

Climate change in the UK: What will be the impact on health, mortality and frontline NHS services?

A joint meeting hosted by the All-Party Parliamentary Climate Group, the All-Party Parliamentary Health Group, the Lancet Countdown and the UK Health Alliance on Climate Change

Tuesday 21 November 2017 | Macmillan Room, Portcullis House

"Climate change isn't just hurting the planet – it's a public health emergency."

That is the conclusion of Christiana Figueres, Chair of the Lancet Countdown, a collaborative research project which published a report on 31 October 2017 that has shone a light on the damaging impacts that climate change is having on our health. In order to discuss this public health crisis in further detail - and to explore what we can do about it - the Lancet Countdown have teamed up with the UK Health Alliance on Climate Change, the APPG on Climate Change and the APPG on Health, in order to host a panel discussion on the impact of climate change and health.

Co-Chairs

Daniel Zeichner MP

Vice Chair, APPG on Climate Change and Labour MP for Cambridge

Baroness Walmsley

Co-Chair, APHG and former Liberal Democrat Health Spokesperson

Panel

Dr Richard Horton

Editor-in-Chief of the *Lancet*

Prof. Hugh Montgomery

Co-Chair of the Lancet Countdown & Professor, Intensive Care Medicine, University College London

Prof. Georgina Mace

Head, Centre for Biodiversity and Environment Research, University College London

Prof. Sir Andy Haines

Professor of Public Health and Primary Care, London School of Hygiene & Tropical Medicine

Panel Summary

Dr Richard Horton, Editor-in-Chief of the *Lancet*

Dr Richard Horton provided an introduction to the topic and the work of the *Lancet* Countdown.

In 2009, the UCL Lancet Commission published its first report on the relationship between climate change and health. It concluded, simply, that climate change represents the biggest threat to global health in the 21st Century. Since that publication, the *Lancet* has continued to work on this topic. In 2015, the *Lancet* published a second report as part of the Health and Climate Change Commission – but instead of describing climate change as a threat, it concluded, optimistically, that climate change represents the biggest *opportunity* for global health in the 21st Century. This change of tone reflects a growing recognition that action on climate change can bring about dividends for public health, a notion which empowers the health and climate community to capture these ‘co-benefits’.

More recently, the *Lancet* has pioneered the concept of ‘planetary health’. A growing body of evidence shows that the health of humanity is intrinsically linked to the health of the environment, but by its actions humanity now threatens to destabilise the Earth’s key life-support systems, with significant implications for the political systems and economies that run our countries.

The *Lancet* Countdown is the latest project in this field. It intends to serve as a mechanism to regularly review progress on health and climate. It is an accountability mechanism, using data to catalyse political and scientific discussion about the importance of climate action, and the *Lancet* has committed to producing an annual report in order to try and sustain the momentum on climate change that was achieved with the negotiation of the Paris Agreement.

Prof. Hugh Montgomery, Co-Chair of the *Lancet* Countdown

Prof. Hugh Montgomery provided an overview of the *Lancet* Countdown’s headline findings

The *Lancet* Countdown will publish a yearly ‘state of the union’ report on climate change and health, offering a regular review of the progress on mitigation actions in terms of health resilience. In order to do this, the Countdown has convened a large, cross-sector, international partnership of universities and organisations from across the world. This coalition has developed a set of 40 indicators which are used to track progress on climate-health action, and the *Lancet* invited everyone from all backgrounds to contribute to establishing these indicators.

The key conclusion from the report, published in October this year, is that climate change is damaging health worldwide. The human symptoms of climate change are unequivocal and

potentially irreversible – affecting the health of populations around the world, today. Whilst these effects will disproportionately impact the most vulnerable in society, every community will be affected.

The critical issue at hand is the *delay* in our response to climate change which, over the past two decades, has jeopardised human life and livelihoods. However, although progress has been historically slow, the past 5 years has seen an accelerated response, and in 2017 momentum is building across a number of sectors; the direction of travel is set, with clear and unprecedented opportunities for public health.

Prof. Georgina Mace, co-author on the Lancet Countdown 2017 report

Prof. Georgina Mace spoke on climate change impacts, exposure and adaptation

What are the impacts of climate change on health?

Prof. Mace shared some headline findings from the report:

- **Weather-related disasters.** Annual weather-related disasters increased by 46% from 2000 to 2013. Accelerated efforts towards poverty reduction and sustainable development have helped minimise harm to date, however limits to adaptive capacity will quickly be reached
- **Global warming.** From 2000 to 2016, global average temperatures where people are living have risen approximately 0.9 degrees Celsius – more than twice the global mean land temperature increases
- **Heatwaves.** Since 2000, the number of vulnerable people exposed to heatwave events has increased by around 125 million
- **Labour capacity** Global physical labour capacity in populations exposed to temperature change decreased by around 5.3% from 2000 to 2016

What are we doing to adapt to the health effects of climate change?

Not enough is being done to adapt to climate change or improve the resilience of populations and health systems. Out of the world's total adaptation spend just 4.63% (\$16.46 billion USD) is on health and 13.3% (\$47.29 billion USD) on health-related adaptation; and only just over 1 in 3 countries have reported implementing activities to increase the climate resilience of their health infrastructure.

Prof. Sir Andy Haines, former Director of the London School of Hygiene and Tropical Medicine

Prof. Sir Andy Haines spoke on the topic of mitigation actions and health co-benefits

Mitigating climate change benefits health. For example, air pollution is a global health crisis. 71% of the 2,971 cities in the WHO's database, and 87% of a random sample of cities do not satisfy WHO annual fine particulate matter exposure recommendations. The energy sector is the single largest source of man-made air pollution, producing 85% of particulate matter. Progress on this so-called 'coal phase-out' has tangible benefits for air quality globally, and between 2016 and 2017, the amount of additional coal capacity planned for construction, halved. Similarly, sustainable travel uptake, such as walking and cycling, can mitigate climate change whilst encouraging healthier lifestyles and improving air quality. In these ways, mitigation tackles climate change *and* reduces the harm to health from air pollution.

Food and agriculture is also a sizable contributor to climate change. The average dietary CO₂ emissions per person in the UK are 5.6kg per day – but if we ate according to the WHO's nutritional guidelines, this would fall by 17%. The dietary changes would also save almost 7 million life years over 30 years, mainly due to reductions in coronary heart disease, equivalent to an increase in life expectancy of just over 6 months.

Q&A Summary

The audience and panellists reflected on the following themes:

NHS and climate change

- The NHS is too financially challenged to have climate change as one of its top concerns. On the frontline, however, NHS staff and health can serve as key advocates of certain interventions to tackle this issue. Previous public health wins such as banning smoking in public places are sources of optimism that public attitudes on health issues can change quickly, and with excellent evidence and advocacy, it is possible to reshape the public debate around climate change and health.
- The NHS struggles against an economic system in which the full costs of climate change are not paid for by those who are responsible for the problem. These externalities need to be internalised, through eliminating subsidies to fossil fuels and introducing carbon pricing.
- There is a need for NHS Trusts to identify ways in which success stories on climate-health initiatives can be shared, as well as the lessons from the work of the [Sustainable Development Unit](#) in the NHS which has had success in reducing the health sector's greenhouse gas emissions despite rising activity.

- Outside of the remit of the NHS, public sector interventions such as improving access to public green spaces can have significant benefits for health, whilst also tackling environmental issues like air pollution and climate change.

Agriculture and its interaction with climate change

- Environmental issues are synergistic in nature. Every time a field is mechanically tilled, 1% of the topsoil is lost. Accordingly, the impacts of climate change on agriculture and food yields also interact with the effects of soil erosion. Moreover, soil erosion is a driver of deforestation, which in turn impacts climate change. Similarly, aquifer depletion due to intensive agriculture heightens our vulnerability to climate change's effects on water resilience.
- The incentives in the agricultural system are perverse, as they push towards the intensification of agriculture leading to harm to biodiversity.

The role of women in climate action

- Improving women's rights, their access to education and employment, and their political participation internationally, are an important part of climate mitigation. Improving the sexual rights of women can improve family planning, thereby reducing the pressure on the planet from population increases.

UN Sustainable Development Goals (SDGs)

- SDGs are a remarkable universal statement. The UK is missing an opportunity by failing to mainstream the SDGs into Government thinking. In some countries, SDGs are the subject of cabinet-level discussions, and they are a useful framework for improving planetary health, social welfare and sustainability. SDGs deserve greater priority in the UK, and there is a need for a bigger national campaign to put them at the centre of political discourse
- Internationally, DFID should better promote and embed the SDGs in its work on sustainable development and as part of wider foreign policy.

About the hosts

The **All-Party Parliamentary Climate Change Group** (APPCCG), chaired by Caroline Lucas MP, works to raise awareness about the threat of climate change in Parliament, informing the climate change discussion between parliamentarians, business leaders, NGOs and academics.

The **All-Party Parliamentary Health Group** (APHG), chaired by Helen Whatley MP, is the leading cross-party forum for disseminating knowledge and facilitating engagement with health issues in Parliament.

The **UK Health Alliance on Climate Change** brings together Britain's leading health institutions – including the BMA, the Royal Society for Medicine, the Royal College of Physicians, and more – to encourage better approaches to tackling climate change whilst also reducing the burden on health services.

The **Lancet Countdown** is an international research collaboration, dedicated to tracking the world's response to climate change, and the health benefits that emerge from this transition. Reporting annually in the *Lancet*, it will follow a series of indicators, demonstrating that this transition is possible, that it has already begun, but that more work is needed.

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