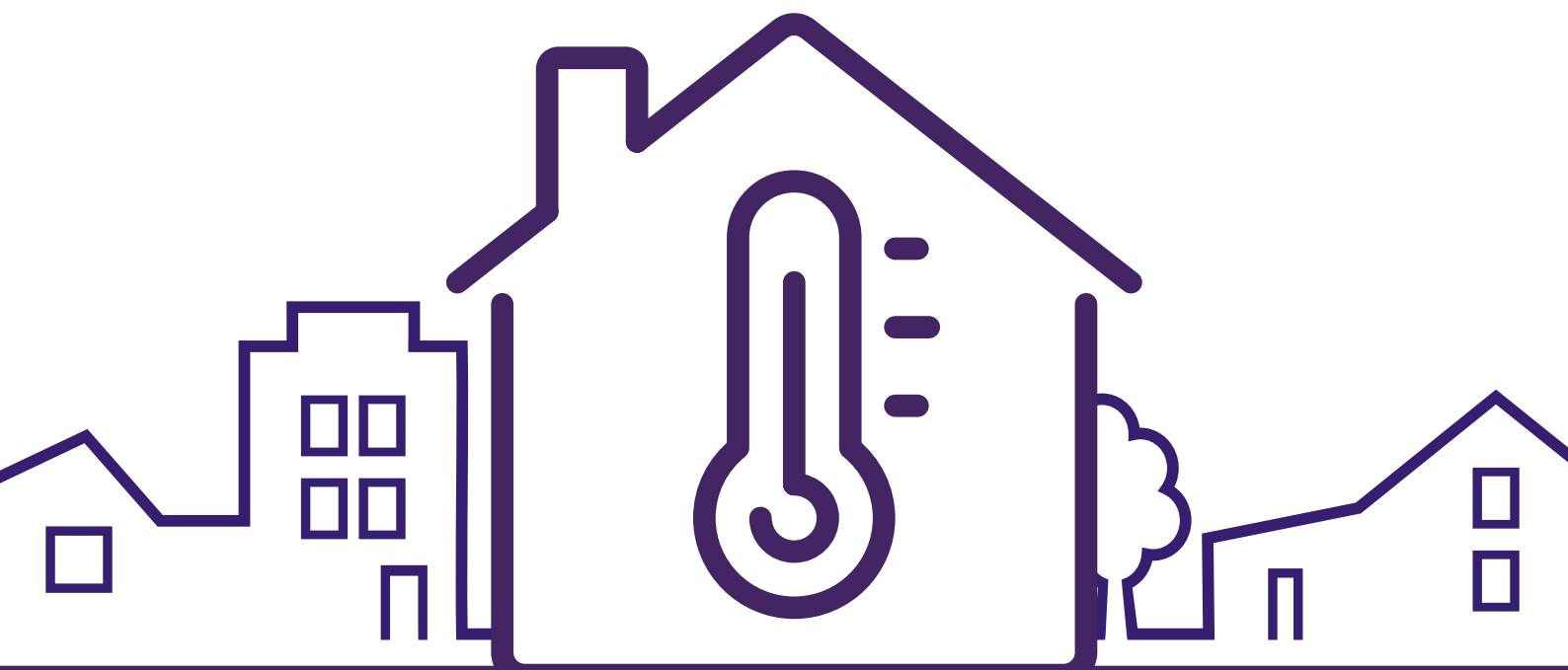


IMPROVING HEAT RISK COMMUNICATION IN ENGLAND: LESSONS FOR A HOTTER FUTURE



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AUGUST 2026

1. Executive summary

England's response to extreme heat is coordinated through the Adverse Weather and Health Plan, with Heat Health Alerts issued jointly by the UK Health Security Agency and the Met Office to support preparedness across health, social care and emergency response organisations.

This policy brief draws on new research by the University of East London examining the effectiveness of England's Heat Health Alert system and wider heat risk communication. While the current system provides a strong framework for institutional coordination, important gaps remain in public communication and behavioural engagement. Around one-third of survey respondents reported not receiving heat protection information, while more than 40% of those who recalled seeing a Heat Health Alert reported taking no protective action.

The evidence highlights the need to move beyond a warning-based approach by strengthening heat risk communication alongside longer-term adaptation measures. It recommends improving the reach, accessibility and behavioural impact of Heat Health Alerts, expanding community-based communication, strengthening evaluation, and integrating communication within broader housing, planning and climate adaptation strategies.

2. Rising heat risk in England and heat-related mortality

In the middle of summer 2026, the UK Health Security Agency (UKHSA) published its first Interim Heat Mortality Monitoring Report, estimating 2,877 heat-associated deaths during May and June 2026 (UKHSA, 2026a). This figure is already close to the record annual total of 2,985 heat-associated deaths recorded during the extreme summer of 2022, despite August, traditionally the UK's hottest month, not yet having occurred (Carrington, 2026).

The May heat event occurred unusually early in the season, with record-breaking temperatures following a period of unseasonably cool weather. The June event was characterised by its intensity and formed part of a broader period of sustained extreme heat across Europe (Met Office, 2026). Together, these events placed considerable pressure on health services and highlighted England's growing vulnerability to extreme heat.

England's response to extreme heat is guided by the Adverse Weather and Health Plan (AWHP), which is underpinned by the Weather-Health Alerting (WHA) system (UKHSA, 2026b). Through the WHA system, Heat Health Alerts (HHAs) are issued jointly by the UK Health Security Agency (UKHSA) and the Met Office to support preparedness and coordinated action across health, social care and emergency response organisations (UKHSA, 2026c).

International evidence demonstrates that well-designed heat early warning systems save lives. The World Meteorological Organisation (WMO) and the World Health Organisation (WHO) recognise heat early warning systems as one of the most effective public health interventions for reducing heat-related mortality, while epidemiological studies have shown measurable reductions in deaths where such systems are effectively implemented (Oberai et al., 2025). However, the European Environment Agency (EEA) emphasises that warnings are only effective if people receive, understand, and act upon the information they receive. Timely alerts alone are insufficient unless they lead to protective behaviour (European Environment Agency, 2024).



Recent research undertaken at the University of East London examined the effectiveness of England's Heat Health Alert system and wider heat risk communication (Assan et al., 2026). The findings identify important opportunities to strengthen information reach, public understanding, risk perception and behavioural responses, highlighting areas where England's communication system could become more effective as heatwaves become more frequent and severe.

3. Research findings on the effectiveness of HHAs and wider communication

Drawing on a national public survey and interviews with practitioners responsible for heat risk communication, the study identifies five key findings relevant to organisations seeking to improve preparedness and protect communities during periods of extreme heat.

3.1 Heat risk communication is more institution-facing and less public-facing

England's heat risk communication system is designed primarily to support institutional coordination rather than direct public engagement. Heat Health Alerts play an important role in coordinating action across national agencies, local authorities, health services, emergency responders, infrastructure providers and community organisations. While communication with the public forms part of the system, it remains secondary to this institutional coordination function.

3.2 Communication prioritises informing over motivating action

Heat risk communication in England emphasises information provision, rather than motivating protective action or strengthening perceptions of heat risk. UEL's research, however, shows that informing alone may be insufficient in a context where only 18.1% of the public report high heat risk perception and approximately 30% report limited or no knowledge of effective protective actions.

3.3 Structural drivers of vulnerability are widely recognised but insufficiently addressed

Vulnerability to heat is shaped by housing conditions, socioeconomic disadvantage, environmental exposures, existing health conditions, and access to resources. These findings reinforce the need to integrate housing, planning, and wider adaptation measures into heat resilience strategies. However, current arrangements remain heavily focused on more general warning and communication systems rather than addressing the underlying conditions that shape vulnerability.



3.4 Gaps in information reach

Around 30% of survey respondents reported that they had not encountered Heat Health Alerts or other heat protection information. Interviews identified two principal reasons for this gap:

- **Heavy reliance on digital communication.** Although digital platforms are widely used to disseminate heat risk information, they do not consistently reach everyone, particularly older adults, digitally excluded populations and other vulnerable groups. Greater use of trusted community organisations and non-digital communication channels is needed to improve accessibility.
- **Accessibility barriers.** Heat risk information is not always available in accessible formats, including translated materials, easy read versions and other inclusive communication formats, limiting its effectiveness for many communities.

3.5 Persistent warning-behaviour gap remains

Among respondents who recalled receiving a Heat Health Alert, 40.7% reported taking no protective action. The most commonly reported reasons were low perceived personal risk, failure to recognise the alert, uncertainty about what action to take, and difficulty understanding the information provided.

These findings demonstrate that issuing warnings alone does not necessarily result in protective behaviour and highlight the need for communication that is clearer, more relevant and more action-oriented.

3.6 Limited evaluation and evidence gaps hinder improvement and adaptation

Most organisations currently evaluate heat risk communication using measures such as website traffic, social media engagement and media coverage. However, far less is known about whether people understand the messages, change their behaviour, or whether communication reaches those most at risk.

Without robust evaluation of behavioural outcomes and impacts across different population groups, opportunities to improve communication remain limited. As a result, messaging often remains generic despite widespread recognition that different communities require different communication approaches.

4. Policy recommendations

The findings point to four priorities for strengthening heat risk communication and improving England's preparedness for increasingly frequent and severe heatwaves:

- 1. Improve the reach and accessibility of heat risk communication:** Expand communication beyond digital channels by working with trusted community organisations, voluntary groups, local authorities, social care providers and faith organisations. Ensure information is available in accessible formats, multiple languages and easy read versions to reach diverse communities.
- 2. Design communication that motivates protective action:** Move beyond awareness-raising by using behavioural insights to strengthen risk perception, improve message clarity and encourage timely protective behaviours during heat events.
- 3. Establish a national evaluation framework:** Develop a national framework to evaluate not only message dissemination but also public understanding, behavioural responses and outcomes among populations most at risk. Robust evaluation is essential for continuous improvement and evidence-based communication.

4. Integrate heat risk communication within wider adaptation policy: Embed heat risk communication within broader climate adaptation strategies, including housing retrofit, urban planning, public health and social care. Communication should complement long-term measures that reduce heat exposure and address the underlying drivers of vulnerability.

While these recommendations identify clear priorities for strengthening England's heat risk communication system, further research is needed to determine how they can be implemented most effectively. It should also examine how heat risk communication can be better integrated with broader adaptation measures, including housing, urban planning and community resilience, to maximise public health outcomes as heatwaves become more frequent and severe.

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