

## Book Review

*James R. Foreit and Tomas Frejka, ed., Family Planning Operations Research: A Book of Readings, The Population Council, New York, 1998.*

The publication of anthologies of important works provides a significant service to any field of scholarly inquiry. This is particularly true in this case, where accomplished researchers have not only compiled the papers but also have added their own insights on the relevance and importance of the contributions of the projects being reported and have provided their comments on the research designs and analytical methods as well.

Foreit and Frejka have produced a volume of carefully selected works dealing with the evaluation of family planning services delivery programs in developing countries. They organize the readings according to the relative emphasis placed by the article on one of the following five dimensions: program impact, access, resource use, quality of care, and the conduct of the evaluation itself. These dimensions will be familiar to most researchers or students of health services evaluation and serve as a convenient organizing framework.

The readings selected for inclusion in this volume are chosen to illustrate a variety of program settings, a variety of implementation issues and specific objectives to be achieved, and a variety of measurement and evaluation approaches. Most of the papers have appeared previously in the literature but some are written specifically for this volume. All are accessible to persons with training in basic statistics and none demands familiarity with advanced mathematics or economics.

The volume begins with an overview, which establishes the value of explicit evaluation of services delivery programs and provides a general introduction to what has become known as "operations research" in the family planning literature. Each of the subsequent five sections also begins with an introduction by one of the authors that provides a general review of the issues concerning that dimension and a synopsis of the principal points to be gleaned from the readings that appear in that section. Taken as a whole, the general introduction at the beginning of the book and the five introductions for each section would serve as an easily accessible primer on this field of evaluation.

Another very useful aspect of this book is that each reading is preceded by a two page abstract or "prefatory remarks", identical in format, that places the article in context and highlights for the reader the programmatic issue, the delivery processes employed, the evaluation design, the findings, and their implications. The authors' assessment of the programmatic and policy implications of the article provides a foundation that assists the reader to glean the salient points from the article that follows.

As helpful as this approach is, I would have appreciated even more assistance from the authors at this point. Many of the included articles are important because, as early works in the field, they form a foundation for subsequent delivery programs and for evaluations that were implemented elsewhere. It would consequently have been most useful to learn what the ultimate success of the program had been. Was the program continued? Under what organizational auspices was it continued? What were the annual operating costs of the program and what were its long-term benefits? Has the program been replicated elsewhere? To what effect? The benefit of, in some cases, nearly 40 years of hindsight would have been extremely valuable to the reader.

In the introduction, the authors define and describe their use of the term "operations research" and how it came to be applied to family planning services delivery evaluation. Students and practitioners of operations research or management science methods as applied in other fields of endeavor may be baffled that this book refers to none of the methods and approaches of operations research, econometrics, or sophisticated statistical methods with which they would be familiar and would form the main body of operations research applications. In other contexts, operations research refers to visualizing the problem in the context of the larger system and extracting the essential elements as a mathematical model the solution of which can inform the decision making process. The essential features of the operations research approach are the mathematical model building, the exploration of the mathematical structure, determining solutions of the mathematical model, validating the models and their

solutions to the real world, and developing recommendations for courses of action based on optimizing one or more measures of system performance via the model. The field of operations research has developed an impressive array of tools such as mathematical programming, stochastic process analysis, decision theory, systems simulation, and other probabilistic modeling methods. Although historical purists would argue that any valid mathematical modeling approach to describing a real system could be classified as operations research, the variety of applications is now so broad and the number so numerous that most applications can be fit into one of these traditional categories.

In this book "operations research" is described as a program evaluation process the goal of which is "to provide program managers with information they can use to make decisions to improve their program's operations." The "independent variables in operations research are factors that can be manipulated by managers...dependent variables are indicators of program success." In other fields of endeavor, this kind of study design would simply be referred to as program evaluation or managerial analysis. So readers should be aware as they review these readings that "operations research" as defined in this field of family planning program evaluation differs greatly from the approaches the term denotes elsewhere.

The authors make clear that the need for rigorous program evaluation or operations research in family planning has not always been universally recognized. Merely overcoming cultural and bureaucratic barriers to program implementation has been so great a challenge in some settings that a carefully designed evaluation that explicitly measured program outcomes and resource inputs had sometimes been viewed as a luxury. In today's world where all programs must compete for resources, carefully developed evaluation plans are not only essential to ensure program funding but they must go beyond mere description of program design and implementation to include a cost-effectiveness component as well. It is in this area that the book disappoints. Very few of the selected readings specifically tie measured program impacts to resource inputs through a rigorous cost-effectiveness analysis. In fact, few of the selected papers provide any information on program costs and few measure long-term program impacts.

Another perspective of this book that could be criticized is that it never views family planning program implementation in the broader context of other potential programs that might be implemented to improve the health and welfare of a defined population. While it is to be understood that any approach to economic development whether it's water resources development, education, or control of infectious disease transmission, will have its advocates, it is equally clear that at the highest levels all approaches compete for a limited supply of resources. Advocates of family planning programs must be armed with solid, defensible cost-effectiveness analyses, in order to prosper ultimately in this competition for resources. The studies profiled in this book move only part way in that direction. We should look forward to a time when all program implementations are paired with a valid cost-effectiveness analysis that will permit cross-program and cross-sector comparisons. In the meantime, this book will serve as an excellent introduction to operations research applied to family planning services delivery. It is recommended reading for students of the field, evaluation specialists, program designers, practitioners, and officials in both governmental and non-governmental funding agencies.

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