Prevention in Health and Social Care
Prevention Inquiry: Proposal from the UK Health Alliance on Climate Change

Nature of the issue the Committee should explore

Urbanisation has resulted in a significant loss of natural spaces and biodiversity, combined with increasing levels of exposure to pollutants[1,2]. Currently, 84% of the UK's population lives in towns and cities[3]. Lack of access to safe streets for walking and cycling, limited access to green space, and exposure to air pollution have multiple negative health impacts. **Solutions that seek to improve air quality and access to green space and nature in the built environment could prevent ill health, while also delivering positive action on climate change mitigation and adaptation.**

Why it deserves attention

In 2019, 88.8% of deaths in England were attributable to **Non-Communicable Diseases** (NDCs)[4]. The risk factors of these NCDs are largely preventable and require population-level interventions. Lower levels of physical activity increase the risk of obesity, diabetes, cardiovascular, and mental diseases. The current burden of mental health problems in the UK is around £118 billion (approximately 5% of the GDP). There are more than 850,000 people in the UK with dementia and the economic cost is £23 billion/year (estimated to triple by 2040)[5]. In older adults, a simple, effective and low-cost strategy to reduce the risk of dementia is to increase physical activity.

Air pollution is one of the greatest environmental determinants of health. Exposure to air pollution increases the risk of respiratory and cardiovascular disease, lung cancer, diabetes, neurological disorders, and adverse pregnancy outcomes[6,7,8,9,10]. The 2022 Lancet Countdown reported that in 2020 exposure to outdoor air pollution (PM2.5) contributed to nearly 27,000 deaths in the UK. Research indicates that the health benefits of limiting air pollution to safer levels would result in 98,000 life years gained annually with people living

[1] (UKGBC – Climate Change)

[2] Hayhow, D.B et al. (2019). State of nature 2019.

[3] Robinson, J. M. et al (2022). Urban centre green metrics in Great Britain: A geospatial and socioecological study. *Plos one*, *17*(11), e0276962.

[4] (UK Government Office For Health Improvement & Disparities)

[5] (NHS England)

[6] Scientists Discover How Air Pollution May Trigger Lung Cancer in Never-Smokers. European Society for Medical Oncology, 10 September 2022

[7] Romanello M, Di Napoli C, Drummond P, et al. The 2022 report of the Lancet Countdown on health and climate change: Health at the mercy of fossil fuels. *Lancet* 2022

[8] Guidance – Health Matters: Air Pollution. Public Health England. https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution

[9] Braithwaite at al.. Air Pollution (Particulate Matter) Exposure and Associations with Depression, Anxiety, Bipolar, Psychosis and Suicide Risk: A Systematic Review and Meta-Analysis, Environmental Health Perspectives, 2019 Dec; 127(12)

[10] Chen H et al. Living near major roads and the incidence of dementia, Parkinson's disease, and multiple sclerosis: a population-based cohort study, Lancet, 2017 Feb 18;389 (10070): 718-726. doi: 10.1016/S0140-6736(16)32399-6. Epub 2017 Jan 5

longer, suffering less ill health, a reduced burden on the health service, and fewer days lost to absenteeism in the workplace[11].

In 2022, the UK witnessed some of the highest recorded temperatures in its history. Scientists predict temperatures will continue to rise over many years because of climate change. During the **heat** periods between June and August 2022, 3,271 extra deaths were recorded in England and Wales[12]. Between 2016 and 2021, deaths during heat periods were higher than non-heat periods and ranged from 3% to 27.7% above the 5-year average.

How government policy in this area can be developed and improved

Health risks that result from the loss of nature and biodiversity and unsustainable practices can be reduced by implementing integrated biodiversity and public health-related interventions through a One-Health (human, animal, plant, ecosystem health) approach.

Green spaces that are high quality, safe and have more complex biodiversity have a positive impact on health and wellbeing[13]. Prioritisation of equitable access to green spaces through sustainable design and protection and development of high-quality natural places will bring about immediate and long-term physical and mental health co-benefits, while also improving air quality and creating space for nature in the built environment. Such nature-based solutions also contribute to climate change adaptation and have ecosystem benefits[7]. Green spaces reduce areas of raised temperatures experienced in cities and urban spaces (urban heat islands), providing shade and cooling benefits in the built environment[14].

A 2020 review of green space by Public Health England concluded that £2.1 billion per year could be saved in health costs if everyone in England had good access to green space[15]. Fields in Trust estimate that reduced GP visits as a result of access to parks and green spaces would save the NHS around £111 million per year[16]. In Birmingham, the annual net benefit of parks and green space is estimated at nearly £600 million, which includes £192 million in health benefits[14].

Policy that seeks to reduce air pollution, improve access to nature in the built environment, and promote physical activity and mental wellbeing for everyone, would prevent ill health, reduce the burden on health systems, and contribute to achieving the aims of the government's Levelling Up Bill and Net Zero strategy.

UK Health Alliance on Climate Change

The UK Health Alliance on Climate Change is an alliance of UK health organisations including royal medical and nursing colleges, British Medical Association, Academy of Medical Science, British Medical Journal, The Lancet, and many other health-focused organisations and faculties. Our collective voice represents more than 1 million health professionals.

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[12] Office for National Statistics

[13] Improving Access to Green Space, p.12.

[14] 2022 Lancet Countdown UK Policy Brief https://ukhealthalliance.org/resource/lancet-countdown-uk-policy-brief/

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