

Submission in response to the National Preventive Health Strategy Consultation Paper

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Healthy planet, healthy people

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Submission to the Consultation Paper for the National Preventive Health Strategy

<https://consultations.health.gov.au/national-preventive-health-taskforce/consultation-paper-for-the-national-preventive-hea/>

Doctors for the Environment Australia (DEA) is an independent, self-funded, non-governmental organisation of medical doctors in all Australian States and Territories. Our members work across all specialties in community, hospital and private practice. We work to minimise the public health impacts and address the diseases caused by damage to our natural environment.

Doctors for the Environment welcomes the opportunity to comment on Consultation Paper for the National Preventive Health Strategy.

QUESTION 4

Are the visions and aims appropriate for the next 10 years?

The vision and aims of the National Preventive Health Strategy will only be fully achieved by identifying and addressing the underlying environmental and social determinants of health. To thrive, people need clear air and water, safe food and a stable climate. According to the WHO, almost a quarter of all disease is caused by environmental exposures.¹

An environmental exposure of increasing concern is climate change, the impacts of which cannot be overstated.^{2 3} The World Health Organisation has described climate change as the defining issue for public health in the 21st Century and warns that “the severity of impacts of climate change on health are increasingly clear and threatens to undermine the last 50 years of improvements in health.”⁴ The direct and indirect effects of climate change (exposure to heatwaves, floods, droughts, bushfires and extreme weather events), and the disruption of environmental conditions that provide the basis for our physical and mental health (air quality, clean water, food safety and spread of infectious diseases) show clear and inextricable links between our health and our environment.

¹ World Health Organisation. *Preventing disease through healthy environments*. September 2018
<https://www.who.int/publications/i/item/9789241565196>

² *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment* by the U.S. Global Change Research Program (USGCRP) Climate and Health Assessment 2016
<https://health2016.globalchange.gov/>

³ Costello et al. *Managing the health effects of climate change*. 2015, *Lancet* 373:1694-1733
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)60931-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)60931-X/fulltext)

⁴ WHO (2018). *COP 24 special report: health and climate change*. World Health Organisation
<https://www.who.int/globalchange/publications/COP24-report-health-climate-change/en/>

QUESTION 5

Are these the right goals to achieve the vision and aims of the Strategy?

The discussion paper recognises that prevention is key to maintaining and improving population health. It also highlights and discusses the importance of cross sector policy and planning, the link between environmental and social conditions and health and the nature of health inequality (p10). In this respect the consultation paper is encouraging as the strategy represents a significant opportunity to improve the health landscape in Australia. Importantly, the paper recognises that our approach in the past - whilst effective in some specific instances like tobacco control - has not prevented the observed rise in non-communicable diseases.

The broad definition of health cited in the introduction is important, as is the distinction between 'health' and 'health care'. Health care is primarily responsible for the treatment and management of illness. Australian health services direct less than 2% of the health budget towards prevention. Most of this is dedicated programs such as reducing smoking and alcohol and providing immunisations. However, if we purely focused on established diseases, we would miss the opportunity for primary prevention to modify the "causes of the causes" of ill health in our society.

Unfortunately, the goals of the Strategy are not suited to meet the health challenges of the decade ahead. Climate change is having and will have critical and increasing impacts on health and is contributing to the collapse of ecosystems and biodiversity. While environments are acknowledged as supporting health and healthy living (Goal 3), there is no consideration of the need to protect the environments upon which we depend. Neither are the social determinants of health specifically addressed, determinants which are mostly responsible for health inequities.

For example, the aim for Australians to have the best start in life is appropriate and relevant. The importance of preventing infectious disease and injuries is mentioned, but equally important and not mentioned are a wide range of environmental determinants of early life such as exposure to fine particulate matter, lead, mercury, pesticides etc. Children are particularly susceptible to environmental contaminants. The childhood conditions making major contributions to burden of disease in Australia include mental illness (23%), chronic respiratory disorders (18%), and perinatal conditions (16%); the rank order changes with the age of the child. All of these conditions have clear and major environmental risk factors.⁵

QUESTION 6

Are these the right actions to mobilise a preventive system?

The actions listed in the consultation paper will go some way to address the key drivers for achieving system change and better health outcomes but are insufficiently broad to incorporate the actions needed for an effective preventive health strategy. The points for boosting action in focus areas appear to ignore the environmental determinants of health. A key focus area must be acting to promote a healthy environment from cradle to grave, not just the built environment but also the natural environment, for prevention of disease and promotion of well-being.

The enormity and scope of the problems we face, particularly in relation to climate change, environmental destruction and ecosystem decline are not discussed. Failure to both mitigate climate change (avoid the unmanageable) and plan for unfolding impacts (manage the unavoidable) will increasingly undermine our health and our healthcare, including preventive health measures.

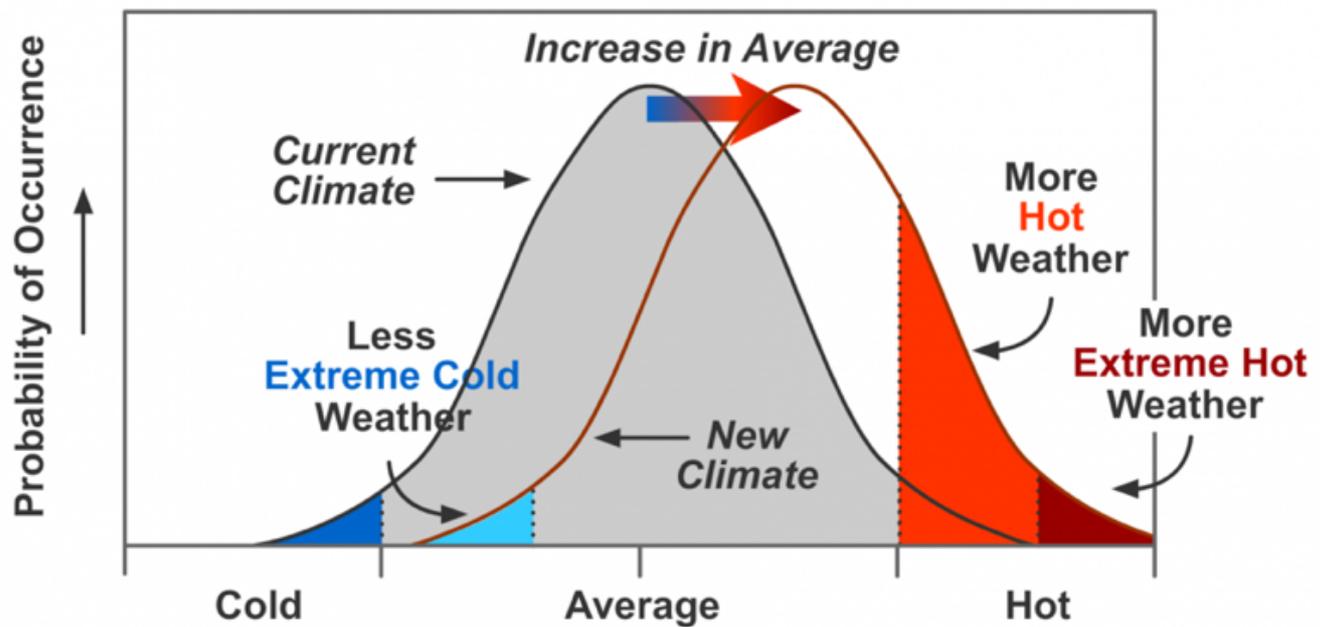
⁵ Leith J et al, *Children's Environmental Health Indicators in Australia*. Annals of Global Health 2016 82(1): 156-168 <https://www.sciencedirect.com/science/article/pii/S2214999616000138>

Doctors for the Environment Australia strongly endorses the WHO *Health in All Policies* framework, that all public policies should ensure that health and well-being, including the environmental and social determinants of health, are taken into account.⁶

Climate Disruption

Multiple studies in Australian cities demonstrate rises in adverse health outcomes with our changing climate.^{7 8 9}

A monthly average temperature increase of over 1°C does not reflect the change in extreme high temperatures, which is better demonstrated by the distribution of temperatures – a small increase in average represents a large change in extremes (see graph below).¹⁰



Higher ambient temperatures and prolonged heatwaves are associated with poor health outcomes including higher rates of heart attack, emergency presentations, exacerbations of kidney disease and significant rises in mortality.⁷ The effects of heat exposure are also socially inequitable with the

⁶ Health in All Policies: Framework for Country Action 2013
<https://www.who.int/healthpromotion/frameworkforcountryaction/en/>

⁷ Heatwaves and Health in Australia. DEA factsheet. https://www.dea.org.au/wp-content/uploads/2020/01/DEA-Fact-Sheet_HeatwavesWEB.pdf

⁸ Bushfires and health in a changing environment. DEA factsheet. <https://www.dea.org.au/bushfires-and-health-in-a-changing-environment-fact-sheet/>

⁹ Climate change and health in Australia. DEA factsheet. <https://www.dea.org.au/climate-change-and-health-in-australia-fact-sheets/>

¹⁰ Lui Z et al, Global and regional changes in exposure to extreme heat... Nature Scientific Reports, 7 March 2017:43909. <https://www.nature.com/articles/srep43909>

socio-economically disadvantaged, elderly, those with underlying chronic illness and children being at greater risk.¹¹

Extreme weather events are increasing in severity and variability resulting in greater exposure to floods, droughts, storms and bushfires. These events result in direct physical injury, disruption to important services including health and preventive services and have significant longer-term impacts on health and wellbeing. The largest costs arising from extreme weather events relates to short-term and long-term mental health impacts.¹²

During the devastating fires of 2019-20, 80% of Australia's population was affected by bushfire smoke. The health system was unprepared for the scale of the disaster, with mixed public health messages on how people can best protect themselves from smoke events. More research is needed to discover the short and long-term impacts of bushfire smoke and advise policies and recommendations on how best to mitigate impacts. Research in turn requires better reporting of morbidity and mortality, with consideration and attribution of concurrent heatwaves or smoke events that worsen chronic health conditions.¹³

Leadership in climate policy is lacking. There is a disconnect between Australia's commitment to the Paris Agreement, the acknowledgement that climate change is a driver of extreme weather events impacting our economy, our environment and the health of Australians – and the lack of effective government policies to address the problem. Our expanding coal and gas industries are contributing significantly to global emissions – nearly 5% of the total are from Australian fossil fuels, and this could more than double if our gas and coal reserves are further exploited over the next decade.¹⁴ It does not matter where the fossil fuels we mine are burnt – they all contribute to global emissions and worsen climate change.

Actions:

Action on climate change has many co-benefits that improve health and well-being. For example, moving from a fossil fuel-based energy system to renewables will reduce emissions, improve air quality and have better health outcomes, investment in active transport infrastructure will reduce vehicular emissions and encourage exercise. Adoption of plant-based diets and reduced consumption of red meat will both reduce emissions and improve health. Climate change mitigation policies also generate savings for the health sector and economic benefits across multiple sectors.¹⁵

¹¹ Climate change in Australia – thresholds calculator

<https://www.climatechangeinaustralia.gov.au/en/climate-projections/explore-data/threshold-calculator/#>

¹² <https://www.dea.org.au/royal-commission-into-victorias-mental-health-system/>

¹³ Longden T et al, Heat-related mortality: an urgent need to recognise and record. The Lancet 1 May 2020 Volume 4(5) E171, [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(20\)30100-5/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(20)30100-5/fulltext)

¹⁴ Australian on track to become one of the world's major climate polluters. Climate Analytics 8 July 2019. <https://climateanalytics.org/latest/australia-on-track-to-become-one-of-the-worlds-major-climate-polluters/>

¹⁵ The Climate Council. Compound costs: How climate change is damaging Australia's economy 2019 <https://www.climatecouncil.org.au/resources/compound-costs-how-climate-change-damages-australias-economy/>

- Leadership and effective action for an immediate reduction in emissions by the rapid phase out of fossil fuels and investment in renewable and storage infrastructure and technology
- Acknowledgement that gas is a fossil fuel with life-cycle emissions that can be as bad or even worse than that of coal. Gas is neither a transition nor a ‘clean’ fossil fuel
- Investment in emergency and disaster preparedness for future extreme weather events - bushfires, floods, heatwaves, droughts and storms.
- Protecting the health and well-being of impacted communities by co-ordination and collaboration between the emergency services and all levels of health systems (but particularly primary care). This includes increasing the capacity of both to respond to challenging and unexpected events.
- Better education and consistent public health information made available for people to make informed decisions about how best to protect themselves and their families during emergencies such as bushfire smoke events and thunderstorm asthma. Such planning should be integral to any preventive health strategy for the next decade.
- Providing resources to support health research and improved data collection (including better morbidity and mortality reporting)
- Making the healthcare sector more sustainable by, for example, establishing a National Healthcare Sustainability Unit ¹⁶

EBPC act and environmental degradation.

Environmental conditions are noted in the paper, but only in terms of their role in supporting human health and healthy living. Not considered is the urgent need for government reform to protect those environments that provide the fundamentals of good health – clean air, clean water, food security and a stable climate. ^{17 18} The Interim Report of the EBPC Act recognises the failure of the Act to fulfil its objective of and the need for major reform. The report named the key reason the EPBC Act has been so ineffective, namely – “the near complete failure of the Federal Government to implement it.” ^{19 20} The 2020 Auditor General’s report on the EPBC Act similarly states that: “The Department of Agriculture, Water and the Environment’s administration of referrals, assessments and approvals of controlled actions under the EPBC Act is not effective.” ²¹

¹⁶ DEA proposal for an Australian Healthcare Sustainability Unit <https://www.dea.org.au/wp-content/uploads/2019/01/DEA-HSU-Proposal---Final-01-19.pdf>

¹⁷ Submission to the Senate Committee on Australia’s faunal extinction crisis 2019 <https://www.dea.org.au/wp-content/uploads/2019/08/Australias-faunal-extinction-crisis-Submission-08-19.pdf>

¹⁸ Submission to the Senate Inquiry on Ecosystem Decline in Victoria 2020 <https://www.dea.org.au/wp-content/uploads/2020/09/2020-08-30-Submission-on-Senate-Inquiry-in-ecosystem-decline-in-Victoria.pdf>

¹⁹ <https://www.dea.org.au/wp-content/uploads/2020/07/DEA-Response-to-EPBC-Review-Interim-Report-2020.pdf>

²⁰ Interim Report of the Independent Review of the EPBC Act June 2020 <https://epbactreview.environment.gov.au/resources/interim-report>

²¹ The Auditor-General. Referrals, assessments and approvals of controlled actions under the EPBC Act 1999. 2020 https://parlinfo.aph.gov.au/parlInfo/download/publications/tables/papers/e3dbd671-93fc-48e4-8e7a-d7f177d55e6f/upload_pdf/Auditor-General_Report_2019-2020_47.pdf;fileType=application/pdf

The absolute dependence of health on healthy environments is clear. Biodiversity loss, through the destruction of ecosystems and accelerating climate change, has profound impacts on human health and wellbeing.²²

Actions:

- **Recognise the importance of environments and biodiversity to be reflected in all policy areas**
- **Support stricter environmental protection laws to address the current biodiversity loss and ecosystem collapse**

Air pollution

Fossil fuel combustion for energy generation and transport has been the largest contributor to anthropogenic greenhouse gas emissions. It is also responsible for exposure to harmful air pollution. This occurs both directly from combustion emissions and also as a consequence of climate change which is increasing bushfires, the need for hazard reduction burns and ground level ozone. Air pollution related to the 2019-20 East coast bushfire season was calculated to be responsible for 417 deaths, 1124 Hospital admissions for heart disease and 1305 asthma presentations to Emergency Departments.²³

Another 3000 deaths in Australia each year are attributable to air pollution through exposure to particulate matter, oxides of nitrogen and ozone and other air pollutants, with long term exposure to particulate matter being linked to the largest share.²⁴ Most exposure in Australia occurs in an urban setting where over 80% of Australians live. Coronary artery disease and stroke account for the majority of deaths and morbidity, and exposure to air pollution even at low levels also increases the risk of other common and significant non-communicable diseases such as asthma, exacerbations of chronic obstructive pulmonary disease, diabetes, dementia, and preterm births. Particulate matter, as well as diesel engine exhaust, are also carcinogens.

The National Environmental Protection Measure (NEPM) review is currently underway and is of particular importance as Australia's fuel standards are amongst the lowest of the OECD's, and vehicle emissions contribute to about half of our air pollution. Three irritant gases - NO₂, SO₂ and ozone - especially contribute to poor health and DEA has long advocated for stricter air quality standards which are currently set well outside international best practice levels.²⁵

²² DEA's Biodiversity Policy 2019. <https://www.dea.org.au/wp-content/uploads/2019/11/DEA-Biodiversity-Policy-11-19.pdf>

²³ Johnston F et al, Unprecedented smoke-related health burden associated with the 2019-20 bushfires in Eastern Australia. 2020 Medical Journal of Australia 213(6):282-283
<https://www.mja.com.au/journal/2020/213/6/unprecedented-smoke-related-health-burden-associated-2019-20-bushfires-eastern>

²⁴ Begg S et al, The burden of disease and injury in Australia 2003. Australian Institute of Health and Welfare, Canberra. May 2007. <https://www.aihw.gov.au/reports/burden-of-disease/burden-of-disease-injury-australia-2003/contents/table-of-contents>

²⁵ Expert Position Statement on Health Based Standards for Australian regulated thresholds of NO₂, SO₂ and ozone. 2019. <https://www.dea.org.au/wp-content/uploads/2019/09/Expert-Position-Statement-PDF-7.pdf>

Actions:

- **Improved air quality monitoring**
- **Updating Australian national standards for air quality**
- **Updating Australian fuel quality standards**

New and emerging threats to our health – infectious diseases

The emergence of SARS-Cov-2 has highlighted how important health is to our quality of life and overall wellbeing – it is also a reminder that science-based policy is critical to addressing health problems, that environmental determinants of disease cannot be ignored, and that our human systems are highly vulnerable to novel or re-emergent infectious diseases.

Not only will SARS-Cov-2 be with us for some time but there will likely be other infectious disease outbreaks that we have to deal with. Infectious diseases, particularly zoonotic diseases, are being driven by ecological changes resulting from a range of human activities. Land use change (deforestation), primarily for agriculture, and climate change are bringing previously separated species into contact with each other and facilitating the transmission of pathogens from other species to us and facilitating the range and behaviour of disease vectors.^{26 27}

Actions:

- **Identifying new and emerging threats to our health**
- **Recognition of the importance of biodiversity and healthy ecosystems to human health**
- **Consideration of the negative costs of development and policy with consideration of broader potential ecological or health impacts.**

Epidemic of obesity and non-communicable diseases

Rather than just “how are we going to respond to them?”, the more important question here is “why are these new threats emerging?”.

The 2020 Australian Institute of Health and Welfare (AIHW) report notes that “changes in lifestyle now cause most of the burden of ill health”.²⁸ Namely, unhealthy “Western” diets, high in processed foods with added fats, salt and sugars, and physical inactivity - related to sedentary occupation and motor vehicle transport. These factors are promoted and largely inseparable from the design and function of our current socio-economic system and urban environments.

“Healthy food was seen as the most important influence on good health with the cost and accessibility of healthy food choices identified as the most significant barrier to good health”. Cost and accessibility in the Australian setting has largely been determined by commercial food retailers and suppliers, marketing, and subsidisation. There has been continued resistance to

²⁶ Covid-19 or the pandemic of mistreated biodiversity. April 30 2020. <https://theconversation.com/covid-19-or-the-pandemic-of-mistreated-biodiversity-136447>

²⁷ Zoonoses. DEA fact sheet. <https://www.dea.gov.au/wp-content/uploads/2020/08/Zoonoses-Fact-Sheet-August-2020.pdf>

²⁸ Australian Institute of Health and Welfare. Overweight and Obesity Snapshot. 23 June 2020. <https://www.aihw.gov.au/reports/australias-health/overweight-and-obesity>

labelling that denotes healthiness. Food items from vested interests, and subsidisation that is not based on health or environmental concerns can lead to unhealthy foods being less expensive than healthier ones. As well as promoting suboptimal diets, this exacerbates existing health inequality. The solutions to this are largely political. The EAT Lancet report (Jan 2019) highlights the links between food production, environmental benefits, and human health and concludes that we can only feed our future population by transforming eating habits, improving food production, and reducing food waste. This will have the added benefit that sustainable diets can be healthier diets.²⁹

Actions:

- **Public health education promoting a predominantly plant based diet with reduced meat intake and provision of clear information about healthy food choices**
- **Updating nutritional guidelines to include sustainability**
- **Improved agricultural practices**

Built environments

Cities designed around road transport lock people into car-based commuting, increase urban noise and air pollution exposure, reduce access to green space, and through their fragmentation and design can increase social isolation particularly in older age groups. Despite this we are building more roads and inducing more vehicle use, bringing more residential dwellings in proximity to major roads as well as more traffic emissions near vulnerable populations at hospitals, childcare centres, and schools. Overreliance on cars, poor investment in public transport and poor urban planning all contribute to obesogenic environments. Socio-economically deprived people often bear the brunt of these impacts on health disproportionately.

Access to green space is also a major determinant in physical and mental health. Multiple studies have now provided evidence of health benefits in relation to green space.³⁰ “Business as usual” urban development and infrastructure will worsen health outcomes.

Actions:

- **Infrastructure developments and improvements should be informed by public health expertise to avoid or minimise adverse health impacts**
- **The health benefits of green infrastructure and the consequent health savings be considered in the planning and policies of cities and communities**
- **Investment in active transport infrastructure to make it safer and more accessible to all**

Social inequality

“The impact of poor health is experienced unevenly in Australian communities, with many contributing factors sitting outside of the health system”.

²⁹ The Lancet. Food in the Anthropocene: the EAT-Lancet Commissions on healthy diets from sustainable food systems. 16 January 2019. <https://www.thelancet.com/commissions/EAT>

³⁰ Braubach M et al. Effects of urban green space on environmental health, equity and resilience. Nature based solutions to cc adaptation in urban areas. 2 September 2017
https://link.springer.com/chapter/10.1007%2F978-3-319-56091-5_11

Despite 40 years of economic growth and increasing material prosperity, there has been rising social and economic inequality. There is ample evidence that greater inequality in society results in poorer health outcomes, and not just for lower socio-economic groups but across the whole of that society.³¹ The consultation paper states that the intention is to improve unequal health outcomes but says nothing about actions to address the underlying social inequality that creates the conditions that give rise to them.

Antimicrobial resistance

Not mentioned in the consultation paper is the rising threat we are facing due to antimicrobial resistance. As a result of overuse and misuse, we are seeing the re-emergence of previously treatable diseases and in some cases organisms that are resistant to all available antibiotics. This is not limited to difficulty managing individual cases but has the potential to completely undermine much of our elective surgery and cancer treatments as they will become too high risk.

³¹ Australian Institute of Health and Welfare. Australia's health 2020: data insights.
<https://www.aihw.gov.au/reports/australias-health/australias-health-2020-data-insights/contents/summary>