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## **RACP Climate Change and Health 2016**

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The Royal Australasian College of Physicians

# Climate Change and Health Position Statement

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## Executive summary

Anthropogenic climate change is a global public health emergency. It is, at the same time, a major threat and a major opportunity for planetary health and health equity.<sup>1</sup> This document is the first in a series of three Position Statements by the Royal Australasian College of Physicians (RACP) on climate change and health. It addresses the health impacts of climate change relevant to the RACP's work in Australia, New Zealand and the Pacific. The second statement reviews health benefits of climate change mitigation, while the third statement outlines actions that the health sector can take to reduce its carbon footprint and to improve its environmental sustainability.

As medical professionals at the frontline of climate change, the RACP is committed to transformative advocacy at local, national and global levels. Such a commitment is consistent with our professional duty towards the health of individuals and the community. In addition, the College's calls to action on climate change have seen it join a growing alliance of healthcare and related organisations, including the World Health Organization<sup>2</sup>, The Lancet<sup>1 3</sup>, the British Medical Association, the British Medical Journal<sup>4</sup>, the American Academy of Pediatrics<sup>5</sup>, the World Medical Association<sup>6</sup>, the Royal College of Physicians<sup>7</sup> and the Royal College of Paediatricians and Child Health<sup>8</sup>, together with the World Bank<sup>9</sup>, the Royal Society<sup>10</sup>, World Vision<sup>11</sup>, and others.<sup>12</sup>

## Climate change and its impacts on human health

Anthropogenic climate change occurs primarily because of greenhouse gas emissions from human activities.<sup>13–15</sup> Climate scientists concur that anthropogenic global warming is occurring, is accelerating, and will not stabilise or improve without significant mitigation.<sup>15–17</sup> Although there is uncertainty as to their projected magnitude<sup>18</sup>, without immediate intervention average global temperatures relative to the year 2000 are likely to rise by 1–2°C by 2050, and by 3–4°C by 2100.<sup>19</sup>

The health impacts of climate change are mediated by environmental exposures such as ambient heat, air pollution, storms, floods, reduced water quality, reduced food production, increased food spoilage, and change in disease vectors.<sup>20</sup>

These exposures underlie health effects including heat stress illnesses, cardiovascular disease, infectious gastrointestinal disease, physical trauma, malnutrition, psychological stress, vector-borne disease, and other epidemic illness.<sup>1 5 18 21–28</sup> In addition, forced migration and conflict caused by scarce food and water resources will have consequent impacts on health.<sup>1</sup>

For instance, using climate change models with conservative assumptions, the World Health Organization estimates that, between 2030 and 2050, an extra 250,000 deaths per year globally from malnutrition, malaria, diarrhoea and heat stress will be attributable to climate change.<sup>2</sup>

The global scale of these health impacts threatens to overwhelm the adaptive capacity of existing social and economic systems. We are therefore confronted with a global public health emergency.

## Health inequity

Climate change is a major contributor to current and future health inequities – avoidable differences in health status or in the distribution of health determinants between population groups both within and between countries.<sup>29</sup> Within countries, the evidence shows that, in general, the lower an individual's socioeconomic position, the worse their health. Climate change will increase the steepness of this social health gradient.<sup>30 31</sup>

The poorest and most vulnerable (including disadvantaged populations, Indigenous communities, residents of low and middle income countries, and future generations) are disproportionately afflicted by the most severe adverse effects.<sup>32–36</sup> Low and middle income countries face increased risks of food and water insecurity, population displacement, and increases in respiratory, diarrhoeal and vector-borne diseases.<sup>1 37</sup>

Climate change already costs the world more than \$1.2 trillion a year, which equates to 1.6 per cent of annual global GDP.<sup>38</sup> It is estimated that, by 2030, the cost of climate change and air pollution combined will rise to 3.2 per cent of global GDP. However, the world's least developed countries will suffer disproportionate losses of up to 11 per cent of their GDP.<sup>38 39</sup>

## Australia, New Zealand and the Pacific

Although Australia and New Zealand are not the most vulnerable nations, they are not immune to the adverse health impacts of climate change. In Australia there is already a noticeable impact from increased frequency and intensity of bushfires, floods, dust storms, drought and extreme heat, biodiversity decline, and over-allocation, reduced quality and increased salinisation of fresh water.<sup>40</sup> As a result, Australians are already seeing higher rates of respiratory illness<sup>41</sup>, diarrhoea<sup>42</sup> and morbidity requiring hospital admission<sup>43</sup> during hot days, and higher rates of suicide in rural areas during drought years.<sup>44</sup>

New Zealand residents face increased ambient temperatures, shifts in rainfall, rising sea levels, erosion, scarcity of freshwater and increased flooding.<sup>45–47</sup> These effects are predicted to worsen in the coming years, unless urgent action is taken.<sup>46 48</sup>

Developed countries such as Australia and New Zealand have a responsibility to neighbouring countries in the Pacific. Pacific nations are especially exposed to climate change, in light of lower socioeconomic development, tropical climates, maritime infrastructure, and the prevalence of atolls and other coastal settlements subject to inundation.<sup>49–51</sup>

Again, the most vulnerable members of Australian, New Zealand and Pacific societies will be disproportionately impacted by the environmental, social and economic impacts of climate change.<sup>3536</sup>

The governments of Australia, New Zealand and other Pacific nations have signed the 2015 Paris Climate Agreement, which commits signatory states to reducing greenhouse gas emissions “as soon as possible”. It aims to hold global average temperatures to well below 2°C above pre-industrial levels (and ideally below 1.5°C).<sup>17 52</sup> The latter level of warming is the highest level compatible with the geographic survival of many Pacific nations.<sup>53–55</sup>

## The health benefits of mitigation and adaptation

Responses to climate change can be classed in terms of mitigation and adaptation. Mitigating actions reduce or reverse human forcing of global temperature<sup>56</sup>, while adaptive actions reduce the impact of climate change on human and natural systems.<sup>57 15</sup>

Mitigation and adaptation can improve health directly via the mechanisms addressing climate change, or via incidental health benefits.<sup>1 58</sup>

### Direct effects

The RACP supports the 2015 Paris Climate Agreement because it focuses on mitigation of climate change by reduction in atmospheric greenhouse gases. Mitigation is the only strategy that directly addresses the cause of climate change and thereby offers a way to avoid its adverse health impact.

Adaptation addresses the symptoms rather than the cause of climate change. Examples include disaster risk management plans, early warning systems, planning adjustments, development of climate-tolerant crops, coastal defences, and planned retreat from low-lying areas.<sup>15 59</sup> To the extent that adaptive measures succeed, they benefit health by reducing hazardous exposures.

As the world faces further warming due to the cumulative effect of greenhouse gas emissions, some adaptation is inevitable. However, compared to mitigation, adaptation is more expensive and less effective.<sup>60</sup>

### Health benefits

Health benefits mainly emerge in tandem with climate change mitigation, and mainly relate to changes in diet and activity and reduced pollution associated with reduced consumption of fossil fuels.<sup>1 26</sup> The widespread adoption of plant-based diets – diets rich in fruits and vegetables, and low in meat, eggs and dairy products – would reduce emissions from deforestation and livestock.<sup>58</sup> Plant-based diets can also reduce the incidence of chronic diseases, such as heart disease and diabetes.<sup>1 3</sup> Active transport such as walking and cycling is associated with reduced carbon emissions. The health benefits of active transport include reduced rates of respiratory disease, road traffic accidents, obesity, diabetes, coronary heart disease, stroke and mental ill-health.<sup>1 58</sup>

Further benefits of mitigation derive from reducing fossil fuel extraction. This limits the environmental release of minerals including toxic arsenic and mercury.<sup>61 62</sup> Reducing fossil fuel combustion also limits the release of pollutants including black carbon (estimated to cause 2.4 million respiratory deaths per annum worldwide) and ozone (150,000 respiratory deaths per annum worldwide).<sup>63</sup>

Because of the potential for health improvement, climate change can also be seen as a positive health opportunity. The RACP Position Statement on The Health Benefits of Mitigating Climate Change addresses these issues in more depth, with recommendations for action.

## Calls for action

The RACP is committed to leadership in reducing the adverse health impacts and realising the potential health benefits of climate change. As a first step in reducing its own carbon footprint, in 2015 the RACP decided to divest from all financial holdings in or directly linked to fossil fuel industries.

The RACP recognises the multiple roles of physicians in promoting action on climate change. These include educating the health sector, raising community awareness, and influencing public policy.<sup>5</sup> At a local level, many RACP Fellows and Trainees have already begun to address climate change in the public and private hospital sector and in their private practices by promoting initiatives aimed at “greening the healthcare sector” (such as the introduction of more energy efficient lighting and reduction of wastage).<sup>64</sup>

At the national level, there is an urgent need for evidence-based contributions to the plan for rapid transition to a low carbon economy. The new economy will have to both meet the targets of the 2015 Paris Climate Agreement<sup>17</sup> and be consistent with WHO global health objectives, and all other international treaties and agreements.<sup>65</sup>

Leading up to the Paris Conference in 2015, the RACP led the Doctors for Climate Action campaign. We highlighted the health impacts of climate change, and called upon world leaders to commit to urgent and meaningful action to combat the threat of climate change.<sup>66</sup> The Doctors for Climate Action Consensus Statement (<http://www.racp.edu.au/docs/default-source/advocacy-library/pa-cs-climate-change-cpac.docx>) was endorsed by over 60 international medical organisations, and was presented to key decision makers.<sup>67</sup>

## Conclusions

The RACP is committed to the following actions in response to the global climate health emergency:

### **1. Raise professional awareness of the health impacts of climate change**

- Disseminate this document and the linked Position Statements amongst health professionals

### **2. Advocate for national climate change and health strategies in Australia and New Zealand, including meaningful mitigation and adaptation targets, effective governance arrangements, professional and community education, effective intergovernmental collaboration, and a strong research capacity**

- Bring medical expertise and a focus on human health and justice to the centre of all public policy as it relates to climate change
- Advocate for mitigation that will reduce the risk of dangerous climate change and maximise health benefits



### **3. Reduce the RACP carbon footprint and improve the sustainability of health services**

- Implement the advice of the RACP Position Statement on Environmentally Sustainable Healthcare
- Continue to advise health services on ways in which they can minimise their environmental impact

### **4. Establish an enduring RACP climate change advocacy and engagement capability**

- Ongoing activity beyond the term of the RACP Climate Change Working Party is implicit in actions 1–3
- Work in ongoing collaboration and partnership with other key organisations and professional bodies

## **About this Position Statement**

*This Statement was developed by The Royal Australasian College of Physicians (RACP) 2015 Climate Change and Health Working Party (CCHWP). It forms part of a set with The Health Benefits of Mitigating Climate Change Position Statement and the Environmentally Sustainable Healthcare Position Statement.*

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