Statistics in Epidemiology: Methods, Techniques and Applications

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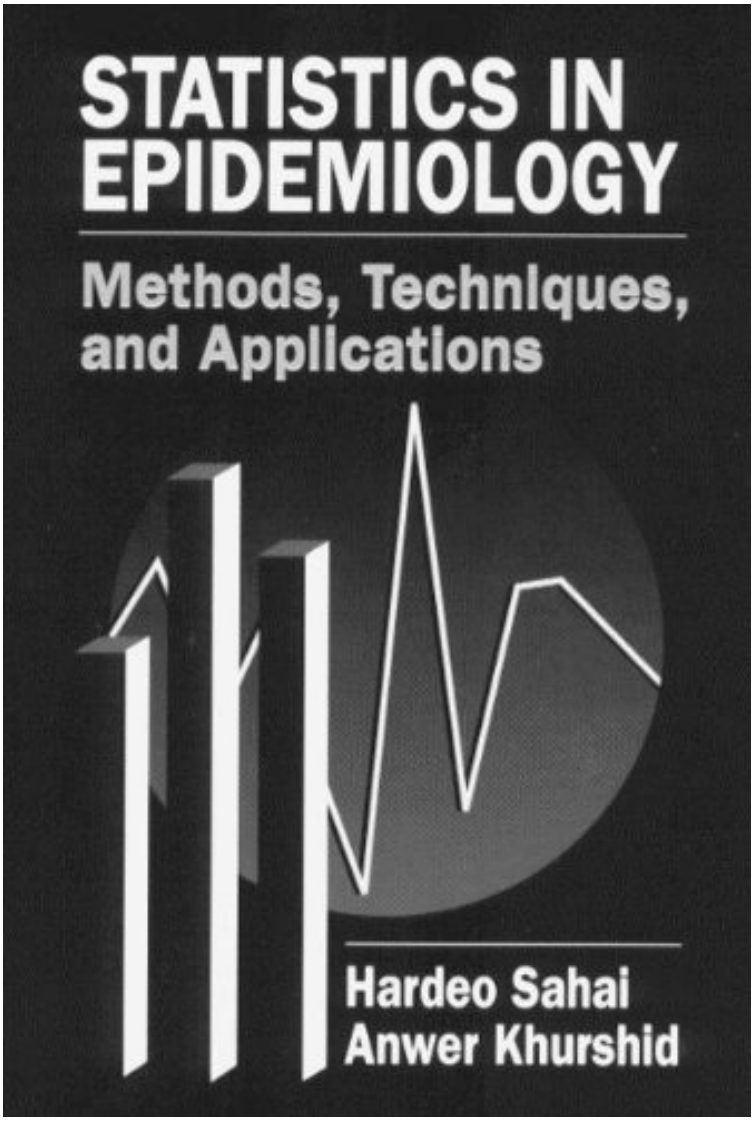

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Hardeo Sahai, Anwer Khurshid : Statistics in Epidemiology: Methods, Techniques and Applications before purchasing it in order to gage whether or not it would be worth my time, and all praised Statistics in Epidemiology: Methods, Techniques and Applications:

4 of 4 people found the following review helpful. The Most Modern Book on Epidemiology MethodsBy Satish Shandra MisraI am somewhat surprised with the critique of the previous reader who has made some thoughtless negative comments on this book without any basis to back up his arguments. I have found this book to be extremely useful in my work at the Food and Drug Administration in Washington D.C. It contains so many excellent features

that make it a highly recommended text for students and practicing quantitative epidemiologists. Instead of enumerating its strengths and virtues in my own words, I'll simply quote excerpts from some reviews that have appeared in some top journals in the fieldJournal of the American Statistical Association: " This book is an excellent review of fundamental and advanced statistical methods for the analysis of epidemiologic data. The authors cover the derivations of important epidemiologic indices with substantial mathematical detail and applications to various study designs. For instance, they define risk differences, risk ratios, and odds ratios for use in prospective or cohort studies: odds ratios for retrospective or case-control studies (both matched and not); and a variety of prevalence measures for both cross-sectional studies and for stratified analyses. In each case, point and interval estimates are defined. Other topics include multivariate models such as logistic regression and proportional hazards regression, incidence indices for person-time data, and attributable risk... The authors include 14 appendixes that support the mathematical rigor in the text, which is already highly mathematically detailed. Also included are 50 exercises that are oriented toward the chapter topics and complement the numerous examples in the text... One highlight is the extensive current reference list following each chapter and appendix, complemented by an author index. Another strength is the care that the authors have taken to give appropriate software choices for each technique cited. These software sections in the chapters could be strengthened in future revisions by including actual listing of code for and output from the software packages that are described and applied to the appropriate examples... the mathematical thoroughness with which the measures are covered earns this text a high recommendation as a reference text for the practicing quantitative epidemiologist's desktop."Techonometrics: "...The book focuses explicitly on epidemiological studies - cohort studies, case-control studies, cross-sectional studies. Its methods likewise are concentrated on the important issues in analysis of epidemiological data - stratified analysts, matching, studies with person-time data, attributable risk. Other positive features are the absence .of any content devoted to derivations in spite of the extensive and explicit presentation of all the relevant equations as the main emphasis in each of the chapters and the inclusion of a numerical example for every one of the computational procedures that is shown... SAS, BMDP, and SPSS procedures are mentioned for much of the methodology and reference is also made to several personal computer products that can be used also. Exceptional literature reference lists follow each of the 11 chapters... the book consists of 14 appendixes which provide background and derivations for some of the algebraic equations that are stated in the text. Examples of topics are odds ratios, maximum likelihood estimation, probability distributions, and logistic regression. Some of the appendixes have reference lists too..." International Statistical Review " This volume is designed as a core handbook for a course in statistics applied to epidemiology. In the first seven chapters the authors describe extensively the 'classical' estimation procedures for risk differences, risk ratios and odds ratios, and relate them to the most common study designs used in epidemiology. The presentation is accurate and proceeds slowly from crude to stratified estimation, comparing at every step alternative procedures for the calculation of point estimates and confidence intervals. In Chapter 8 the logistic, proportional hazards and Poisson regression models are described briefly... Chapters 9 and 10 deal with person-time data, again from the 'classical' point of view... The last chapter is dedicated to the public health interpretation of risk factors as measured by the risk difference, or attributable risk. Several examples are presented throughout the book; they are all taken from real data ...there are several appendices covering a wide range of topics... This volume will be welcomed by many clinical epidemiologists for its clear structure and extensive listing of the methods so often cited in the literature.5 of 8 people found the following review helpful. An expensive paperweightBy A CustomerSahai and Khurshid have essentially authored a book with NO purpose. Beginning epidemiologists will find their mathematical proofs impractical and arcane, while biostatisticians will no doubt find them bush-league and simple. Anyone with a practical question about statistics in epi might just as easily find an answer through random-number phone dialing as opening this so-called textbook.1 of 2 people found the following review helpful. Useful compendium of formulas for manual analysisBy AlethephantI refer to this book frequently to find standard formulas for epidemiological calculations. There is not a great deal of theory and little discussion of multivariate modeling, but all of the simple formulas are included. A useful book to own for this purpose.

Epidemiologic studies provide research strategies for investigating public health and scientific questions relating to the factors that cause and prevent ailments in human populations. Statistics in Epidemiology: Methods, Techniques and Applications presents a comprehensive review of the wide range of principles, methods and techniques underlying prospective, retrospective and cross-sectional approaches to epidemiologic studies. Written for epidemiologists and other researchers without extensive backgrounds in statistics, this new book provides a clear and concise description of the statistical tools used in epidemiology. Emphasis is given to the application of these statistical tools, and examples are provided to illustrate direct methods for applying common statistical techniques in order to obtain solutions to problems. Statistics in Epidemiology: Methods, Techniques and Applications goes beyond the elementary material found in basic epidemiology and biostatistics books and provides a detailed account of techniques:

"This book is an excellent review of fundamental and advanced statistical methods for the analysis of epidemiologic data. The authors cover the derivations of important epidemiologic indices with substantial mathematical detail and

applications to various study designs. Another strength is the care that the authors have taken to give appropriate software choices for each technique cited. the mathematical thoroughness with which the measures are covered earns this text a high recommendation as a reference text for the practicing quantitative epidemiologist's desktop." -Journal of the American Statistical Association "The book focuses explicitly on epidemiological studiesOther positive features are the absence .of any content devoted to derivations in spite of the extensive and explicit presentation of all the relevant equationsand the inclusion of a numerical example for every one of the computational procedures that is shown...Exceptional literature reference lists follow each of the 11 chapters" -Techonometrics "This volume is designed as a core handbook for a course in statistics applied to epidemiologyThe presentation is accurate and proceeds slowly from crude to stratified estimation, comparing at every step alternative procedures for the calculation of point estimates and confidence intervals...This volume will be welcomed by many clinical epidemiologists for its clear structure and extensive listing of the methods so often cited in the literature." -International Statistical ..."clearly achieves wide coverage of the important features of statistical epidemiology." -Peter Armitage, Professor Emeritus of Applied Statistics, Oxford University, U.K.