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# Social determinants and lifestyles: integrating environmental and public health perspectives



## H. Graham <sup>*a*,\*</sup>, P.C.L. White <sup>*b*</sup>

<sup>a</sup> Department of Health Sciences, University of York, Seebohm Rowntree Building, University of York, YO10 5DD, UK <sup>b</sup> Environment Department, Wentworth Way, University of York, York, YO10 5NG, UK

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#### ABSTRACT

*Objective*: Industrialization and urbanization have been associated with an epidemiological transition, from communicable to non-communicable disease, and a geological transition that is moving the planet beyond the stable Holocene epoch in which human societies have prospered. The lifestyles of high-income countries are major drivers of these twin processes. Our objective is to highlight the common causes of chronic disease and environmental change and, thereby, contribute to shared perspectives across public health and the environment.

Study design: Integrative reviews focused on social determinants and lifestyles as two 'bridging' concepts between the fields of public health and environmental sustainability. *Methods*: We drew on established frameworks to consider the position of the natural environment within social determinants of health (SDH) frameworks and the position of social determinants within environmental frameworks. We drew on evidence on lifestyle factors central to both public health and environmental change (mobility- and diet-related factors). We investigated how public health's focus on individual behaviour can be enriched by environmental perspectives that give attention to household consumption practices.

Results: While SDH frameworks can incorporate the biophysical environment, their causal structure positions it as a determinant and one largely separate from the social factors that shape it. Environmental frameworks are more likely to represent the environment and its ecosystems as socially determined. A few frameworks also include human health as an outcome, providing the basis for a combined public health/environmental sustainability framework. Environmental analyses of household impacts broaden public health's concern with individual risk behaviours, pointing to the more damaging lifestyles of high-income households.

*Conclusion*: The conditions for health are being undermined by rapid environmental change. There is scope for frameworks reaching across public health and environmental sustainability and a shared evidence base that captures the health- and environmentally damaging impacts of high-consumption lifestyles.

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\* Corresponding author.

E-mail address: hilary.graham@york.ac.uk (H. Graham).

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**Review Paper** 

#### Introduction

Over the last century, the twin processes of industrialization and urbanization have delivered improvements in living standards and life expectancy.<sup>1,2</sup> These improvements have been associated with rapid changes in people's lifestyles, including changes in physical activity and diet. Thus, paid work, unpaid work and travel modes have become less labour intensive, and staple plant-based diets have given way to animal-sourced foods, including dairy products, meat and processed meat.<sup>3–6</sup>

These economic and social changes have, in turn, resulted in an epidemiological transition. First evident in the earlyindustrializing countries of North America and Europe, noncommunicable disease has replaced communicable disease as the major cause of ill-health and premature mortality, both within high-income countries and globally.<sup>7,8</sup> Lifestyle-related factors, including physical inactivity and unhealthy diets, are its proximal cause.<sup>3,7,9</sup>

Industrialization and urbanization have also produced changes in the Earth's biophysical systems: in its land surface, oceans, atmosphere and cryosphere. Central to these systems are ecosystems: the interconnected plant, animal, and microorganism communities and the non-living environments with which they interact.<sup>10</sup> Ecosystems function at multiple spatial scales (e.g. a field within a farm within a rural community within a region) and furnish the resources on which human life depends. Ecosystems provide food and water as well as a wider range of essential services, including soil formation, climate regulation and the production of oxygen.<sup>11,12</sup> Many of the human consequences of environmental and climate change are being mediated through ecosystems which are, in turn, in a state of rapid decline.<sup>11,13</sup>

Human-induced changes in the Earth's systems, including its ecosystems, have been evident since the 19th century.<sup>14</sup> However, the pace and magnitude of anthropogenic change have increased sharply since 1950, with the decade marking the beginning of 'the Great Acceleration' in the human transformation of the global environment.<sup>15</sup> Among the many global indicators are increases in atmospheric CO<sub>2</sub> and surface temperature, ocean acidification, deforestation and agricultural intensification, loss of biodiversity and oceanic ecosystems<sup>16,17</sup> which in turn are triggering ecosystem changes that are happening too quickly for many species to adapt.18 Together, these markers of environmental stress are taken as evidence that the human modification of planetary conditions is driving a geological transition: humanity has become a global geophysical force. It is moving the Earth beyond the stable environmental boundaries of the Holocene epoch in which human societies have been able to grow and prosper to a new 'human-dominated geological epoch'.<sup>19</sup> Many of Earth's systems have entered a no-analogue state, posing new and unparallelled threats to human health, and ones with disproportionate impacts on poorer communities who have contributed least to environmental and climate change.<sup>17,20–22</sup>

Among the complex of factors underlying environmental change and geological transition are the consumption-based lifestyles that have underpinned economic growth and, in particular, the high-consumption lifestyles of affluent societies.<sup>23</sup> While population growth has added to the environmental pressures, the great acceleration has been driven by the rapid increase in per capita consumption of the Earth's finite resources by 'a small fraction of the human population', namely, those living in high-income societies.<sup>15</sup> The environmental pressures are being intensified by 'a cultural globalization'<sup>24</sup> of the consumption patterns of affluent societies as a global aspiration and, increasingly, a global norm.<sup>25</sup> It is 'the convergence of aspirations on high consumption patterns'<sup>26</sup> in emerging economies and other middle-income countries that is increasingly driving environmental and climate change.<sup>27</sup>

While both chronic disease and environmental change are outcomes of the lifestyles characteristic of modern societies, they have formed separate fields of research and policy. However, with both public and planetary health under increasing pressure from environmental and climate change, there are increasing calls to bring health and environmental perspectives closer together.<sup>22,28–32</sup> Our paper is a contribution to this urgent task.

We approach the task mindful of the barriers that can block cross-disciplinary and cross-sector understandings.<sup>33,34</sup> Among these barriers are the difficulties of 'thinking outside the box': of taking on ideas and perspectives from fields beyond those in which we practice. Studies suggest that concepts can aid this process. They can mediate understandings and facilitate dialogue, moving across disciplinary and policy boundaries in ways that evidence may not.<sup>35</sup> In the language of science studies, concepts can serve as 'boundary objects',<sup>36,37</sup> opening up and working across the interface between research and policy communities. We focus on two concepts already integral to public health perspectives: social determinants and lifestyles. We explore their potential intersections with environmental perspectives and the different and complementary insights these perspectives provide.

The section below considers the concept of social determinants, looking in particular at frameworks used to capture the pathways through which these determinants have their effects. Frameworks are widely used in policy-facing research to provide simple visual representations of complex processes; like the concepts they embody, they are used to aid communication across disciplinary and policy boundaries.<sup>38,39</sup> We consider where the natural environment sits within a social determinants of health (SDH) perspective, arguing that widely used frameworks obscure its position as an outcome shaped by the same social factors that determine health. We consider, too, the position of social determinants within frameworks focused on environmental change and ecosystem functioning, noting that widely used frameworks accord causal primacy to these determinants; some, in addition, include a focus on human health. Recognizing the synergies between the different sets of frameworks, we provide a simple illustrative example of an integrated framework.

The subsequent section identifies modern lifestyles as another focal point for linking public health and environmental perspectives. The section discusses how public health's orientation to the individual and their behavioural risk factors can be enriched by environmental perspectives Download English Version:

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