

GEOGRAPHIES OF OBESITY: ENVIRONMENTAL UNDERSTANDINGS OF THE OBESITY EPIDEMIC, Edited by James Pearce and Karen Witten Farnham, Surrey: Ashgate, 2010.

The world is facing an obesity epidemic, rivalling and possibly even outstripping smoking in its public health consequences. Yet, apart from the trite observation that obesity derives from an excess of food intake over energy outlay, the explanations are elusive. The present book, an edited volume of 15 chapters, starts from the premise that policies focussed on individual responsibility are inadequate and doomed to failure – we need to look at the environment in which individual action takes place in order to understand what drives the imbalance between food intake and energy outlay.

The first section, the Introduction, mainly sets out the problem. After the editors' introduction, setting the scene, Popkin looks at the nutrition transition as diets move away from fresh vegetables to processed foods rich in animal fat and energy-dense sweeteners. The result, in poorer as in richer countries, has been that poverty is now characterised less by hunger and more by overweight, with morbidity consequences of diabetes, hypertension, cancer and asthma. Kim and Kawachi argue that obesity is no longer an individual sickness, it is populations which are sick as the physical, economic and social environment we live in no longer matches humans' genetic composition. Urban sprawl and urban design constrain us to rely on vehicles for transportation, rather than on walking, and our capacity to produce food now far exceeds our needs, with a consequent mass-marketing imperative which pushes down prices and encourages consumption of the least healthy foodstuffs. As schools and workplaces become food markets, rather than direct providers, they too increase exposure precisely to those foods which lead to overweight.

The second section looks at the input side of the equation: the relation between the food environment and obesity. Hoek and McLean look at the way food subsidies and the commercial advantage of processed over unprocessed foods, coupled with the domination of food production and distribution by mega companies and supermarkets, has reduced the availability of unprocessed foods, particularly in poorer, unempowered neighbourhoods. Thornton and Kavanagh go beyond rhetoric to look at the way the local environment actually shapes food consumption, and find the evidence mixed, at best. There is some evidence linking poor food choices to disadvantaged neighbourhoods in the US but this is not generalisable to other parts of the world. They conclude that while there is much rhetoric "the evidence is yet to show consistent links to features that promote or prevent disease" (p.102). Walton and Siegel, looking for ecological determinants of child obesity, find little evidence linking neither commercial provision of food at schools, nor the location of fast food outlets, to area level obesity rates.

Section three considers the output side of the equation: physical energy, environment and obesity. Cori et al. argue that the move to the suburbs, motorisation and

the reduction in active transportation (walking) all contribute to increased weight, and call for a redesign of the physical environment so that physical activity will be built-in. Turrel, on the other, reviews a comprehensive list of 29 studies of neighbourhood structure and concludes that the results are mixed, at best. If anything, inner city areas tend to have the least obsoenic designs, in terms of street connectivity, pavements and land use mix, yet they are precisely where obesity is most prevalent! Oliver and Schofield, looking at the environmental factors which encourage child activity, also point to mixed results and conclude that, based on the evidence, it is unclear what is a supportive environment for physical activity.

A short fourth section focuses on obsoenic environments and policy responses. Here, too, the rhetoric seems stronger than the evidence. Giskes points out that policy responses on food consumption have been “soft”, encouraging the right behaviour rather than “hard”, as in the case of alcohol and tobacco, and as a result have had little effect. She calls for concerted action to affect the availability and choices people make, and even though she admits that the evidence of the relation between fast food availability and obesity is “mixed” (a euphemism?) she nonetheless argues that “policy regulating takeaway outlets in areas can still be justified in terms of making healthy food choices easy choices for the population.” (p. 220). Curtis points out that segregated land use, cars and sedentary work have engineered physical activity out of daily life and calls for public policies, such as cycle tracks, that will encourage such activity, though here, too, the evidence on the effectiveness of such policies is mixed, and varies considerably by country.

In the fifth section, on future research challenges, Moon argues that we need to go beyond the energy balance, using more sophisticated methodologies to tease out the effects of the environment. For the moment, however, “inconsistency is perhaps the best conclusion that can be drawn from recent ecological and cross-sectional studies in relation to the activity environment” (p. 263). Smith et al. try various mapping techniques and micro-simulations to identify areas with a high prevalence of obesity, but then conclude, “The population estimates are subject to some limitations. The most significant limitation is the lack of data for comparison with the prevalence estimates” (sic, p. 290). Kearns takes a qualitative look at the way patterns of discourse structure behaviour and concludes we should beware of blaming the victim. In a final chapter Pearce and Witten sum up the common themes and emerging questions, and conclude that the empirical findings are “mixed, equivocal or inconsistent more than definitive” (p. 316).

True, the field is in its infancy, the data are problematic and the techniques are not over-sophisticated. But after dedicating over 300 pages to documenting these lacunae, this reviewer is left with the impression that the major problem is not so much empirical as conceptual. Yes, there is an obesity epidemic, a growing proportion of the population is overweight, and yes, a growing proportion of our food is processed, not fresh, and provided through supermarkets and fast food restaurants and takeaways. The geographical distribution of home, work, school and personal

relations result in our walking less and using cars more, and work is becoming more and more sedentary. Does that mean that the cause of obesity is to be found in the immediate environment? The conclusion to be drawn from this book is: probably not! Behind the supply-side presumption of this book, that people are overweight because their choices are limited, there are occasional flashes of demand-side intuition: supermarkets provide a vast array of processed foods, but they do not reduce the availability of fresh vegetables (Popkin), they may even increase availability; fast food may not be the healthiest, but demonising the fast food chain does not reduce the demand for this type of food, which may well precede the location of fast food eateries (Kim and Kawachi). No, we should not blame the victims, but that does mean we should not try and understand better why a growing proportion of people are compulsive over-eaters.

Let us consider some of the evidence. Childhood and adult obesity rates tend to be higher the more unequal the society (Wilkinson and Pickett, 2010), but even though the poor have higher obesity prevalence rates, it is not just the poor who are overweight. Unequal societies create greater levels of chronic stress and caloric intake may be one way of coping with this stress. Note that smokers are less likely to be obese than non smokers (Clair et al., 2011), and obesity is less prevalent among both adolescents and adults with greater social capital, in particular those with higher education (Evans, 2011, Yoon, 2011). Obesity may be tied to a genetic predilection for historically rare, but now plentifully available high caloric foods, but ultimately obesity is a symptom of a much deeper social malaise. This malaise is geographically distributed because it is socially distributed, but the built environment is, at most, the medium through which it expresses itself. It is not the cause.

This book's importance, therefore, lies precisely in its failure. It sets out to document the ways in which the immediate environment creates obesity (is obsogenic) – and ends up documenting the opposite, that there is no compelling evidence pointing to an unequivocal connection between the environment and the prevalence of obesity. Immediate environments, it would appear, are neither “obsogenic” nor “leptogenic”. This is not because they are, or are not, “user-friendly” – it would be an interesting exercise to reconstruct the romantic world vision behind many of the book's authors' implicit critique of today's built environments – but because the deterministic, supply-driven model implicit in this approach is simply inappropriate. As the editors point out in their opening statement, obesity derives from two mismatched behaviours: the amount people eat and the energy they expend. If the problem is behavioural, so must be the explanation, unless we can show that the behaviour itself can be explained, for instance, by reference to the environment. The book makes a gallant effort in this direction, but it has produced no compelling evidence that this is the case.

References

Clair, C. et al. (2001) Dose-dependent positive association between cigarette

smoking, abdominal obesity and body fat: Cross-sectional data from a population-based survey. *BMC Public Health*, 11: 23.

Evans, G. W. and Kutcher, R. (2011) Loosening the link between childhood poverty and adolescent smoking and obesity: The protective effects of social capital. *Psychological Science*, 22(1): 3-7

Wilkinson, R. and Pickett, K. (2009) *The Spirit Level: Why More Equal Societies Almost Always Do Better*, London: Allen Lane

Yoon, J. and Brown, T. T. (2011) Does the promotion of community social capital reduce obesity risk? *Journal of Socio-Economics*, 40: 296-305.

Jon Anson

Ben-Gurion University of the Negev

LOSING PARADISE: THE WATER CRISIS IN THE MEDITERRANEAN, Edited by Gail Holst-Warhaft and Tammo Steenhuis. Farnham, Surrey: Ashgate, 2010.

This book's declared goal is to present "an integrated approach to the crisis of water scarcity in the Mediterranean". This crisis is reflected in a reality in which twenty million people on its southern and eastern sides (within the developing realm of the Mediterranean) have no access to drinking water. Only 55% of the coastal cities have sewage facilities, thus polluting scarce fresh water resources and the Mediterranean Sea together. This fact indicates the core of the problem: human failure to manage the scarce resources, particularly water, in a sustainable manner.

This edited volume is an outcome of a conference that took place in Greece in 2000 and focused on the severe water stress in Greece. Like other edited volumes resulting from conferences the book is a somewhat eclectic assemblage of papers, roughly divided into 3 parts: first, cultural background to water resource management and two additional parts dealing with water resources and conflicts and some aspects of sustainable and non-sustainable use of water resources.

In my view, the first part of the book, which explores the cultural background to water resources management, is the most fascinating and, perhaps, the most innovative contribution of the volume, because it presents themes that are rarely dealt with among water-resources researchers.

The first chapter, (the best chapter of the book), draws on a rich variety of sources, from the Nile floods of Egypt to Biblical, Christian and Islamic traditions and beliefs. It also presents the sanctity and centrality of water resources in the ancient civilizations of the Mediterranean. One important difference in the cultures of the north and south of the Mediterranean is the relationship between land and water. In the north, especially the north west of the Mediterranean, land meant power. In