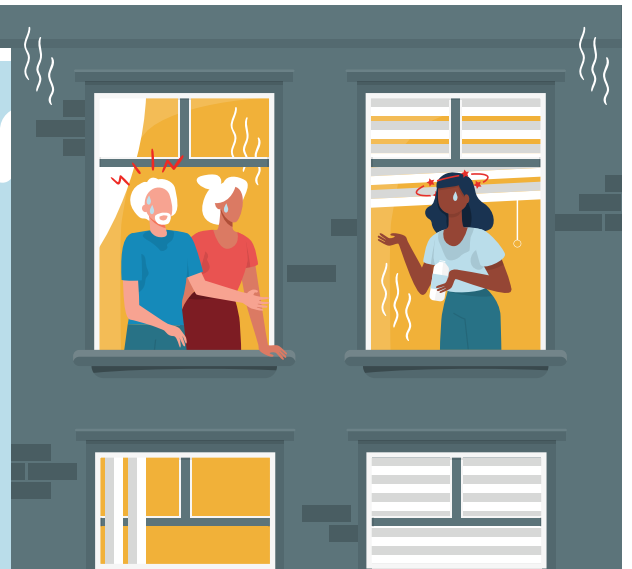


Policy brief: public perceptions of heatwaves in the UK

August 2023

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Introduction

Summer 2022 saw unprecedented heat in the UK, with record-breaking temperatures of 40 degrees and 3,271 excess deaths¹, and the UK government declaring a state of national emergency due to high temperatures for the first time.² Analysis of the 2022 response to heatwaves in England showed that the current emergency system was stretched to its limits³ while there is growing evidence of substantial economic impacts.⁴

The latest climate change projections for the UK confirm the trend towards hot summers becoming more common, with chances increasing to around 50 to 60 per cent by mid-century.⁵ Increasing temperatures for the UK mean greater risk not just of heatwaves, but also of water stress and drought, wildfires, and air pollution.⁶ The impacts on people are manifold, and those who are likely to be most vulnerable during heatwaves are likely to experience overlapping compounding factors such as social isolation, underlying health conditions, or insecure immigration status.⁷

The British Red Cross and climate change in the UK

The British Red Cross exists to support those in crisis. Increasingly, communities are facing crises that are climate-related, with extreme weather events such as floods, heatwaves, and wildfires becoming more frequent and intense. We are already seeing the impact this is having on people and communities, which is resulting in higher demands for our services. We need to be prepared as we strive for people to be safe and able to recover whenever disaster strikes, putting

those in the most vulnerable situations at the heart of our response, with a focus on taking early action and adapting for what the future holds.

As the climate changes, so must we.

This is why we have developed a UK Climate Adaptation Programme to enable our Crisis and Emergency Response services to become climate ready. We are also providing people and communities with high-quality advice and resources to support them to prepare for weather-related emergencies.

However, we also recognise that action is required by government at all levels. This is why we are advocating for urgent action on UK adaptation that prioritises those people and communities most at risk, while recognising that continued efforts to reduce greenhouse gas emissions are necessary to prevent even worse humanitarian impacts.

We've looked at extreme weather events and their impact on communities and published reports, such as '**Every time it rains**' and '**What the water touched**' on flooding, and '**Feeling the heat**' on heatwaves, that provide evidence-based policy and practice recommendations to build resilient communities.⁸

This year, we repeated our UK-wide poll that formed the basis of '**Feeling the heat**' in 2021, to assess how people's perceptions of heat risks have evolved two years on, and following the hottest year on record for the UK in 2022.⁹¹

Policy landscape

There are signs of an increased focus being put on heat risk by policymakers across the UK. However, progress is often difficult to assess due to diffused accountability and the multiple strategies and plans that relate to resilience and climate adaptation policy. In early 2022, the UK government published its Third Climate Change Risk Assessment, which emphasises the risk heat poses to human health, wellbeing, and productivity, specifically focusing on overheating in homes and buildings.¹⁰ However, the Climate Change Committee's (CCC) latest Adaptation Progress Report shows a lack of progress overall in the UK on adaptation, with a gap in community preparedness and response for climate hazards beyond flooding.¹¹



4 in 5

people say the UK government and government agencies have an important role in ensuring people are as prepared as possible in knowing when a heatwave is coming



Climate adaptation policy is largely a devolved matter. The latest reports from the CCC on progress across the devolved nations show similar challenges as at a UK level. In Northern Ireland, the CCC's Adaptation Progress Report highlights many gaps including availability of data on impacts of heat events, provisions to prevent overheating in buildings and localised responses to heat risk.¹² In Scotland, the CCC points to a need for raising ambition, urgently focusing on home retrofitting to reduce overheating risks, and showing slow progress in tackling people's health resilience to extreme heat.¹³ In Wales, the picture is more complicated with climate change issues not being centralised in a single policy and no overall assessment of progress since 2013.¹⁴ Also, the latest adaptation plan of the Welsh Government does not focus on heat risk.¹⁵ Across all UK nations there is a lack of targeted financial support for people in vulnerable situations to make adaptations to their homes.

The UK Health Security Agency (UKHSA) recently launched its new Adverse Weather Health Plan for England, offering a joint approach to both cold weather and heatwaves for the public sector, independent sector, voluntary sector, health and social care organisations, and local communities.¹⁶ Its focus is mainly on much-needed preparedness and response, with particular attention given to people living in care homes or receiving care at home, homeless people, and children. However, limited consideration is given to other at-risk groups, such as people who live alone (and do not necessarily receive care), those who are socially isolated, and refugees and migrants, and its scope is limited to action within the health sector.

The Government Resilience Framework (GRF) was published in late 2022 and aims to strengthen the UK's national resilience.¹⁷ It focuses on prevention and preparation and presents a

vision for 'whole of society' resilience. While the framework recognises our changing climate and the risk associated with this, it does not include plans to address climate change specifically, citing instead cross-government projects such as the UK Government's Net Zero Strategy, the Third National Adaptation Programme, and the Climate Change Act as the programmes of work currently being undertaken to address this issue. The GRF does, however, recognise the need to address the disproportionate impact that emergencies have on people in vulnerable situations and at-risk groups and communities, and that health and socioeconomic disparities are linked to a person's ability to reduce risk and respond in a crisis. Broadly, the GRF indicates a shift towards a greater understanding of underlying vulnerabilities in communities. However, more details are required about how these commitments will be realised and aligned with the wider range of policy publications and strategies outlined above.

The Government recently published the third National Adaptation Programme (NAP3) for the UK, which acknowledges the risk posed by heat and that the impacts of climate change are felt disproportionately – identifying those on lower incomes, older citizens, and people with disabilities as most at risk – and states that tackling public health risks from overheating is a key priority for government. It includes commitments to address overheating in new houses through recent changes to building regulations and an aspiration to support adapting the UK's existing housing stock. However, detail on how and when this would be achieved is not given. In addition, despite the ambitions set out within the GRF, NAP3 does not focus on identifying and addressing the particular needs of people in vulnerable situations who are likely to be most at risk from weather-related emergencies.

This all points to the need for greater urgency and a wider cultural shift across the whole UK towards adaptation to hazards such as heatwaves, which the UK has previously had limited exposure to and as a result lags behind countries that are more accustomed to and prepared for hot summers.¹⁸



Perceptions of heatwaves in the UK

Awareness & Vulnerability

The majority of people in the UK are concerned about the impact of heatwaves on their lives and think heatwaves are increasing as a result of climate change

70 per cent

agree we are seeing more extreme heatwaves in the UK as a result of climate change (up from **61 per cent** in 2021)



3 in 5 UK adults

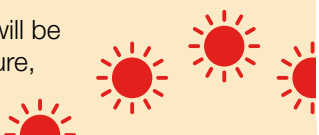
are concerned about the impact of heatwaves on themselves (**62 per cent**, up from **51 per cent** in 2021)

Regionally, concern is highest in London (**71 per cent**)



However, a significant minority are unconcerned and do not think heatwaves currently pose a risk in the UK

Over a third think heatwaves will be a problem in the UK in the future, not now (**37 per cent**)



36 per cent

are not concerned about the impact of heatwaves on themselves



People aged 75+ (**35 per cent**)

Those in this age group are more aware now than they were in 2021, when over half did not consider themselves vulnerable (**57 per cent**)



1 in 3 people in groups most likely to be vulnerable do not consider themselves to be vulnerable

People working outdoors 30+ hours a week (**34 per cent**)



People living in top floor flats (**33 per cent**)



Most people in the UK have experienced adverse effectsⁱⁱ of hot weather (61 per cent)

The following groups are more likely to report adverse effects:

People living in top floor flats (**86 per cent**)



People expecting a child (**84 per cent**)

Younger people (**78 per cent** of those aged 18-24, compared to only **39 per cent** of those aged 75+)

People with a health-related conditionⁱⁱⁱ that makes them more vulnerable to extreme heat (**75 per cent**) – including **83 per cent** of those with a mental health condition



Many also report heatwaves having an impact on their day-to-day lives

62 per cent

of workers have found it difficult to concentrate on their work during heatwaves

58 per cent

of students have found it difficult to concentrate on their studies during heatwaves

16 per cent

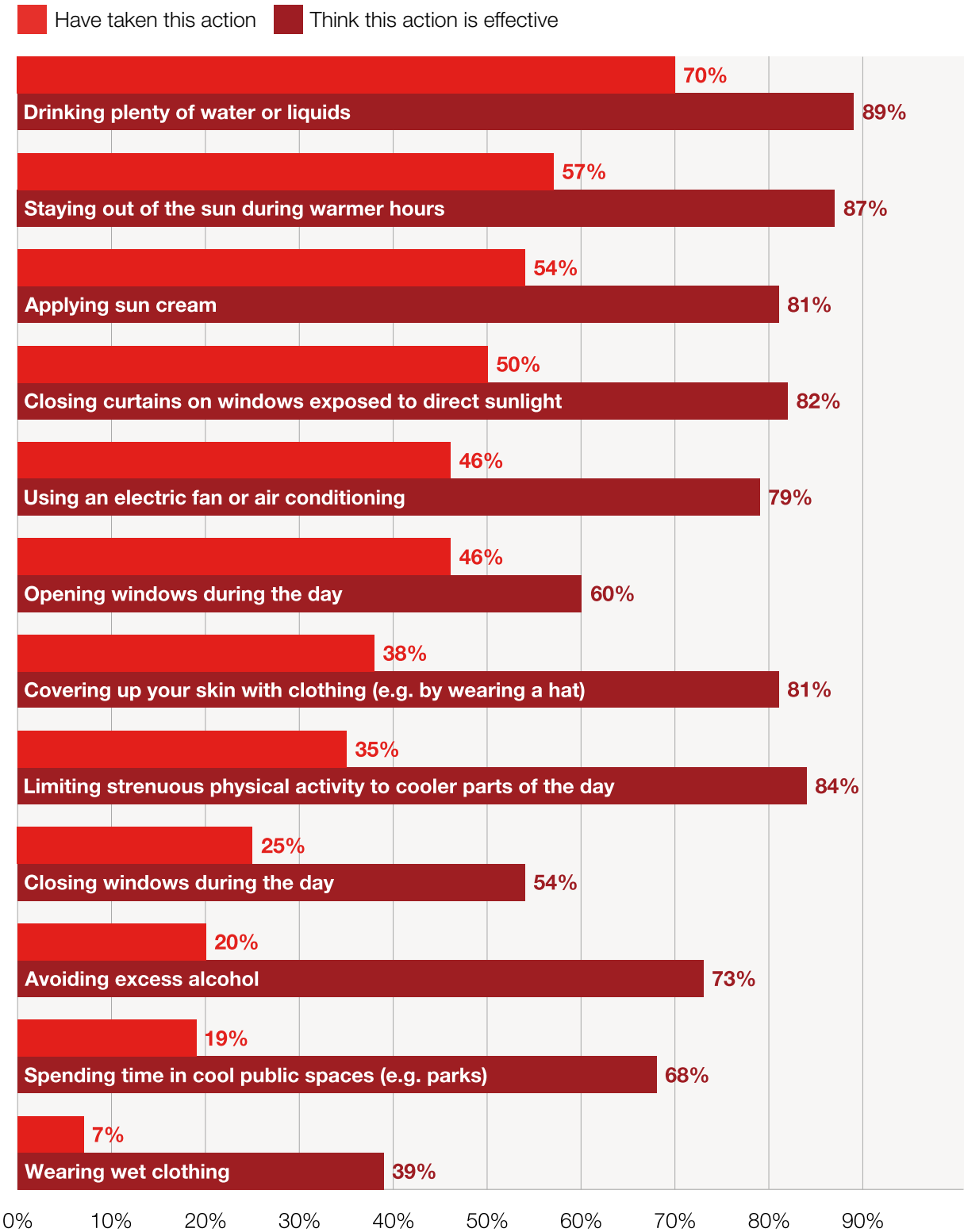
say they have experienced stress or anxiety as a result of hot weather in the UK

Individual Action & Preparedness

Many people do not take action to protect their health during a heatwave, despite believing they would be effective^{iv}

Least likely behaviour includes avoiding excess alcohol, spending time in cool public places, and wearing wet clothing.


59 per cent
say they have a good understanding of who in their community would be particularly vulnerable during a heatwave



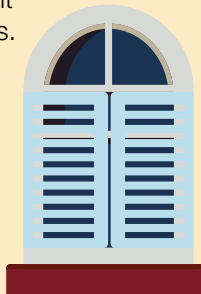
Home Adaptation

People commonly report that their home overheats during hot weather, yet a quarter do not know what they could do to prevent this from happening

41 per cent say their home is not well set up to prevent overheating during heatwaves

45 per cent have struggled to prevent their home from overheating during heatwaves.

- People in top floor flats are more likely to struggle (**58 per cent**)
- Older people are less likely to report struggling than younger people (**56 per cent** of those aged 18-24 compared to only **24 per cent** of those aged 75+)



56 per cent have considered making changes to their home, but have not gone ahead. Common barriers among this group include:

- being unable to afford it
- having other financial priorities
- not owning home
- not being concerned enough

36 per cent have made changes to their home to prevent overheating during hot weather, most commonly:

- installing insulation (**23 per cent**)
- fitting thermal blinds that reflect heat (**12 per cent**)
- installing air conditioning (**9 per cent** – a further **35 per cent** have considered this)



26 per cent

do not know what changes could be made to their home to stop it overheating during a heatwave



Access to services and information

Most people know how to protect themselves (**81 per cent**) and understand the health risks associated with heatwaves (**78 per cent**)



People are broadly well-informed about the health risks associated with heatwaves and how to protect themselves

While most people know where to find information about how to protect themselves (**66 per cent**), a third have never seen information on how to protect themselves during a heatwave (**33 per cent**)

3 in 10

say there are no cool public spaces such as parks near where they live where they can spend time when the weather is hot (**29 per cent**)



The most common ways people find out about a heatwave are:

- news/weather report (**74 per cent**)
- Met Office website (**39 per cent**)
- local radio stations (**22 per cent**)
- other weather-related websites or apps, such as BBC Weather (**38 per cent**)

Preferred ways to receive warnings about heatwaves*:

- television weather broadcasts (**52 per cent**)
- SMS (**24 per cent**)
- local radio stations (**22 per cent**)
- younger people are more likely to favour apps and social media, while older people prefer TV and radio



39 per cent

have helped others to protect themselves during a heatwave

Role of government

A significant minority of people think there is a lack of preparedness for heatwaves across the UK

39 per cent

of UK adults think that the UK government is unprepared if a heatwave occurs

36 per cent

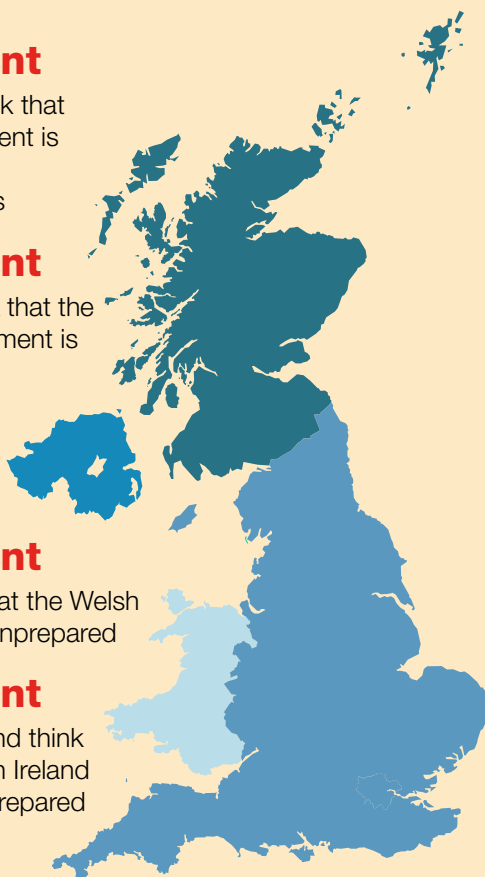
in Scotland think that the Scottish Government is unprepared

33 per cent

in Wales think that the Welsh Government is unprepared

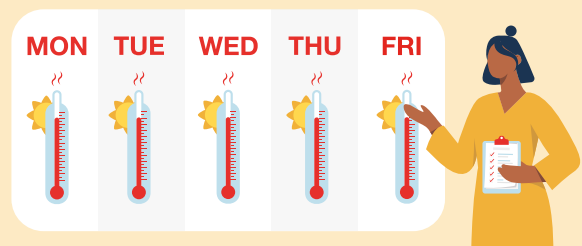
46 per cent

in Northern Ireland think that the Northern Ireland Assembly is unprepared



4 in 5 people say the UK government and government agencies have an important role in ensuring people are as prepared as possible in knowing when a heatwave is coming; knowing what actions they can take to avoid becoming unwell; and knowing changes they can make to homes and workplaces to avoid overheating (between **81 per cent** and **83 per cent**)

Around three in four say the same about local government (between **76 per cent** and **77 per cent**)



People would like to see individuals and communities supported to cope with heatwaves in the following ways:

- 1 Ensuring that new buildings are built to standards which help to reduce the impact of heat (**46 per cent**)
- 2 Ensuring that public buildings (e.g. schools, care homes and community centres) offer a cool space for people (**43 per cent**)
- 3 Ensuring that people who are particularly vulnerable to heatwaves are visited by someone who can advise and help them (**40 per cent**)

45 per cent say vulnerable people in their neighbourhood such as older people are unprepared for heatwaves

What the research tells us



Around 3 in 5

students and workers have seen their concentration affected by heatwaves



Over a third

of people have helped others to protect themselves during a heatwave



Awareness and vulnerability

- **Concern about heatwaves has increased.** There has been a significant increase in the proportion of people who are concerned about the impact of heatwaves on themselves compared to 2021, but over a third still say they are not concerned. While there has been notable progress in older people's awareness of their own risk, more than one in three still do not consider themselves as potentially vulnerable.
- **Heatwaves are still seen by many as a problem for the future.** While a majority of people agree we are seeing more extreme heatwaves in the UK as a result of climate change, over a third think heatwaves will be a problem in the UK in the future, not now.
- **Contrasting results suggest older people may not recognise their vulnerability.** Between 85 and 90 per cent of excess deaths are observed in the 65+ years age group.¹⁹ Yet older people tend to report fewer adverse effects from hot weather and are less likely to report difficulty with keeping their homes cool than younger cohorts, and more than one in three still do not consider themselves as potentially vulnerable.

Individual action and preparedness

- **There is a clear gap between awareness and action.** Most people know about the effectiveness of measures to protect their health from the impacts of extreme heat. Yet far fewer people take such measures, showing little change from 2021.
- **There seems to be confusion over the best course of action to keep homes cool.** Official government advice is to open windows only when outside air is cooler, while also considering air ventilation. However, nearly half of UK adults tend to open their windows in severe heat rather than keeping them closed.
- **Half of UK adults say that potentially vulnerable neighbours are not prepared.** Over a third of people have helped others to protect themselves during a heatwave. Many would like to see more support provided to ensure that those who are particularly vulnerable to heatwaves are visited by someone who can advise and help them.

Home adaptation

- **Keeping homes cool is a challenge.** Almost half of UK adults have struggled to keep their home cool during a heatwave and two in five say their homes are not well set up to prevent overheating. Around a quarter do not know what changes could be made to their homes to prevent overheating.
- **Cost is the biggest barrier to people making adaptations to their homes.** Over a third of people have made at least one change to their home to prevent overheating. Though many more have considered making changes but have not gone ahead. Key reasons for this are financial limitations and not owning their own home. A significant proportion also reported not being concerned enough by heat risk to make adaptations to their home.
- **Heatwaves have an impact on productivity.** Around three in five students and workers have seen their concentration affected by heatwaves. With an increase in homeworking, people have less access to cool office spaces and are more likely to be affected by overheating.²⁰
- **More information about climate-friendly ways to adapt homes could be useful.** One in three people have considered installing air conditioning to protect themselves from heat. While it is essential to protect the most vulnerable against heat risks, increased use of air conditioning can increase energy bills, put additional pressure on the grid, and contribute to climate change.²¹

Access to services and information

- **Many people are unable to access cool public spaces.** Three in ten people do not have access to cool spaces such as parks near where they live. And while most agree that spending time in cool public spaces is an effective way to protect themselves against heat risk, very few actually do this. Almost half would like to see more public buildings such as schools and community centres offering a cool space for people.
- **While the majority of people are well-informed, there are substantial gaps in access to information.** Most people know where to find information about how to protect themselves and understand the health risks

associated with heatwaves. But a third say they have never seen information on how to protect themselves during a heatwave. This figure does not include people who are digitally excluded as our survey was online.

Role of government

- **A significant minority of people think there is a lack of preparedness for heatwaves across the UK.** Responses indicate that many people think that governments across the UK are unprepared in the face of heatwaves. There is very strong consensus that national and local governments have an important role to play in ensuring people are as prepared as possible, by raising awareness and encouraging people to take action to protect themselves and adapt their homes.

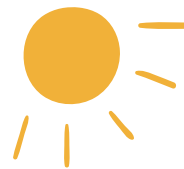


Educational resources

Weather Together

The Red Cross designed a **toolkit** to equip learners with the skills and knowledge they need to prepare for and cope with extreme weather.

The toolkit is designed for 10-16-year-olds to teach them how to prepare for and cope with extreme weather events, including resources on flood risk, how to prepare for the next heatwave, and eco-anxiety.

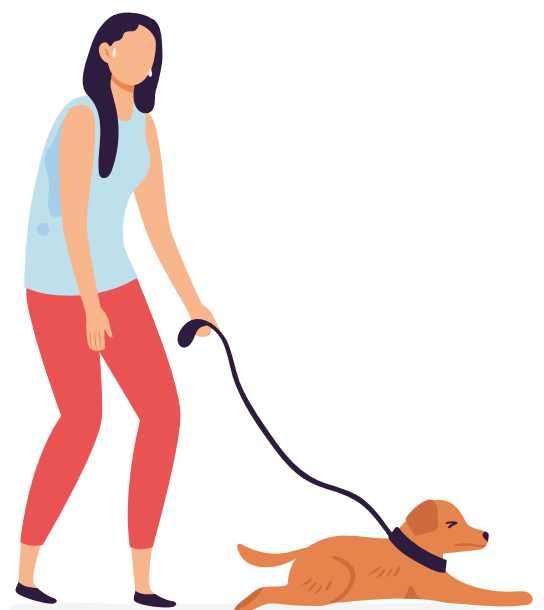


To sign up to heat alerts, visit: [metoffice.gov.uk](https://www.metoffice.gov.uk)

Visit the British Red Cross's [educational resources on heatwaves](#)

Download the British Red Cross's [First Aid app](#) and [Emergency App](#)

For the latest public health advice in England visit: www.gov.uk



Recommendations

Below we assess what policy action is required across the UK to address the challenges posed by heatwaves now and in the future.

1. **Action on awareness, preparedness and adaptation to heatwaves must prioritise those most at risk.**

We know there are specific groups who are likely to experience the worst effects of heatwaves. Our research provides valuable insights into how older people, who account for most excess deaths during heatwaves, perceive their risk. However, we know other groups of people are also at risk (such as refugees and migrants, people with mental health conditions, and those who are socially isolated). **Additional research is needed to assess how higher risk groups perceive their own vulnerability, as well as their access to information and services to support them in preparing for and adapting to heatwaves and other weather-related emergencies.** The disproportionate impact of heatwaves on particular groups has been widely acknowledged by governments across the UK, but this has not yet led to the **targeted and coordinated action required to address need.**

2. **A ‘whole of society’ approach to building awareness of heat risk and supporting preparedness is required.**

While it is encouraging that awareness of risk associated with heatwaves appears to have improved since our research in 2021, our recent polling has revealed a significant gap between public awareness and action. The ‘whole of society’ vision for public engagement in national resilience articulated in the GRF signals the need to **enhance awareness and enable greater ownership and action from people who are likely to be most vulnerable to emergencies.** However, assessments of progress so far highlight a gap in translating these ambitions into action. Only limited tailored outreach and support to specific groups is currently available and the recently published NAP3 lacks a clear vision to deliver this targeted approach to support people who are most vulnerable to heat risk.

Action must include **development of appropriate communications for disproportionately affected populations that are informed by and developed with lived experience.** But effective awareness raising requires action beyond sharing warnings and advice. **A well-resourced, co-ordinated, and**

cross-government communication approach to improve understanding of risk and to support preparedness across a range of weather-related emergencies, including heatwaves, is required. This must include a central role for local Voluntary and Community Sector (VCS) organisations, who are well placed to work alongside national and local government to ensure that information and support reaches those most in need.

3. **Direct policy intervention is required to enable people most at risk to adapt to heatwaves.**

Preparedness is essential but not enough to deal with extreme weather events. **Adaptation to buildings and urban planning is critical to tackle indoor and outdoor heat.** However, progress on UK adaption is lagging. Our research on both floods and heatwaves shows that financial constraints are one of the main limiting factors for people to take appropriate steps to adapting their homes. Greater access to cool spaces is also essential to enable people to escape heat when they struggle to keep their homes cool, yet we know for many this is not possible.

Targeted support for both adapting homes and improving access to cool spaces for those most at risk is critical in order to address the escalating effects of heatwaves on health, wellbeing and the economy.

4. **Comprehensive and coordinated risk management for heatwaves should be further prioritised by the UK and devolved governments.**

Despite growing concern about the impact of heat risk, many people are not confident that the UK is well prepared and expect national governments to play a leading role in driving action.

The current approaches to address the impacts of heatwaves are not keeping pace with the level of risk, are often poorly coordinated across government and do not sufficiently focus on people, particularly those who are likely to be most vulnerable. **Coordinated action across government, sectors, policies, frameworks, and timescales is needed to build resilience against heat risk and other extreme weather events.**²²

Methodology and notes

ⁱ The British Red Cross commissioned Opinium to conduct a 10-minute online survey among 2,000 UK adults from 20 - 23 June 2023. Data were weighted to be nationally representative of UK adults by age, gender, region, and social grade. Data were compared to findings from our original online survey of 2,000 UK adults carried out from 11 - 15 June 2021, also by Opinium. All differences between subgroups mentioned in the text of the report are statistically significant (chi-square testing).

ⁱⁱ 'Adverse effects' measured via multiple choice question with the following options: headache; dizziness or feeling faint; heat rash; heat exhaustion or heat stroke; high temperature; stress or anxiety; nausea or vomiting; muscle weakness; needing to call a GP; needing to call ambulance / visit a hospital / A&E; other.

ⁱⁱⁱ Respondents were asked about specific health-related conditions which can increase vulnerability to the effects of heatwaves: Heart condition (e.g. coronary heart disease, stroke); Lung / respiratory condition (e.g. asthma, lung disease); Diabetes; Kidney disease; Parkinson's disease; Alzheimer's; Drug and/or alcohol addiction; Severely limited mobility; Obesity; Mental health condition or illness).

^{iv} Respondents were asked 'How effective, if at all, do you think the following measures are at protecting people's health from the impact of extreme heat?' and 'Which of the following actions, if any, have you taken to protect your health during a heatwave in the UK?'

^v Data gathered via an online survey therefore the views of digitally excluded groups may be underrepresented, this is a recognised limitation of this method.

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²¹ Beuland, A.L, et al. (2020) Early adaptation to heatwaves and future reduction of air-conditioning energy use in Paris. Environmental Research Letter. Available at: **Early adaptation to heat waves and future reduction of air-conditioning energy use in Paris (iop.org).**

²² Grantham Research Institute on Climate Change and the Environment (2023) The 2022 heatwaves: England's response and future preparedness for heat risk. London: LSE. Available at: **The-2022-heatwaves-Englands-response-and-future-preparedness-for-heat-risk-June-2023.pdf (lse.ac.uk)**

Design and layout: Alliance Marketing Agency

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@RedCrossPolicy August 2023

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