



Climate change – no denial

As this issue of *SAMJ* goes to press, we may well be about to see the USA reject the Paris Agreement (COP 21) if president-elect Donald Trump makes good his election campaign promise to leave COP 21, fuelled by listening to climate-change denialists and reinforced by his own apparent rejection of science. This will be a massive blow to all involved in trying to mitigate the effects of humankind's industrial revolution and decades of pumping carbon dioxide and other damaging gases into the atmosphere.

Although there is precious little about climate change and health in the medical journals, we know that there will be effects on health. In this issue of the *SAMJ*, the article by Weimann and Patel¹ shows that at least some areas of healthcare are starting to address the issues. They also point out that as far back as 2009, the Lancet Commission stated that climate change is 'the biggest public health threat of the 21st century'. Since then, the climate crisis has deepened severely, with a higher frequency of extreme weather events and recurrences of El Niño. Climate change is already aggravating a wide range of health problems. As our planet warms, infectious diseases are spreading, threatening to reverse health improvements gained by great effort in many parts of the world. Heatwaves are growing in intensity and number, killing thousands of people and children, and aggravating chronic lung disease, heart disease and heatstroke. Increasingly severe storms, tornadoes, droughts and floods, as recently experienced in China, but also in South Africa (SA), harm human health and put often overstretched and ill-prepared health systems at risk. If greenhouse gas emissions remain at the current level or even increase, climate change will have severe persistent and irreversible effects, undermining the food and water supply in many parts of the world, setting off mass migrations, and thereby triggering potentially unmanageable public health crises. We have already reached atmospheric carbon dioxide concentrations of 440 ppm in both hemispheres – the level at which global average temperature increases of 2 - 3°C are inevitable, with all the ecological effects that this will have. We will all be affected by climate change, but it is the

poor who are most vulnerable. Already cities in Asia have life- and health-threatening levels of air pollution, and some of our own cities may not be far behind. Africa is one of the continents singled out as most vulnerable to the effects of climate change, and SA has the largest carbon footprint on the continent because of our high level of industrialisation, relative to the rest of the continent. Although we have almost certainly passed some major tipping points, we can still do what we can to mitigate the inevitable public health effects.

As I write this, the Western Cape Province is currently feeling the effects of a severe drought and it is likely that without very good winter rains, we will start to see water shedding across the community. I understand that the poorest communities are already experiencing water shedding, while in my leafy suburb neighbours are still topping up their swimming pools with precious drinking water. The health effects of a poor water supply are, I am sure, already evident among those living in poor communities. Our summer temperatures are noticeably higher, affecting elderly people, those with chronic diseases and those living in shacks that concentrate the heat. These are the relatively small, day-to-day effects of this global phenomenon that will slowly start to enter our consciousness. As health professionals, we need to be activists, lobbying for mitigation. As individuals, we need to be responsible and compassionate – and help affected people wherever we can.



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1. Weimann E, Patel B. Tackling the climate targets set by the Paris agreement (COP 21): Green leadership empowers public hospitals to overcome obstacles and challenges in a resource-constrained environment. *S Afr Med J* 2017;107(1):34-38. <http://dx.doi.org/10.7196/SAMJ.2017.v107i1.12023>