# Nearly 600 excess deaths forecast in England and Wales during record-breaking heatwave



Nearly 600 excess deaths are anticipated across England and Wales over a brief period due to the current heatwave, with the most intense impact expected on Saturday as temperatures peak. This projection comes from recent research by experts at the London School of Hygiene and Tropical Medicine (LSHTM) and Imperial College London, who used vast historical mortality data combined with advanced weather forecasts to estimate about 570 additional deaths from Thursday through Sunday. London is forecast to experience the highest surge in fatalities, with an estimated 129 excess deaths during this period.

The findings underscore an urgent and growing public health threat posed by extreme heat in the UK. Researchers emphasise that heatwaves often act as "silent killers," predominantly affecting people with pre-existing health conditions, yet heat is rarely recorded as a direct cause on death certificates. The elderly population, particularly those over 65, is expected to bear the brunt, accounting for 488 of the predicted excess deaths. Nevertheless, significant risks remain for younger age groups as well, with 82 additional deaths expected among individuals under 65. The analysis did not factor in the early-timing of this heatwave before widespread acclimatisation to hot weather, suggesting the true toll could be higher.

This heatwave follows a disturbing pattern observed in recent years, reflecting the escalating influence of climate change on extreme weather events. A concurrent study by the World Weather Attribution group determined that climate change has made the recent 32°C+ temperatures roughly 100 times more likely and 2 to 4 degrees Celsius hotter than in pre-industrial times. Experts warn that even incremental rises in temperature can translate to significantly more hospital admissions and heat-related deaths, placing greater strain on healthcare services. The UK Climate Change Committee has projected that if global temperatures reach a 2°C rise by 2050, heat-related deaths could exceed 10,000 annually, particularly in a country with an ageing demographic. This warnings come amid dire reminders from the UN that the world is at "crunch time" to limit warming within 1.5°C over the next three years.

Beyond mortality, the heatwave has triggered widespread health impacts, with the UK Health Security Agency issuing an amber heat-health alert across England to warn vulnerable groups, including the elderly and those with pre-existing health conditions. Emergency departments have reported rising cases of heat-related illnesses such as heat exhaustion, which can quickly escalate to more severe cardiovascular complications. Public health officials are urging people to follow heat-health advice and to check on isolated older individuals over the weekend. The extreme conditions are aggravated by the UK's driest spring in over a century, prompting calls for water conservation and placing additional stresses on infrastructure and communities.

Historical context further highlights the severity of recent heatwaves. For example, during the July 2022 heatwave, nearly 900 excess deaths were recorded over three days, with the highest daily toll coinciding with the UK's record temperature of 40.3°C. That event marked one of the deadliest heat periods in recent memory, with especially high mortality rates among those aged 85 and over. Overall, the summer of 2022 saw upwards of 3,000 excess deaths in older populations linked to heat, the highest numbers recorded since 2004. The cumulative evidence makes clear that heatwaves in the UK are becoming more frequent, intense, and deadly, reinforcing the urgent need for adaptive measures and mitigation efforts.

Despite the grim health impacts and risks, the heatwave has some positive economic effects, such as boosting solar energy generation to record levels and stimulating seasonal leisure activities and retail. However, these benefits must be weighed against the growing human and systemic toll. Labour unions have called for government action to set maximum working temperatures to protect workers, especially vulnerable outdoor and manual labourers.

In sum, the current UK heatwave serves as a stark reminder of the intensifying dangers posed by climate change. It calls for heightened public awareness, robust health safety measures, and urgent policy responses to prepare for an increasingly hot future, where even seemingly moderate temperature rises can have deadly consequences.

### 📌 Reference Map:

* Paragraph 1 – [[1]](https://www.independent.co.uk/life-style/health-and-families/health-news/uk-heatwave-temperatures-death-health-b2773913.html), [[2]](https://www.ft.com/content/650cfaa6-a82c-4d4a-9114-0d263b35a0db)
* Paragraph 2 – [[1]](https://www.independent.co.uk/life-style/health-and-families/health-news/uk-heatwave-temperatures-death-health-b2773913.html), [[3]](https://www.gov.uk/government/statistics/heat-mortality-monitoring-report-england-2024/heat-mortality-monitoring-report-england-2024)
* Paragraph 3 – [[1]](https://www.independent.co.uk/life-style/health-and-families/health-news/uk-heatwave-temperatures-death-health-b2773913.html), [[2]](https://www.ft.com/content/650cfaa6-a82c-4d4a-9114-0d263b35a0db)
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* Paragraph 5 – [[1]](https://www.independent.co.uk/life-style/health-and-families/health-news/uk-heatwave-temperatures-death-health-b2773913.html), [[6]](https://www.bbc.co.uk/news/health-63171417), [[4]](https://news.sky.com/story/did-nearly-900-people-die-due-to-the-july-heatwave-12679711), [[7]](https://www.newscientist.com/article/2331349-40c-heatwave-may-have-killed-1000-people-in-england-and-wales/), [[5]](https://www.theguardian.com/world/2022/oct/07/england-excess-deaths-during-2022-heatwave)
* Paragraph 6 – [[2]](https://www.ft.com/content/650cfaa6-a82c-4d4a-9114-0d263b35a0db), [[1]](https://www.independent.co.uk/life-style/health-and-families/health-news/uk-heatwave-temperatures-death-health-b2773913.html)
* Paragraph 7 – [[1]](https://www.independent.co.uk/life-style/health-and-families/health-news/uk-heatwave-temperatures-death-health-b2773913.html), [[2]](https://www.ft.com/content/650cfaa6-a82c-4d4a-9114-0d263b35a0db)

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## Bibliography

1. <https://www.independent.co.uk/life-style/health-and-families/health-news/uk-heatwave-temperatures-death-health-b2773913.html> - Please view link - unable to able to access data
2. <https://www.ft.com/content/650cfaa6-a82c-4d4a-9114-0d263b35a0db> - An intense heatwave in Britain has pushed temperatures above 30°C and is forecast to reach 34°C, with the possibility of the first tropical night of 2025. Climate change is significantly contributing to such events, making 32°C days 100 times more likely than during the pre-industrial era. The Met Office predicts a 50% chance of another 40°C day within the next 12 years. Accompanying the heat is a severe drought following the driest spring in over a century, prompting water companies to encourage reduced consumption. Heat-related health risks have raised alarms, with up to 3,000 deaths reported during the 2023 summer. Vulnerable populations including the elderly and homeless are particularly at risk, prompting cities like London to offer emergency services. Labor unions are calling on the government to set maximum working temperatures. On a positive note, solar energy generation has surged, with record outputs and an increase in photovoltaic capacity. Leisure activities and retail sectors are also seeing growth due to the warm weather, with increased seaside train bookings and cycling in London. The extreme conditions highlight the growing impact of climate change on British life and infrastructure.
3. <https://www.gov.uk/government/statistics/heat-mortality-monitoring-report-england-2024/heat-mortality-monitoring-report-england-2024> - The report presents statistics on heat-associated deaths during the four heat episodes in the summer of 2024. It highlights that there were 1,311 heat-associated deaths, exceeding predictions by 282 deaths. The highest mortality rates were observed in individuals aged 85 and over, with 521 deaths per million population. The report also notes that higher heat-associated deaths were observed in the earlier heat episodes of the summer, despite only yellow heat-health alerts being issued.
4. <https://news.sky.com/story/did-nearly-900-people-die-due-to-the-july-heatwave-12679711> - An analysis of the July 2022 heatwave in the UK revealed that 899 more people died than usual during the three-day period. The highest number of excess deaths occurred on 19 July, the day the UK recorded its highest-ever temperature of 40.3°C. This figure closely aligns with earlier estimates by Professor Antonio Gasparrini of the London School of Hygiene and Tropical Medicine, who projected 948 heat-related deaths during the heatwave.
5. <https://www.theguardian.com/world/2022/oct/07/england-excess-deaths-during-2022-heatwave> - During the summer heatwaves of 2022, England recorded over 2,800 excess deaths among individuals aged 65 and over, marking the highest number in at least two decades. The UK Health Security Agency (UKHSA) reported 43,755 non-Covid-related deaths in this age group during the heatwaves, which was 2,809 more than expected based on the surrounding fortnight. The report underscores the significant impact of extreme heat on public health, particularly among older populations.
6. <https://www.bbc.co.uk/news/health-63171417> - The UK's record-breaking heatwave in the summer of 2022 led to approximately 3,000 more deaths in individuals aged 65 and over than usual, the highest figure since 2004. Many of these deaths occurred during the hottest days towards the end of July and in early August. The data, compiled by the Office for National Statistics (ONS) and UK Health Security Agency (UKHSA), highlights the severe health risks posed by extreme heat, especially to vulnerable populations.
7. <https://www.newscientist.com/article/2331349-40c-heatwave-may-have-killed-1000-people-in-england-and-wales/> - A preliminary analysis estimated that approximately 1,000 extra people died during the three-day UK heatwave in July 2022, marking the first snap assessment of the human toll of record-breaking temperatures. Professor Antonio Gasparrini from the London School of Hygiene & Tropical Medicine estimated that 948 people died in England and Wales due to the heat between 17 and 19 July. The majority of these deaths were among individuals aged 85 or older, highlighting the heightened vulnerability of older populations during extreme heat events.