

Methods for Meta-Analysis in Medical Research

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Alexander J. Sutton, Keith R. Abrams, David R Jones, Trevor A. Sheldon, Fujian Song : Methods for Meta-Analysis in Medical Research before purchasing it in order to gage whether or not it would be worth my time, and all praised Methods for Meta-Analysis in Medical Research:

9 of 9 people found the following review helpful. Recommended, with reservationsBy Steven BagleyThis book is a survey of meta-analysis as applied to medical research. It covers fixed and random effects models, heterogeneity, publication bias, study quality and sensitivity analysis, and a number of more advanced topics, including Bayesian methods, problems with missing data, meta-analysis of other kinds of data, such as survival or observational data, and cumulative meta-analysis. The focus is on the statistical aspects of meta-analysis, not on how to conduct a literature

search or code the sources, which are well documented elsewhere. The early part of the book is tutorial, and provides formulas for computing pooled effect sizes, and displays sample data sets in tables, along with corresponding graphical output. The latter part of the book discusses more advanced topics, but because of their inherent complexity, does not give complete details to allow reproducing the results. The mathematics is of moderate complexity. If you don't know about odds ratios, multivariate regression, and if notation such as $y \sim N(0,1)$ leaves you puzzled, then this book is probably not for you. It makes only extremely brief use of linear algebra. It would be appropriate for quantitatively-inclined clinicians, or those learning about biostatistics and health services research. Although multi-authored, it has been edited for uniform style. It is quite readable, although there are a few annoying typos. Negatives: the book was published in 2000, so it is not up-to-date, especially with respect to the capabilities of currently available software packages. The book's website no longer exists, so the claim that software code used in the examples is available to readers is a false one. This is a significant problem if you want to reproduce some of the Bayesian calculations, for example. Given these limitations, I feel it's not worth the \$100+ price. A good book, but borrow it from the library. 1 of 1 people found the following review helpful. A personal review By Kurt Neumann This book has two big advantages: In my personal view it is written well for someone who has at least some basic statistical understanding and for me there are quite enough practical examples and illustrations of the chosen methodology. The second advantage in my opinion is its wealth of references at the end of every chapter. Overall it covers almost all of the relevant methods and thus can be considered as a reference for the experienced statistician and as an easily comprehensible introduction to the beginner. I think to recommend this book warmly to any reader who does not need the theoretical foundations of probability in meta-analysis.

With meta-analysis methods playing a crucial role in health research in recent years, this important and clearly-written book provides a much-needed survey of the field. Meta-analysis provides a framework for combining the results of several clinical trials and drawing inferences about the effectiveness of medical treatments. The move towards evidence-based health care and practice is underpinned by the use of meta-analysis. This book: * Provides a thorough criticism and an up-to-date survey of meta-analysis methods * Emphasises the practical approach, and illustrates the methods by numerous examples * Describes the use of Bayesian methods in meta-analysis * Includes discussion of appropriate software for each analysis * Includes numerous references to more advanced treatment of specialist topics * Refers to software code used in the examples available on the authors' Web site Practising statisticians, statistically-minded clinicians and health research professionals will benefit greatly from the clear presentation and numerous examples. Medical researchers will grasp the basic principles of meta-analysis, and learn how to apply the various methods.

Both books can be recommended for graduate training and are useful additions to the library of those interested in the meta-analytic accumulation of literatures on training, vocational learning, and education in the professions. (Vocations and Learning, 15 December 2010) "This well-written book offers an exhaustive criticism and up-to-date references, illustrates effectively with real life examples and data" (Journal of Statistical Computation Simulation, July 2004) "this is an excellent book..." (Short Book s, April 2001) "...recommended for mathematically skilled readers interested in getting an overview of the various methods and the existing literature..." (Statistics in Medicine, 15 October 2003) From the Back Cover Meta-analysis provides a framework for combining the results of several clinical trials and drawing inferences about the effectiveness of medical treatments. The move towards evidence-based health care and practice is underpinned by the use of meta-analysis. Meta-analysis methods play a crucial role in health research and have been developed substantially over the last five years. * Provides a thorough criticism and an up-to-date survey of meta-analysis methods * Emphasises the practical approach, and illustrates the methods by numerous examples * Describes the use of Bayesian methods in meta-analysis * Includes discussion of appropriate software for each analysis * Includes numerous references to more advanced treatment of specialist topics * Refers to software code used in the examples available on the authors' Web site Practising statisticians, statistically minded clinicians and health research professionals will benefit greatly from the clear presentation and numerous examples. Medical researchers will grasp the basic principles of meta-analysis, and learn how to apply the various methods.