Book Review

Epidemiology and the People’s Health
By Nancy Krieger


Editor’s Note: Nancy Krieger has long been a leading voice in advocating for social epidemiology. Her 1994 article, “Epidemiology and the web of causation: Has anyone seen the spider?” (1), has been cited more than 700 times. Her new book, Epidemiology and the People’s Health (2), provides a panorama of social and health theories, ending with her view on the need for epidemiologic theory and the elaboration of her ecosexual theory. El-Sayed and Galea provide an eloquent commentary on this book, finding points of agreement while also offering divergent opinions on some core propositions made by Krieger. This disagreement is not surprising, given the sweeping arguments made by Krieger; debate on these points should be useful for epidemiologists and epidemiologists and is perhaps an outcome desired by Krieger.

This book will challenge readers. The historical reach is broad and highly referenced. Much of the “evidence” considered is presented in the form of lengthy text blocks, reading like an annotated set of quotations. Some of the text is laced with the jargon of social theory, and Krieger offers personal views—not the norm in books by epidemiologists. However, there is much to learn from this book. To quote Krieger, “For epidemiologists—and others—to know the history of our field and its theories of disease distribution is vital” (2, p. 294). She welcomes informed debate, and this book should spark it. We invite readers to write letters to provide their views—after reading the book, of course.

Epidemiology and the People’s Health (2) presents a compelling argument for the import of theory in epidemiologic inquiry. In many ways, this book is a natural extension of Professor Nancy Krieger’s past 2 decades of work. Professor Krieger has long published at the intersection of epidemiologic theory and practice (e.g., her oft-cited article “Epidemiology and the web of causation: Has anyone seen the spider?” (1)), and this work builds well on her previous contributions, moving her, as well as our thinking, forward on the topic at hand.

A brief summary: The book begins by drawing on the philosophy of science to establish the importance of theory in epidemiology. In chapters 2–4, it offers a synthesis of the dominant theories of health and disease prior to the 17th century, through to the emergence of early epidemiology in the 17th and 18th centuries, and on to the rise of germ theory and genetics in the 19th and 20th centuries. Chapter 5 features a critique of the biomedical and lifestyle models of disease that hinged nicely illuminate the text. Particularly well recounted is the contagion versus miasma debate that occurred at the height of the industrial revolution. The book consistently highlights how political economy shaped particular viewpoints in history, leading to an excellent discussion of the dominant social epidemiologic theories of our time. The critique of the historical foundations of and the ultimate inconsistencies in the biomedical and lifestyle models of disease that dominated health research through the last half of the 20th century is authoritative.

Overall, this book is an excellent primer on the history of the science of epidemiology for social epidemiologists and epidemiologic theorists. In recognition of this book’s distinct contribution to the conversation about theory in epidemiology and in the spirit of advancing this discussion, we offer some points of divergence with the book.

The book focuses nearly exclusively on “social” epidemiology. Although we have little disagreement with the argument that the social determinants of the distribution of health and disease are a foundational unifying framework for a discussion about theory in epidemiology, we question the need for the continued use of the social (presumably vs. nonsocial) epidemiology distinction. This book presents a discussion about the role of theory in epidemiology. Why then should this text be principally relevant only to those interested in social epidemiology? Social epidemiology as a new branch of the science was necessary and important at a time when incorporating social determinants in epidemiologic inquiry was far from mainstream. However, in many ways, social
epidemiologists have succeeded perhaps beyond their expectations. Today, the import of social determinants is well accepted by most serious epidemiologists. Social epidemiology articles are common in leading journals and at disciplinary meetings. In continuing to differentiate between social and other branches of epidemiology, a book about epidemiologic theory preserves historical marginalization of social approaches in epidemiologic inquiry. This book would have been the ideal opportunity to unify epidemiology, to argue the case that the foundational drivers of health are very much a part of the broad set of determinants with which epidemiologists, all epidemiologists, are concerned. After all, if, as is implied throughout the book, the theory of social epidemiology is the theory of epidemiology, the distinction is moot—a point that could have and should have been made explicitly in the text.

Professor Krieger also misses the opportunity to highlight how theory can and should inform the day-to-day practices of epidemiologists. At several points, the book stresses the importance of theory-driven research, for example, highlighting in chapter 8 several vignettes in which incomplete theory led to poor research and ultimately inappropriate clinical or policy recommendations. We agree that theory is a crucial component of high-quality research, and we would have welcomed a discussion about pragmatic approaches that show us how to wield theory to educate research questions and hypotheses. How should the epidemiologist use theory to educate his or her research questions? Should the influence of theory be limited to informing research questions and hypotheses, or should theory also be considered when operationalizing constructs for research? If so, how? How should study findings then feed back to and educate theory? Unfortunately, in not tackling these pragmatic questions head-on, Professor Krieger limits the usefulness of this book to daily epidemiologic practice. Perhaps more importantly, she misses an opportunity to close the loop and to articulate to all epidemiologists not only why, but also how epidemiologic theory can influence epidemiologic practice.

In the same pragmatic vein, as Professor Krieger notes in her introductory and concluding chapters, our goal is a “reflexive” epidemiology whereby our findings inform policy intended to modify the phenomena we study to maximize population health. In that regard, any robust epidemiologic theory should have as its main function the capacity to identify key avenues for intervention to improve population health. Both the “psychosocial” and “sociopolitical” approaches, the dominant schools against which the “ecosocial” approach is contrasted in the book, clearly focus on their proposed dominant sources of ill health—psychosocial stress and political economy, respectively. In doing so, these approaches present a clear way forward to the reflexive epidemiologist who is studying these phenomena so that we may then intervene. Ecosocial theory is an improvement on both of these theoretical frameworks, helping us to conceptualize a much broader array of social determinants. This very comprehensiveness, however, makes it much harder for the epidemiologist guided by ecosocial theory to focus on suitable intervention, diffusing efforts toward reflexive epidemiology. This presents a conundrum that we had hoped the book would tackle. Beyond suggesting advocacy for a better world most generally, how can a comprehensive theory point the way to pragmatic intervention in light of real resource constraints?

The book is characterized by an implicit dichotomy between theory and methods and sidesteps conversations about epidemiologic methods. We feel this is a central shortcoming. Over the last several years, a growing number of authors have lamented the paradigmatic insistence on measuring independent effects and risk factors in current epidemiologic inquiry (3–6). The world does not confine itself to the models that we use to describe it. For example, notions of feedback between exposures and outcomes and the interconnectedness of individuals via social networks, notions that challenge our methods, are likely to describe many of the processes by which health is produced. However, in an effort to operationalize the questions we ask, we as a community have been forced to bend these questions to fit the limited methods available to answer them. If a key function of theory is to educate our questions, in many respects our dominant epidemiologic methods have served to subjugate the development of epidemiologic theory to our methodological limitations. This work would have been richer had it tackled this issue head on. How should we approach questions informed by theory that require methodological capabilities that extend well beyond our methodological present? To what extent should our methods constrain our theory, or how should our theory nudge methodological development? In largely avoiding a full discussion of epidemiologic methods and their constraints, Professor Krieger misses an opportunity to illustrate how the limits of our science far too often hem in our questions and to help shift the pendulum to a place where the questions rather than the methods push the science forward.

Ultimately, Epidemiology and the People’s Health is required reading for epidemiologists interested in the evolution and emergence of theory in the field. We would argue that all epidemiologists should be so interested. In some respects, our critiques are informed by very high expectations. We would have liked the book to do both what it does and more. We suggest that the book might become more accessible to a larger portion of the field were it explicitly argue against a constraining taxonomy of a particular social epidemiology, tackle head-on some of the pragmatic concerns that can bridge the theory-practice gap, and engage more fully in questions around methodological development and implementation that are central to epidemiologic science. Even without doing so, this book firmly establishes the importance of theory in epidemiology. We look forward to reading the many works it will inspire.

ACKNOWLEDGMENTS
Conflict of interest: none declared.

REFERENCES


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DOI: 10.1093/aje/kws005; Advance Access publication February 24, 2012