

Guest Editorial

Climate change, the threat of collapse and the opportunity for transformation

Bob Mash, MB ChB, DRCOG, DCH, MRCP, FCFP, PhD

Head, Family Medicine and Primary Care, Stellenbosch University

Bob Mash is Head of Family Medicine and Primary Care at Stellenbosch University. He was previously a family physician in Khayelitsha and manager of postgraduate education in family medicine at Stellenbosch University. He now focuses on research in the areas of non-communicable chronic diseases, district health systems, primary health care and family medicine. He leads a project to improve sustainable development of the Health Sciences Faculty and is an active artist.

Correspondence to: Bob Mash (rm@sun.ac.za)

Around the world there are many examples of previous human societies that have collapsed and disappeared. Societies that once flourished and seemed invincible, but which are now no more, include Great Zimbabwe in Africa, Easter Island in the Pacific Ocean, Mycenaean Greece and Minoan Crete in Europe and the Maya cities of Central America.¹ Professor Swilling, in the opening article of this issue of *CME*, presents us with a picture of global society that is breaching the absolute limits of environmental sustainability in several interconnected ways, of which climate change is only one. We face a global 'poly-crisis' that is already impacting on public health and which challenges us to revise our global economic system, approach to sustainable development and collective lifestyle. It is a planetary crisis that requires a transformative response on a global level, but which will impact individuals in communities on every continent.

Although awareness of climate change has increased, the likely impact on health has not been a central part of forecasting by the Intergovernmental Panel on Climate Change. In the second article Professor Myers discusses the likely impact on the burden of disease in South Africa. As I write this editorial South Africa has just finished hosting the 17th Conference of the Parties (COP17) in Durban. The contrast between the scientific 'red flags' and the slow political response at COP17 suggests our strategies may be 'too little, too late'.

When the problem faced by society 'takes the form of a slow trend concealed by wide-up-and-down fluctuations' it is much harder for people to see the trend and take it as a

serious threat.¹ Much of the climate change skepticism, in the face of hard scientific data, feeds off these year-by-year fluctuations. The phenomenon of 'creeping normalcy' is also part of this as people's sense of normality shifts subtly with time and longer-term changes are not perceived. The deforestation of Easter Island is thought to have been an example of this and the person who cut down the last tree may have had no sense of the immense environmental change.

However, even when societies perceive a problem to be real they often fail to act in time. Different groups or even countries may rather see the problem as a rational opportunity to advance their interests, even when this may cause harm to others or in the longer term to themselves.¹ A small and powerful group can successfully pursue rational self-interest when the harm is small in the short term, incremental and spread widely across society. Another known phenomenon is the 'tragedy of the commons' in which a group of consumers share a common resource. If the resource is not regulated fairly then people logically compete for their own share, so as not to lose out to someone else – the end result is depletion or disaster for the whole community.¹ The depletion of global fisheries is a good example of this. COP17 could also be understood as an attempt to get nations to agree to a fair share of the global atmospheric 'commons' and the amount of greenhouse gases that each country can fairly contribute. Dr Reynolds describes the concept of the carbon cycle in his 'More about...' article.

Ironically the health industry is a significant contributor to climate change at the same

time as offering services to those impacted. Dr Louis Reynolds explores how the health industry can modify itself on an organisational level to be more congruent with its core business and mitigate climate change.

Climate change and its consequences are now inevitable and the focus is on limiting the extent of global warming to less than 2°C. Drs Willems and Cameron explore how communities can adapt to climate change with the support of a primary healthcare approach.

An ecological model of health sees the impact of upstream and downstream factors on health. Upstream are the structural and societal factors discussed above and in the related articles. Downstream, however, are individual behavioural factors. Many of the behavioural changes that mitigate climate change at the level of the individual and family are also beneficial in terms of health. In the final article I discuss such lifestyle changes for health professionals and their patients.

I hope that this edition of *CME* may practically impact on your lifestyle, health promotion activities and organisation of your practice. I also hope, as outlined in the 'More about' article by Professor Coetzee, that it will encourage you and the health profession to show leadership on this issue and advocate for the necessary transformation of structures and society.

1. Diamond J. Collapse: How Societies Choose to Fail or Succeed. New York: Penguin Books, 2005.