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HEATWAVES ARE HERE...BUT THE PUBLIC STILL LACKS THE TOOLS TO HANDLE THEM

Dr Jessica Mee MCASES, Gavin Thomas MCASES, Dr Ben Duncan, Dr Jennifer Joyce, Dr Oliver Gibson and Dr Neil Maxwell HonFCASES discuss public perceptions of heatwaves and the practical steps needed to support better preparedness.

Heatwaves are becoming more frequent, more intense, and longer in duration. The summer of 2025 was the hottest on record for the UK, based on mean seasonal air temperature averaged across the country (Met Office, 2026), bringing four distinct heatwaves defined as prolonged periods of excessive heat (Perkins and Alexander 2013). With the climate crisis accelerating, heatwaves are emerging as a major public-health challenge, escalating threats to wellbeing, health, and survival, and disrupting physical activity, sleep quality, and both physical and mental health (Romanello *et al.*, 2024). This public-health challenge demands better translation of environmental physiology into practice - a primary focus of the CASES Climate Action and Sustainability Advisory Group.

As researchers in thermal physiology, we wanted to understand what people know about heatwaves and how they experience them. To explore this, we held nine online focus groups shortly after recent heat events, inviting participants to reflect on their experiences during the most recent and previous notable heatwaves, including the record-breaking July 2022 event when temperatures reached 40.3°C in Coningsby, Lincolnshire.

The aim of this article is to reflect on what we learnt from these conversations and what the implications might be for future practice.

PERCEPTIONS OF HEAT AND WHO IS CONSIDERED "AT RISK"?

Many older adults downplayed heatwave risks, often viewing hot weather as something to enjoy rather than something that could threaten health. As one participant put it,

> People don't need complicated or specialist protocols; they need simple, realistic actions they can take as soon as a heatwave is forecast.

"I don't think it really gets that hot in England... I like the heat." Another added, *"This sort of heat has been nothing... we've had them before."* These reflections show how personal history and the perception of the UK as a mild-climate country can normalise extreme heat.

Parents, meanwhile, frequently recalled seeing advice about keeping babies and young children cool. One said, *"There was loads in the news about keeping babies cool,"* while another described receiving guidance from health visitors and midwives. But healthy, working-age adults felt largely overlooked. As one participant observed, *"It seems to be the middle group who aren't being targeted [by current public-health messaging]."*

Across the full cohort, participants commonly reported disrupted sleep, fatigue, and reduced productivity during heatwaves, highlighting that heat affects a wide range of people. While older adults often downplayed the risks and parents were aware of advice for babies and young children, many working-age adults felt overlooked by public-health messaging. This left them unsure of their own vulnerability and unclear on how best to protect themselves.

From a public health perspective, these nuanced perceptions matter. When heat stress risks are underestimated, people are less likely to adjust their routines or take simple steps that protect their health and wellbeing. Evidence shows that risk perception shapes behaviour (Williams and Noyes 2007): if heat is seen as a problem only for "the very young and very old," many working age adults may not modify their environment, pace activity, or use cooling strategies, even when heat is already affecting their sleep, concentration, and productivity. This highlights a key challenge for UK heatwave communication: guidance needs to make clear that heat can disrupt daily functioning and pose health risks for everyone, and that advice must be practical and immediately actionable.

ADAPTING TO HEAT: WHAT PEOPLE KNOW AND WHAT THEY DON'T

Most participants relied on familiar and immediate heat alleviation strategies such as drinking more water, opening windows, or using fans. Few had considered preparing before a heatwave. Awareness of longer-term adaptation approaches, such as heat acclimation through exercise in warm conditions (including hot yoga), saunas, steam rooms, or hot baths, was extremely limited. One participant admitted, *"I didn't even know it was possible to get more heat adapted by doing things like saunas or hot baths."*

When introduced to these ideas, people were curious but quickly pointed to barriers: cost, access, time, and the perception that such activities are luxuries rather than practical health strategies. Air conditioning was widely seen as the most effective solution, yet participants were acutely aware of its environmental and financial costs. Many felt that sustainable, affordable alternatives, such as fans, cooling towels, or shade solutions, were not well promoted or supported.

These findings highlight an important gap between immediate coping strategies and longer-term adaptation. While practical, accessible cooling strategies remain essential, there is also clear untapped potential to build physiological resilience through both improving overall fitness and targeted approaches such as heat acclimation. This can be achieved through exercise in warm conditions as well as passive heat exposure, such as hot baths or similar modalities. At present, these strategies are poorly understood and often perceived as inaccessible or non-essential. More broadly, adapting to heat is not just about physiology; it is also about equity, education, and the environments in which people live and work. Expanding awareness and access to safe, acceptable forms of heat exposure may offer an additional, underutilised pathway to improving resilience alongside conventional cooling approaches.

UK SUMMER TEMPERATURES (2020–2025)		
YEAR	**AVERAGE**	**PEAK**
2025	16.1°C	35.8 °C (Faversham, 1st July)
2024	14.4°C	34.8 °C (Cambridge, 12th Aug)
2023	15.4 °C	33.5 °C (Faversham, 10th Sep) *
2022	15.7°C	40.3 °C (Coningsby, 19th July)
2021	15.3°C	32.2 °C (Heathrow, 20th Jul)
2020	14.8°C	37.8 °C (Heathrow, 31st Jul)

*Note: The 2023 peak occurred in early September, outside the meteorological summer period (1 June–31 August). Data taken from Met Office (2020–2025), UK climate summaries and station data.

▲ **Table 1:** Temperature Trends (2020–2025): Average and Peak Values

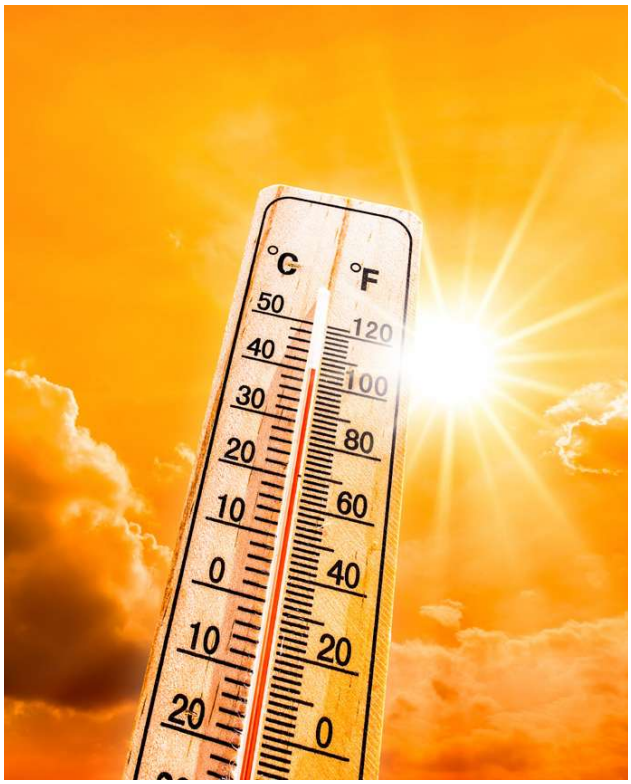
WORK, CULTURE, AND THE EXPECTATION TO COPE

Across professions, participants described workplaces that made coping with heat difficult. Healthcare workers struggled to stay hydrated during long shifts in PPE, which became especially hot and uncomfortable during extreme heat. One nurse told us, *"You realise you've got halfway through the shift, and you haven't drunk anything."* Teachers described classrooms that *"felt like ovens,"* while outdoor coaches juggled their own wellbeing with responsibility for others. As one coach put it, *"I'm so busy looking after everyone else... then I sit down at lunchtime and think I've got about five minutes in the shade."*

The built environment added further challenges. Many worked in older buildings designed to retain heat, not release it. A teacher in an 80-year-old school explained, *"There's nowhere for the heat to escape."* Universities, offices, and prisons were also described as becoming unbearable during heatwaves.

Organisational culture played a major role. Participants described expectations to *"just get on with it,"* limited flexibility in working hours or breaks, and a *"lack of clear workplace policies"*. Some were unsure whether any heatwave guidance existed at all. As one teacher said, *"There should be something in place for the health and safety of employees."*

These accounts highlighted how structural, environmental, and cultural factors combine to limit people's ability to protect themselves at work and underscore the need for public and organisational action to support workers during extreme heat.



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HOW SPORT AND EXERCISE SCIENCE CAN SUPPORT PRACTICAL SOLUTIONS?

Our findings show that people across all population sub-groups don't need complicated or specialist protocols; they need simple, realistic actions they can take as soon as a heatwave is forecast. Participants' experiences also highlight a need for proactive policies that help people prepare before heatwaves hit, such as adjusting working hours or commitments, providing cooling options like fans, or offering clear guidance on physiologically adapting and staying safe. Based on these experiences, several practical steps could be promoted in public guidance, while acknowledging that more research is needed to confirm how well some strategies support the general population.

1. Smarter planning of daily tasks: Adjusting timing and intensity of tasks, helps people manage heat without losing productivity.
2. Heat aware environments and policies: Simple measures like airflow, shade, and flexible working should be built into workplace and organisational planning. Forward-thinking policies can ensure guidance arrives early, is easy to follow, and supports people to act proactively
3. Simple, accessible heat acclimation: Short warm baths or gentle activity in warmer conditions can help the body adjust in the days before a heatwave. Regular exercise may provide similar heat adaptations. Although most heat adaptation evidence comes from athletes or controlled studies and its benefit for the public is not yet fully established.
4. Evidence based cooling methods: Cold drinks, damp cloths, water sprays, and fans used with moisture are effective and low-cost strategies.
5. Hydration habits that fit real life: Keeping fluids visible, drinking before long shifts, and using highwater foods support hydration when regular drinking isn't possible.

CONCLUSION

Heatwaves are no longer rare events in the UK. Helping people feel prepared, and giving them simple, practical tools to act, will be essential for protecting health, wellbeing, and productivity. Clear communication, stronger workplace leadership, and inclusive messaging can ensure guidance is timely, visible, and usable for everyone, not just those traditionally labelled as "vulnerable." ■

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ACKNOWLEDGEMENTS: Thanks to Olivia Barnes and Emma Lawrence for their support with data collection.