Book Review

Evidence-Based Public Health, Second Edition
By Ross C. Brownson, Elizabeth A. Baker, Terry L. Leet, Kathleen N. Gillespie, and William R. True


Ross Brownson et al. have completed a new edition of their book entitled, Evidence-Based Public Health, a text designed for students and practitioners in the fields of public health, preventive medicine, and public policy. The main purpose of this second edition, and also their original book published in 2003, is to introduce readers to the concepts and practice of evidence-based public health (1). The authors make a strong argument for following a step-by-step process in designing and implementing public health programs that involves careful examination of and contribution to the evidence base.

The authors compellingly contrast the dearth of evidence regarding impacts of public health interventions and the shortage of well-designed studies to measure intervention effects with the more robust field of evidence-based medicine (2). They attribute the relative absence of such evidence in public health to several factors: the need to blend different programs in the field, the inability in many circumstances to identify a comparison group, the expense of community trials, the time lag needed to prove preventive impact, and the fact that the public health field has a more multidisciplinary, less trained workforce than medicine. Given this context, the authors promote a systematic approach to engaging in public health practice that contributes to existing knowledge, while taking into account sociopolitical and logistic realities as well as community needs.

Much of the material in the new edition is unchanged from the first edition, but the authors add 2 new chapters—one named “Community Assessment” (chapter 4) and another named “Emerging Issues in Evidence-Based Public Health” (chapter 11). More subtly, however, they also infuse their new edition with an emphasis on the importance of what they term “tier III” evidence—the extent to which evidence is reproducible across different contexts or populations, often referred to as external validity. By bringing the role of community contexts to the fore and highlighting the importance of community input at all stages of intervention planning in this new edition, the authors essentially are making a transition to embrace community-centered public health practice, a process that mirrors the same transition that has occurred in medicine toward provision of patient-centered clinical care. In medicine, practicing patient-centered care in the context of evidence-based medicine has inherent challenges. How does a provider team adhere to a sometimes-limited evidence base in the context of diverse patient preferences and needs? Indeed, the reader gets a sense that the same types of challenges may arise when engaging in community-centered and evidence-based public health practice. Yet to achieve and to be true to both is an enticing and important challenge, and the authors offer a pragmatic 7-part strategy to do so:

1. Conducting a community assessment
2. Developing an initial statement of the issue
3. Quantifying the issue
4. Searching the scientific literature and organizing information
5. Developing and prioritizing intervention options
6. Developing an action plan and implementing interventions
7. Evaluating the program or policy.

The book has numerous strengths. Perhaps the greatest is that the authors have designed their book to bring together practitioners and students who often work within the bounds of their own subfields (epidemiology, community health, health policy) using a common framework to achieve a unified objective: building the evidence base toward what works and doesn’t work in prevention and control of disease at the population level. The most useful chapters for epidemiologists to read may well be those on community assessment, strategic planning, and program evaluation, whereas community health practitioners will benefit most from those on the complementary chapters related to evidence synthesis, design, and epidemiology. The authors strive to stretch practitioners to think beyond the boundaries of their own field, and they forcefully argue that interdisciplinary approaches yield more effective evidence and result in more judicious use of taxpayers’ dollars.

The authors also strike a thoughtful balance in their advice on how to address the fact that public health research is often limited in its ability to construct rigorous designs to test efficacy and effectiveness of public health programs. They legitimize the use of observational and quasiexperimental designs in certain circumstances, and they acknowledge the inevitable influences of politics and other factors in evidence translation, yet they also take great care in stressing the high bar required for establishing causality, the limitations of such designs, and the potential detriments to straying from a consistent evidence base as a result of stakeholder influences. Remaining as rigorous as plausible is the aim. When and if using less-than-ideal study designs or relying on evidence
using such designs, practitioners should be acutely conscious of the possible consequences.

The organization of the text could be improved in a few areas. For example, how one synthesizes evidence is discussed in several different chapters, in part reflecting the authors’ recognition that returning to the literature more than once as a program plan evolves is necessary. Their guidance on evidence synthesis is useful and important, but the information could be brought together in a more focused, distinct chapter for easier reading and training. This is a critical area of pedagogy in today’s era of information overabundance. Health impact assessments and economic modeling evaluation approaches, 2 rapidly growing areas in the implementation science arena, are discussed, but neither is covered in sufficient depth even for an introductory textbook. Finally, each chapter begins with a short recap of the processes taken thus far, which presumably aims to give readers of isolated chapters a sense of the stage of the framework they are reading about. This may be useful, but it introduces some repetition.

Overall, the authors have succeeded in updating and expanding an important book. It has many useful tools for current public health practitioners, and one could argue that it should be recommended or assigned to all students in public health to emphasize the important ideal that subdisciplines of public health can and should work with high levels of cross-functionality together toward common goals.

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REFERENCES

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