

To: Transport & Health Policy Makers, & Practitioners
From: Prof Adrian Davis, TRI, Edinburgh Napier University
Date: 24th June 2019
Subject: Essential Evidence 4 Scotland No. 11. Solving the global climate crisis: the greatest health opportunity of our times?

Top line: While it might seem like a paradox, the actions taken to confront climate change today represents possibly the largest public health opportunity in more than a century.

According to reports of the Intergovernmental Panel on Climate Change (IPCC), the Lancet Commission on Health and Climate Change and many more, today's substantial global health gains are being undermined by climate change.¹ A wealth of evidence shows that global health and global climate and ecological conditions are inseparable. Healthy human populations simply cannot be sustained on a sick planet. The global climate crisis therefore demands a rapid change in policies and collective actions to divert our current path toward a 7 °C warmer world by the end of this century. Unfortunately, environmental and economic arguments, while important, are not moving climate change policies quickly enough. Caring about our own health tends to supersede all other priorities. Therefore, focusing on the problems of and solutions to climate change through a health lens compliments not only the environmental and economic efforts but also, most importantly, a health framing that can bring more focus and resolve to the global climate crisis.

Patz asks that we consider the following realities:² (1) The World Health Organization estimates seven million deaths are attributed to air pollution every year, (2) rates of obesity and chronic diseases are rising in nearly all regions of the world, and (3) greenhouse gas emissions—responsible for the global climate crisis—rose the fastest (~2%/year) in the past decade, approximately twice the rate from the period between 1970 and 2000.

Studies from across the world show marked health benefits from active transport. Active transport in Shanghai, China could reduce colon cancer risk by over 44%. Bike commuting in London could lower ischemic heart disease by 10 to 19%. In the USA, comparing cities with the highest versus the lowest levels of active transport, obesity rates are 20% lower and diabetes rates are 23% less, and switching short car trips to bike trips would save 1300 lives annually for just one region of the USA. Bicycling commuters in Copenhagen have a 39% reduction in mortality rate compared to non-cycling commuters. While less studied, rapidly growing newer cities, especially in Africa, provide especially unique health opportunities from urban planning; in these locations, we have an opportunity to design cities for the health of people, rather than simply for the flow of motorized traffic.

Current rates of chronic disease alongside continued rising trends in fossil fuel-based energy consumption that are causing today's global climate crisis present daunting risks to civilization. The interdependence of these challenges, however, affords an enormous opportunity to solve both simultaneously. Following the landmark 21st Conference of the Parties (COP21), with the Paris Agreement now officially in force, attention is on COP22 to accelerate actions to mitigate greenhouse gas emissions. There is no better time to focus on health as central in the negotiations; and in so doing, may we move faster and further with effective actions on climate change and the subsequent health benefits that will arise from a low-carbon society.

¹ Whitmee S, Haines A, Beyrer C, et al. 2015. Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health. *Lancet*, 386(10007):1973–2028.

² Patz, J. 2016. Solving the global climate crisis: the greatest health opportunity of our times? *Public Health Reviews*, 37(30). Doi 10.1186/s40985-016-0047-y