Social Epidemiology: Strategies for Public Health Activism

Cwikel JG. New York: Columbia University Press, 2006, $47.50, 632 pages.

For the practice of occupational and environmental medicine, or the study of the effects of work and ambient environments on health, you can never know too much epidemiology. For this alone, Dr Cwikel’s broad and sweeping overview of the subject would be a welcome addition to every practitioner and researcher’s library, especially physicians, no matter how recently they finished public health training. In lively and engaging prose, Cwikel covers the history and foundation of observational research with a rich retelling of the many important landmark discoveries from which current theory and practice evolved before embarking on the substantive sections on methods and applications. These latter sections, while necessarily less thorough than available texts, offer an excellent introduction for the novice while providing worthwhile review for those more experienced, with a refreshingly activist perspective.

Three additional reasons underscore my enthusiasm for this book. Written by a single author, Social Epidemiology reads more like good nonfiction for the lay reader than a textbook in which every chapter seems to start over. This more than compensates for the occasional quirkiness of the author’s perspective, and the unabashed viewpoint, emphasized throughout, that the goal of epidemiologic research is social change, a point of view with which some may take exception.

Another strength of the book is that it manages to present the core principles of chronic disease epidemiology without wading into the thorns of statistics and programming which have—to great disadvantage in my view—overtaken the way our students are taught epidemiology. Instead of long discourses on the advantages of mixed over random effects models, Social Epidemiology emphasizes the structure of hypothesis generation and study design, contrasting the relationships between experimental approaches and the observational ones that form the core of the field. Issues of bias and confounding are introduced effortlessly as the elements arising out of design considerations, rather than as “lists” or “distortions” in need of statistical fixes. Although the choice to minimize the statistical and programming content necessarily limits the utility of the book as a primary text for the student training in data analysis, the intellectual benefit of Cwikel’s treatment will be obvious even to those students.

Far and away the most important reason for recommending this book, though, is its unflinching social perspective—the recognition that exposures to the harmful infectious agents and toxic substances we study, for example, occur not in isolation but in a social context. In other words, Cwikel makes clear that social relationships always lie “upstream” from the elements we study; without consideration of these contextual factors, she correctly points out, we may be doomed to misconstrue causal relationships. During the era now past, when environmental and occupational epidemiologists plucked the low hanging fruit, like high-level exposures to asbestos or lead, the impact of failure to consider social context was probably slight—the relative risks from exposure alone were too high. Now, however, that we are trying to make sense of such matters as the role of ambient particulate matter 2.5 (PM$_{2.5}$) in chronic disease, or the health effects of any of the 200+ foreign substances now part of Centers for Disease Control and Prevention’s biomarker battery, we had better heed Dr Cwikel’s model of social context: exposures to these pollutants are not assigned randomly. Although often subtle and difficult to measure, endogenous differences within study populations may impart differential risk of disease and death not attributable to the exposures themselves. Failing to adequately account for them, we run the risk of misconstruing the effects of social adversity for those of pollution, or visa versa. The time has come, I believe, when all of our students should be cross-trained in social epidemiologic theory. For those of us past schooling, reading this book would be an excellent place to start.

Reviewed by
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