

Commentary

Do we face a third revolution in human history? If so, how will public health respond?

Colin D. Butler

National Centre for Epidemiology and Population Health, Australian National University
Address correspondence to Colin D. Butler, E-mail: colin.butler@anu.edu.au

Evidence is compelling that a third revolution in human history is required if we are to survive as an advanced global civilization. As Hanlon and Carlisle argue this is needed due to the impact of overconsumption, overpopulation and outdated beliefs and technologies. Take technology. Although our ability to bridge distance in either a 747 or through the internet would awe our ancestors, the primary energy source for both, at a global level, remains old fashioned—dirty oil and dirty coal. The recent substantial rise in the price of energy and food are powerful refutations of the dominant economic ideology of recent decades—the ‘cornucopian’ delusion that ingenuity and the market are a sufficient underpinning for sustained prosperity.^{1–3} But, this need to embrace new economic thinking remains scarcely acknowledged and fiercely resisted.

Worse appears to lie ahead, in a future framed by climate change, aquifer depletion and recalcitrant discord, suspicion and conflict between groups who identify as fragments rather than parts of the whole. Climate change is of special concern, due to the increasingly plausible risk of catastrophic sea level rise,⁴ and harm to regional agricultural productivity, whether through drought, waterlogging or stronger tropical cyclones. And while a slow shift towards a wider global social and cultural identification is underway its spread is far too slow for comfort. Xenophobia,⁵ inequality and weaponization can neither be wished nor be preached away in the near to mid-term future. And in that future—certainly within two centuries, but possibly the next 40 years—civilization will have to cope with substantial sea level rise, massive declines in regional food security and unprecedented refugee flows.

Peak oil is already upon us, but as yet under-recognized is the possibility that other forms of fossil fuel, such as coal, coal gas and methane hydrates will be used to substitute oil, with accelerating consequences for greenhouse gas

accumulation and thus for climate change. Unless humanity is prepared to grasp the nettle of paying more cash for cleaner energy, we will reach the point where not only our grandchildren, but we ourselves will experience the ugly consequences of pollution by the invisible poison of greenhouse gases, as undetectable to ordinary senses as rising creatinine is to a patient approaching renal failure.

Three main responses to these issues can be conceived. One—that of denial—should be untenable to public health practitioners. Our profession has a long familiarity with using data to reveal disquieting evidence and the tantalizing possibility of reform. The evidence of peak oil and accelerating climate change is now immense, and denial is the equivalent of clinging to miasmatic theories to explain cholera and malaria, in a time of Snow and Ross.

A second response to cope with the future is to call for a ‘Security First’⁶ or ‘Fortress World’. This can be likened to a world in which enclaves of comparatively privileged citizens band together to enclose their assets and to fend off outsiders. Techniques range from the ancient—moats (oceans), walls and weapons—to more recently developed means such as passports, currency differentials and double standards which enforce ‘do as I say’ instead of ‘do as I do’. This strategy is attractive in the short run, not least because its resultant intensified inequalities shore up privilege and the comforting illusion of compassion. But its ultimate failure is foreseeable for several reasons. These include the collapse of all previous empires which required walls, the necessity to forage resources from beyond the fortress (witness the recent daring raids on Nigerian offshore oilwells) and the disconcerting reality that no

Colin D. Butler, Associate Professor

plausible technology exists to keep out unwanted greenhouse gases.

A third response by the public health movement is to clamour for and to participate in the massive reforms that are needed. This indeed requires a third revolution comparable to that of agriculture and industrialization. It needs to go well beyond new technologies, to also embrace new theories and forms of organisation. It requires new forms of tolerance and far-sighted leadership. It needs the intelligent use of data and strategy. It demands alliances with many disciplines beyond public health, including marketing, political science and ecological economics. It will rediscover that rapid population growth in poor countries leads to entrapment in misery.^{7,8}

The task is enormous, but not yet hopeless. A shift to less meat consumption by the overfed will be good for their personal health as well as the planet's,⁹ as will more walking, cycling, public transport and community gardens. Much of the financial and intellectual resources used for militarism¹⁰ must be diverted to develop and disseminate new energy and communication technologies. For almost two centuries, public health workers have been in the vanguard of those disciplines that strive for a better world. We must continue our calling.

References

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