Assessing mortality associated with heatwaves in Tasmania, Australia

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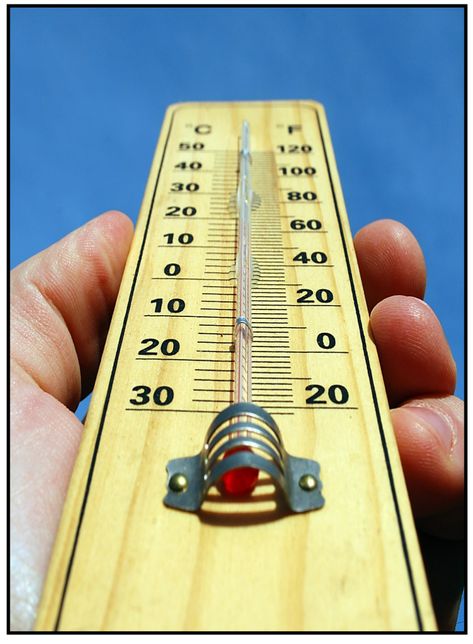
Background

Anthropogenic climate change is causing a rise in global temperatures, with this trend projected to increase into the future. Heatwaves are associated with a rise in preventable deaths, however this association is less well understood in cooler regions.

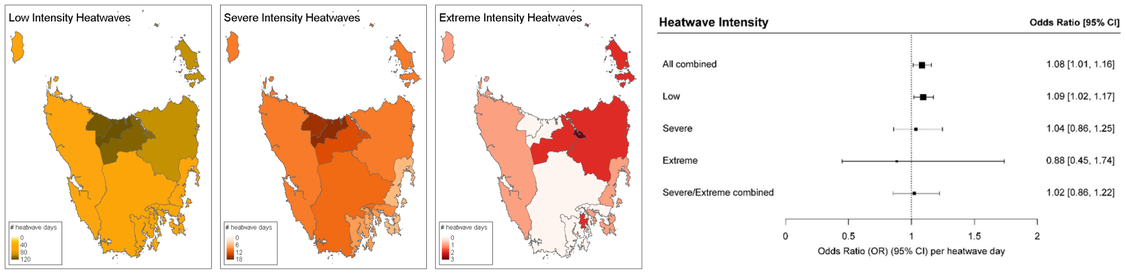


Methods

We used a space-time-stratified conditional Poisson (-quasi) regression analysis to assess if heatwaves were associated with all-cause mortality in Tasmania, Australia, for the period 2010-2018, adjusting for air quality and public holidays. Deaths were aggregated by SA3 level.

Results

We found that across Tasmania, low-intensity heatwaves were relatively common, with less occurrence of severe and extreme heatwaves. We found that for all heatwave types combined, there was a rise in mortality of 8% (OR=1.08, 95%CI 1.01-1.16). For low-intensity heatwaves, we found mortality increased by 9% (OR=1.09, 95%CI 1.02-1.17).



Conclusion

Even at relatively low ambient temperatures, heatwaves are associated with a rise in mortality. These results have health promotion and health protection policy and practice implications for Tasmanian healthcare services and for other cooler regions across the world.