
Reports on social inequalities in health have been a prominent feature of public health research over the last 20 years. That work has focused on documenting, and to a lesser extent attempting to explain the health inequalities that exist between different social groups. Mitchell, Dorling and Shaw take this stream of research in a new direction—they focus on what population health in Britain might be. Their 60 page report has two key aims: to determine how much of the change in the demographic and geographical patterns of premature mortality in Britain can be accounted for by social changes; and second, to put an empirical face on what has been one of the implicit questions in health inequalities research—what would happen to population health if we actually redressed some of the social inequalities? There has been great interest but very little research on the population health effects of changing the structural factors that help generate health inequalities. This is partly because we have failed to take advantage of the ‘natural experiments’ that occur when alterations to policy have been made, and even when policy evaluations have been undertaken, the potential health effects of policy change have usually been ignored.

Chapter 2 of Inequalities in Life and Death asks what population health in Britain would be like under three different scenarios—what if there were full employment for all; what if there were a modest redistribution of income, and what if there were an end to child poverty? Far from being a flight into the world of idealistic policy utopias, the authors stress that each of the policies being examined is both real and current. This is not a “blue sky” report; it is based on changes to life in Britain which may be happening now. (p.1) The authors simulate mortality yields under each scenario, using information on the age, sex, social class and employment distributions of mortality across parliamentary constituencies in Britain. The conciseness of the report belies the huge amount of work—the authors estimate 0.3 billion calculations—that were required to complete the analysis.

Under the first scenario, the report calculates the mortality effect of providing employment for all the currently unemployed aged 16–64 in every constituency in Britain. This is simulated by assigning the mortality rates of the employed to the unemployed. The bottom line is that full employment would reduce premature mortality by 2% overall. For scenario 2, if there were a modest redistribution of wealth back to the levels of inequality that existed in the 1980s, there would be a 37% overall reduction in premature mortality. For me, an even more compelling simulation was what would happen if child poverty were eliminated. The authors calculated that 92% of avoidable mortality under age 14 would be eradicated—most of this effect being for males. ‘Overall, five out of six of the child deaths over and above the national average would not occur were the poorest 20% of children to enjoy the life chances of the rest.’ (p.13) These are only the direct mortality effects of eliminating child poverty. We know from an ever more convincing body of evidence, that improving social conditions in early life also has benefits for health in adulthood. Considering that Britain has the third highest rate of childhood poverty among wealthy nations—only eclipsed by Italy and that perennial champion of the child poverty stakes, the United States—eliminating child poverty in Britain takes on even more salience.

There are some assumptions involved in making these calculations. For instance, we have to believe that it is reasonable to assume that the effect of a full employment policy would actually be reflected in the unemployed assuming the average mortality rate of the employed, or that the increased class differences in mortality between 1980 and 1995 were entirely due to changes in wealth inequality. While these could be debated because they may somewhat overestimate the true effects of such policy changes, or that the time-lags involved in producing these mortality changes are unclear, I nevertheless like the report for its bold and innovative approach to these important public health issues. It is a wonderful example of inter-disciplinary research that combines sophisticated geographical techniques with innovative epidemiology. It is an example of using what we know about mortality processes at the individual level to simulate what might happen in the population under more egalitarian social conditions. I especially like the fact that the authors have tried to give the report a very ‘local flavour’. Results of the effects of each policy scenario are given in an Appendix for every constituency in Britain, allowing everyone to see what might happen in the area where they live.

The specifics of the findings will be of particular interest to British readers, but the approach is one that has much broader application, that could be usefully applied in other countries as well. The use of easily interpreted cartograms (special maps that give equal population representation to all areas, regardless of their geographical size) and clear concise tables makes this report accessible and relevant to policy makers, public health practitioners and academics. This is applied public health research at its best.

JOHN LYNCH


This book was a revelation to me and is likely to be regarded as one of the most important books of the current era. Sen’s main objective is to bypass (and critique) the widely held current ideology that the best means of ‘development’ is to increase the rate of economic growth. In contrast he argues that the main purpose of development is to spread freedom to the unfree. In doing so he claims back two words that have functioned as key parts of the political and economic orthodoxy of the past few decades: ‘development’ and ‘freedom’. Most people would agree that the main aim of life is not just to make money (or to accumulate Frequent Flyer Miles), and that this is simply a means to an end. However, few people, and fewer economists, would agree on what the real ‘meaning of life’ is, or for that matter what the purpose of ‘development’ is. This has left the field wide open for the current dominant ideology to equate ‘development’ with economic development and to argue that all the good things in life flow from this. In response to this, some commentators have attempted to add a human face to the current economic orthodoxy, e.g. through the use of explicitly economic terms such as ‘human capital’ and ‘social capital’
which stress the importance of human beings and their social networks in enhancing economic growth.

In contrast to this, Sen argues that expansion of freedom is both the primary end and the principal means of development. Sen’s approach re-establishes the word ‘freedom’ as referring to the enhancement ‘human capabilities’ which involve processes of decision making, as well as opportunities to achieve valued outcomes, i.e. the substantive freedom of people to lead the lives they have reason to value and to enhance the real choices they have. This includes the concept of ‘human capital’ (which he explicitly discusses) as well as concepts that have elsewhere been referred to as ‘social capital’, but his approach is much broader than this, in particular, Sen refers to the five distinct ‘instrumental freedoms’ of: 1) political freedom; 2) economic facilities; 3) social opportunities; 4) transparency guarantees and 5) protective security. These freedoms are complementary and mutually reinforcing. Thus, economic development, which benefits a minority of the population, while being based on the restriction of political freedoms and social opportunities for the majority, is not real development, no matter how it may be reflected in levels of GDP. Even if the majority are not technically slaves, they are denied elementary freedoms and remain imprisoned in one way or another, by poverty, deprivation, political tyranny or cultural authoritarianism. This includes not only countries, for example, in which freedom of speech is explicitly prohibited, but also those in which it is absent in practice because of economic, social or cultural factors.

These issues are directly relevant to health, and vice versa, and Sen’s book is full of health examples. He includes the familiar examples of countries such as China, Costa Rica and the Indian State of Kerala, which have achieved large increases in life expectancy despite low per capita GDP in contrast with, for example, the low life expectancy of American blacks. This is commonly assumed to apply primarily to young black men, e.g. through deaths from violence. However, it extends to women and to older age groups, and in this respect American blacks are not only relatively more deprived than American whites, but despite their higher absolute incomes, are also absolutely more deprived than the low-income Indians in Kerala and the Chinese. The causal influences include factors such as medical coverage, public health care, school education, and violence. He also discusses the differing attitudes to health care and mortality in Europe (high unemployment, low income inequality, good access to health care) and the United States (low unemployment, high income inequality, poor access to health care). In light of current debates within epidemiology, his discussion of income inequality and health is particularly interesting, and makes it clear that the health effects of income inequality (to the extent that they are causal) will vary greatly depending on the social and economic context.

Sen’s approach is striking in that it bypasses (or subsumes) the current economic orthodoxy, rather than attempting to adapt it to social goals. Perhaps there is a lesson here for the field of ‘social epidemiology’, and particularly for the research involving the concept of ‘social capital’ which attempts to discuss, and research, social concerns in economic language and concepts. Although the aim may be to convert the language of ‘orthodox’ economics for the study of social issues, the concept is ultimately of limited use (and in some instances is hazardous to health) because it is a prisoner of the orthodox economic viewpoint which it is trying to adapt. In contrast, Sen argues that the concept of ‘human capital’ is not inconsistent with the concept of ‘development as freedom’, but never resorts to reducing his arguments to orthodox economic terms or terminology. Rather he regards economic issues as specific cases of the more general concepts that he is considering.

Sen has been criticised as not going far enough in terms of analysing the power relations that cause and reproduce underdevelopment. Certainly, he presents a generic argument that does not discuss the differing political systems in the countries that he contrasts, and glosses over many important issues. There is also the danger that grand abstract concepts may detract attention from the simple reality that most people die as a result of the (neo)material conditions in which they live. Nevertheless, abstract concepts can help to explain why this occurs, why some people’s material conditions are different from others, and what can be done about it. In this context, his approach represents a major break with the dominant neoliberal position that is reproduced in most national and international development agencies. It thus represents both a major opportunity, and a major challenge for the epidemiologists who may wish to conduct studies of the issues that Sen articulates. ‘Freedom’ in the sense that Sen has defined it, is extremely difficult to measure, at least in the form that can be summarized in a two by two table. Given the difficulties of measuring similarly ‘fuzzy’ concepts such as ‘social capital’, and the resulting tendency to draw sweeping theoretical conclusions from very limited data, can we do any better with measuring ‘freedom’ as Sen defines it and ascertaining its benefits for health? In any case, a standard two by two table will frequently not be appropriate because health is part of the ‘exposure’ as well as being the outcome.

Nevertheless, this represents a failing of current models of epidemiology as much as it represents inadequacies or lack of clarity in Sen’s concepts. Tony McMichael’s call² for us to develop new methods in response to new public health problems is even more appropriate in the ‘development’ context that in the environmental health context in which it was first made. The task for the coming century for epidemiologists will be to study the real determinants of health and the real outcomes for health and development at the global level. This book will play a key role in both stimulating and guiding this process.

References


NEIL PEARCE

An Introduction to Randomized Controlled Clinical Trials.


The explicit aim of this book is to provide an introductory text on randomized controlled trials for final year undergraduates, postgraduates and researchers in statistics (my italics), with no