

Why climate change is a health issue

Climatic conditions have and will continue to have direct measurable consequences on human health. Climate change – specifically, global warming – is causing environmental and ecological changes that will further impact on health, possibly on a scale not previously encountered by human society.

The health impacts of climate change will be strongly influenced by the extent and rate of warming, as well as local environmental conditions and social behaviours and the range of social, technological, institutional and behavioural adaptations taken to reduce the threats. [1][2][3]

Climate-change health risk assessments and burdens for Australia

Although it is difficult to predict the future health outcomes that global warming might bring, most research to date suggest the effects will be adverse.

According to studies prepared for the Australian Medical Association [1], the Australian Government Department of Health and Ageing [2], the Garnaut Climate Change Review [3] and others, the future climate-change health implications for Australia are likely to include:

- **Heat-related deaths** – if we don't adapt, heat-related deaths could more than double to 2,500 a year by 2020. In the short term, warmer winters will mean fewer annual 'winter deaths' but, in the medium to long term, these would be greatly outnumbered by the additional heat-related deaths.
- **Flood-related deaths and injuries** – increasingly frequent and extreme weather events such as floods, droughts, hurricanes and tornadoes are projected. Extreme rainfall is expected to increase in many parts of Australia, leading to a 240% rise in flood-related deaths and injuries in some regions.
- **Mosquito-borne diseases** – rises in temperature and rainfall may cause the southwards expansion of tropical mosquito-borne diseases such as malaria, dengue fever, Australian encephalitis, Japanese encephalitis and epidemic polyarthritis.
- **Water-borne diseases** – as temperatures rise, the quality and quantity of drinking water could fall in some areas because of drought. As water quality falls, health disorders related to water contamination by bacteria, viruses, protozoa and parasites will rise.

This contamination will also occur at the other weather extreme, as heavy rainfall and runoff cause microbial and toxic agents to overflow from agricultural fields and human septic systems.

- **Food-borne diseases** – food-borne disease is caused by a number of different viruses, bacteria and parasites. Because bacteria replicate more quickly at higher ambient temperatures, it is likely that the rates of food-borne diseases such as gastroenteritis and hepatitis will increase as average temperatures rise.

Some Australians – for example, remote Aboriginal communities, people on low incomes and the elderly – will be ill-equipped to respond to these changes.