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# Heatwaves hurt disadvantaged Australians the hardest

*Greg Foyster ABC Environment 30 Mar 2014*

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Heatwaves hit the most disadvantaged Australians the hardest. And with hot-spells expected to increase with climate change, there are calls to act early to save lives.

SIXTY-TWO-YEAR-OLD Bill McKenzie stands in the corridor on the eighth floor of the government housing complex where he lives, pointing accusingly at a thermometer fastened to the wall. He explains that at 4pm on January 17, as Melbourne sweltered through one of south-east Australia's worst heatwaves, the thermometer read 43 degrees — hotter than it was outside.

A short, wiry man with a shaved head, McKenzie is wearing a brown long-sleeved T-shirt, reading glasses strung around his neck. In his apartment, he puts on those glasses and runs a pencil down a column of figures documenting temperature readings over the four-day hot-spell. From 12.30pm on January 14 to 1am on January 18, the temperature in the corridor didn't drop below 30 degrees, he says. Even when the outside temperature dropped to about 25 degrees overnight, it was 31 in the corridor. He was up at all hours checking the thermometer, unable to sleep in the muggy darkness.

"You just feel...drained," says McKenzie, who says he first raised the issue of heatwaves with the Victorian Department of Human Services in 2009. "It almost seems as though people are going to have to die here before we can get the message into their heads that there's something wrong."

McKenzie blames the stiflingly hot conditions on building design and recent renovations. A north-facing glass atrium on the ground floor acts like a magnifying glass, heating up the core of the building via the lift lobby. In 2013 all the windows were fitted with metal stops to prevent them opening more than 12.5 centimetres. The Department says the restrictions were put in place to stop objects falling or being thrown out the window, but they also reduce air flow.

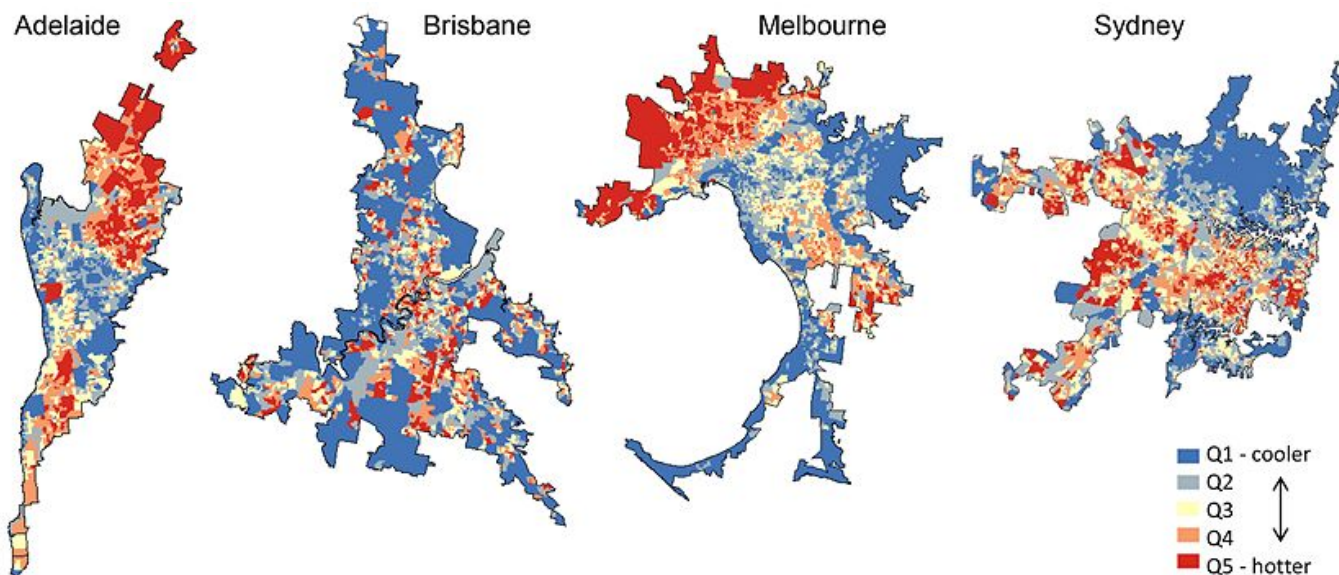
"I am vulnerable because of the inability of this building to cool down properly. My health is at risk," says McKenzie.

His concerns echo those of researchers, social service workers and environment campaigners, who argue that elderly, low-income and disadvantaged Australians are more vulnerable to heatwaves. [CSIRO research](#) indicates that heatwaves are expected to become more frequent and intense under climate change.

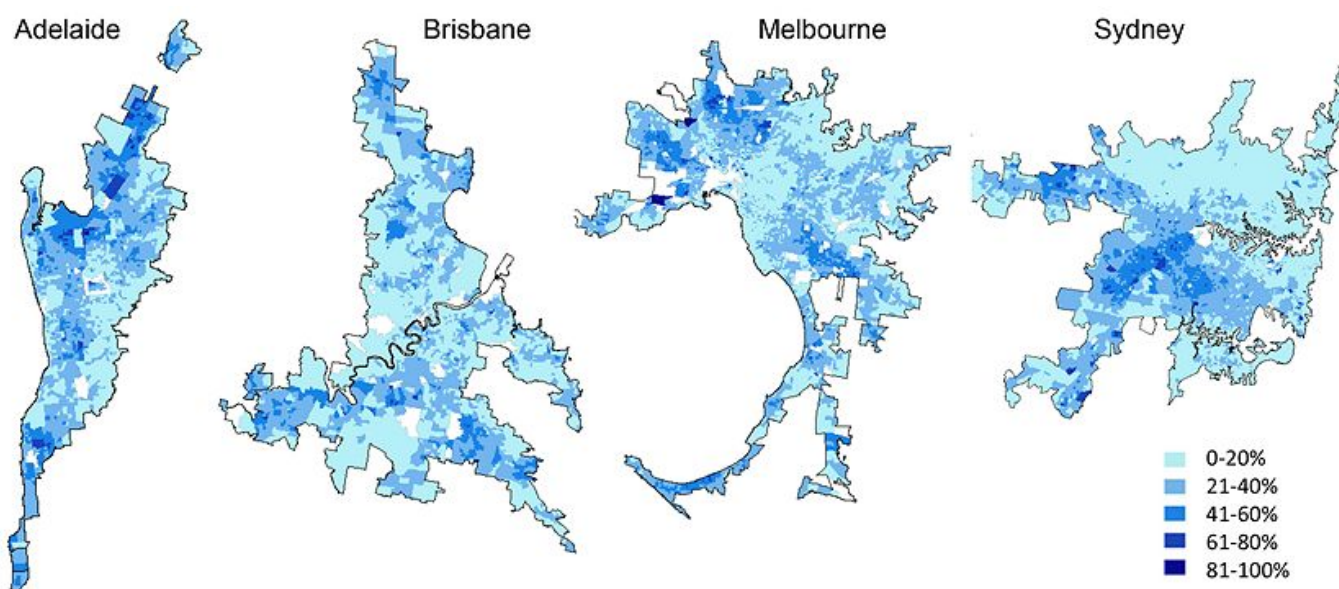
One reason for the heat disproportionately affecting poorer Australians is simply due to location. In a 2013 [report](#) from the National Climate Change Adaptation Research Facility, CSIRO researchers analysed thermal infrared maps of Adelaide, Melbourne, Sydney and Brisbane and found low income households concentrated in the hottest areas of the city.

"The people most vulnerable to heat-related health impacts are living in the areas with the highest heat exposure, as measured by land surface temperature. This pattern was strong and consistent among all four cities investigated," explained the report.

The main reason these areas were hotter than other parts of the city was they had less vegetation. Trees, parks and rivers have a cooling effect, reducing temperatures in leafy suburbs.



*Land surface temperature maps for Adelaide, Brisbane, Melbourne and Sydney, presented as 'quintiles' - effectively, a scale of 1 to 5 (NCCARF).*



*Low income households (equivalent income of \$1-\$399 per week) as a percentage of total households for cities of Adelaide, Brisbane, Melbourne, and Sydney. (NCARRF)*

Dr Margaret Loughnan, an environmental health researcher from Monash University, says it's not just land surface temperatures that make low income households more vulnerable to heatwaves.

She [has mapped](#) how extreme heat affects Australia's capital cities and says low income households are associated with a range of other factors that increase vulnerability to heat stress. Such factors include poorer quality homes, lack of insulation, fear of neighbourhood crime meaning windows and doors remain shut and chronic disease increasing the risk of medical problems arising from heat stress.

Low income earners may also have jobs that are more likely to expose them to the heat. Dr Loughnan gives the example of construction or road workers who spend their daytime hours in the sun. "Then they go home and they have either limited air conditioning or no air conditioning, they live in a hot suburb in a house that's not designed to beat the heat...so they're just not getting any respite whatsoever."

Artificial cooling can be potentially life-saving in extreme heat, but low income earners worried about power bills may be reluctant to turn on their air conditioning, if they have it.

"I cannot run an air conditioner for as long as I would like simply because I'm a sixty two year old on Newstart benefit and I just can't afford to," says McKenzie.

His story reflects the findings of a 2013 paper ([pdf](#)) from Australian Council of Social Service (ACOSS), which argues that not only are people on low incomes more likely to own old and inefficient appliances and to live in un-insulated homes, but they also use their air conditioners less frequently than people on high incomes.

"Heatwaves are already disproportionately affecting people who are experiencing poverty and disadvantage in Australia," says ACOSS chief executive Dr Cassandra Goldie.

ACOSS has called on governments to tackle the problem by setting minimum energy efficiency standards for rental properties and retrofitting the worst performing and highest risk social housing stock.

Energy efficiency standards for rental properties are generally covered by state, territory and local governments. James Bennett, policy and liaison worker at [Tenants Union of Victoria](#), says there should be minimum standards in Victoria and across Australia. "New buildings must comply with environmental standards but when it comes to rental accommodation there is a big hole in the regulatory wall. It can be fixed and it should be fixed."

While there are several housing standards measures active in Australia, most are voluntarily applied to new houses. The Tasmanian Parliament has led the way in Australia, passing [minimum housing standards legislation](#) in September 2013.

Spokesperson for the [Victorian Department of Human Services](#) Ruth Ward says it is two-thirds of the way into a 10-year program for upgrading the department's high-rise properties, typically raising the thermal performance rating from between 2.2 and 4.3 stars to between 5.9 and 6.4 stars. Air conditioning is provided to public housing tenants "where it is a specific requirement for the management of a medical condition or disability".

Improving rental properties is one approach to help people on low incomes adapt to future heatwaves, but another approach is to reduce their exposure to temperature extremes by mitigating climate change. Cam Walker from [Friends of the Earth](#) describes the Federal Government's current emissions target of a five per cent cut in emissions by 2020 from 2000 levels as "woefully inadequate" in the face of continued heatwaves, fires and floods.

Dr Keely Boom, executive officer of environmental group the [Climate Justice Program](#), acknowledged that while Australians may not be as vulnerable to climate change as people in some developing nations, she says the effect of heatwaves on low income people in Australia is "a really powerful example of climate justice in our own backyard".

"A death is a death...It doesn't matter which country that person is in or what their nationality is," she says.

Bill McKenzie, meanwhile, has taken the Victorian Department of Human Services to task over his sweatbox apartment. He has filed a breach of duty notice and is now pursuing the matter through the Victorian Civil and Administrative Tribunal. "Under the present set up," he says, voice quavering, "people will die here."



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