Book review

Evidence-Based Public Health

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0-19-514376-0; 235 pp; $39.95

There is a growing demand to use scientific reasoning approaches to support informed decisions concerning public health issues and policy development, and to provide rational and effective public health programs in society.

Evidence-based approaches have been adopted in medicine to improve the care for individual patients. Evidence-based public health utilizes the current best available evidence to make decisions in the public health service, and also to develop action plans, public health programs, and policies for addressing public health issues. This is starting to have an impact on improving public health services.

I agree with the authors in that decisions made in public health are often based on instantaneous demands rather than scientific evidence. In addition, suggested policies and programs are sometimes developed based on subjective opinions, unevaluated past experience, and political reasons, and are rarely evaluated properly.

It is also my impression that many public health practitioners do not have a concrete idea of what evidence-based public health is, how it works, and what the benefits are. It remains unclear among public health practitioners how public health practice can be linked to the underlying scientific evidence that demonstrates effectiveness.

In the preface to this text, the authors saw a need for an evidence-based public health book that reflected on their experiences in public health practice, health care delivery, and teaching. Given the wide-ranging, complex, and multidisciplinary nature of the field, the authors made a good choice by giving an overview and focusing on how to select, achieve, and evaluate evidence-based programs and policies in public health settings, rather than providing a comprehensive picture of evidence-based public health covering a variety of disciplines.

The first chapter provides an overview of the concepts, definitions, and key characteristics of evidence-based practice. It also outlines an approach towards increasing the use of evidence in public health practice.

The second chapter discusses the important factors to consider when determining whether some type of public health action is required.

The third chapter presents several analytical tools that are useful for developing and practicing evidence-based public health, including systematic review, meta analysis, public health surveillance, decision analysis, economic evaluation, practice guidelines, etc. Cost-utility analysis is discussed at length. This has become a useful tool in the field to quantify the cost and benefits of an intervention and to justify the most efficient allocation of scarce resources. Practice guidelines, which translate research into information for public health practice, are becoming increasingly common and useful.

This chapter gives the reader a greater opportunity to understand and appreciate the usefulness of these analytical tools for decision making and for setting appropriate public health priorities.

Chapter 4 discusses a systematic approach to developing an initial issue statement by breaking an issue into four key components (background/epidemiological data, questions about the program or policy, solutions being considered, and potential outcomes).

Chapter 5 provides a basic overview of descriptive and analytical epidemiology that relates to public health practice. The authors indicate that public health practitioners need to have some basic epidemiological skills in order to quantify the issue and to make a critical assessment of epidemiological evidence, such as frequency of disease in target populations. A variety of data sources may be available from ongoing vital statistics data, surveillance systems, special surveys, etc.

Chapter 6 provides important information and searching strategies for finding scientific evidence and organizing information that is key for evidence-based decision making.

Chapter 7 discusses several useful analytical approaches for prioritizing health issues, and program and policy options. The authors also discuss logic models, which illustrate the interrelationships between risk factors, intervention components, and health outcomes. They also stress that a logic model can be used to enhance decision making, program planning and program evaluation.

Chapter 8 gives an overview of different approaches to action planning together with several related issues. I particularly enjoyed the ecological framework section. I believe it would be a very useful approach in understanding public health issues and targeting different levels of intervention.

Chapter 9 provides a rationale for the public health practitioner to evaluate programs and policies. The authors also discuss several types of evaluation, i.e. context, process, impact, and outcome evaluation. Each type of evaluation is appropriate at different stages of the program to ensure proper implementation. Evaluation is an important part of evidence-based public health practice. It provides an opportunity for improving current and future programs and policies.

The format of the text is clear and well outlined. Overall this book is well written and is presented in a language that is easily understood. This will be useful for public health practitioners without much formal training in public health. Readers will find practical information about what analytical tools are available and how to apply them to prioritize program options, develop an action plan, implement interventions, and evaluate a program or policy.
Even though this book is not designed as a detailed step-by-step ‘how to’ book, it does provide an overview of evidence-based public health and various analytical approaches to support such practice. Combined with the overviews and various approaches discussed in this book, the authors have also provided suggested reading texts and websites at the end of each chapter, which provide useful references for readers who wish to obtain more detailed information or to adopt a particular analytical approach.

In summary, this book introduces readers to evidence-based public health. It provides useful resources with various analytical strategies and helpful literature review methods. For public health practitioners who wish to improve their practice by utilizing evidence-based approaches, this book provides a valuable guide on how they may achieve their goals. It will be a useful introductory reference book for public health practitioners and students who wish to make a link between research and the practice of public health.

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