UK Health Alliance on Climate Change

Major conditions strategy: call for evidence

The climate and ecological crises constitute unprecedented and potentially catastrophic threats to human health[1]. The UK Government has published guidance for health professionals to act on the climate crisis in their professional practice[2]. The Health and Care Act 2022 legislates for the NHS in England to deliver net zero targets and reduce air pollution[3].

Many of the causes and consequences of climate change and nature loss - heat, pollution, diet, lack of access to nature - are harmful to human health at all stages of life[4]. The impacts span multiple conditions including the six major conditions being considered in this call for evidence[5,6,7,8,9,10] . As temperatures continue to rise, air pollution remains above safe levels, and biodiversity is lost, the health impacts will worsen. Tackling these health impacts will require both health professionals and patients to be equipped with information on how to protect themselves, and actions that can be taken to mitigate against these harms. It will also require a significant increase in the emphasis on enabling patients to understand their own conditions, their contributing factors and to be enabled to manage these in ways which suit their priorities.

This response to the call for evidence has been collated by the UK Health Alliance on Climate Change in partnership with its members. Our Alliance is made up of 40 organisations that represent health professionals across the UK including Royal Colleges, specialist associations and societies, journals and student groups. The complete list of organisations that form the Alliance is provided on page three. Our collective voice represents more than one million health professionals.

Our response is focused on tackling the risk factors for ill health across the six major conditions through actions that serve to both prevent ill health and protect planetary health.

Dr Richard Smith CBE FMedSci, Chair UK Health Alliance on Climate Change
Dr Elaine Mulcahy, Director UK Health Alliance on Climate Change

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[1] https://www.ipcc.ch/2022/02/28/pr-wgii-ar6/
[2] Climate and Health: Applying All Our Health
[3] https://www.england.nhs.uk/greenernhs/publication/delivering-a-net-zero-national-health-service/
[4] 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
[5] Leticia M Nogueira et al. Climate Change and Cancer, Cancer Epidemiol Biomarkers Prev 2023 May 15;OF1-OF7.
[6] https://www.rcpe.ac.uk/college/rcpe-calls-urgent-enforcement-air-quality-standards-following-major-report-linking-air
[7] Braithwaite, I. et al. (2019). Air pollution (particulate matter) exposure and associations with depression, anxiety, bipolar, psychosis and suicide risk: A systematic review and meta-analysis. Environ Health Perspect, 127, 12, 126002.
[8] Chen et al. Living near major roads and the incidence of dementia, Parkinson's disease, and multiple sclerosis: a population-based cohort study. Lancet. 2017; 389:718-726
[9] Huang, M., et al., *Effects of Ambient Air Pollution on Blood Pressure Among Children and Adolescents: A Systematic Review and Meta-Analysis.* Journal of the American Heart Association, 2021. 10(10)
[10] https://www.csp.org.uk/journal/article/physiotherapy-september-2016/role-physiotherapy-climate-change-mitigation

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How can we support people to tackle preventable risk factors

The call for evidence names tobacco, alcohol, physical activity and diet-related risk factors. We believe that air pollution, climate change and access to nature are also critical risk factors that need to be addressed. Interventions that seek to reduce air pollution, improve access to nature, and promote healthy, plant-based diets would prevent ill health, reduce the burden on health systems, and contribute to achieving the aims of the government's Levelling Up Bill, Net Zero strategy and Health and Care Act 2022.

Air pollution contributes to many conditions affecting every organ of the body[11]. Research has shown a direct link between increasing levels of pollution in the air and GP appointments for respiratory symptoms and asthma and that exposure to traffic related pollution increases the likelihood of multiple long term physical and mental health conditions[12,13,14]. Areas of deprivation have a significantly higher exposure to both indoor and outdoor pollution that increases the risk of childhood and adult asthma, cardiovascular diseases, dementia, diabetes, cancer and hospital admissions[15]. Prevention of ill health caused by air pollution can be tackled through interventions such as providing information and guidance to patients on the risk factors of air pollution, how to protect themselves, and encouraging activities that reduce pollution such as limiting car use and active travel when appropriate[16]. Health and social care should advocate and lead local and national initiatives that promote active travel and reduce air pollution.

Lack of **access to green and blue spaces** is associated with reduced levels of physical activity, which increases the risk of obesity, diabetes, cardiovascular and mental diseases[17]. There is evidence of widening health inequalities due to poor access to good quality green spaces by low socio-economic groups[18]. 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. 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[19].

The EAT-Lancet Commission **planetary health diet** emphasises a plant-forward diet where whole grains, fruits, vegetables, nuts and legumes comprise a greater proportion of foods consumed, with meat and dairy providing small proportions of the diet[20]. Providing guidance, support and information that encourages individuals to adapt the planetary health diet would limit consumption of highly processed and meat-based diets that are linked to multiple conditions including cancers and cardiovascular diseases, while also contributing to the transition to sustainable food systems needed to protect planetary health. This must be done in parallel with equitable measures to ensure everyone can afford to eat a healthy, balanced diet.

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[11] Schraufnagel et al., 2019. Air Pollution and Noncommunicable Diseases, CHEST 2019; 155(2): 409-416
[12] 2022 Lancet Countdown UK Policy Brief https://ukhealthalliance.org/resource/lancet-countdown-uk-policy-brief/
[13] https://www.sciencedaily.com/releases/2022/12/221202112515.htm
[14] https://www.rcpe.ac.uk/college/rcpe-calls-urgent-enforcement-air-quality-standards-following-major-report-linking-air
[15] Brunt H, Barnes J, Jones SJ, Longhurst JWS, Scally G, Hayes E. Air pollution, deprivation and health: understanding relationships to add value to local air quality management policy and practice in Wales, UK. J Public Health 2016
[16] https://s41874.pcdn.co/wp-content/uploads/National-Primary-Care-Insights-Report.pdf
[17] https://royalsocietypublishing.org/doi/10.1098/rstb.2017.0245
[18] *The Lancet Countdown on Health and Climate Change - Policy brief for the UK*. https://s41874.pcdn.co/wp-content/uploads/Lancet-Countdown-2022-UK-Policy-Brief_EN.pdf (2022).
[19] *Biodiversity and Health in the Face of Climate Change*. (Springer International Publishing). doi:10.1007/978-3-030-02318-8.
[20] https://eatforum.org/eat-lancet-commission/the-planetary-health-diet-and-you/

UK Health Alliance on Climate Change

Members of the UK Health Alliance on Climate Change are:

Academy of Medical Sciences
Association of Anaesthetists
Association of British Neurologists
Association of Clinical Psychologists
Association of Surgeons of Great Britain and Ireland
British Association of Critical Care Nurses
British Dental Association
British Medical Journal
British and Irish Association of Stroke Physicians
British Medical Association
British Orthopaedic Association
British Thoracic Society
British Society of Gastroenterology
College of Paramedics
Faculty of Pharmaceutical Medicine
Faculty of Public Health
Faculty of Sexual and Reproductive Health
Greener Practice
Intensive Care Society
The Lancet
Nursing Standard Journal
Planetary Health Report Card
Plant-Based Health Professionals UK
Royal College of Anaesthetists
Royal College of Emergency Medicine
Royal College of General Practitioners
Royal College of Nursing
Royal College of Obstetricians and Gynaecologists
Royal College of Paediatrics and Child Health
Royal College of Physicians of Edinburgh
Royal College of Physicians and Surgeons of Glasgow
Royal College of Physicians
Royal College of Psychiatrists
Royal College of Surgeons of Edinburgh
Royal College of Surgeons of England
Royal College of Veterinary Surgeons
Royal Pharmaceutical Society
Royal Society of Medicine
Students for Global Health
The Physiological Society