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The cost of preventable disease in the USA



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A substantial proportion of poor health in populations is preventable. Previous work from the Global Burden of Diseases, Injuries, and Risk Factors Study¹ suggests that nearly half of all health burden in the USA is attributable to a list of 84 modifiable risk factors. Globally, it is also generally accepted that a quarter, or perhaps up to half, of all deaths fall into the category of preventable deaths,² making illness that can at least theoretically be avoided an accepted part of our health accounting.

In *The Lancet Public Health*, Howard Bolnick and colleagues extend this logic in the US context and quantify the proportion of US health-care spending in 2016 that was due to preventable causes.³ They found that more than a quarter (27·0%, 95% uncertainty interval [UI] 25·7–28·4) of health-care spending was due to these preventable illnesses. The US health-care system is famously expensive: the USA spends 16·9% of its gross domestic product (GDP) on health care, twice the Organisation for Economic Co-operation and Development average of 8·8%.⁴ Therefore, in absolute terms, the sheer cost of these preventable illnesses is staggeringly high, estimated at US\$730·4 billion (95% UI 694·6–768·5) in the USA alone in 2016. To put this figure into perspective, it is more than the 2019 GDP of 171 countries in the world, or all but the 19 richest countries.⁵ While this analysis is helpful to draw attention to the costs that the USA spends on diseases that it could avoid, it is also drawing attention to a status quo that we have long come to accept: a high proportion of illness and death is preventable, and a lot of money is spent on treatment because we do not do a particularly good job of preventing disease.

Why do we continue to accept such a high burden of preventable disease, even when the cost of it is known? One could point to the well trodden discussions about the challenges of prioritising prevention, the immediacy of curative approaches, and the challenge of nurturing investment in avoiding poor health, rather than investment in treatment that gratifies those who are then cured.^{6,7} We would suggest, however, that during this COVID-19 pandemic, informed also by an upcoming federal election in the USA, this state of affairs can and should be considered more deeply, and the high burden and cost of preventable disease should push us to think differently about health at a foundational level.

The very existence of preventable disease and preventable deaths should be a rallying cry, a motivation for anyone in any health profession, and really for anyone in a position of responsibility for populations in general. The COVID-19 pandemic has shown that health can come to the forefront of conversations. COVID-19 has resulted in the entire world changing its trajectory during the course of 2020, as national governments worldwide have aimed to prevent the pandemic from spreading. This has put prevention front and centre. Can we not extend the lessons learned in the past year to bring about a permanent doubling down on prevention, putting it at the heart of our conversations on health, well beyond the COVID-19 pandemic? This would require us to embrace the notion that no amount of preventable illness or death is acceptable, and that the \$730·4 billion could be repurposed.

Achieving this focus on prevention would require a dramatically different formulation of our global health conversation. It would require that we think about health beyond health care, and that we accept that creating health requires investments in structures that minimise preventable risk factors. The analysis by Bolnick and colleagues shows that high body-mass index, high systolic blood pressure, high fasting plasma glucose, dietary risks, and tobacco smoke exposure account for most of the spending on preventable illness. Preventing these risk factors would require an engagement with subsidising the availability of nutritious foods, disincentivising the commercial production of harmful products, investing in early childhood education that leads to healthy exercise and dietary habits, and creating cities that encourage healthy behaviours. It would also require an acknowledgment of the role of inequalities in wealth and opportunity in the narrowing of paths to better health. All of these activities would yield a substantial return on investment in the long term, generating both healthier populations and creating opportunities for humans to realise their potential, as promised in the preamble to the original constitution of WHO.⁸

Analyses like the one by Bolnick and colleagues are important reminders of the unnecessary burden and cost of disease that we can—and should—live without. They should serve as an urgent call for a recommitment

to a reconceptualisation of health, one which urges us to invest in the conditions that generate health, creating a world where preventable disease is no longer part of our vocabulary.

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- 1 The US Burden of Disease Collaborators. The state of US health, 1990–2016: burden of diseases, injuries, and risk factors among US states. *JAMA* 2018; **319**: 1444–72.
- 2 Martinez R, Lloyd-Sherlock P, Soliz P, et al. Trends in premature avertable mortality from non-communicable diseases for 195 countries and territories, 1990–2017: a population-based study. *Lancet Glob Health* 2020; **8**: e511–23.
- 3 Bolnick HJ, Bui AL, Bulchis A, et al. Health-care spending attributable to modifiable risk factors in the USA: an economic attribution analysis. *Lancet Public Health* 2020; **5**: e525–35.
- 4 Tikkanen R, Abrams M. US health care from a global perspective, 2019: higher spending, worse outcomes? Jan 30, 2020. The Commonwealth Fund. <https://www.commonwealthfund.org/publications/issue-briefs/2020/jan/us-health-care-global-perspective-2019> (accessed April 12, 2020).
- 5 International Monetary Fund. World economic outlook database, October 2019. Washington, DC: International Monetary Fund, 2020.
- 6 Maani N, Galea S. COVID-19 and underinvestment in the health of the US population. *Milbank Q* 2020; **98**: 239–49.
- 7 Maani N, Galea S. COVID-19 and underinvestment in the public health infrastructure of the United States. *Milbank Q* 2020; **98**: 250–59.
- 8 WHO. Constitution of the World Health Organisation. Geneva: World Health Organization, 1948.