



CLIMATE AND
HEALTH
ALLIANCE

Climate change is a health issue

Briefing Paper No. 1

The international medical journal *The Lancet* in May 2009 described climate change as the biggest global health threat of the 21st century. Climate change poses serious immediate and long term threats to the health and wellbeing of the Australian and global population. The World Health Organisation estimates that even the modest warming that has occurred since the 1970s to 2004 was responsible for more than 140,000 extra deaths each year.¹ By 2009 climate change was responsible for the deaths of 300,000 people each year.² There is however strong evidence that action on climate change can improve, even promote health. When presented in a health context, climate change is more likely to be considered an issue of personal significance.³

Health effects of climate change: Climate change poses serious health risks to Australians. More frequent and more severe extreme weather events, including heatwaves, floods, fires and storms will increase illness, injury and death. Other effects include an increased incidence of infectious diseases, vector borne diseases, air pollution, mental illness, poor water quality and food insecurity.⁴ Children, the elderly, Indigenous Australians, people with chronic illnesses, and those in coastal as well as rural, remote and regional communities are being disproportionately affected and are expected to continue to be severely impacted. Ongoing drought and water insecurity is expected to reduce health outcomes and increase morbidity and mortality for the seven million Australians in rural and remote areas as unemployment and economic insecurity contributes to a range of subsequent health issues.

Health care services in Australia are already experiencing the health effects from climate change with increases in service demand from heatwave related illnesses and deaths.⁵ A single heatwave in the state of Victoria in January 2009 saw a 62% increase in mortality, from both direct heat related illnesses and associated exacerbations of chronic medical conditions. The Victorian Department of Human Services reported that during this five day event, ambulances had a 46% increase in demand; emergency departments experienced an eight-fold increase in heat related presentations; a 2.8 fold increase in cardiac arrests; and a threefold increase in patients dead on arrival.⁶

As bushfires increase, more deaths, injuries and burns are likely, as well as increased incidence of respiratory disease. Extreme weather events associated with flooding and heavy rains will cause loss of home and livelihood, fatalities, traumatic injuries and post traumatic stress disorders.

Temperature rises are contributing to an increased incidence of food or water borne infectious diseases. Asthma, allergies, and respiratory diseases are increasing as a result of rising temperatures and higher CO₂ concentrations.⁷ The mental health consequences of living with climate change are expected to increase in incidence and severity.⁸

Other impacts include effects on our food and water supply as decreasing productivity of land leads to declines in production volumes and nutritional value.⁹

Health benefits of emission reductions: There are considerable health and economic benefits associated with action to deliver significant emissions reductions. Actions to reduce greenhouse gas emissions not only reduce the health risks associated with climate change and environmental harm, but can also improve health outcomes, and reduce health care costs from increases in physical activity, improved air quality and improved diet.

Shifting to low emissions transport can significantly improve air quality and reduce the burden of respiratory disease. More active transport systems can cut the incidence of obesity, chronic illness and cardiovascular disease. Shifting away from coal as a fuel source for electricity will improve air quality and reduce related deaths from lung cancer and heart disease. Changing to a diet with lower meat consumption can cut emissions from livestock production as well the incidence of heart disease and diabetes.¹⁰

A recent report from the European Union reveals significant health and economic benefits are associated with strong targets for emissions reductions. A target of 30% reduction by 2020 is expected to deliver health care savings – from avoided ill health – of €30.5 billion per year by 2020.¹¹ There are very real economic and health benefits from mitigation policies such as investment in renewable energy infrastructure in rural and remote areas which should also be considered in the context of avoided (and avoidable) health costs.¹²

People care about their health: Polling constantly shows that health is a top priority issue for people in Australia. Evidence suggests that although many people (for a variety of reasons) are disinclined to rate climate change as a top priority, when the issue is presented in a public health context, climate change is much more likely to resonate as an issue of personal significance.¹³ Using the public health “frame” is a useful way to communicate about climate change and can lead to greater support for mitigation policies as it provides an individual context as well as offering a positive narrative in terms of potential benefits.

Summary: Future health costs from climate change are inestimable. An effective response by nations and their governments to climate change has the potential to significantly reduce the health costs we will face in the next decade and the coming century. We do know that poor people from developing nations will be disproportionately affected and we must consider how Australia, as a rich, high emitting nation will respond. But climate change is a health issue for Australians too, in 2010, and we must move now to protect our own population from further adverse effects by committing to substantial and rapid emissions reductions. This provides an important risk management strategy against the increase of catastrophic health and environmental effects of climate change, and importantly offers an avenue for improving human health and wellbeing.

¹ World Health Organisation, *Climate change and health*, Fact Sheet no. 266, January 2010.

² Vidal, J. *Global warming causes 300,000 deaths a year*, guardian.co.uk, 29 May 2009.

³ Maibach *et al.* *BMC Public Health* 2010, 10:299.

⁴ Horton, G., and McMichael, T. *Climate Change Health Check 2020*, Report prepared by Doctors for the Environment for the Climate Institute, April 2008.

⁵ Horton, G., and McMichael, T. *ibid.*

⁶ Victorian Government Department of Human Services, *January 2009 Heatwave in Victoria: An assessment of health impacts*, 2009, Melbourne.

⁷ Myers, S. *Global environmental change: the Threat to human health*, Worldwatch Report 181, November 2009.

⁸ Horton, G., and McMichael, T., *ibid.*

⁹ Nicholls, N. *Climate science: how the climate is changing and why (and how we know it)*, Discussion Paper, National Climate Change Adaptation Facility, August 2009.

¹⁰ The Lancet, Executive Summary, Health and Climate Change Series, November 2009.

¹¹ Health and Environment Alliance and Health Care Without Harm Europe, *Acting Now for Better Health*, Report, August 2010.

¹² Armstrong, F. *Shifting from fear to hope*, in More Than Luck: Ideas Australia Needs Now, Centre for Policy Development, 2010.

¹³ Maibach *et al.*, *ibid.*