

# Planetary health: what is it and what should doctors do?

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Planetary health is the business of the medical profession because the health of our patients is at risk



**D**uring the lifetime of many *MJA* readers, there have been remarkable improvements in human health. Since 1950, global average life expectancy has risen 25 years to its current level of 72 years, and global infant mortality rates have decreased substantially from around 210 per 1000 live births to just over 30 per 1000 now.<sup>1-3</sup>

However, these gains in human health have been unequally distributed. And, alongside them, despite overall development gains made in the same period, we have witnessed environmental degradation on a massive scale. Pollution, deforestation, biodiversity loss and climate change are among the striking examples of the damage caused by collective human endeavour.<sup>1,4</sup> Australia should aim to be the healthiest nation on the planet with the world's best health system, and this is achievable, but our ambitious goals are at risk if we ignore planetary health.



Planetary health is a new discipline, and refers to the health of human civilisation and the state of the natural systems on which it depends.<sup>1</sup> The groundbreaking report of the Rockefeller Foundation–*Lancet* Commission on planetary health<sup>1</sup> found that continuing environmental degradation threatens to reverse the health gains achieved during the

past century. The consequences are far reaching, ranging from the emergence and spread of infectious diseases such as severe acute respiratory syndrome, Ebola virus disease and Zika virus infection, to heat-related illness, malnutrition, conflict and displacement. Australia will be negatively affected. But those who are the least responsible for driving these changes — poor people in low income countries — are the most vulnerable to them.

In short, it can be argued that we have all been mortgaging the health and wellbeing of future generations to realise economic and development gains in the present. Solutions are within reach



and do not rely on the low probability that newly invented technology will overcome all of the complex, interconnected problems. Success will require, however, grassroots determination and leadership, political will, unprecedented cooperation and cultural change, focusing on quality of life and improved human health as the measures of success, not increases in gross domestic product, together with respect for the integrity of the natural environment.

The report identified three sets of challenges:

- conceptual challenges, including the pressing need for genuine measures of progress which go beyond gross domestic product to measure human development and the state of the environment;
- governance challenges, such as how governments and other institutions recognise and respond to threats, especially when faced with high degrees of uncertainty and the need to pool resources; and
- research challenges, such as understanding the social and environmental context of human health and linking cross-disciplinary research to address pressing environmental health threats.<sup>1</sup>

In this issue of the *MJA*, we are publishing a collection of peer-reviewed articles on various aspects of planetary health: from health and climate change,<sup>5</sup> through respiratory impacts of fires and air pollution,<sup>6,7</sup> and vector borne disease<sup>8</sup> to sustainable health care.<sup>9</sup> Australia is well regarded for research on planetary health — not least because of the exemplary leadership of the late environmental epidemiologist Tony McMichael, who was the Director of the National Centre for Epidemiology and Population Health at the Australian National University and whose work first shone a spotlight on the health impacts of climate change.<sup>10</sup> But what more can and should doctors do?

Naturally, most doctors focus their practice, and their attention more generally, on the health and wellbeing of people who are

currently alive or about to be born. Arguably, a key difference when taking a planetary health approach in medical practice is that it necessitates a focus on the health and wellbeing of future generations, including our own children and grandchildren.<sup>11</sup> Doctors remain highly trusted members of the community, and if we take no action, this speaks louder than words. If we agree as a profession that there is a major future health risk to our patients and the community because of a serious decline in planetary health, as the articles in this issue suggest, and if we want change, then we must lead by example.

Some suggestions for bringing planetary health perspectives more sharply into focus in medicine include:

- ensuring that the health impacts of pollution, deforestation, biodiversity loss and climate change are included in medical training;
- considering carefully our own model of care and the ways we (and the institutions we work for or belong to) might be able to reduce our carbon footprint;<sup>12</sup>
- talking to our patients about relevant environmental health matters as, indeed, Hippocrates was doing more than 2000 years ago when he wrote his thesis *On airs, waters and places*;<sup>13</sup>
- encouraging and supporting further research on health impacts of environmental change and options for transitions to sustainable ways of living;
- educating the community about planetary health issues when appropriate opportunities arise; and
- reflecting on the way we live at home and our recreational pursuits. In an effort to safeguard the health and wellbeing of current and future generations, we must all aspire to tread lightly on the Earth and leave the planet a better place for future generations.<sup>14</sup>

Addressing planetary health is the business of the medical profession because the health of our patients, communities and families is established to be at risk. Together we can all make a real difference.

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- 1 Whitmee S, Haines A, Beyrer C, et al. Safeguarding human health in the Anthropocene epoch: report of the Rockefeller Foundation-*Lancet* Commission on planetary health. *Lancet* 2015; 386: 1973-2028.
- 2 Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat. World population prospects: the 2017 revision. New York: United Nations, 2017. <https://www.un.org/development/desa/publications/world-population-prospects-the-2017-revision.html> (viewed Feb 2018).
- 3 Hug L, Shannon D, You D. Levels and trends in child mortality report 2017. New York: United Nations Inter-agency Group for Child Mortality Estimation; 2017. [http://www.who.int/maternal\\_child\\_adolescent/documents/levels\\_trends\\_child\\_mortality\\_2017/en](http://www.who.int/maternal_child_adolescent/documents/levels_trends_child_mortality_2017/en) (viewed Feb 2018).
- 4 Steffen W, Broadgate W, Deutsch L, et al. The trajectory of the Anthropocene: the great acceleration. *The Anthropocene Review* 2015; 2: 81-98.
- 5 Hanna EG, McIver LJ. Climate change: a brief overview of the science and health impacts for Australia. *Med J Aust* 2018; 208: 311-315.
- 6 Kribbs LD, Woldeyohannes S, Marks GB, Cowie CT. Damp housing, gas stoves, and the burden of childhood asthma in Australia. *Med J Aust* 2018; 208: 299-302.
- 7 Horsley JA, Broome RA, Johnston FH, et al. Health burden associated with fire smoke in Sydney, 2001–2013. *Med J Aust* 2018; 208: 309-310.
- 8 van Nunen SA. Tick-induced allergies: mammalian meat allergy and tick anaphylaxis. *Med J Aust* 2018; 208: 316-321.
- 9 Pencheon D. Developing a sustainable health care system: the United Kingdom experience. *Med J Aust* 2018; 208: 284-285.
- 10 McMichael AJ, Dear KB. Climate change: heat, health, and longer horizons. *Proc Natl Acad Sci U S A* 2010; 107: 9483-9484.
- 11 Hussey R, Weatherup C. Lessons from Wales — how to embed sustainability and prevention in health care. *Med J Aust* 2016; 204: 102-103. <https://www.mja.com.au/journal/2016/204/3/lessons-wales-how-embed-sustainability-and-prevention-health-care>
- 12 Malik A, Lenzen M, McAlister S, McGain F. The carbon footprint of Australian health care. *Lancet Planet Health* 2018; 2: e27-e35.
- 13 Hippocrates. On air, waters and places. In: The genuine works of Hippocrates. Translated with a commentary by Francis Adams. London: Sydenham Society, 1849.
- 14 Sveiby KE, Skuthorpe T. Treading lightly: the hidden wisdom of the world's oldest people. Sydney: Allen and Unwin; 2006. ■