

EXECUTIVE SUMMARY  
Director Of Public Health  
**Annual Report 2025**

# HEAT IN THE CITY:

Our Health in a  
**Warming Leeds.**



## Introduction

Climate change is one of the greatest public health challenges of our time. This year's Director of Public Health Report for Leeds looks at one part of this: the impact of our warming planet on the health of the people of Leeds. As the planet warms, the risk of heat-related illnesses and harm to health increases.

This is often unequally distributed due to social, economic and geographical inequality. Increasing temperatures can make existing health conditions worse and create new environmental threats. The report focuses on:

- ▶ How rising temperatures affect people's health in Leeds, including those most at risk.
- ▶ What is already happening in Leeds to reduce risks to the public's health in our warming climate and what further action do we need to take.

Over the past decade, Leeds has changed a lot. Our communities have become more diverse, and the city centre has grown. More people now live in inner-city areas and the population is growing faster than the national and regional averages. To improve health and wellbeing and protect the public's health as we experience warmer temperatures, we need to consider differences in where people live, work and play, as well as their age and current health status. Our approach should be targeted to reflect these differences in risks and work to address health inequalities.

Whilst the impacts of climate change are broad, the report specifically examines three key themes related to public health and increasing heat:

1. Unequal impacts of rising temperatures in Leeds
2. How rising temperatures affect long-term health conditions
3. Emerging risks: Infections and air quality

**Climate change is a health crisis. The choices we make today will shape the health and well-being of future generations. We need to act quickly, work together and make decisions to protect our planet and our health.**

**LEEDS SEES HOTTEST DAY as UK temperature hits 40C for first time on record**

Yorkshire Evening Post | 18 July 2022

Trees for Streets Programme, Leeds.



## Important findings from the report

### Rising temperatures in Leeds

Leeds has experienced significant increases in temperature, with the hottest years on record occurring since 2002. The number of summer and hot summer days has also risen.

National data suggests on days when temperatures reach and exceed 25°C the risk of hospital admissions can increase (especially for vulnerable groups). There is also a recorded increase in deaths during heatwaves.

The 'Urban Heat Island Effect' is common in densely populated, built-up urban areas. Urban building materials such as concrete and asphalt retain heat better than natural surfaces, so urban areas can be up to 8°C hotter than rural areas. This is because heat becomes trapped amongst a lot of concrete and there is less natural cooling via wind circulation.

### Unequal impacts of heat

The impact of increasing temperatures on health is a risk for everyone, however evidence shows that these risks can increase depending on certain factors. If someone lives in an area of deprivation, they have an increased risk of experiencing heat related ill health. This risk increases further if they live in a densely populated, urban area or live with a long-term health condition. These layers of risk increase an individual's

vulnerability to the harmful effects of heat on health.

The report highlights that most at-risk groups, such as older adults, people with long term health conditions, young children, and those living in deprived communities, are disproportionately at risk from the impacts of rising temperatures. People in low-income households often face additional challenges, such as an increased likelihood of having a long-term health condition and/or disability.

Personal, environmental, and social factors also affect how resilient people in Leeds are during heatwaves.

### Housing vulnerability

Housing conditions contribute significantly to the risks people face in extreme heat. Some building types overheat more easily than others and may lack the facility for residents to cool down. Others struggle to retain heat during the wintertime. Hotter temperatures can be more difficult in this type of housing.

Residents of these homes, especially in deprived areas, often have less access to green spaces and cooling facilities which increases their risk of ill health.

### Health impacts

In Leeds, we're used to preparing for risks associated with cold weather, but warmer weather can also increase the risks to people's health..

### Emerging risks

The report outlines other emerging risks associated with climate change including the spread of vector-borne diseases from mosquitoes and ticks and worsening allergies due to longer and more intense pollen seasons.

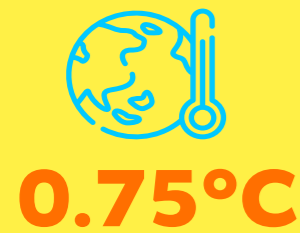


The report highlights the unequal health impact of rising temperatures, with certain groups facing greater risks.

Millennium Square, Leeds. Picture courtesy of Graham Fotherby.

**Snapshot**

**Increasing temperatures and their impacts**



The UK's average temperature has risen by this amount over the last decade.



The hottest years on record for Leeds have all occurred within the last decade.



Increase in 'Summer Days' (over 25°C) in Leeds since 1981.



According to climate prediction tools, by 2050 there will be a 50% increase in the likelihood of summer heatwaves occurring in the UK.



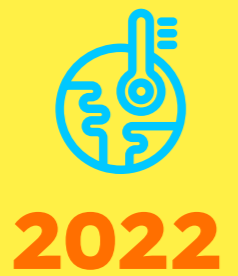
Excess deaths were recorded in the summer of 2022 when 5 extreme heat periods occurred (UKHSA).



Hospital admissions can significantly increase when temperatures push over this threshold, especially for at-risk groups.



The frequency of "hot summer days" (30°C or above) has tripled in recent decades.



and 2023 were the warmest and second warmest years on record in the UK since 1884.



Was the highest temperature recorded in West Yorkshire in 2022—the first time on record.



Inner-city areas can be this much warmer than rural areas during hot weather.

**How People live in Leeds**



**1/4**

Of adults in Leeds live in the most deprived areas (IMD1\*).



**1/3**

Of children in Leeds live in the most deprived areas.



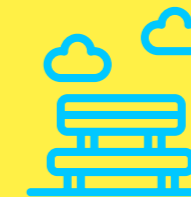
**45,846**

Babies and young children (under 5) live in Leeds.



**3rd**

Leeds is the third-largest city in the UK and one of the fastest-growing, greenest cities in the country.



Leeds is home to Roundhay Park, one of the largest city parks in Europe.



**27%**

Of people who live in the most deprived areas of Leeds are in older (pre-1930) housing.



**£110m**

Has been invested by Leeds City Council in energy efficiency for 6,294 properties over five years.



**26%**

Of Leeds residents live in terraced homes.



**28%**

Live in flats.



**6%**

Of people live in high rise properties.

\*IMD stands for the 'The Indices of Multiple Deprivation' which is used to measure relative deprivation within small local areas across England. The IMD ranks areas from 1 (most deprived) to 10 (least deprived).

## Snapshot

### Most at risk groups



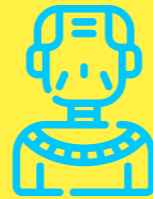
**61,956**

people in Leeds are listed as vulnerable on the priority services register.



**2 in 5**

people on a Leeds GP register in 2021 had at least one long-term condition.



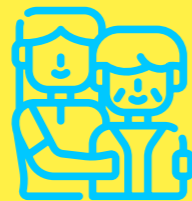
**128,600**

people aged over 65 are living in Leeds.



**150+**

care homes in Leeds.



**3,500+**

receiving home care services.



**1/2**

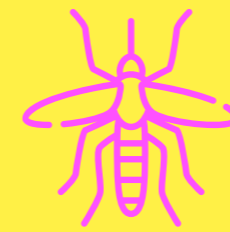
More than half the people aged 50 and over in Leeds live with two or more long-term health conditions.



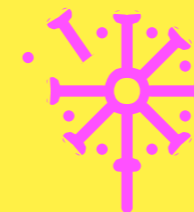
**37**

people were estimated to be sleeping rough on a single night in Leeds in 2022.

### Emerging risks



Climate models predict that warmer temperatures could soon attract non-native mosquito species capable of spreading diseases like dengue, chikungunya, and Zika.



Pollen seasons are starting earlier and becoming longer and more intense, because of warmer temperatures.

Horsforth, Leeds. Picture courtesy of Belen Valle-Metaxas.



## Engagement

### What we did

In the first stage of creating this report we conducted a review of the available evidence around urban warming and rising temperatures, produced by:

- ▶ The United Kingdom Health Security Agency (UKHSA).
- ▶ The Department of Health.
- ▶ The Local Government Association.
- ▶ The World Health Organization.
- ▶ The Met Office.

We also accessed local policies to identify key themes and support the development of this report.

To understand the impact of increased temperatures on Leeds residents, we then held five focus groups. These took place within a range of settings and groups in Leeds including:

- ▶ A high-rise building.
- ▶ A children's centre.
- ▶ A care home.
- ▶ A support group for people with long-term conditions.

We also carried out one-on-one interviews with individuals. We spoke

to people with long-term respiratory conditions and those receiving homecare services. These sessions engaged professionals and residents from varied demographics, locations, ethnicities, and age groups.

Group and individual discussions captured personal experiences of heat and rising temperatures. The data was then processed, coded and analysed for key themes and trends. What people told us has been referenced throughout the report.

We also conducted six one-on-one interviews with professionals and partners, working with populations at risk of rising temperatures. To broaden the scope, we launched an online survey. We analysed the responses to identify recurring themes, which have been explored within this report.

26 Leeds residents were engaged in focus groups.

67 professionals were reached through a survey.



High Rise Residents, Leeds.



## Creating the short film

To accompany the written Director of Public Health Annual Report, we produced a short film. The film highlights the individual experiences of people in Leeds.

### Filming

Filming occurred across 2 shoot days. Each shoot day involved 6-7 crew members and up to 4 locations in Leeds. Adjustments to the shoot setup were made in order to meet participants' needs.

The voiceovers were shaped by individuals' contributions to community engagement activities. For most, participants voiced their own stories. However, in two cases, alternative approaches were used. In one, with consent, another local person voiced an individual's contributions on their behalf.

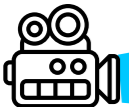
In the other, themes from the report, experiences from across Leeds, and the young person's own experiences were reflected through their narration. We worked with local drama students to bring these stories to life.

A script was prepared in advance based on participants' contributions to community engagement activities. Participants were consulted about the script and changes were made if requested.

The film features a broad mix of demographics, filming locations, ethnicities, ages, and experiences. It highlights the experiences of six local people and gives us the chance to understand their lives in a warming Leeds.

**“Carmen absolutely loved the filming, she said it reminded her of her teaching days and enjoyed it very much.”**

Staff at Wetherby Manor Care Home, Filming Location



**“I had so much fun filming! Something new for me, I was a bit nervous but that soon passed as the guidance was good, so thank you for making me feel comfortable! From the focus group to the filming day, you were all great.”**

Uzma, Family Help Worker

## What is Leeds doing to beat the heat?

### Housing improvements:

Leeds is investing in energy efficiency improvements, such as thermal insulation and low-carbon heating, to make homes more resilient to both cold and hot weather.

**Support for people most at risk:** Leeds City Council has developed initiatives such as hot weather packs for people most at risk, hot weather preparedness webinars for care homes and homecare providers and reminders to families about staying safe in hot weather.

### Community Climate Action:

Organisations like Climate Action Leeds support climate action in diverse neighbourhoods through community gardens, seed libraries, and repair cafes.

### Monitoring Vector-Borne Diseases:

Leeds City Council and the UK Health Security Agency are monitoring the spread of non-native mosquitos and ticks.

### Leeds' plan for a zero-carbon future:

Leeds aims to be the UK's first net-zero city by 2030, focusing on reducing emissions, protecting nature, and promoting sustainable living.

### Urban Green Spaces:

Leeds is enhancing biodiversity with a focus on grasslands and woodland habitats, improving public green spaces as well as the creation of a city centre park 'Aire Park'.

### Planning:

The UK planning system is making sure that land is used in a way that benefits public health and well-being. Collaboration between planners, designers, and public health professionals is key to making sure that new developments are healthy and sustainable.

Aire Park City Centre Development, Leeds.  
Picture courtesy of Aire Park by Vastint UK.





## Recommendations

To address the health impact of rising temperatures, the recommendations of this report require a holistic approach, integrating public health, housing, city development, and community engagement:

- 1.** Leeds City Council, Leeds Health and Care Partnership, anchor organisations and third sector to work collaboratively to promote and implement the advice and actions in the UK Health Security Agency Adverse Weather & Health Plan.
- 2.** Leeds City Council, Leeds Health and Care Partnership, anchor organisations and third sector partners to work collaboratively to further improve access to cool spaces across the city by:
  - ▶ Building on and promoting Leeds cool spaces guidance with partners.
  - ▶ Ensuring there is a fair spread of cool spaces according to need across the city including community venues and seating in shaded areas.
  - ▶ Increasing public awareness of cool spaces.
- 3.** Leeds City Council, Leeds Health and Care Partnership, and third sector partners to work together to review and increase opportunities for community engagement around the health impacts of increasing heat through the development of a city-wide action plan.
- 4.** Academic partners to support citywide work to strengthen local research, evidence and evaluation in relation to urban-heat mapping and climate vulnerability tools.
- 5.** Leeds City Council will ensure that heat and health is considered in planning, particularly within densely populated inner city areas by ensuring:
  - ▶ That planning applications are informed by ward specific heat data.
  - ▶ Health Impact of heat is included in health needs assessments.
  - ▶ Continued development of design guidelines for green spaces that are adaptable to the changing climate.
- 6.** West Yorkshire Combined Authority and Leeds City Council will continue to work together to:
  - ▶ Identify opportunities for funding and investment in energy efficiency measures within Leeds housing stock.
  - ▶ Lobby for improvement in national policy around rental housing to ensure landlords are responsible for making improvements that protect against heat as well as cold.
- 7.** Leeds City Council, Leeds Health and Care Partnership, anchor organisations, third sector and local businesses to work collaboratively to consider increased risk of vector borne diseases and heat for outdoor workers/workers at risk.
- 8.** Health and Wellbeing Board to continue to address health inequalities via the Fairer, Healthier Leeds (Marmot City) and other health inequalities work.
- 9.** Leeds City Council, Leeds Health and Care Partnership, anchor organisations, and third sector partners to develop skills and knowledge amongst frontline workforce in protecting people at increased risk from the adverse health impacts of heat.

Roundhay Park, Leeds.

Water Lane Boathouse, Leeds. Picture courtesy of Elouisa Georgiou.

## **Conclusions**

**The increasing impacts of heat on health will affect everybody. However, some people will feel this impact more. It requires collective acknowledgment and action from individuals, organisations and governments.**

To manage and address the effects of rising temperatures in Leeds it is essential that public health, healthcare, housing, urban planning, and Leeds communities work together.

By prioritising health inequalities and supporting people most at risk, we can protect people and build healthier more resilient communities for the future.

**The choices we make today will shape the health and well-being of generations to come. Let's work together to create a Leeds that is not just resilient to climate change but thrives in the face of it.**



# HEAT IN THE CITY

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Please tell us the web address (URL) of the content, your name and email address and the format you need. For example: audio, braille, BSL or large print.

## **The full report is available online at:**

[www.leeds.gov.uk/  
publichealthannualreport25](http://www.leeds.gov.uk/publichealthannualreport25)

Further information on health statistics for Leeds and past reports are available online at:

<https://observatory.leeds.gov.uk/dph-report/>

We welcome feedback about our annual report.

If you have any comments, please email:

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