Sustainable health equity: achieving a net-zero UK

Tony Atkinson’s 2015 book Inequality begins with the observation that, according to population surveys in the USA and Europe, the two biggest global problems are inequality and climate change. These two big problems need to be tackled at the same time. In particular, combating climate change and reducing avoidable health inequalities—promoting health equity—should be part of a common agenda. We label it sustainable health equity.

Sustainable health equity is the theme of a report produced by the UK Health Expert Advisory Group. The advisory group was formed by the Climate Change Committee in 2020 to advise on the potential health impacts of the sixth carbon budget covering 2033–37.

In the decade between the first and second Marmot Reviews into health inequalities in England, the country had the weakest growth in life expectancy for more than a century—in some of the most deprived communities, it had actually gone into reverse. The difference in healthy life expectancy at birth was 18·9 years for males and 19·4 years for females between the most and least deprived areas in 2016–18.

In the same decade, the UK government progressed its ambitions to reduce carbon emissions in line with the 2016 Paris Climate Agreement. The country now has a legally binding target to reach net-zero carbon emissions by 2050.

Existing models of the health effects of measures to reduce emissions from energy, transport, food, and buildings frequently emphasise their significant and well evidenced co-benefits to health. The group considered the above areas for climate action through the lens of social determinants of health and health inequalities. They further considered the potential co-benefits of more systemic changes in work and consumption patterns. Importantly, adaptation to climate change is critical to future health inequalities, given the amount of warming that is locked in by existing carbon emissions. Adaptation measures cannot be siloed from mitigation, given that both require systemic, and not merely systematic, cross-departmental working across the same areas of government. Where relevant, the trade-offs between adaptation and mitigation for health and health equity were discussed—eg, regarding the need to reduce exposure to indoor heat alongside reducing emissions from cooling systems.

The central message of the Chair’s report is that a strategy to achieve net-zero emissions should have health equity—the fair distribution of health—as an explicit policy goal, and that a health equity in all policies approach be adopted. Action to improve health equity can be consistent with measures to reduce greenhouse gas emissions and adapt to climate change, but it is evident that this requires careful consideration of who benefits from and who pays for different policy measures.

The unequal distribution of illness and deaths from COVID-19 are a stark warning of the unequal resilience of different communities to external shocks: mortality rates from COVID-19 have shown a similar social gradient to those from all causes—the more deprived the area, the higher the mortality rate. Moreover, COVID-19 has had a disproportionate impact on Black, Asian, and minority ethnic groups.

Already extreme weather events affect communities with less capacity to adapt more severely, including people in poor inner city neighbourhoods who are more likely to experience the urban heat island effect, and people in deprived coastal communities who will be, in many areas, exposed to more frequent and intense storms and coastal flooding. Meanwhile, the resources to prepare for, adapt to, or move away from these impacts are also unequally distributed.

Some of the households most affected by climate change will be those that bear the least responsibility for its cause. In the UK, the highest 5% income households consume, on average, more than three times as many tonnes of oil equivalent annually, compared with the lowest 5% income households. The health benefits of mitigation and adaptation measures will be maximised if they are designed to reach the people facing the greatest disadvantage; however, this is not inevitable. For example, although all communities will benefit from reductions in absolute exposure to air pollution via decarbonisation of energy and transport, some sources of PM$_{2.5}$ might rise, including domestic wood burning and non-exhaust emissions from electric vehicles. If roadside non-exhaust emissions of PM$_{2.5}$ increase, while other sources decline, inequalities in exposure between the least and most deprived fifth of wards are expected to...
Home energy efficiency improvements are a further target of emissions reductions. Several home energy decarbonisation measures are funded through a levy on energy bills, averaging 13% of energy costs. A percentage of the levy subsidises schemes to reduce fuel poverty and improve home energy efficiency. However, in previous years, low-income households have more than self-funded schemes that exist to benefit people on low incomes; and, in 2016, the proportion of income spent on the levy was six times greater for the 5% of UK households in the lowest income group compared with those in the highest income group.

The UK already has a highly unequal food system with respect to both consumption and production of food. In 2018, roughly 20% of households in England, Wales, and Northern Ireland were food insecure or had marginal food security. Although obesity and diet-related diseases affect all socioeconomic groups, the rates of disease are higher in more deprived areas. Fruit and vegetable consumption also follow a social gradient, with adults and children in the lowest income decile eating, on average, 42% less fruit and vegetables than those in the highest income group.

The full report describes these and key policy levers for health equity and climate change in more depth. In summary, the headline policy recommendations for health equity and climate change in more depth. (1) inclusion of citizens affected by—and whose support and cooperation is required to deliver on—policy decisions; (2) integration of policy making at national, regional, and local levels, and between departments across government; (3) transparency about decision making and trade-offs between adaptation and mitigation and their short and long-term effects on health; and (4) evidence-based policy making, informed by a public health intelligence function that can gather, analyse, and interpret qualitative and quantitative data.

Factoring health equity impacts into policies requires a more nuanced approach to mitigation and adaptation than might have been modelled to date. The government’s green recovery presents a window of opportunity to implement actions that will improve health and wellbeing, reduce health inequalities, and mitigate climate change.

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