LANCET COUNTDOWN: TRACKING PROGRESS ON HEALTH AND CLIMATE CHANGE

2024 CLIMATE AND HEALTH POLICY PRIORITIES FOR UNITED KINGDOM

This document summarises key priority areas of focus for the United Kingdom, supported by evidence from indicators in the 2024 Report of the Lancet Countdown* and the 2024 Europe Report of the Lancet Countdown.**

1 LOW-CARBON, CLIMATE-RESILIENT HEALTHCARE SERVICES

Invest and fund rapid decarbonisation and climate resilience in the NHS by transitioning to renewable sources of energy, upgrading infrastructure, adopting a predominantly plant-based dietary approach, electrifying transport fleets, and improving active travel and public transport access.

The UK's health service is facing multiple crises including workforce shortages, increased demand, and the growing impacts of climate-related extreme weather events. The worsening climate crisis will further increase patient demand and threaten infrastructure. The NHS is responsible for 5% of UK emissions, and 40% of public sector emissions in England.[1] It now has net zero targets for emissions it directly controls by 2040, as well as for emissions it can influence by 2045.

However, while healthcare emissions have dropped since 2010, **they rose between 2019 and 2021 most likely due to the COVID-19 related surge in demand (indicator 3.5)**.* Therefore, the government must prioritise decarbonising the NHS through methods such as installing solar panels, making buildings energy-efficient, adopting a predominantly plant-based diet approach, electrifying transport, and improving active travel (such as walking and cycling) and public transport access.

Simultaneously, the NHS must address the increasing risk of service disruption due to climate-related events, such as flooding and extreme heat. Thousands of UK hospitals, GP surgeries, emergency services and care homes are located in high-risk flood zones. In addition, incidents of overheating at NHS sites in England nearly doubled over five years, reaching 5,554 incidents in 2021-22.[2] Extreme heat can cause equipment malfunctions, IT and laboratory disruptions, health risks to staff, and surgery cancellations. NHS infrastructures, including ventilation systems, must be upgraded to ensure they are resilient to climate-related extreme weather events.

These actions will enable the NHS to continue providing care for patients through strengthened climate resilience while improving public health and meeting its net-zero goals. Mitigation measures providing wider health benefits should be prioritised and adequately funded.

2 RIGHT TO CLEAN AIR

Mandate a new Clean Air Act to legislate clean air as a human right and meet the WHO-recommended limits of air pollutants by 2030. In addition, the UK should develop a framework to implement a just transition away from wood burning to clean fuels in urban and rural areas.

Prioritising interventions that reduce air pollution while achieving net-zero targets can significantly benefit public health in the UK. Air pollution from sources including fossil fuels and biomass burning have short- and long-term health impacts with exposure often higher in deprived areas, possibly due to issues such as proximity to high-traffic areas, which worsen health inequalities. Short-term exposure impairs lung function, exacerbates asthma, and increases hospital admissions. Chronic exposure shortens life expectancy and increases the risk of cardiovascular diseases, lung cancer, diabetes, dementia, poor birth outcomes and mental health issues like anxiety and depression.

Since 2007, **the UK has seen a 36.9% reduction in deaths related to outdoor air pollution, primarily due to a decrease in fossil fuel-related deaths**. However, **air pollution was still linked to nearly 30,000 deaths in 2021, with fossil fuel combustion responsible for almost 13,000 (43.7%) of these deaths (indicator 3.2.1)**.*

2 RIGHT TO CLEAN AIR (continued)

Moreover, domestic wood burning is now the largest source of PM2.5 emissions at 22%. Even though wood burning produces only 6% of heat in the UK, it is associated with £0.9 billion in health-related damages.[3] Even "ecodesign" wood burners emit 460 times more PM2.5 than gas boilers.[4] To meet WHO's PM2.5 limit, which was exceeded by 1.5 times in the UK in 2023, the shift must be toward the cleanest option: electric heating.[5,6]

A just transition framework in the UK must shift public financing from promoting harmful fossil fuels towards rapidly upscaling renewable energy production and access for all. Reducing air pollution is vital for public health, lowering healthcare costs, and addressing social inequalities while helping the UK achieve its net-zero goals.

3 HEATWAVE HAVOC AND THE NEED FOR GREENER CITIES

Develop and implement a national green infrastructure strategy to prioritise local authority action and unlock funding, such as through public-private partnerships. The health co-benefits—reduced air pollution, cooling during heatwaves, and increased physical activity and mental well-being—will foster a healthier, thriving UK population.

High summer temperatures in the UK are 10-25% more common now due to climate change. By 2050, very hot summers are likely to increase by 50%.[7] Adults over 65, young children and pregnant women are particularly vulnerable to heat exposure with health impacts such as dehydration, kidney disease, heart disease, stroke, poor pregnancy outcomes, and mental health impacts.

Compared to 2003-2012, **the overall mean number of heat-related deaths in the UK nearly doubled in 2013-2022, rising from 12 to 21 deaths per 100,000 inhabitants (indicator 1.1.4)**.** Heat-related health risks are expected to worsen, with over 21,000 annual deaths by the 2070s under a high-warming scenario. [7] High temperatures also have an economic impact. The **potential income lost from labour capacity reduction due to extreme heat in the UK was more than US$189 million (≈£145 million) in 2023. The agricultural sector was the most severely affected, incurring 75% of the losses (indicator 4.1.3)**.*

Given the health and economic impacts of heat, nature-based solutions must be rapidly implemented to reduce heat exposure and deaths while improving public health and quality of life. Green areas are cooler than urban non-green areas, with cooling effects extending up to 1.25 km. However, with **only 7 out of 10 urban centres having moderate green space, and 3 with low levels of greenness, the UK is poorly prepared (indicator 2.2.3)**.* A national green infrastructure policy is therefore necessary to foster a healthier UK population.

Accelerating Action

It is essential that UK Governments commit to addressing climate change to help improve the health of the population and strengthen our healthcare systems. Appropriate resources and infrastructure must be provided to implement effective policies that will significantly reduce the impact of climate change and maximise health benefits to UK populations.

Contributors

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* Romanello M, Walawender M, Hsu SC et al. The 2024 report of the Lancet Countdown on health and climate change: Facing record-breaking threats from delayed action. Lancet 2024; published online October 2024. https://doi.org/10.1016/S0140-6736(24)01822-1
** van Daalen KR, Tonne C, Semenza JC et al. The 2024 Europe report of the Lancet Countdown on health and climate change: Unprecedented warming demands unprecendented action. The Lancet Public Health. https://doi.org/10.1016/S2468-2667(24)00055-0

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