Inequalities in health and the health of our planet have been assessed together in an independent report, released today, Friday 6th November, 2020, to inform next month’s sixth carbon budget. The UCL Institute of Health Equity (IHE) was commissioned by the UK Committee on Climate Change (CCC) to develop recommendations that could both improve the nation’s health, reduce health inequalities and achieve Net-Zero carbon emissions by 2050.

Professor Sir Michael Marmot was asked by the CCC to chair an independent UK Health Expert Advisory Group in January 2020 to advise on the potential health impacts of the government’s carbon reduction targets. Those targets have informed next month’s sixth carbon budget, which will present options for achieving Net-Zero emissions.

The Advisory Group highlight how the direct and indirect impacts of climate change will likely widen existing health inequalities in the UK. The Group warns if health equity isn’t considered when developing policies to reduce greenhouse gas emissions, there is a risk that their benefits to health, such as cleaner air, healthier average diets and lower home energy bills, will be unequally distributed.

Direct impacts on physical and mental health of climate change are created by changing exposure to heat and cold, increased exposure to UV radiation, air pollution, pollen, emerging infections, flooding and associated water-borne diseases, and the impacts of extreme weather events such as storms and floods.

Indirect impacts occur as a result of climate change’s impacts on the livelihoods of individuals, on prices of food, water and domestic energy; on utilities and supply chains that are at risk from extreme weather conditions; on global security – and on the increasingly complex interactions between these factors.

Commenting, Professor Sir Michael Marmot, Advisory Group Chair and Director of the UCL Institute of Health Equity (IHE) said:

“When we talk about climate change health inequalities are often forgotten. Action to improve health equity can be consistent with measures to reduce GHG emissions. But this requires careful consideration of who benefits and who pays for different policy measures: the costs must not be unfairly borne by people on low incomes, who bear least responsibility for the emissions that cause climate change.

To avoid this health equity must be an explicit policy goal of achieving net-zero emissions by 2050. If we are to achieve a green recovery we need to take a leaf out of New Zealand’s book and switch emphasis from GDP to wellbeing in measuring our country’s economic success.”
The report identified four key areas for action:

| Minimising air pollution | ➞ Reduce dependence on fossil fuels and accelerate transition to clean energy  
                        | ➞ Set target date to eliminate home installation of wood burning and gas stoves in urban areas  
                        | ➞ Upgrade domestic heating systems to electric and/or heat pump technology  
                        | ➞ Invest in re-training and diversify affected economies as fossil fuel industry sites are closed  |
|--------------------------|-------------------------------------------------------------------------------------------------|
| Building energy efficient homes | ➞ Establish target to retrofit and upgrade existing homes to be energy efficient  
                                | ➞ Revise building standards to become near-zero or zero-carbon with flexibility to adapt to local environment needs  
                                | ➞ Ensure all homes are designed to reduce exposure to extreme heat without using refrigerants  |
| Promoting sustainable and healthy food | ➞ Enable powers to transition to healthier and more sustainable diets, to be reflected in UK dietary guidelines  
                                           | ➞ Develop labelling system to inform consumers about health and environmental impacts of purchases  
                                           | ➞ Support interventions such as changing marketing of food, VAT structures and waste reduction duties  |
| Prioritising active and safe transport | ➞ Support replacement of old polluting vehicles, expand electric charging network for vehicles and e-bikes and invest in walking/cycling infrastructure  
                                               | ➞ Increase availability of affordable and reliable public transport, promote ride-sharing and e-delivery services  
                                               | ➞ Optimise flexible speed restrictions/traffic control measures to protect cyclists & pedestrians, reduce air pollution and GHGs, and increase monitoring & enforcement  |

**EDITOR’S NOTES**

The UK Health Expert Advisory Group, chaired by Professor Sir Michael Marmot, was formed by the UK Committee on Climate Change (CCC) in January 2020. The Group was commissioned to produce an independent report to advise on developing an approach to assessing the health impacts of setting the sixth carbon budget covering 2033-2037, which will set a new path towards the target date of net-zero carbon emissions by 2050.

Although first convened prior to the Covid-19 pandemic, the group largely met remotely during the pandemic, a period which has shown in stark terms how an external shock can amplify health inequalities. The evidence shows climate change will lead to more such systemic shocks, which will become increasingly unpredictable and which will impact population health, well-being and inequalities – both directly and indirectly.

Communities that are already disadvantaged are among the most vulnerable to the effects of systemic shocks and extreme events and climate change has the potential to widen existing health inequalities in the UK. Also, some hazards are unavoidable due to climate change that is already ‘locked-in’ by existing concentrations of greenhouse gases in the atmosphere, and therefore adaptation and resilience must be considered in tandem with the mitigation of climate change.

**About the Climate Change Committee (CCC)** [www.theccc.org.uk](http://www.theccc.org.uk)

The CCC is an independent, statutory body established under the Climate Change Act 2008. Our purpose is to advise the UK and devolved governments on emissions targets and to report to Parliament on progress made in reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change.

**Health Expert Advisory Group:** Professor Sir Michael Marmot (Chair) UCL Institute of Health Equity; Professor Sir Andy Haines Centre on Climate Change and Planetary Health, London School of Hygiene and Tropical Medicine (LSHTM); Dr Ian Hamilton, Reader, UCL Energy Institute; Professor Paul Wilkinson, Public Health, Environments and Society, London School of Hygiene and Tropical Medicine; Professor Susan Jebb, Nuffield...
Professor Sir Michael Marmot is Professor of Epidemiology at University College London, Director of the UCL Institute of Health Equity, and Past President of the World Medical Association. Professor Marmot has led research groups on health inequalities for over 40 years. He chairs the Commission on Equity and Health Inequalities in the Americas, set up in 2015 by the World Health Organizations’ Pan-American Health Organization (PAHO/WHO). He was Chair of the Commission on Social Determinants of Health (CSDH), which was set up by the World Health Organization in 2005, and produced the report entitled: ‘Closing the Gap in a Generation’ in August 2008. At the request of the British Government, he conducted the Strategic Review of Health Inequalities in England post 2010, which published its report ‘Fair Society, Healthy Lives’ in February 2010. This was followed by the European Review of Social Determinants of Health and the Health Divide, for WHO Euro in 2014. Professor Marmot served as President of the British Medical Association (BMA) in 2010-2011, and is President of the British Lung Foundation and in 2000 was knighted by Her Majesty The Queen, for services to epidemiology and the understanding of health inequalities.

About the Institute of Health Equity [www.instituteofhealthequity.org](http://www.instituteofhealthequity.org)

Our mission is nothing less than a fairer, healthier society. The Institute of Health Equity was established in 2011 and is led by Professor Sir Michael Marmot at University College London. The aim is to develop and support approaches to health equity and build on work that has assessed, measured and implemented approaches to tackle inequalities in health. In February 2020 the IHE published ‘Health Equity in England: Marmot Review Ten Years On’. Marmot 2020 provides an updated review of health inequalities across England since the publication of the Marmot Review ‘Fair Society, Healthy Lives’ in February, 2010. The Marmot Review laid out how public expenditure on policies, through the life course, could act on the social determinants of health to reduce health inequalities. The Review was commissioned following the publication of the WHO Commission on Social Determinants of Health. Since 2011, the Institute has led and collaborated on works to address the Social Determinants of Health and improve health equity. These works include the PAHO Commission on Equity and Health Inequalities in the Americas, a Review of Social Determinants of Health and the Health Divide for the WHO European Region, Indicators for Local Authorities in England, Healthy Places, Healthy Lives, Social Determinants of Mental Health, local practice resources for public health.