

Media Guide

HOW TO REPORT ON HEATWAVES AND EXTREME HEAT



**SWELTERING
CITIES** 

Some simple dos and don'ts for accurate and respectful coverage of people and communities vulnerable to extreme heat:

Do:

- Use the stories and photos of people who are strongly impacted.
- Speak to local councillors, health care workers and community development workers who can describe the impact of heat on their communities.
- Speak to people who live in Urban Heat Island suburbs, or people who live in hot homes.
- Understand how people are impacted differently by heatwaves.
- Recognise that climate change is making heatwaves hotter, more frequent and deadlier.
- Keep safe when doing heat reporting. Besides the physical dangers of extreme heat, reporting during extreme heat events can take a mental and emotional toll.

Don't:

- Assume 'heat stories' are only for environment and climate reporters. **Extreme heat affects people, communities, societies and economies in many different ways.** From the people forced to sleep in shopping centres to access air conditioning to the implications of extreme heat for summer sport, there are countless stories to be told and angles to cover.
- Describe hot suburbs or regions as 'unliveable'. It is highly unlikely that urban suburbs will be deserted as temperatures rise, as people with no other options will continue to live there. Use 'unsafe' instead.
- Use photos of people at the beach or children happily splashing in water to illustrate stories about the deadly impact of extreme heat. **These photos minimise the health impacts and do not convey the risk to the community.**
- Assume that the impacts of extreme heat go away when temperatures drop or summer ends. **Rising heat is a permanent phenomenon, and its health, social and policy impacts are here to stay. Media coverage should reflect this.**

This is a guide for reporting on extreme heat and heatwaves. It includes top-line messages and facts about extreme heat, and a guide to best-practice reporting on the issue.

Heatwaves are the deadliest environmental disaster in Australia. Since 1890, they have killed more people than all other environmental disasters combined.

They are sometimes described as ‘silent killers’ because we often don’t see or understand their full impact.

Globally, over 2 billion people living in cities are exposed to extreme heat each year. Due to climate change, extreme heat days are happening earlier in the spring and summer and heatwaves are becoming more deadly.

The media can play a vital role in helping people understand the risk of heatwaves and extreme heat, and in educating people on how to keep safe.

Who is at risk?

Among those who are most affected are:

- People without the resources to keep cool
- People who live in low thermal efficiency homes that offer little protection from the heat
- Older people
- People with chronic illnesses
- People with disability
- Young children
- Pregnant people
- Homeless people
- People taking medications that make them more sensitive to heat
- Outdoor workers.

People who live in hot homes or in Urban Heat Island regions are at a higher risk.

Urban Heat Islands are areas where the physical environment (dark and heat-absorbing surfaces, lots of concrete, few trees) attracts and traps heat, **making the area hotter than other areas with more trees, parks or lighter surfaces.**

The geography of an area can also contribute to the Urban Heat Island effect. For example, Western Sydney does not get the cooling sea breeze of the eastern suburbs, nor do the eastern suburbs of Perth. People who live in Urban Heat Island areas are at a higher risk of heat-related mortality and morbidity, and it is more expensive to cool their homes.

Climate Science

“Every heatwave in the world is now made stronger and more likely to happen because of human-caused climate change”

World Weather Attribution (WWA) initiative

Heatwaves are getting longer, hotter and deadlier. CSIRO records indicate Australia’s climate has warmed, on average, by 1.51°C since national records began in 1910 – almost exactly in line with the world average.

8 of Australia’s 9 warmest years on record have occurred since 2013, and most years – even relatively ‘cool’ ones, such as during La Niña periods – are now warmer than almost any observed during the 20th century.

This warming has seen a corresponding **rise in extreme heat events**, including more very hot days in summer, spring and autumn.

In 2019, Australia’s warmest year on record so far, there were 33 days when national daily average maximum temperatures exceeded 39 °C – **more than in every year from 1960 to 2018 combined.**

Our warming climate is worsening heatwaves and extreme heat events in other ways.

As climate change affects Australia’s weather systems, many parts of the country are experiencing less annual rainfall and more dry, clear days, especially during the cooler months.

However, these temperature increases **are not spread evenly across each day, or each part of the country.**

Average higher temperatures also mean new and more frequent record-high daily temperatures.

Recent heat records:

- It reached **48.9°C in Penrith on January 4 2020** – the hottest temperature recorded around the world that day and the hottest ever in Sydney
- **Perth experienced 11 days in a row over 40°C in the 2021-22 summer.** The previous record for an Australian capital city was Adelaide with 6 days in a row over 40°
- The decade from 2011-2020 was **Australia’s hottest on record.**

Learn more:

- The Australia Institute’s regular HeatWatch reports examine CSIRO and Bureau of Meteorology data to map how many hot days Australia can expect in the future under high- and low-carbon emission scenarios, including for specific towns and suburbs.
- The Bureau of Meteorology produces monthly, seasonal and annual climate summaries for Australia and each state and territory, as well as federal and state capital cities. These give a good snapshot of data such as temperatures, rainfall and weather extremes compared with historic averages. The Bureau’s annual State of the Climate report also includes future projections of short- and long-term changes to Australia’s climate.
- World Weather Attribution, an initiative between Imperial College London, the Royal Netherlands Meteorological Institute and the Red Cross Red Crescent Climate Centre, has a useful guide for journalists reporting on extreme weather and climate change.

Health Impacts

While the relationship between extreme heat and physical health has historically been neglected, the health impacts of rising temperatures are beginning to be more widely understood.

Public policy in Australia does not yet fully recognise the impact of heat on people's physical health. Heatwave deaths are often recorded as respiratory or cardiovascular disease-related, with heat often not listed as a contributing factor in coroners' reports. Accurately recording heat-related deaths in real time is vital to understanding the full impact of extreme heat on physical health.

However, evidence shows a clear link between heatwaves and extreme heat events and higher mortality rates:

- [A 2021 study](#) by the Australian National University's Institute for Climate, Energy & Disaster Solutions, published in *The Lancet*, found that extreme heat was associated with more than 36,000 deaths in Australia between 2006 and 2017 – about 2% of total deaths in Australia.
- In 2016, a [Climate Council report](#) found emergency callouts rose by 46% during the southeast Australian heatwave of 2008-09. Cardiac arrests in Victoria almost tripled, emergency admissions of elderly people in Victoria increased 37%, and excess deaths rose by 62%).
- A 2023 [Monash University study](#) of 35 years of Australian occupational health and safety claims, published in the *Journal of Health Economics*, found that workplace injuries increase markedly on hotter days. Besides the growing risk of heat stress and sunburn, extreme heat causes reduced concentration, leading to mistakes that cause serious injury or death at work. Workers in outdoor-based industries like agriculture and construction are especially vulnerable.

Extreme heat also has significant mental health impacts.

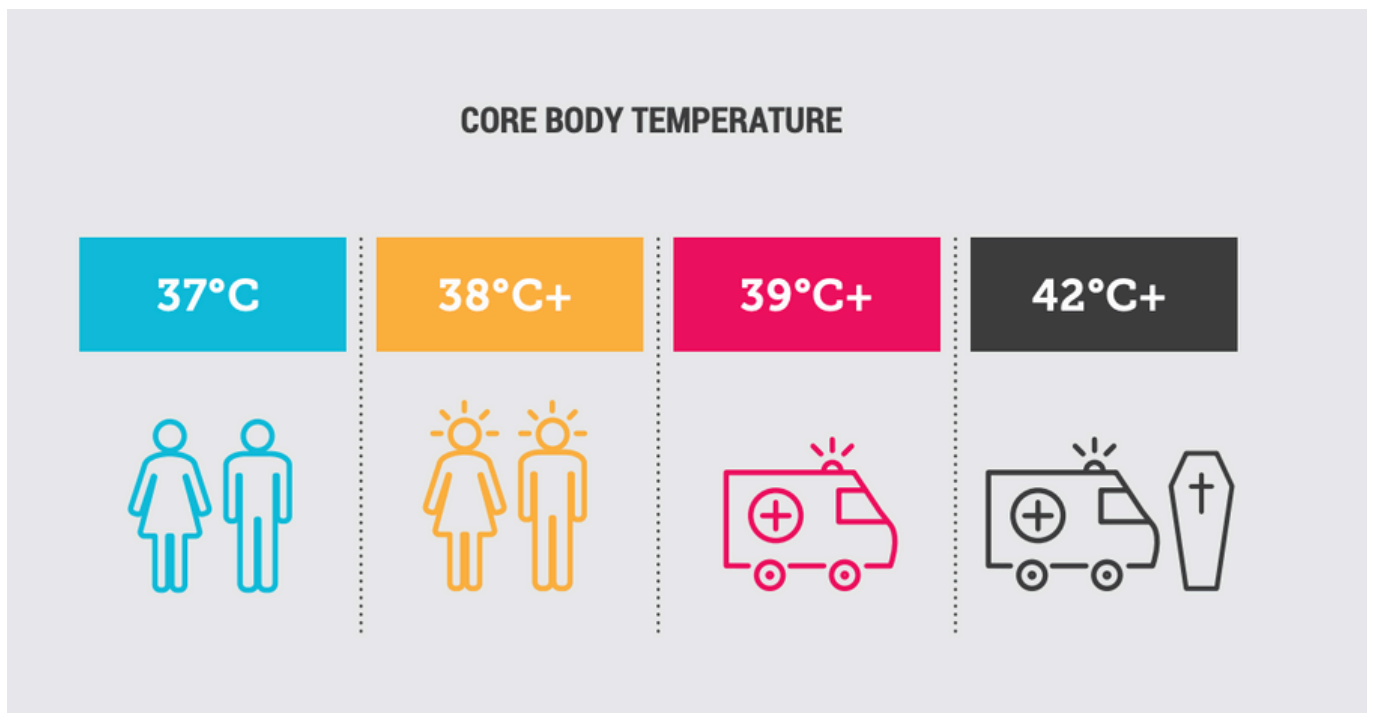
It puts people at heightened risk of stress, and increases the risk of mental distress, suicidal ideation and attempts at suicide, particularly among people with pre-existing mental health conditions:

- In 2024, [researchers](#) from NSW Health, the University of Sydney, the University of New South Wales and NSW and Queensland children's hospitals found that extreme heat events and heatwaves corresponded with a rise in young people presenting to emergency departments for suicidal attempts or ideation
- [A 2024 study](#) published in *The Medical Journal of Australia* found that incidences of women presenting for mental health conditions at Westmead Hospital in western Sydney "rises significantly at temperatures of 29.2°C or more"

- A 2022 [University of Copenhagen study](#) of over 7 million sleep records found rising temperatures are cutting average sleep times around the world, disproportionately affecting women, the elderly, and residents of lower-income and warmer countries. The average global citizen is losing 44 hours of sleep each year due to rising temperatures. Sleeplessness during heatwaves can increase stress and exacerbate existing mental health conditions. High overnight temperatures are also dangerous because our bodies cannot recover from daytime heat, which puts more stress on the body.

Learn more:

- Doctors for the Environment Australia have a useful [Heat and Health Fact Sheet](#) detailing what extreme heat does to the body, who is most at risk and what's needed to keep people safe.
- The Federal Government's Australian Institute for Disaster Resilience has a [knowledge hub](#) explaining heatwaves and their risks.
- The Climate Council's 2016 report [The Silent Killer: Climate Change and the Health Impacts of Extreme Heat](#) outlines the pressures that worse and more frequent heatwaves and extreme heat events are placing on Australia's healthcare system.



Temperature effects on the human body. **Source:** [The Climate Council](#)

Social and Economic Impacts

Besides the effects on people's physical and mental health, heatwaves and extreme heat events are increasingly impacting wider society and the economy, often in ways that are not widely understood:

- In 2023, [Macquarie University researchers](#) found that **rates of domestic, non-domestic and sexual violence rise as temperatures do**, especially indoors.
- Besides being especially vulnerable to the physical effects of extreme heat, **children suffer poorer learning outcomes during heatwaves and extreme heat events.** Released in 2023 by Sweltering Cities and Parents for Climate, the [Hothouse Australia report](#) outlines how **many Australian classrooms and child care centres lack adequate heating and cooling**, lowering kids' ability to concentrate and increasing the likelihood of school and child care centre closures during heatwaves.
- A [Charles Darwin University study](#) in 2023 found that extreme heat events force people to adapt in ways which often **negatively affect their long-term health and wellbeing**, such as drinking more soft drink and alcohol, avoiding exercise and outside activity, and limiting social interactions.

Solutions

Sustainable planning policies for more liveable suburbs

Sustainable planning policies can reduce the Urban Heat Island effect and make our cities more liveable and sustainable. Greener suburbs, local amenities, great public transport and controls on pollution can all be achieved.

A growing body of organisations are beginning to incorporate sustainable planning policies into their operations:

- The Western Sydney Regional Organisation of Councils has a range of initiatives designed to better measure, mitigate and manage the effects of extreme heat across western Sydney, such as its [Beat the Heat resources](#) and its [Urban Heat Planning Toolkit](#).
- The Western Australian Council of Social Service's [Heat Vulnerability Project](#) is working with WA Government departments to better understand the effects of extreme heat on vulnerable communities and provide solutions that these communities want and need.
- The [Net Zero Cities project](#), developed by Monash University's Climateworks Centre, is developing policy recommendations at all levels of government for Australia to decarbonise our cities.

Trees

Increased urban green cover reduces the Urban Heat Island effect and cools down homes and streets in summer. Increasing tree cover is a simple and achievable way to cool down suburbs and save lives in heatwaves. As part of the [Greening Our City program](#), the NSW Government has committed to increasing Greater Sydney's tree canopy by planting 5 million trees by 2030.

However, some parts of our cities have less than 10% tree cover. Large-scale planting targets will not be effective if we aren't also reducing the number of mature trees being chopped down. **Trees alone are an inadequate solution to extreme heat.**

Home thermal efficiency

Higher home energy and thermal efficiency standards will save lives, make homes more comfortable and save people money on their energy bills.

Nationally, home thermal efficiency is measured by the [Nationwide House Energy Rating Scheme \(NaTHERS\) star system](#), where 1 star denotes a home with almost no protection from the heat or cold and 10 stars denotes a home that needs minimal artificial cooling or heating to be comfortable. The National Construction Code was updated in 2022, requiring all new homes in Australia to meet a minimum 7-star NaTHERS rating.

Many existing homes have much lower averages; in Victoria, the average NaTHERS home rating is only 1.8 stars. However, the Commonwealth Government [is expanding NaTHERS](#) to include assessments for existing homes, which will be available by mid-2025. NSW also uses the [BASIX system](#) to measure building energy and water sustainability.

Increased funding and support for vulnerable communities

While there is growing recognition among governments of the need to proactively plan for heatwaves and extreme heat events, and to provide targeted support to people and communities that are especially vulnerable, this work is often primarily done by local councils, which often have limited resources.

Heatwave emergency planning can include community outreach and awareness-raising, the provision of mental health services, and opening council-run heat shelters like libraries, community centres and public pools.

The Australia Institute's [Vulnerability to extreme heat](#) report provides detailed information about which locations and communities around Australia are most vulnerable to extreme heat, while the Western Sydney Regional Organisation of Councils' [Urban Heat Planning Toolkit](#) includes recommendations on how local councils can support vulnerable people and communities through extreme heat events.

Justice and community empowerment

People who live in public or community housing, or who rent, often cannot make alterations to their homes to keep them safe in the heat. While all states and territories have tenancy laws requiring that rental properties be “habitable,” **most jurisdictions have no requirement that rental properties must have fixed air-conditioning or heating installed.**

This means that many renters and public and community housing residents cannot safely live in their homes during heatwaves and extreme heat events. Better Renting’s [Cruel Summers: Renters’ diverse experiences of Summer ‘23-’24](#) report found that low rental vacancy rates and higher rents are forcing more renters into housing with no or inadequate protections from extreme heat, “making life increasingly difficult and unhealthy for people who rent”.

Introducing laws requiring adequate cooling and heating in all rental homes and public or community housing would save lives.

Giving community members more power in local and state planning systems would also enable them to contribute to cooler, sustainable cities with local solutions.

Learn more:

- International climate justice organisation Climate Resilience for All has [Guidelines for effective extreme heat visuals](#), a useful resource for journalists and editors working on stories about extreme heat

Examples of good media coverage on extreme heat

- [The Sustainability Report](#) – Former Australian international netballer **Amy Steel** had to retire from competitive sport after suffering permanent damage from a post-match heatstroke
- [Guardian Australia](#) – **Phoebe Autumn**, a welfare recipient in Perth, recounts the danger posed by having to attend in-person mutual obligations meetings on very hot days
- [The Sydney Morning Herald](#) – **Gemma McMillan**, a mother in Ropes Crossing near Penrith, tells of how she and her young son Oliver are forced to sleep in the car for the air-conditioning

