Quitting coal: a health benefit equivalent to quitting tobacco, alcohol and fast-food

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Jonathan 25/09/2017

Imagine, for a moment, that climate change was not synonymous with doomsday scenarios, but rather presented an opportunity to radically transform society for the better. This is not an attempt to downplay the seriousness of the risks facing our climate. Rather, it is about reframing the choice we face, away from the prospect of bleak minimalism often associated with a low-carbon future.

Consider the following realities: the World Health Organisation estimates 7 million deaths are attributed to air pollution every year; and rates of obesity and chronic diseases are rising in nearly all regions of the world. Burning fossil fuels, especially coal, accounted for 78% of the total



increase in carbon dioxide between 1970 and 2010, with deforestation comprising the balance of emissions. Burning coal also releases pollutants such as fine particulates, eg $PM_{2.5}$, which are deadly to human health.



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Patz

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So, the irony is that strategies focused on greenhouse gas mitigation could, more immediately, save an estimated 1 to 4 million lives annually by mid-century from improved air quality. And health benefits could far outweigh the cost of clean energy investments. For example, in the United States, monetised health benefits associated with improved air quality can offset between 26% and 1,050% of the cost of US low-carbon policies. This is not surprising, given the US Environmental Protection Agency estimates a US\$30 return for every dollar invested in reducing air pollution through the Clean Air Act.

Obesity and chronic diseases, such as diabetes and heart disease, are rapidly rising throughout the world, as western lifestyles with automobile-dependent transportation and meat-based diets are being adopted. Herein lies even more opportunities for public health.

Major health co-benefits accrue from increased urban walking and cycling, so-called active travel. Active commuting in Shanghai, China, was associated with a reduction of colon cancer by 48% in men and 44% in women. American cities with the highest versus lowest levels of active transport had obesity and diabetes rates 20% and 23% lower respectively. Bicycling commuters in Copenhagen have a 39% reduction in mortality rate

compared with non-cycling commuters.

A world focused on ending our addiction to fossil fuels would also experience fewer heat-related deaths – a significant achievement given that experts estimated 70,000 deaths were caused by the European heatwave in 2003, and 15,000 deaths in the Russian heatwave in 2010. Heatwaves have caused more deaths in Australia over the past 100 years than any other natural event.

A reliance on a carbon economy and other polluting industries has contributed to many of these problems, directly or indirectly, and they will only get worse as we experience longer-term changes to our climate.

The experience of quitting carbon is not unlike that of quitting smoking: it is a necessary change that will make us healthier. Quitting presents challenges, but it would be foolish to only understand the process through that lens. The decision to quit smoking should not be something the individual does alone; it requires all kinds of support, as well as taking on an industry that profits from addiction to killer substances. But in the long run, we will all benefit from this kind of transformation. The same is true for quitting carbon.



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In this context, the 28% clean energy target by 2030 proposed by Australia's chief scientist Alan Finkel does not look too radical, but rather not ambitious enough. The Turnbull government needs to stop playing politics with Australians' health and take the necessary steps to quickly reduce combustion of fossil fuels. The government's addiction to coal – including the oxymoron of "clean coal" – must be broken.

The cost of solar is now well below the retail power prices in Australian capital cities, after dropping 58% in the past five years. What entirely eludes me is why, in a sun-baked country that has a national health campaign of "Slip, Slap, Slop, Seek, Slide", the Australian government is not taking full advantage of the overabundance of sunlight to expand its renewal energy portfolio and avoid pollution-related deaths as a bonus.

The 21st century holds incredible promise for improving human health while simultaneously dealing with humanity's most urgent problem: climate change. Subsequent improvements in air quality, along with walkable or bikeable communities to counter trends in obesity and chronic diseases will majorly boost the health of Australians – a result that will be hugely appreciated.

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