problematic for people with disability and other marginalised demographics because it assumes that all people have equal access to healthcare and that cost and benefit apply consistently across different demographics. Further, cost-effectiveness analysis assigns pecuniary value to human life and wellbeing. In an ableist society where the lives of people with disability are chronically under-valued, cost-effectiveness analysis may result in prioritising healthcare for people with less complex health needs, and a belief that health gains are more "valuable" for people without disability. Cost-effectiveness analysis may therefore contribute to the operation of Inverse Care Law in Australia, where the availability of good medical care varies inversely with the need for it in the population served.[11]

8. Article 25 of the CRPD requires Australia to recognise that people with disability have the right to the highest attainable standard of health without discrimination.[12] However, both past and international experience demonstrates that in times of crisis, people with disability are left behind. As WWDA has previously written in a joint Statement of Concern on *COVID-19: Human rights, disability and ethical decision-making*:[13]

> *…as the pandemic progresses in Australia, and there is greater demand on critical health treatment and intensive medical care, we are concerned about the policies, protocols and guidelines that will determine decision-making in the context of life-saving medical treatment. Our concerns are based on international experience that shows that human rights have not been applied to a number of COVID-19 specific health directives and medical decision-making protocols.[14]*
>
> *This has demonstrated an underlying, pervasive and often unquestioned devaluing of people with disability that is termed 'ableism'.[15] We are concerned, along with people with disability about similar ableist practices and protocols being replicated in Australia.*

9. Priority setting in healthcare must be informed by ethical principles and a rights-based approach. Noting the potential for cost-effectiveness analysis to lead to discrimination against people with disability, we refer to the research conducted by the United States of America's National Council on Disability in relation to alternative models for determining the value of health interventions.[16]

10. The Strategy must also ensure that the Health in All Policies approach is intersectional. Care must meet the complex and specialised needs of people with disability who face multiple intersecting forms of

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disadvantage, such as First Nations people with disability, gender and sexually diverse people with disability, culturally and linguistically diverse people with disability, and women and girls with disability.

11. Finally, ensuring that Principle 6, 'Partnership-based working across all levels of government and beyond', is adequately implemented requires genuine consultation, co-design and co-production with diverse communities. This is discussed in greater detail below.

Actions proposed in the Strategy

Prevention

12. As identified by the Consultation Paper, effective preventative health care can reduce the onset and severity of health conditions, mitigate the need for acute care, and reduce the carbon footprint of the healthcare system. However, people with disability are often unable to obtain adequate preventative healthcare.

13. Preventable hospitalisation rates are approximately 4.5 times higher for people with intellectual disabilities than for people without intellectual disabilities,[17] and an estimated 400 people with intellectual disability over the age of 20 die in Australia each year from preventable causes.[18] People with disability also attend hospital emergency departments at higher rates than people without disability, even where they feel a general practitioner could have provided the required care.[19] Potentially preventable hospitalisations are a performance indicator of health care accessibility and effectiveness.[20] As data from the Australian Institute of Health and Welfare indicates, 1 in 8 people with disability have difficulty accessing medical facilities, and 1 in 8 who need help with health-care activities have no source of assistance (either formal or informal).[21] As the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability (**Royal Commission**) heard during *Public Hearing 4: Health care and services for people with cognitive disability*, the failure to provide adequate preventative healthcare to people with disability results in:

> *delayed or missed diagnoses; a lack of active management; non-evidence based prescribing practices; poorer health trajectories and over-representation of potentially avoidable morbidities and hospitalisations; poor end of life care; and high rates of premature mortality.*[22]

14. Although efforts have been made to increase access to preventative and comprehensive health assessments for people with disability, these assessments have not been adequately implemented.[23] Improving access to preventative care requires addressing all barriers to access, including physical and financial barriers, as well as barriers related to travel and distance, communication, practitioner training and education, wait times, trauma, and support and assistance. It also requires addressing attitudinal barriers to proper care, including prejudice, ableism, and diagnostic overshadowing. These barriers are discussed in greater detail in the Public Hearing Report.[24] During the Public Hearing, the Royal Commission also heard evidence that there is a dearth of research examining preventable hospitalisations or causes of death among people with intellectual disability and Autistic people in Australia.[25] The lack of a consistent method for tracking and publishing such data is a missed opportunity to detect gaps in care and direct future health care spending,[26] and also undermines Australia's obligations under the CRPD.

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15. Unnecessarily extended durations of hospital stay are also associated with increased emissions, as well as dire consequences for people with disability. In a recent study of patients with acquired disability, some patients waited up to 600 days between being clinically ready for discharge from hospital, and the actual date of discharge.[27] The most common reason for the delay was that patients were waiting on the finalisation of processes to access supports through the National Disability Insurance Scheme.[28] Unnecessary bed days are directly linked to the availability of public services, and social and community support and care.

16. At the intersections of gender and disability, women with disability face compounding barriers to adequate preventative healthcare, including due to medical gender bias which impacts interactions with health services, access to and provision of healthcare, and medical research into treatment and diagnostic options. For example, the only reliable method of diagnosis for endometriosis is laparoscopic surgery, which is both an invasive procedure and associated with significant carbon footprint through the use of anaesthesia.[29]

17. When addressing the availability and uptake of preventative healthcare initiatives, policy decisions must also consider the specific economic disadvantages that face different cohorts of people with disability across Australia. For example, research indicates that women with disability spend more of their income on medical care and health related expenses than men with disability and are in lower income brackets on average.[30] The economic disadvantage of First Nations people with disability is similarly exacerbated.

Optimising models of care

18. The Consultation Paper notes that the Strategy may involve reviewing existing health services and models of care, including Telehealth, to understand their potential to contribute to emissions reductions. In other countries, digital and telehealth services have been associated with significantly reduced carbon emissions.[31] However, such models of care must be assessed for their accessibility and impacts on people with disability. The increased use of Telehealth throughout and following the COVID-19 pandemic has provided some benefits for people with disability, including reduced costs and decreased need for assistance to access medical facilities. However, the increased use of digital health services also leaves many people with disability behind. A shift to digital services will exacerbate existing inequities unless barriers to digital inclusion are addressed.

19. Like healthcare, digital inclusion is socially and economically distributed.[32] Globally, there remains a gendered gap in access to digital technologies, as well as gaps for First Nations Australians, people with disability, older persons and people living in remote, rural and regional areas. Accessibility, cost, digital literacy and network availability remain barriers to digital inclusion in Australia. People with disability experience barriers to digital inclusion both materially (in access to digital goods and services), and functionally (in use of digital goods and services). When healthcare services employ new technologies, disparities in digital literacy and accessibility can mean that those who rely on these services experience the greatest disadvantage. The right to equal access to technology is enshrined in Article 9 of the CRPD,[33] and is an enabling right, or 'a vital precondition for the effective and equal enjoyment of civil, political, economic, social and cultural rights by persons with disabilities'.[34] The United Nations Committee on the Rights of Persons with Disabilities has stated that 'it is unacceptable to use public funds to create or perpetuate the inequality that inevitably results from inaccessible services and facilities'.[35] Therefore, unless digital healthcare services are designed to meet the unique needs of

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people with disability and other marginalised demographics, the Australian Government will not fulfil its international human rights obligations.

20. The Consultation Paper also proposes a focus on social prescribing, which it defines as 'referring patients to social services, community support or voluntary activities – as opposed to prescribing them a medicine or referring them for medical care'. While WWDA agrees that there is great value in the use of social and community supports for addressing the social determinants of health and wellbeing, these supports must be accessible. This includes by ensuring that they are funded, widely available, and genuinely disability inclusive. Currently, there is a scarcity of funded community supports for the vast majority of people with disability in Australia who are not participants of the National Disability Insurance Scheme. The redirection of people with disability to community services, in the absence of improved care and support infrastructure, will result in further exclusion and a decline in health outcomes.

21. When reviewing existing and potential models of care, the Strategy must also have regard to growing recognition that emissions can be reduced by ensuring value-based care. Recent estimates indicate that about 30% of health care is wasteful or low value, and a further 10% is actively harmful.[36] Emerging evidence indicates that patient empowerment and engagement is effective in reducing rates of low value care. Techniques include the use of multidisciplinary teams, and patient decision aids to support patients to share in decision-making.[37] This is consistent with WWDA's continual calls for supported decision-making for people with disability in all areas of life, an approach that aligns with the CRPD. We refer in this regard to the WWDA *Position Statement: The Right to Decision-Making* and note that women and girls with disability are frequently excluded from participating in decisions that affect their lives on a daily basis, including as active agents in their own health care.[38]

Enablers identified by the Strategy

22. The Consultation Paper provides for a number of 'enablers', said to form the foundation for action in the health system to address climate change. WWDA agrees that workforce capacity building, research, communication and engagement, collaboration and monitoring and reporting are important focus areas. The Strategy must take an intersectional approach to each of these enabling factors, implementing a gender-responsive and disability-inclusive lens. This includes by:

    - further developing the skills and capacity of the healthcare workforce to address the needs of people with disability including in relation to the impacts of climate change;
    - investing in and supporting research on current and emerging climate risks for people with disability, and how efforts to strengthen the resilience and sustainability of the health system can improve healthcare for people with disability;
    - engaging with people with disability and their representative organisations to ensure actions to address the health and health system impacts of climate change are not only widely understood, but informed by people with disability;
    - collaborating with people with disability to facilitate working partnerships to strengthen climate resilience; and
    - ensuring that measuring, evaluating and reporting on the impacts of actions taken includes data that is disaggregated by gender and disability.

23. Climate mitigation and adaptation measures must be disability inclusive. They must be effective for, implemented, and accountable to people with disability.[39] This necessitates that people with disability

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and the organisations that represent them be involved in the co-design and co-production of such measures. Indeed, the CRPD requires that people with disability participate in the creation of climate change strategies. However, people with disability are often inadequately consulted during policy-making processes or left out entirely. This results in policies, strategies and decisions that do not reflect or meet the needs of people with disability. Australia's responses to COVID-19 and the Black Summer Bushfires are recent examples of the failure to respond to the needs of people with disability in emergency situations. In this regard, we refer to the Report of the Royal Commission on *Public hearing 12: The experiences of people with disability, in the context of the Australian Government's approach to the COVID-19 vaccine rollout*,[40] and our response to the Royal Commission's *Response to Emergency Planning Issues Paper*.[41]

24. Indeed, in the context of decisions during the COVID-19 vaccine roll-out, the Royal Commission found that the Department of Health's decision-making process was 'not consistent with reasonable expectations of an Australian Government agency making a decision affecting the health and wellbeing of the community, specifically the health and wellbeing of people with disability' because the Department: [42]

    - did not seek any advice from any person with relevant expertise in the health of people with disability, and specifically intellectual disability;
    - did not consult with or seek any advice from the Advisory Committee on Health Emergency Response to Coronavirus (COVID-19) for People with Disability;
    - did not seek advice about the impact of changing priorities for people with disability living in disability residential settings;
    - did not consider whether some people in disability residential accommodation were exposed to a similar level of risk as aged care residents;
    - took no advice as to whether the decision was consistent with the Australian Government's obligations under the *Disability Discrimination Act 1992* (Cth).

25. The Royal Commission also found that the:[43]

> *failure to make public the decision to deprioritise the vaccination of people in disability residential settings meant that people with disability and Disability Representative Organisations were unaware of the Government's change of course…*

26. In order to respond effectively to a crisis situation, people with disability and their representative organisations must have access to up-to-date information. In order to ensure that Government responses to crisis are effective, they must be informed by, and co-designed with, people with disability. Co-design involves the sharing of power and decision-making authority. It also requires providing the necessary resources, funding and support to facilitate genuine participation.

RECOMMENDATIONS

1. Amend the Principles and Objectives of the Strategy to provide for a human rights-based approach to climate change and health and ensure that this approach is the foundation of all decision-making.

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2. Ensure that initiatives to strengthen the healthcare system and reduce greenhouse gas emissions fundamentally recognise and address health inequities. For example:

    a. Review and assess models of care for their accessibility and implement models of care that are responsive to the needs of marginalised communities.
    b. Where digitised healthcare services are used, address digital exclusion and ensure that services are accessible by improving infrastructure and availability, and educating healthcare professionals on the inclusive and equitable use of digital technologies.
    c. Promote mixed models of service delivery to allow choice between digitised and face-to-face healthcare.
    d. Address and eradicate the barriers that people with disability face to obtaining adequate preventative healthcare. This includes by investing in training and education for healthcare professionals.
    e. Abolish substitute decision-making regimes and mechanisms, including in the healthcare system, and implement mechanisms to facilitate patient engagement as means to reduce low-value care and promote the realisation of human rights.

3. Engage in genuine consultation, co-design and co-production with people with disability at all levels and in all phases of the Strategy, including ongoing monitoring and evaluation.

4. Consistent with the CRPD and reflecting the critical role of Disabled People's Organisations and independent advocacy organisations (including in times of national disasters and emergencies), provide long-term support, including core support and resources for disability advocacy and information services, research, and capacity building.

5. Consistent with recommendations from the Committee on the Rights of Persons with Disabilities, consult with people with disability and their representative organisations to establish nationally consistent emergency management standards to be implemented across all levels of government, that ensure inclusivity across diverse impairments and that cover all phases of emergency management preparation, early warning, evacuation, interim housing/accommodation and support, recovery and rebuilding.

6. Consistent with recommendations from the Committee on the Rights of Persons with Disabilities and in close consultation with representative organisations, establish a fully accessible and inclusive mechanism to engage with people with disability in the implementation and monitoring of the Sendai Framework.

7. Implement the directives for States as set out in the Resolution adopted by the United Nations Human Rights Council on 12 July 2019, including by:

    a. Implementing policies aimed at increasing the participation of persons with disabilities in climate change responses; and
    b. Adopting a comprehensive, integrated, gender-responsive and disability-inclusive approach to climate change adaptation and mitigation policies.[44]

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ENDNOTES

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NATIONAL HEALTH AND CLIMATE STRATEGY

Detailed submission form

This form allows you to provide responses to the full set of questions in the Consultation Paper available here.

Alternatively, you may wish to complete the briefer online survey available here.

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

Respondent details

What is your name?
Authored by [redacted], Director and [redacted], Chief Services Officer with assistance from the Australian Association of Psychologists Ecopsychology Interest Group.
What is your email address?
[redacted]
What is your organisation?
The Australian Association of Psychologists Inc. (AAPi)
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
[redacted]
Please select which applies to you: ☒ Individual citizen ☒ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☐ Academic or Researcher ☒ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☒ Medical College or Peak professional body

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Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
Nothing to add.
2. How could these principles be improved to better inform the objectives of the Strategy?
Nothing to add.
3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?
All emissions need to be considered and a fourth type of emission to be discussed. The fourth type would include the broader impact from the following activities: Visitors to health facilities: They drive cars and generate emissions; emissions could be reduced by provision of bus services, and this would also aid in less stress experienced by visitors trying to locate facilities/parking spots/paying for parking. Communal visiting/waiting areas: If building design incorporated more green areas in facility plans, this could mitigate some of the emissions plus improve the mental health (shorten recovery time) for patients. Green areas can also act as heat shields thereby reducing energy use. If, due to costing concerns, the scope must be reduced, then any reduction should be considered in terms of viability. For example, if it is not practicable to exert control and impose limitations on external business that produce face masks then this should not indicate the removal of the entirety of scope 3.
4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?
Nothing to add.
5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?
Conduct genuine engagement with First Nations Elders and communities Australia's First Nations people are the longest continuing culture in the world, dating back over 60,000 years. Sovereignty over the land we call Australia has never been ceded. The rich and diverse Traditional Knowledge held by First Nations peoples can contribute to the development of the Strategy so that it supports the strength and resilience of First Nations peoples, as well as Australian society at large. While the references to First Nations cultural knowledge and practice throughout the Consultation Paper are welcome, it is crucial that First Nations Elders and communities are engaged in the development of the Strategy and its related objectives and actions.

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The Strategy should adopt a strengths based, co-design model, outlining how it will engage First Nations Elders and communities and how it will incorporate cultural knowledge and practice during implementation.

Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?
The Australian Association of Psychologists is involved in the National Infant and Child Disaster Mental Health Advisory Committee which involves assessing current Australian policy involving infant and child exposure to disasters including those triggered by climate change. This involves making recommendations at the local, state, and federal level of government to reduce emissions urgently at the speed recommended by the global scientific community to better support a robust health system and sustainable energy use in Australia.[1]
7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?
Nothing to add.

Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?
The proposed focus areas of: Built environment and facilities (including energy and water); Travel and transport Supply chain; Medicines and gases; Waste Prevention; Optimising Models of Care seem sufficient.
9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?
We are not across all the existing policies in this area and as such this comment might be redundant however, we highlight the utility of 'greening' in building design. It is known to reduce heat absorbed and reflected from buildings and is therefore relevant to emissions reduction. Furthermore, from a mental health perspective, there is ample evidence that green spaces, even individual plants can have beneficial impacts at all levels of human interactions. Given that this strategy is taking a 'Health in all Policies' approach we urge for the inclusion of 'green spaces' (that can be as small as a single plant) into consideration.

[1] Intergovernmental Panel on Climate Change (IPCC) report https://www.ipcc.ch/2022/04/04/ipcc-ar6-wgiii-pressrelease/

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10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?
See question 3 response.
11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?
Consideration might be given to 'food miles.' Some of our members have reported an alarming reduction in small local farms, with growers pushed out of their land by local councils re-zoning small agricultural parcels into residential parcels. This leads to increased emissions – from large haul transport; lack of green spaces to absorb heat; lack of accessibility to rural beauty (loss of pockets of green within the urban environment; reduction in food quality. Given the buying power of health institutions we would like to see 'food miles' considered as part of these supply chain policies.
12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?
Nothing to add.
13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?
Nothing to add.
14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?
Prevention and optimising models of care include making outdoor spaces and high traffic areas safer for human health. Travel and transport should be prioritised with a mix of increased bicycle lanes, switching buses, cars, ambulances, trucks, business fleets to electric vehicles, and increasing the reliability and access of public transportation. Road pollution is incredibly harmful to human health, and this is a quick win that can be done in partnership with the private sector.[2]
15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?
Consult with providers and their representative bodies about policy change. Provide incentives for providers to lease low-emission clinic spaces buildings.
16. Where should the Strategy prioritise its emissions reduction efforts?

[2] Sources: https://www.theguardian.com/australia-news/2023/feb/24/car-pollution-kills-more-australians-than-crashes-do-new-research-finds, https://www.healtheffects.org/air-pollution/traffic-related-air-pollution, https://www.who.int/health-topics/air-pollution

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a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas?

b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?

On face value, a cost benefit analysis would assume that the 'benefit' be measured in terms of actual reductions in harmful gas emissions however, we would encourage further research into this. Research to ask the question – if health system funding is directed towards low-emission and easy to control areas, is there a community-wide benefit to choosing this over high-emission and hard to control areas, the hypothesis being that successful policies and activities can act as a model for other organisations.

17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?

Nothing to add.

Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

The impact on Mental Health should be prioritised.

Climate related disasters cause people to be displaced from their homes and community, lose loved ones and friends to death and illness, cause loss of connection to culture and land, unemployment, disability, acute stress and trauma reactions, loss of self-identity, Post Traumatic Stress Disorder, Anxiety, Depression, suicide, and suicide ideation, as well as disability from both physical and psychological injury. There is a strong link between mental health disorders and extreme weather events as well as an impact on everyday life, perceptions, and experiences. There are lasting effects that can span years after a disaster including reduction in daily activities, loss of sense of self and place[3]. 21.9 per cent of people who lived in highly impacted areas after the Victorian bushfires reported symptoms of mental health disorders five years later[4] and children and adolescents have been shown to require elevated support for years following natural disasters due to elevated rates of depression and anxiety[5]. With more disasters predicted, the pressure on Australia's mental health system will continue to grow.

Currently there are insufficient numbers of Mental Health workers in the public or private sector to handle the existing mental health needs of Australia. Mental Health treatment is also too expensive for large segments of the existing population with reports from some

[3] The McKell Institute. (January 2023). *Under Pressure: Australia's Mental Health Emergency.* The McKell Institute.
[4] World Health Organisation. (2022). European framework for action on mental health 2021-2025. *WHO*. Accessed online: https://www.who.int/europe/publications/i/item/9789289057813
[5] Newnham, E. A., Mergelsberg, E. L., Chen, Y., Kim, Y., Gibbs, L., Dzidic, P. L., ... & Leaning, J. (2022). Long term mental health trajectories after disasters and pandemics: A multilingual systematic review of prevalence, risk and protective factors. *Clinical Psychology Review*, 102203. Accessed online: https://www.sciencedirect.com/science/article/abs/pii/S0272735822000885

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members that patients are choosing to 'spread out' their treatments because the cost of living has risen, and these expenses have taken priority.[3]

Generally, it is those least able to afford treatment – those in low SES communities and/or with young families or single income homes that are most likely to struggle should their homes be inundated by floods or burned or flattened by a tornado. For these individuals there are unlikely to have savings, other homes to stay at or the finances to re-build. This adds an additional 'survival' burden on top of the direct impact from trauma experience. Any mental health treatment can be supportive – even while a survivor is simultaneously struggling to obtain secure housing and employment – but survivors are less likely to access support if they must find money to pay for it.

We currently have a system that inhibits access to affordable Mental Health treatment within the private sector. Any climate disasters could create a sudden influx of demand that cannot be met by the current work force.

We suggest addressing this immediately as follows:

- Expanding the eligibility criteria to allow Provisional Psychologists to treat people under the Medicare Better Access Scheme.
- Increase to the number of rebated sessions under the Medicare Better Access Scheme from 10 per year to at least 20 for those with more complex needs.
- Assign permanent funding specifically for treatments for individuals impacted by climate disasters.
- Increase the Medicare rebates for mental health services. This will decrease the out-of-pocket expenses, increasing accessibility for those with lower socioeconomic areas as well as those in high-risk groups and increase bulk billing rates.
- The rebate should be equalised for all registered Psychologists (rather than a small proportion who are clinically endorsed psychologists) to incentivise more to charge a low out-of-pocket fee (or to bulk bill).
- Offer more incentives to mental health practitioners working in regional and rural areas.
- Increased number of Commonwealth Supported Places for psychology students to increase the supply of psychologists in Australia.
- Incentivised training for post-graduates to learn about Mental Health following climate disaster.

The AAPi has been campaigning for many of these measures. These have been formally supported by the McKell report released in 2023.[3.]

Moving forward we would like to see the following suggestions considered:

- Revision of Psychology curriculums to include training in Mental Health following climate disasters.
- Inclusion of ecopsychology and similar courses in curriculums or incentivised post-graduate training.
- Actions that foster the learning of first nations cultural models of mental health care – encouraged for all Australian Mental Health workforce.
- Ongoing support to decolonise the existing mental health field and championing of First Nations and Torres Strait Islander knowledge and practices.
- On the matter of vulnerability, housing insecurity intersects with other vulnerabilities and should be prioritised. It is mentioned in your document (pg 26, 10) in relation to a very small segment of the community. We do not think that reflects reality. In fact, housing insecurity exists even for those of young to middle age, with a full-time job.

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This must be addressed as a priority. Without adequate shelter, health is more a matter of luck than any intervention.
19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes: a. What are the key considerations in developing a methodology? b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally? c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?
Yes, the government should develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan. a. Methodology needs to capture data from grass roots organisations, Not for profit and peak representative bodies. This way the lived experiences of people from a broad range of the community should be included in questions around capacity to adapt. b. Previous work conducted could guide construction of research methodology. c. Building design, housing, town planning, employment, cultural/language/education demographics.

20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?
Yes, there is value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system. The value is in collecting accurate data (free of political influence) on the needs of the country.
21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?
See question 18

Proposed Objective 4: Health in All Policies

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22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?
Nothing to add
23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?
Nothing to add

Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
"E3.1. Increase public awareness of the health impacts of climate change to empower individuals and communities to take actions to reduce emissions and build climate resilience." This must include practical information to individuals and communities about the structural system that has allowed climate change to become the issue that it has. Climate change is physics; too much energy, too much heat in the atmosphere due to human related activity. There are specific industries that intend to obfuscate this issue, and therefore public education and understanding is mixed. Taking action and education around this must include informing the public about confusing issues like greenwashing, and how to identify this. Areas of improvement: While there is general support for the enablers outlined with the Strategy, there are a numbers of areas where these enablers could be strengthened: ○ Workforce, leadership and training: The Strategy must include adequate support for mental health workforce involvement in the change process beyond training, and provide detail about the change theory and process. As well as retraining and managing change, the Strategy needs to recognise that in emergencies and disasters, psychologists are often supporting immediate family and friends. There must be contingency for psychology workforce shortages in extreme weather events. There is also a lack of support for workforce capacity building and training. There is a need for a national cross discipline continuing professional development program on climate change and health for the health and social sector, and for people in other sectors. Current training opportunities reach too few people or expensive (not everyone can afford for profit education courses). There is also a need to support and scale up existing

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communities of practice for sustainable healthcare to allow achievements and learnings to be shared, and common challenges to be raised. The Strategy should reflect respect for First Nations knowledges in this enabler, and its inclusion.

○ Research: There is a high priority need for better data on climate-related mental health and wellbeing outcomes. Data can guide better investment, and disinvestment, in programs and interventions.

○ Collaboration: There is limited support for collaboration on climate change and mental health. The mental health sector has self-organised to collaborate on responding to climate change and health and health care decarbonisation, but these efforts require government investment in order to scale up and be more effective. This is reflective of the interdisciplinary nature of climate and health, and it should be a priority of the DHAC to address the barriers and foster enablers to ensure better outcomes for climate and mental health.

○ Monitoring and reporting: Regular assessment and forecasting of climate-related mental health impacts across the country is vital. Monitoring over long time periods with robust indicators would help governments and services to better understand climate change risk, identify specific vulnerabilities, highlight region-specific climate mitigation and adaptation challenges, and track how communities and organisations are responding.

It is crucial there is a commitment of funding.

The Strategy lacks the inclusion of the commercial determinants of health and climate that exacerbate inequality and impact outcomes. It is crucial that conflicts of interest are recognised, and that the Strategy describes how it is going to manage conflicts of interest in the policy making process.

25. For each of these enablers:
    a. What is currently working well?
    b. What actions should the Strategy consider to support delivery?

Areas of support:

General support for the enablers as outlined in the Strategy.

Areas of support and improvements and highlighted above in question 24.

Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

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NATIONAL HEALTH AND CLIMATE STRATEGY

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Respondent details

What is your name?
[redacted]
What is your email address?
[redacted]
What is your organisation?
Institute for Physical Activity and Nutrition (IPAN), Deakin University
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
[redacted]
Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☒ Academic or Researcher ☐ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

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Questions for feedback from the Consultation Paper

Introduction

1. How could these objectives be improved to better support the vision of the Strategy?
In relation to Objective 4: Health in All policies, when acknowledging the wider determinants of health, the physical (built) environment should be included alongside the cultural and social determinants. The built environment in which we live, work and recreate impacts our health and well-being.
2. How could these principles be improved to better inform the objectives of the Strategy?
3. Which of the various types of greenhouse gas emissions discussed above should be in scope of the Strategy's emission reduction efforts?
While all three types of emissions should be in scope, given the stated objective of health in all policies and the principles of population health and prevention and One Health, traffic-related air pollution and other emissions that impact health and wellbeing should also be noted here and addressed by the Strategy.
4. What existing First Nations policies, initiatives, expertise, knowledge and practices should the Strategy align with or draw upon to address climate change and protect First Nations country, culture and wellbeing?
5. What types of governance forums should be utilised to facilitate co-design of the Strategy with First Nations people to ensure First Nations voices, decision-making and leadership are embedded in the Strategy?

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Proposed Objective 1: Measurement

6. Beyond the schemes already noted above, is your organisation involved in any existing or planned initiatives to measure and report on health system emissions and/or energy use in Australia?
7. What additional data and information is required to support targeted emissions reduction efforts within health and aged care?

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Proposed Objective 2: Mitigation

8. What do you think of these proposed focus areas for emissions reduction? Should anything else be included?

9. Which specific action areas should be considered relating to the **built environment and facilities (including energy and water)**, over and above any existing policies or initiatives in this area?

The latest report of the Lancet Countdown on health and climate change states that "a health-centred energy transition would enhance low-carbon travel and increase urban green spaces, promoting physical activity, and improving physical and mental health"[1].

In addition to the existing initiatives outlined in the strategy, incorporating greenery and connections with nature in healthcare settings may also be beneficial. The benefits to staff, patients and visitors can be numerous including stress reduction, improved well-being, enhanced patient outcomes, and potentially better pain management.[3] Further research is needed to better understand ways in which evidence-based landscape design can benefit healthcare staff, patients and visitors.

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2. Totaforti S, Applying the benefits of biophilic theory to hospital design. City Territ Archit (2018) 5:1 https://doi.org/10.1186/s40410-018-0077-5.

10. Which specific action areas should be considered relating to **travel and transport**, over and above any existing policies or initiatives in this area?

The adoption of electric and zero emissions vehicles within the health setting, specifically for transporting freight and patients, is commended. In conjunction, the promotion of active travel (walking, cycling and the use of public transport) should be a priority for visitors and employees.

Active forms of travel not only reduce reliance on fossil fuels but have important co-benefits for health and society[1,2]. Physical inactivity is a major global health challenge and active travel is a source of health enhancing physical activity. Health care settings should be easily accessible by public transport and surrounded by quality walking and cycling infrastructure that connects people to where they need to go. End-of-trip facilities including purpose-built bike storage and change room facilities within health care settings are required to support this. Monetary incentives, including the opportunity for employees to purchase an e-bike or conventional bike through a salary sacrifice scheme, are recommended. Once the infrastructure and systems are in place to support active travel, initiatives to disincentivise private vehicle travel could be considered.

It is also important to note that electric cars are not completely carbon free. The process of mining raw materials for batteries, manufacturing the vehicles and generating the electricity they rely on, creates emissions[3]. The infrastructure required for motorised vehicles is also reliant on fossil fuels. Research conducted in urban areas of Europe estimate that emissions from cycling are ten times lower than emissions from an electric vehicle[4]. As argued in the UK Climate Change Committee's 2023 Progress Report to Parliament, 'a pathway that is almost exclusively technology-dependent is likely to be less cost-effective, entails higher delivery risk and risks missing out on opportunities to realise co-benefits to society'.

In summary, reducing dependency of private vehicle travel and promoting active travel to health care settings by visitors and employees should be an action area.

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11. Which specific action areas should be considered relating to **supply chain**, over and above any existing policies or initiatives in this area?

12. Which specific action areas should be considered relating to **medicines and gases**, over and above any existing policies or initiatives in this area?

13. Which specific action areas should be considered relating to **waste**, over and above any existing policies or initiatives in this area?

Two types of waste that have not been addressed in the Strategy relate to food waste in the healthcare system, as described below.

1. There is currently no requirement for health and aged care organisations to measure their food waste. Regular food waste audits (eg. annually or after menus/foodservice process changes) should be mandated to ensure benchmarking and motivation for improvement/change. There are tools available to support implementation of food waste audits.[1]

The absence of governance, leadership and policy regarding food waste audits in healthcare settings is a known barrier to uptake, and it is a policy lever that will undoubtedly support implementation.[2]

2. The proliferation of ultra-processed foods (UPFs) in Australian's dietary patterns also contributes to food waste. It is estimated that UPFs contribute 42% of the energy to the typical diet of Australian adults.[3] UPFs are defined as 'formulations of ingredients, mostly of exclusive industrial use, that result from a series of industrial processes' and contain little or no whole foods (or nutritional value).[4] UPFs make a substantial contribution to food waste as they are associated with adverse impacts on climate and health due to the substantial fossil fuel-related resources used in the production, processing and distribution of such products, while UPFs are superfluous (and indeed harmful) to basic human needs.

A national food and nutrition policy as well as regulatory actions are urgently needed to reduce the supply of and demand for UPFs and to promote the supply of and demand for minimally processed (non-UPF) foods in their place.

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14. Which specific action areas should be considered relating to **prevention and optimising models of care**, over and above any existing policies or initiatives in this area?

The hospital foodservice system is at the heart of delivering food to patients. The majority of Australian hospitals are running foodservice systems that are outdated, and unresponsive to patient and sustainability pressures. Our study of patient perspectives on food waste identified the following contributors to hospital

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food waste: patient interest in food/appetite, food quality and quantity, and the foodservice model. Three overarching strategies to address hospital food waste emerged:

1) modify the foodservice system to decrease waste,
2) adopt multimethod food waste management strategies, and
3) reduce and manage non-food waste.[1]

Food waste can be reduced through proven strategies including implementing room service models, and through re-use of unopened food products (eg. Oral nutrition support products).

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15. What can be done to involve private providers within the health system in the Strategy's emissions reduction efforts?

16. Where should the Strategy prioritise its emissions reduction efforts?

    a. How should the Strategy strike a balance between prioritising emissions reduction areas over which the health system has the most direct control and prioritising the areas where emissions are highest, even if it is harder to reduce emissions in these areas?

    b. Which of the six sources of emissions discussed above (on pages 13 to 18 of the Consultation Paper) are the highest priorities for action?

17. What 'quick wins' in relation to emissions reduction should be prioritised for delivery in the twelve months following publication of the Strategy?

Implementation of mandatory food waste audits in all Australian hospitals is a 'quick win' that should be prioritised. These will serve as a benchmark and motivator for change. Up to 50% of all food produced in healthcare (and likely aged care) is wasted – and structural change to foodservice systems and reduction in food waste will lead to marked emissions reduction.

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Proposed Objective 3: Adaptation

18. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

The syndemic of air pollution and physical inactivity

Addressing the syndemic problems of physical inactivity and air pollution should be a priority as together they contribute substantially to Australia's burden of disease and share many of the same underlying causes[1]. Many of Australia's young people and adults do not participate in sufficient physical activity[2,3] and insufficient physical activity accounts for 2.5% of Australia's burden of disease. Traffic-related air pollution is also a major contributor to ill health[4,5]. Further, both objective measures and perceptions of air pollution, as well as pollution alerts in the media, negatively impact active travel and recreational physical activity[6]. For example, the findings of a meta-analysis revealed that an increase of one unit (µg/m3) in the concentration of ambient particulate matter 2.5 (PM2.5) led to a 1.1% increase in the likelihood of physical inactivity[7]. These associations were stronger among those with respiratory symptoms[7].

Recent evidence has indicated that physical activity interventions that improve public transport and active travel infrastructure, redress inequalities in access to recreational spaces and discourage driving, can have multiple co-benefits to health and the environment[1]. Thus, reducing air pollution and increasing physical activity addresses several of the United Nations Sustainable Development Goals.

Associations between extreme temperatures and natural disasters and lower physical activity

Results of a narrative review indicate negative associations between extreme temperatures and natural disasters and participation in recreational and travel related physical activity[6]. The frequency and severity of heat waves and natural disasters is likely to increase, further impacting health.

A study in the US found the likelihood of performing physical activity decreased when temperatures were higher than 36°C, with a drastic decline after 40°C. These associations were more pronounced among those with overweight/obesity and older adults[8]. A modelling study, projecting future meteorological conditions for Perth, estimated that the number of days per year between 2001 and 2070 that a person performing moderate physical activity is likely to experience heat stress will increase from 13 to 58 days. Likewise, the number of days per year that a person performing vigorous physical activity is likely to experience heat stress will increase from 31 to 94[9]. It has been argued that physical activity participation could drastically decrease in subtropical regions like Australia[6].

Limited research has explored the association between natural disasters or extreme weather events and physical activity, however available evidence indicates that physical activity is negatively impacted following a natural disaster, largely due to loss of infrastructure. Studies in the US have revealed that use of a walking and cycling trail decreased following Hurricane Harvey in 2017[10], that parks visitors to flooded areas of New Orleans was lower in the years following Hurricane Katrina compared with areas that did not flood[11]. Older adults exposed to natural disasters were more likely to report a decrease in vigorous physical activity[12] and children spent more time in sedentary behaviours and less time in outdoor physical activity[13] following Hurricane Ike in 2008.

Inequity in the capacity to adapt

Currently, to mitigate the negative effects of climate change it is recommend that people avoid exposure to air pollution, such as by walking or cycling away from highly congested roads or by exercising indoors (i.e, in a pay for use facility).[1] Further, those of high socioeconomic status are likely to have greater capacity to seek alternative settings for physical activity resulting from a loss of infrastructure. People of lower socioeconomic status tend to have fewer choices resulting in less adaptive capacity and exacerbating existing inequalities in physical activity and health.

Next steps

Further research is required to understand the impact that climate change related events has on physical activity, and what is required to ensure that everyone has the capacity to maintain an active lifestyle.

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19. Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes:
    a. What are the key considerations in developing a methodology?
    b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally?
    c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

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20. Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?
21. What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?
An immediate high-priority adaptation action is the development of a national food and nutrition policy.

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Proposed Objective 4: Health in All Policies

22. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?

Two key areas for which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change is through increased green space in urban environments and supportive active transport policies.

Urban greening: Increasing urbanisation combined with unsustainable urban design intensifies the impact of climate change, including the urban heat island (UHI) effect, reduces biodiversity and harms residents.[1]. Urban greening and adequate tree canopy is critical to the solution by helping to lower air temperatures (through shading and evapotranspiration from vegetation), making neighbourhoods more resilient to hotter weather, improving biodiversity, and increasing opportunities for residents to be active and social in nature[2]. Increasingly, access to nature in urban settings is becoming a privilege, exacerbating inequities across socio-economic position (SEP). For example, Melbourne's lower SEP western suburbs have less tree canopy cover (4-10%) compared with higher SEP regions in the eastern suburbs (10-25%)[3]. This has led to regional initiatives in Victoria such as Greening the West.

Importantly, exposure to green space is associated with diverse health and well-being benefits among both young people and adults. Greater access to green space is associated with more physical activity among children and adults[4] making it a key mechanistic pathway for improving health across the lifespan. Time in green spaces as numerous benefits for children and adults alike including improvements to mental health, attention and executive function, a reduction in blood pressure and improvements to immune function[4]. Evidence is urgently required to understand the potential for urban greening to mitigate climate change and to promote improvements in physical activity and social and wellbeing outcomes.

Active travel: Active travel (walking, cycling and public transport use) is an important part of the solution to not only mitigate climate change but improve air quality and address the problem of physical inactivity. To reduce car dependency and encourage active travel by all Australians the following strategies can be adopted:[5]
Create opportunities for local living: more compact, higher density, mixed use, pedestrian friendly neighbourhoods, serviced by frequent and reliable public transport.
Provide supportive streets: bike lanes that are separated from traffic and connect people to where they want to go, lower traffic speeds, and pedestrian crossing points, as well as adequate end-of-trip facilities.
Reclaim road space: reducing car access as has been done in England with the introduction of low-traffic neighbourhoods, Barcelona with superblocks and Ciclovia in Bogota.
Reduce travel distance: distance is one of the strongest predictors of active travel, in particular to school. School locating and zoning policies can minimise distance to school.

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23. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?

The Institute for Physical Activity and Nutrition (IPAN), Deakin University, strongly supports a partnership approach to maximise synergies between sectors aiming to bring about change to climate policy, public health policy and food and nutrition policy.

Funding for scale-up and implementation of evidence-based programs that demonstrate partnerships between research, practice and policy is critical and should be given high priority.

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From a research and evaluation perspective, understanding how to effectively translate and implement interventions is where most major knowledge gaps reside. There is a need for stronger partnerships between researchers and policy makers to improve the translation and implementation of evidence.

An example of a successful partnership across sectors is the **Recording and EValuating Activity in a Modified Park (REVAMP)** study led by A/Prof Jenny Veitch, from the Institute for Physical Activity and Nutrition (IPAN), Deakin University. (https://ipan.deakin.edu.au/wp-content/uploads/sites/101/2020/08/REVAMP-Summary-Report.pdf). This natural experiment was funded by the Australian Research Council and the Victorian Health Promotion Foundation (VicHealth) and was supported strongly from partners across local government, industry, and state government / statutory body. The partnerships developed in this project have endured with ongoing collaborations for ongoing research planned in the public health and climate policy space.

The funding of partnership-based research, through national schemes such as the NHMRC, the ARC and MRFF, facilitates strong cross-sector collaboration and ensures enhanced research impact and furthermore supports evidence-based decision making at the local, state and federal government level.

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Enablers

24. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?
Enabler 2 Research: The Institute for Physical Activity and Nutrition (IPAN), Deakin University agrees that collaborative, inter-disciplinary research is critical to improve the evidence base. As a priority, the strategy should consider investment in and support of research that seeks to understand both the co-benefits and unintended consequences of climate change mitigation strategies. Natural experiments, that capitalise on planned changes to environments and policy, are critical. Research to understand how humans adapt to catastrophic climate events and the impacts of these on health behaviours is critical. It is also necessary for researchers to strategically work in partnership with industry and other key partners (government, non-government and community organisations) to examine the potential for urban greening and active transport policies to mitigate climate change and to promote improvements in social, behavioural and wellbeing outcomes.
25. For each of these enablers: a. What is currently working well? b. What actions should the Strategy consider to support delivery?

Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

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Australian Government
Department of Health and Aged Care

NATIONAL HEALTH AND CLIMATE STRATEGY

Detailed submission form

This form allows you to provide responses to the full set of questions in the Consultation Paper available here.

Alternatively, you may wish to complete the briefer online survey available here.

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

Respondent details

What is your name?
[redacted]
What is your email address?
[redacted]
What is your organisation?
Psychology for a Safe Climate
Have you read and agreed to the Privacy Statement? (NB we will not be able to use your submission unless you tick this box)
☒ I have read and agreed to the Privacy Statement
Do you identify as Aboriginal and/or Torres Strait Islander? (Yes/No/Prefer not to say)
[redacted]
Please select which applies to you: ☐ Individual citizen ☐ Health Service Provider ☐ Industry and Life Sciences Organisation or Representative ☐ Academic or Researcher ☒ Primary and/or Allied Health Peak or Advocacy Organisation or Representative ☐ Aged Care Service Provider ☐ First Nations Health Service Provider ☐ First Nations Community Group ☐ First Nations Peak or Advocacy ☐ Medical College or Peak professional body

Questions for feedback from the Consultation Paper

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Proposed Objective 3: Adaptation

1. What health impacts, risks and vulnerabilities should be prioritised for adaptation action through the Strategy? What process or methodology should be adopted to prioritise impacts, risks and vulnerabilities for adaptation action?

Keywords:
Climate distress
Climate Aware Practitioner
Resilience
Transformational resilience

Part 1: The need for a new model of individual, community and organizational psychological adaptation and resilience

Part 2: Climate distress, particularly in young people

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Part 1: The need for a new model of individual, community and organizational psychological adaptation and resilience

Background to the severity of the mental health and climate crisis

1.1 Cascading events

The climate crisis will rapidly worsen because of cascading events.
There will be disruptions to the ecological, social, and economic systems people rely on for food, water, shelter, jobs, incomes, health care, safety, security, and other basic needs. People worldwide are already experiencing the impacts of rising temperatures. When temperatures overshoot the 1.5 Celsius extreme danger threshold, no one on earth will be immune from the persistent overwhelming stresses generated by the relentless disruptions to essential systems.

1.2 Mental health impacts

There will be a dramatic rise in mental health problems (1) (2) in Australia and worldwide, such as anxiety, depression, PTSD, complicated grief, increased suicidality, compassion fatigue, hopelessness, helplessness, and more.

Harmful coping behaviours will also multiply, such as alcohol and substance abuse and addiction, family violence and child abuse, other crime, aggression, violence, and extremism.

In addition to these problems there will be an increase in **climate distress. Climate distress** (3) refers to all the distressing emotional responses in relation to the real and perceived threat of the climate crisis and its effects on human beings intergenerationally and on the natural environment. This is a real and significant issue that affects an individual's mental health and wellbeing, and will increase dramatically as people can no longer turn a blind eye to or deny the implications of the climate crisis.

There are many expressions of climate distress, some of which have been named as eco/climate anxiety and ecological/climate grief. This is elaborated on in part 2.

1.3 Individual mental health support can't cope

The work of the International Transformational Resilience Coalition (ITRC) (4,5,6) highlights that although they will remain very important, individualized mental health and social services cannot address the scale or scope of today's mental health epidemic. They have no chance of preventing or healing future epidemics of mental health problems generated by accelerating climate change-generated traumatic stresses, disasters, and emergencies.

It is highlighted by ITRC that there will never be enough trained mental health or social service providers to assist all of the people who are traumatized. In addition, many of the people that need mental health services will not engage due to fear of being stigmatized if others find out, and other reasons.
“Most important is that mental health services are reactive: they assist individuals mostly one at-a-time only after they experience symptoms of pathology and do not proactively prevent the occurrence of widespread mental health conditions,” they write.

1.4 There is a need for a community response to build resilience

A public health approach prioritizes preventing the occurrence of mental health conditions, not merely treating them after they appear, and integrates group and community-minded peer-led healing methods, such as healing circles, into the prevention strategies. Mental health services support the community approach and are not the primary or dominant focus.

A public health approach to mental wellness and resilience is most effective when implemented at the community level which is accomplished by actively engaging residents in strengthening existing local “protective factors”— social connections, trauma-informed and resilience-focused information and skills, local resources etc.—and forming additional assets, that buffer them from toxic stresses and acute shocks, help heal them when they are traumatized, and remain mentally well and resilient during adversities (4, 5, 6).

1.5 Work is needed to build climate resilient communities and psychologically strengthen our health services across Australia.

As the climate crisis deepens, psychology, medical and other health organisations and communities will need extensive support in coping physically and emotionally with disasters over the coming years. They will also need to adapt their services and develop the capability of their leaders and staff to cope with climate crisis events.

There will be a need to develop emotional resilience. It is important that those who are wanting to help others to build resilience are first of all aware of their own emotional vulnerability to climate change, and to have begun a journey of processing their own response to the climate reality so that they are more able and to be able to think about and support others with whom they work.

Psychology for a Safe Climate (PSC) engages with those working on climate change, the caring professions, those working on climate solutions and advocacy, and the broader climate concerned community to build and grow mental health and wellbeing, and to foster the need to build *resilience* for the unfolding climate crisis, in their work, organisations, and across the broader community.

We need to look beyond the next 10 years when adaptation is going to become a near impossibility. The model of Psychology for a Safe Climate is related to the work of ITRC which emphasises building resilience- a psychological adaptation in response to the climate disruption. Adaptation to a rapidly changing situation is not possible, in the way in which the term is often used. In using the term ***resilience***, we mean helping people become more

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effective in dealing with and alleviating climate induced disruption and adversity by learning how to care for themselves and find meaning, direction and hope in their lives while helping other people, and improving the condition of the natural world and climate.(4, 5, 6)

1.6 What needs to be offered

Psychology for a Safe Climate is aware of the need for community resilience based on our own experience and from the model we have created. It can be a model for primordial or primary prevention. PSC has more than one decade of expertise in program design and delivery to help build emotional and psychological resilience in communities. Our support model does this by:

a. Being aware of the reality of the climate crisis, its social and political context and the psycho-social impact it will have on ourselves, our health service and communities' quality of life.
b. Being aware of one's vulnerability and emotional response to the climate reality, by recognising the psychological distress, discomfort and uncertainty it causes, and learning how to acknowledge and manage one's emotional response
c. Being able to witness and express emotional responses in the presence of others as climate awareness and events increase.
d. Developing and fostering a sense of purpose and engagement, creating active hope - where one invests in what is needed without knowing the outcome.
e. Practising self-care and compassion for oneself and others.
f. Appreciating how building human resilience to climate disruption can safeguard and increase wellbeing.

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Part 1: PSC policy recommendations

PSC makes 5 key policy recommendations to deliver transformation of the health care sector to respond to the challenges of climate change:

1. Prioritise education and engagement of all health professionals, patients and health sector communities in climate distress and psychological resilience and wellbeing programs.

2. Establish a health sector capability framework on psychological resilience, prevention and psychological skills for health professionals in the health care sector.

3. Recognise that *climate distress* is a rational response to the climate crisis and in so doing avoid pathologising this term in the health care sector (2)

4. Establish adaptation guidelines for climate distress and psychological resilience that will form part of commonwealth and state occupational health and safety regulations. Such guidelines will align with recent legislative and regulatory changes related to psychological safety in workplaces.

5. Support a national and local network of Climate Aware Practitioners in climate distress management and psychological resilience.(7)

6. Fund communities and organisations so they can engage in education programs to learn and adapt to the psychological impact of climate change.

7. Informed by the work of Psychology for a Safe Climate and the International Transformational Resilience Coalition[21] and successful community-based initiatives such as The Work That Reconnects,(8) create climate distress and resilience programs for the health sector and communities.

Part 2: Climate distress, particularly in young people

Mental health impacts, risks and vulnerabilities need to be prioritised. A special focus needs to be on young people and their understandable climate distress to. Young people are very vulnerable to mental health issues related to climate change and need to be prioritised as they carry a higher burden of existential risk.

Young people are acutely aware that they are heading into a highly challenging and unrecognisable future, and report feelings of hopelessness and powerlessness because they are not in a position to mitigate climate change impacts[4]. The youth climate movement's call for urgent political action is a response to the failure of global climate action.

To become aware of the climate reality with all its accompanying emotional, social and political consequences can create climate anxiety. At PSC, we prefer the term climate distress because to feel anxious about the future and the impact of climate change is very rational and deserves to be legitimised as climate distress. To use the term anxiety can pathologise those who feel alarmed. The language of climate

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distress can help people respond and learn to manage their psychological and emotional response to climate crisis events, as they happen in their lifetime.

Climate distress is a real and significant issue that affects an individual's mental health and wellbeing.(3) Climate distress is a term used for all the distressing emotional responses in relation to the real and perceived threat of the climate crisis. It may lead to mental disorder, particularly if not helped by a climate aware practitioner (7).

There are many expressions of climate distress, some of which have been named as eco /climate anxiety and ecological/climate grief. A Lancet study (9) of young people, showed that common feelings are fear, anxiety, sadness, anger and powerlessness. The 2021 study of 10,000 young people (16-25 years) from 10 countries, found that:

- 56%of surveyed young people said "humanity was doomed" due to climate change (including 50% of Australian respondents)
- 75% said the "future is frightening" because of climate change (76% of Australians).
- 39% said they were "hesitant to have children" (43% of Australians)

This study also reports a correlation between feelings of climate anxiety and government inaction on climate change, with 58% of those surveyed saying that governments are betraying them. They note that climate distress is often grounded in relational factors with children often experiencing "an additional layer of confusion, betrayal, and abandonment because of adult inaction towards climate change"6

A recent paper in the Lancet Planetary Health (10) considers ecological grief and anxiety to be a healthy response to climate change. The authors report emotional suffering can be reduced by:

1. Recognising that anxiety and grief due to ecological loss may be understood as emotions that may motivate positive towards climate solutions
2. Using proven group therapy strategies to reduce loneliness, shame and isolation while also offering the benefit of peer interactions and support.
3. Symptoms may be alleviated by prescribing activities that enhance and support the environment, while community based environmental activities enhance social connectedness, while offering mental health benefits .
4. A family oriented approach 'acknowledging the challenge, encouraging parental insight into young peoples' responses, empathetic communication with children and youth, validating their feelings of fear and disillusionment, and jointly mobilising hope through meaningful goal-directed activities'.

These are all activities that PSC currently already engages in. PSC already works with young people in groups and also has run groups for parents and educators. We are planning further workshops in this area and we see it as a priority population in terms of risk and vulnerability. We believe that government should strongly support such work.

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1.Should the Australian government develop a National Health Vulnerability and Adaptation Assessment and National Health Adaptation Plan? If yes: a. What are the key considerations in developing a methodology? b. How should their development draw on work already undertaken, for example at the state and territory level, or internationally? c. What are the key areas where a national approach will support local/jurisdictional vulnerability assessment and adaptation planning?

2. 2.Would there be value in the Australian government promoting a nationally consistent approach to vulnerability assessment and adaptation planning for the health system specifically, for instance by issuing guidance and associated implementation support tools for states, territories and local health systems? If yes, what topics should be covered to promote a nationally consistent approach? What examples of existing guidance (either from states/territories or internationally) should be drawn from?
3. 3.What immediate high-priority health system adaptation actions are required in the next 12 to 24 months?
Mental Health professionals need preparation for working with clients impacted by climate change - either through direct experience of climate driven events, knowing someone who is impacted, or from witnessing the events from afar. Mental Health professionals need to be prepared by understanding the reality of the climate crisis, the actual or likely psychological and emotional impacts. They need support to express and process their own emotions, before engaging with those needing their help. They need to be offered the space to engage with other professionals in discussion, collaboration and peer support, preferably on an ongoing basis, in this new and developing field of psychology. The Climate Aware Practitioner series of Professional Development offered by Psychology for a Safe Climate is an example of this preparation (7). This will prepare them for leadership in communities and organizations. This is shown in policy 5 at Q.18 above. “Support a national and local network of Climate Aware Practitioners in climate distress management and psychological resilience.” Q. 18 response gives more detail about PSC’s approach.

Proposed Objective 4: Health in All Policies

4. 4. What are the key areas in which a Health in All Policies approach might assist in addressing the health and wellbeing impacts of climate change and reducing emissions?

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As the climate crisis deepens, we need a more ambitious and supported public health approach in communities to build population-level mental wellness and resilience. A public health approach prioritises preventing the occurrence of mental health conditions, not merely treating them after they appear, and integrates group and community-minded peer-led healing methods into the prevention strategies.

We need to build resilience to respond to the crisis, by using the climate disruption as a catalyst to find meaning, purpose and fulfilment in a changed and challenging life. We need to develop and integrate group and community-minded peer-led activities that build caring communities and support for people and nature, into the prevention strategies.

Psychology for a Safe Climate has modelled the value of expressing the emotional impact of the climate reality, while building connection and support with others. This is offered to groups and organisations and communities, through climate cafes, workshops for creative expression and engagement with others, and interactive seminars, and these are valuable across all age groups from 18 y.o.

Although they will remain very important, individualised mental health and social services cannot address the scale or scope of the mental crises that will emerge.

We can help communities adopt transformational resilience and wellbeing strategies that can be deployed through local community groups, hospitals, local medical centres and community health centres. The leading work of the International Transformational Resilience Coalition based in the US provides an inspiring model. (4,5,6)

This is shown in policy 6 in Q.18 above:

“Fund communities and organisations so they can engage in education programs to learn and adapt to the psychological impact of climate change.”

Please see Q.18 for further details and references.

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5. What are the most effective ways to facilitate collaboration and partnerships between stakeholders to maximise the synergies between climate policy and public health policy? What are some successful examples of collaboration in this area?

Enablers

6. 6. How could these enablers be improved to better inform the objectives of the Strategy? Should any enablers be added or removed?

Enabler 1: Workforce, leadership and training

1. Prioritise education and engagement of all health professionals, patients and health sector communities in climate distress (3) and psychological resilience and wellbeing programs.

Mental Health professionals need preparation for working with clients impacted by climate change - either through direct experience of climate driven events, knowing someone who is impacted, or from witnessing the events from afar.

Mental Health professionals need to be prepared by understanding the reality of the climate crisis, the actual or likely psychological and emotional impacts. They need support to express and process their own emotions, before engaging with those needing their help. They need to be offered the space to engage with other professionals in discussion, collaboration and peer support, preferably on an ongoing basis, in this new and developing field of psychology. The Climate Aware Practitioner series of Professional Development offered by Psychology for a Safe Climate (7) is an example of this preparation. This will prepare practitioners for leadership in their communities and health organization.

2. Establish a health sector capability framework on psychological resilience, prevention and psychological skills for health professionals in the health sector.

3. Recognise that ***climate distress*** is a rational response to the climate crisis and in so doing avoid pathologising this term in the health sector.

4. Establish adaptation guidelines for climate distress and psychological resilience that will form part of commonwealth and state occupational health and safety regulations. Such guidelines will align with recent legislative and regulatory changes related to psychological safety in workplaces.

Enabler 3: Communication and engagement

1.Establish a national and local network of accredited practitioners in climate distress management and psychological resilience.

2.Fund communities and organisations so they can engage in education programs to learn and adapt to the psychological impact of climate change.

Psychology for a Safe Climate has modelled the value of expressing the emotional impact of the climate reality, while building connection and support with others. This is offered to groups and organisations and communities, through climate cafes, workshops for creative expression and engagement with others, and interactive seminars, and these are valuable across all age groups from 18 y.o.

Help can be offered to communities to adopt *transformational resilience* and wellbeing strategies that can be deployed through local community groups, hospitals, local medical centres and community health centres. The leading work of the International Transformational Resilience Coalition based in the US provides an inspiring model (4,5,6) For more details and references please see Q.18 response

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7. For each of these enablers: a. What is currently working well? b. What actions should the Strategy consider to support delivery?

Thank you for taking the time to complete this survey – your feedback is greatly appreciated!

Please submit this form in Word format to Health.Climate.Consultation@health.gov.au.

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