

# UNITED KINGDOM

## LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE DATA SHEET 2023

### Health and climate change in the UK

The *Lancet* Countdown on Health and Climate Change is an academic collaboration of over 200 researchers from around the world, which annually takes stock of the evolving links between health and climate change through 40+ peer-reviewed indicators. Since 2016, these indicators have provided regular, reliable global and regional stocktakes on climate change and health. This document summarises key findings from the 2023 Report of the *Lancet* Countdown\* for the UK, which reveal that:



Trends in **heat and health** are particularly concerning, with populations experiencing increases in exposure to high temperatures, undermining livelihoods and threatening people's health and wellbeing.



**Unhealthy diets** are contributing to greenhouse gas (GHG) emissions and undermining health and wellbeing. Deaths attributable to dietary risks could be reduced through balanced, low-emission diets.



**Air pollution** is affecting the health of local populations, with a high burden of disease and deaths that could be avoided by transitioning to zero emission, clean energy sources.

These findings underline the urgency of strengthening local health systems, adapting to climate change, and pursuing efforts to reduce greenhouse gas emissions through interventions that simultaneously deliver health co-benefits. These actions will help build healthier, more resilient populations, and forge the way to a thriving future for the UK.

### Heat and health

Exposure to high temperatures threatens people's lives, health, and wellbeing, leading to death and heat-related disease, and increasing healthcare demand during heatwave episodes. Older people, socio-economically deprived communities, very young children, pregnant women, and those with underlying health problems are particularly at risk.



**1.1°C** From 2018 to 2022, the average summer temperatures that people were exposed to were 1.1°C higher than the 1986–2005 baseline average (indicator 1.1.1).



Heat-related deaths in those over the age of 65 increased by an estimated 57% from 2000–2004 to 2018–2022. Without global heating, this number would have only increased by 11% (indicator 1.1.5).



Green space promotes numerous health benefits and reduces heat exposure. In 2022, out of 10 urban centres evaluated, none had high levels of green space. Six had moderate levels of green space, and 4 have low levels (indicator 2.2.3).

#### ECONOMIC IMPACT OF HEAT

Heat exposure limits labour productivity, which undermines livelihoods and the social determinants of health.

**11 million** potential labour hours lost due to heat exposure in 2022, an increase of 277% from 1991–2000 (indicator 1.1.4).



Construction workers were hit the hardest, seeing 69.4% of the potential hours lost and 73.9% of the potential income losses in 2022 (indicators 1.1.4 & 4.1.3).

#### FUTURE PROJECTIONS

**2°C SCENARIO** In a scenario in which temperatures are kept to under 2°C of heating, heatwave exposure for people over age 65 is projected to be 6 times greater by mid-century (2041–2060 average) (indicator 1.1.2).

## Diet and Health

Promoting shifts to healthier, more plant-based diets can substantially reduce agricultural GHG emissions, while also delivering major co-benefits for public health through improvements to dietary risk factors and reduced deaths due to unbalanced diets.



In 2020, red meat and dairy accounted for 74% of all emissions related to the local production of agricultural products and 70% of all emissions related to the consumption of agricultural products (either locally produced or imported) in the UK (indicator 3.3.1).



In 2020, nearly 70,000 deaths were associated with insufficient consumption of nutritious plant-based foods, and about 42,000 deaths were associated with excessive consumption of dairy, red meat, and processed meat.

## Energy transition and health co-benefits

The low adoption of clean renewable energy and the continued use of fossil fuels and biomass lead to high levels of air pollution, which increases the risk of respiratory and cardiovascular disease, lung cancer, diabetes, neurological disorders, adverse pregnancy outcomes, and leads to a high burden of disease and mortality.

Transitioning energy systems to renewables would benefit human health, simultaneously reducing air pollution; mitigating greenhouse gas emissions; and contributing towards universal, affordable, and clean energy.



In 2020, more than 23,000 deaths were attributable to small particulate matter (PM<sub>2.5</sub>) generated from human activities, a 51% decrease from 2005 (indicator 3.2.1).



Of these deaths in 2020, 27% were caused by fossil fuel burning, while 15% were due to the use of biomass (indicator 3.2.1).

### RENEWABLE ENERGY TRANSITION



Coal use has been trending down since 2012 and made up 3% of the total energy supply in the UK in 2020 (17 percentage points less than 2011).



In 2020, renewables made up 29% of the UK electricity supply, but accounted for just 5% of the total energy supply. Low carbon sources made up 47% of electricity and 14% of total energy in the same year.

Carbon prices help economies transition away from high-carbon fuels, whereas fossil fuel subsidies provide incentives for health-harming emissions and slow the low-carbon transition. Redirecting fossil fuel subsidy funds to incentivising the expansion and affordability of low-carbon power and to health-promoting interventions would deliver net benefits to local populations, and support a just transition.



The UK had a net-negative carbon revenue in 2020, indicating that fossil fuel subsidies were higher than carbon prices. The UK allocated a net total of US\$10.1 billion to fossil fuel subsidies in 2020 alone (indicator 4.2.4). The UK ranks as the seventh country in the world with the most net funds allocated to net fossil fuel subsidies.

## Sea level rise and health

Sea level rise can affect human health through episodic flooding, permanent inundation, erosion, soil and drinking water contamination, vector- and water-borne disease, and mental health impacts, with populations living less than 1 metre above sea level particularly vulnerable.



In 2022, over 1.69 million people were living less than 1 metre above sea level (indicator 2.3.3).

Without sufficient adaptation measures, sea level rise could prompt relocation of vulnerable populations. The health impacts of human relocation will depend on the policies put in place to protect the health of migrant or immobile populations.

FOR FURTHER INFORMATION, VISIT:  
[WWW.LANCETCOUNTDOWN.ORG](http://WWW.LANCETCOUNTDOWN.ORG)

\*Romanello M, di Napoli C, Green C et al. The 2023 report of the Lancet Countdown on health and climate change: the imperative for a health-centred response in a world facing irreversible harms. Lancet 2023; published online Nov 14. [https://doi.org/10.1016/S0140-6736\(23\)01859-7](https://doi.org/10.1016/S0140-6736(23)01859-7).

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