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Editorial

Health Professionals and Climate Change

Richard Smith
Chair of the UK Health Alliance on Climate Change and former editor, BMJ

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Both the World Health Organisation (WHO) and the Lancet have called climate change the world's major threat to health. (I 1 2) It is unfortunately a much more serious threat than the Covid-19 pandemic. Although the pandemic is likely to kill millions, it will eventually pass. Humans have experienced pandemics since they moved into cities some 5000 years ago. In contrast, although the Earth has experienced wide swings in temperature, humans have not experienced the global warming that is underway.

Climate change is already causing suffering and premature death as a result of extreme weather, sea-level rises, extension of infections into new areas, crop failure, water shortages, forced migration and the air pollution that accompanies climate change. (3) This is all set to become dramatically worse if we do not manage to reduce greenhouse gas emissions. The Intergovernmental Panel on Climate Change (IPCC), an instinctively cautious body, warned in 2018 that we have less than 15 years left to reduce greenhouse gas emissions to keep global temperature to less than 1.5°C above pre-industrial levels, a level that should avoid what the IPCC calls "extreme climate change." (4)

In order to keep the global temperature below the 1.5°C increase the world has needed to reduce greenhouse gas emissions by about 7% a year. (4) But they have been increasing by about 7% a year, (5) meaning that we are heading towards a temperature increase of 4°C, a level that could have catastrophic effects on health. (6)

As a result of the pandemic and consequent lockdowns of economies it is estimated that greenhouse gas emissions will fall by about 8% in 2020. (7) This is good news in that it shows that reductions are possible, but it also shows the extent of change necessary: shutting down the global economy is not possible, but equally dramatic changes must be made—by the international community, and every country, organisation, and individual.

It's important to recognise that the vast majority of the greenhouse gases emitted into the atmosphere since the start of the industrial revolution have come from high-income countries. Yet the most serious consequences from climate change will be in low income countries. This has led to the idea of Contraction and Convergence in mitigating climate change. (8) All countries need to converge towards net-zero emissions, but high emitting countries need to make the biggest reductions while some low income countries might temporarily increase emissions to aid development before contracting to net zero.

The UK Health Alliance on Climate Change (which I chair) has spelt out what this means for a high emitting country like Britain (present average per capita emission 5.6 tons of carbon dioxide) is each person rapidly converging to the global average (4.8 tons/capita), and then reducing to zero by 2040. The allowance for Britain is about 0.5 tons/ per capita between now and 2040. Yet the average British home emits 2.7 tons of carbon dioxide a year from domestic heating, and a return flight from London to New York emitting 1.0 ton of carbon dioxide. These examples illustrate the dramatic changes we need to make in how we live, eat, travel, and work to keep below a global temperature increase of 1.5 degrees.

Improving health and mitigating climate change

Fortunately but unsurprisingly, what is good for mitigating climate change is also good for human health. (3) The Australians have a phrase "Healthy planet, healthy places, healthy people": it is difficult if not impossible for people who live in unhealthy places to be healthy. To mitigate climate change we need to drive and fly less which means exercising more, which is good for the health of individuals (transportation accounts for just over a quarter of greenhouse gas emissions). We also improve our health by eating less meat and more plant-based foods, which in turn reduces greenhouse gas emissions from food (about 14% of global emissions). Recognising that we are part of nature and cherishing it more is good for our mental health. It's important make clear, however, that, although we will need to change how we live, the most important changes need to be made at a political level. We need global cooperation, commitments by governments to reducing carbon emissions that they deliver, and a shift from an economy that pursues growth to one that promotes wellbeing. Individuals alone changing will not be enough to avoid climate catastrophe, and political changes in transport, agriculture, trade, and urban design make it easier for individuals to live healthy lives in which we consume less carbon.

Health systems and climate change

The recognition of the huge threat to health from climate change might be expected to mean that health systems would be in the forefront of reducing carbon consumption. In fact, as the Lancet Countdown in Climate Change has shown almost all health systems have rising not falling carbon emissions. (5) The US health systems accounts for about 12% of emissions, while the NHS produces 5-6% of Britain's emissions. Health systems may have been so slow to reduce carbon emissions because of what's been called "moral offsetting"—those working at what they see as socially beneficial activities like treating the sick do not think that they have the same obligation as others to reduce their carbon consumption. (9)

There is, however, something absurd and paradoxical for health systems not to be acting on what is deemed the major threat to health. The NHS in England has now committed itself to getting to net-zero emissions as quickly as possible and has a net-zero advisory committee (on which I sit) advising on how fast net-zero can be achieved and the steps that will need to be taken to get there. (10) (It's worth explaining at this point that "net-zero" accepts that it will not be possible to reduce carbon consumption to zero, and so some carbon emissions will have to be removed from the atmosphere through natural methods like planning trees or enriching soil or through technologies, although those technologies are nor currently able to work at scale.)

Almost three quarters of the NHS carbon footprint arises from procurement of goods and services with pharmaceuticals alone counting for about 20% and medical equipment another 10%. (11) Travel accounts for another 13% of the total NHS footprint, and about one in 20 journeys on British roads arises from deliveries and patients and staff travelling to health facilities. The NHS uses about 2 billion plastic gloves a year, and anaesthetic gases and inhalers make a material contribution to greenhouse gases.

Health professionals acting on climate change

Far from being laggards in mitigating climate change, health professionals should be leaders. They have scientific training, which means they are better able than many to understand the science that underpins climate change. They are more trusted than any other group, particularly after the bravery they have shown in countering the pandemic, and they interact with millions of citizens every day. Then the threat to health and the positive benefits to health from a low carbon life are probably the best way for citizens to be motivated to act on climate change. In many countries health workers outnumber and other group of employees, and the actions they and their families take as individuals can have a sizeable impact—and they provide leadership by example. Finally, health professionals have global networks, and mitigating climate change demands global action.

When trying to influence international organisations and governments health professionals have a stronger voice if they speak together. That was the thinking behind the formation of the Global Health and Climate Alliance, (12) the UK Health Alliance on Climate Change (UKHACC), and similar bodies. UKHACC is five years old and includes most of the royal

college in the UK, including those of nurses, physicians, surgeons, and general practitioners, and the BMA, the Lancet, and the BMJ. (13) Altogether the members of the Alliance have some 650 000 members, a sizable proportion of the workforce of National Health Service.

Some other countries have similar organisations to UKHACC, (12) but most do not. It seems to me that every country should have some organisation of health professionals, and preferably the organisations should include the existing respected professional bodies. The World Medical Organisation, which is made up by medical associations from around the world, has declared a climate emergency and called on the international health community to join its mobilisation. (14)

The Global Health and Climate Alliance campaigns at the annual United Nations meeting on climate change—the Conference of the Parties (COP). COP26 was due to be held in Glasgow in November 2020 but has been delayed until November 2021 because of the pandemic. It will be a particularly important meeting because countries are required to renew their Nationally Determined Contributions (NDCs). The current NDCs, agreed in Paris in 2015, will not be enough to keep the temperature increase below1.5°C (and, as I've said, are not being achieved by most countries). It may be that the pandemic will lead to countries acting more strongly on the threat of climate change. The Global Health and Climate Alliance is working with WHO, UKHACC, and the British government to try and ensure that health features prominently in COP26. As the number implies, there have been 25 previous meetings of COP, and for many years health did not feature at all.

The UKHACC was part of pressuring the British government into committing the country to achieve net zero by 2050, and we are currently campaigning on the Environment Bill, air pollution, and economic recovery from the pandemic being a recovery that is sustainable and low carbon.

Mitigating climate change requires organisations to change, and UKHACC and any similar organisation speaks with more authority if its members are putting their own houses in order. The attached list shows actions that we have asked our 21 members to take, ranging from the relatively easy like promoting vegetarian food in their canteens to the more complex like disinvesting in fossil-fuel companies. (table I) These are actions that could be taken by most organisations. Some members of UKHACC have taken all the actions, whereas others are at the beginning. Members of the Alliance help each other.

There are around 40 million health workers in the world, and the demand for health workers is predicted to increase to some 80 million by 2030. (15) These workers can play a leading role in mitigating the world's major threat to health. Firstly, they can campaign for their governments, cities, communities, health systems, professional organisations, and any other organisations to which they belong to act to mitigate climate change. Secondly, they can act themselves, and I've posted a blog in the BMJ listing actions that individuals can take. (16) Thirdly, they can work with their patients to encourage them to take these same actions—and the health professionals can do so knowing that they will also be befitting the health of their patients.

Conclusion

Climate change is the major threat to health. Although some health systems and professionals have acted on climate change, many have not. There is a huge opportunity for health professionals to take and even lead actions to mitigate climate change, and I urge them to do so.

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