

## EDITORIAL :

## Doctors and Climate Change

### Links Between Climate Policy And Health Policy Must Not Be Overlooked

Ian Roberts \*, Robin Stott\*\*

\*Professor of epidemiology and public health, London School of Hygiene and Tropical Medicine, London WC1E 7HT, UK  
ian.roberts@lshtm.ac.uk , \*\*Co-chair, Climate and Health Council ([www.climateandhealth.org/](http://www.climateandhealth.org/))  
On behalf of the Climate and Health Council executive

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**Corresponding Author:** Ian Roberts, Professor of epidemiology and public health, London School of Hygiene and Tropical Medicine, London WC1E 7HT, UK. E-mail : [ian.roberts@lshtm.ac.uk](mailto:ian.roberts@lshtm.ac.uk)

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In November 2010, representatives from countries around the world will meet in Cancún, Mexico, at the 2010 United Nations Climate Change Conference<sup>1</sup>. Here they will attempt to draft a treaty aimed at stabilising atmospheric greenhouse gas concentrations at a level that will prevent catastrophic climate change. What a pity the meeting had not been scheduled in Pakistan. Then the anger of those whose livelihoods have been destroyed by the biblical floods that have washed away the hopes of a nation would surely have focused the delegates' minds. Alternatively, the meeting could have been held in western Russia, where record high temperatures, wild fires, droughts, and crop failures have precipitated a state of emergency. The conference might even have been held in Mozambique, where rapidly rising wheat prices have caused rioting in the streets. All of these climatic events and their predictable human aftermath occurred this year and all are made more probable by climate change, the main cause of which is the increase in anthropogenic greenhouse gas emissions, mostly from the burning of fossil fuels.

But perhaps Mexico is not such a bad location for the climate conference after all. Mexico is second only to the US with regard to the prevalence of obesity. One in four Mexicans is obese<sup>2</sup>. If the delegates at the climate conference think that obesity and climate change are unrelated, they would be wrong. The planet is getting hotter, its people are getting fatter, and the use of fossil fuel energy is the cause of both<sup>3</sup>. Large increases in

motor vehicle traffic in Mexican towns and cities have decimated levels of physical activity. This, combined with increased availability of energy dense food, has propelled the body mass index in the entire population upwards. Mexicans are paying for these changes in terms of reduced health and wellbeing, with increased rates of diabetes, heart disease, stroke, and cancer. Unchecked car use has also conspired with rapid population growth and topology to make Mexico City one of the most polluted cities in the world. The city topped the list in a 2010 IBM poll of commuter pain, with 22% of commuters spending more than two hours a day traveling to and from work<sup>4</sup>. In this respect, the people of Mexico stand shoulder to shoulder with the people of Pakistan as victims of the use of fossil fuel energy.

Health professionals everywhere have a responsibility to put health at the heart of climate change negotiations. Firstly, because climate change already has, and will continue to have, a major adverse impact on the health of human populations<sup>5</sup>. Secondly, because reducing greenhouse gas emissions has unrivalled opportunities for improving public health<sup>6</sup>. Indeed, moving to a low carbon economy could be the next great public health advance. The hazards to human health from climate change are well documented. Strong evidence already exists that climate change will affect rates of malnutrition, diarrhoea, malaria, deaths as a result of floods, and temperature related deaths from cardiovascular disease<sup>5</sup>.

More recently, the health benefits of reducing green house gas emissions have been assessed and quantified. Meeting greenhouse gas emissions targets in the transport sector will require substantial increases in walking and cycling, with corresponding reductions in car use<sup>7</sup>. The available epidemiological evidence linking physical activity and health has shown that this would dramatically reduce rates of chronic disease, with around a 10-20% reduction in ischaemic heart disease and stroke, 12% reduction in breast cancer, 8% reduction in dementia, and 6% reduction in depression<sup>7</sup>. This last estimate considered the effects of physical activity only. It did not take into account the mental health benefits of urban greening, reduced community severance, reduced fatness, and less noise.

The project also considered the health effects of reducing livestock production to limit the cattle related methane emissions and deforestation that are contributing to global warming<sup>8</sup>. A reduction in animal products in the diet would reduce consumption of saturated animal fats and result in a large (about 15%) fall in ischaemic heart disease. Reducing meat consumption might also reduce rates of cancer of the colon and rectum. Colorectal cancer is the second most common cancer in men



after lung cancer and meat consumption is an established risk factor. Eating less saturated fat and taking more physical activity will reduce levels of population fatness. Consuming less animal products will also reduce food prices because cattle are fed on grain and high meat consumption forces up world grain prices. Feeding grain to animals is an inefficient use of food energy in a world where millions of people go hungry<sup>9</sup>. A reduction in car use

would also affect food prices. In April 2008, Evo Morales, president of the poor and increasingly hungry Bolivia, pleaded "la vida primero los autos segundos" (life first, cars second), exhorting the wealthy world to stop burning food in their cars. He was objecting to Western governments' policies on biofuels for transport. However, car use and food prices were linked long before the introduction of biofuels. Car use drives up food prices because oil is a key agricultural input. A reduction in car use is essential to prevent starvation.

Responding to climate change could be the most important challenge that health professionals face. The Climate and Health Council as established to enable health professionals around the world to take personal and collective action against the causes of climate change, and to insist that global health is central in climate change negotiations<sup>10</sup>. It seeks to provide information on all aspects of health and climate change and suggests a range of actions that health professionals can take. We invite colleagues everywhere to join us in tackling this major public health scourge of the 21st century. By signing the Climate and Health Council pledge ([www.climateandhealth.org/pledge](http://www.climateandhealth.org/pledge)), you will join the thousands of health professionals already committed to action. Please contact your health minister to ensure that the links between climate policy and health policy are known and fully taken into account at COP16 in Cancún, COP17 in South Africa next year, and indeed in all climate change negotiations.

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