Regression Methods in Biostatistics: Linear, Logistic, Survival, and Repeated Measures Models (Statistics for Biology and Health)

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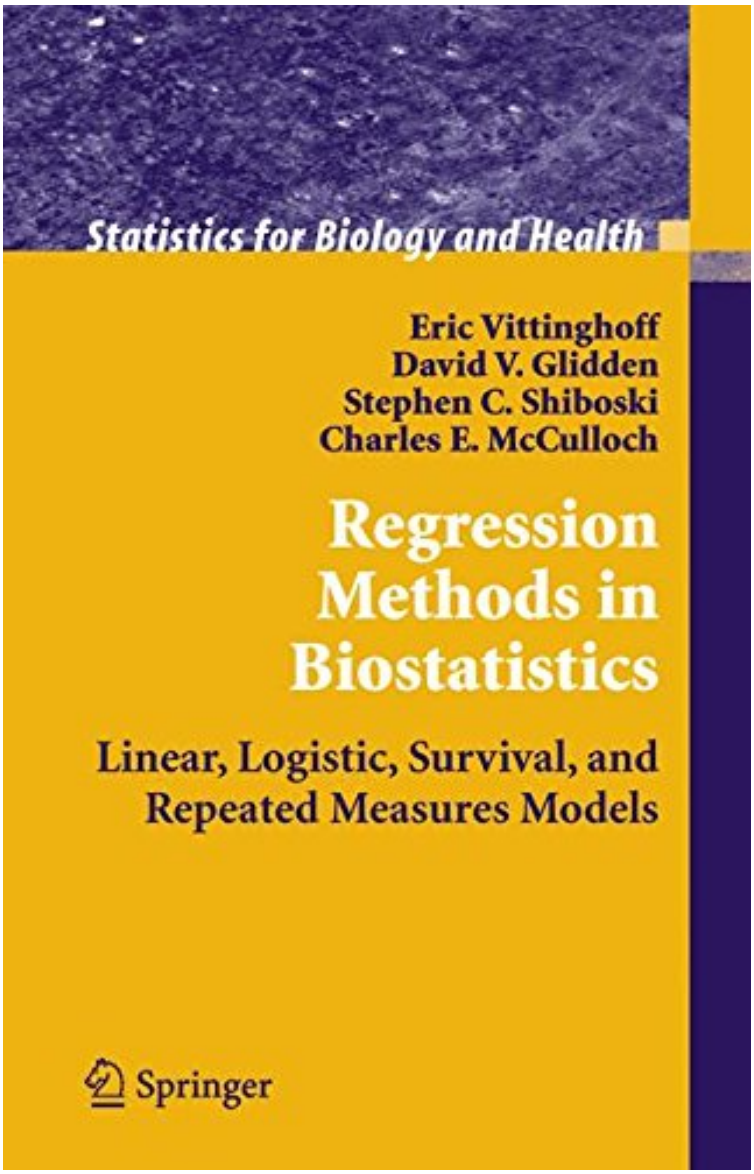

#1447086 in Books 2005-01-04Ingredients: Example IngredientsOriginal language:EnglishPDF # 1 9.21 x .81 x 6.14l, 1.45 #File Name: 0387202757360 pages | File size: 47.Mb

Eric Vittinghoff, David V. Glidden, Stephen C. Shiboski, Charles E. McCulloch : Regression Methods in Biostatistics: Linear, Logistic, Survival, and Repeated Measures Models (Statistics for Biology and Health) before purchasing it in order to gage whether or not it would be worth my time, and all praised Regression Methods in Biostatistics: Linear, Logistic, Survival, and Repeated Measures Models (Statistics for Biology and Health):

2 of 2 people found the following review helpful. Very Good Explications + Analytic ExplanationsBy Jonathan NewmanOverall a very excellent, broad yet detailed overview of regression and statistical methods for parsing meaning and substance from different epidemiologic and/or other health-related investigations. One caveat: the writing is extremely verbose and geared toward analytic, mathematical parsing of meaning in context of data graphical overlays. Can be understood by any functional graduate student with robust quantitative skills, but is still a bit awkward/stilted in how the information is conveyed with numbering of tables, graphs, etc., in reference to textual explanations. Other than that, kudos. Very helpful.9 of 9 people found the following review helpful. ReadableBy diorwithdolceYou can actually read this book - which is surprising given the subject. I'm a grad student taking two Biostats courses for a master's degree. This book is great and conceptual.1 of 1 people found the following review helpful. Good book, robust examplesBy Marc J. WitcherVittinghoff is very verbose in explanations of the methods within, but this is very useful to newcomers in the field. The examples are robust and coded in a number of common statistical programming environments.

Here is a unified, readable introduction to multipredictor regression methods in biostatistics, including linear models for continuous outcomes, logistic models for binary outcomes, the Cox model for right-censored survival times, and generalized linear models for counts and other outcomes. The authors describe shared elements in methods for selecting, estimating, checking, and interpreting each model, and show that these regression methods deal with confounding, mediation, and interaction of causal effects in essentially the same way.

From the reviews: "This book provides a unified introduction to the regression methods listed in the title...The methods are well illustrated by data drawn from medical studies...A real strength of this book is the careful discussion of issues common to all of the multipredictor methods covered." Journal of Biopharmaceutical Statistics, 2005 "This book is not just for biostatisticians. It is, in fact, a very good, and relatively nonmathematical, overview of multipredictor regression models. Although the examples are biologically oriented, they are generally easy to understand and follow...I heartily recommend the book" Technometrics, February 2006 "Overall, the text provides an overview of regression methods that is particularly strong in its breadth of coverage and emphasis on insight in place of mathematical detail. As intended, this well-unified approach should appeal to students who learn conceptually and verbally." Journal of the American Statistical Association, March 2006 "This book is about regression methods, with examples and terminology from the biostatistics field. It should, however, also be useful for practitioners from other disciplines where regression methods can be applied. Most chapters end with a Problems section, and a section of further notes and references, making the book suitable as a text for a course on regression methods for Ph. D. students in medicine . Many of the analyses in the book are illustrated with output from the statistical package Stata." (Gran Brostrm, Zentralblatt MATH, Vol. 1069, 2005) "The authors have written have written the book with the intention to provide an accessible introduction to multipredictor methods, emphasizing their proper use and interpretation. In summary it may be said that this book is excellently readable. Because of the detailed aspects of modeling, the applied tips as well as many medical examples, it can be recommended ... . In addition it can be recommended as background literature for biometrics advisors because of the high didactic quality of the book." (Rainer Muche, ISBC Newsletter, Issue 42, 2006) "The authors have written a very readable book focusing on the most widely used regression models in biostatistics: Multiple linear regression, logistic regression and Cox regression. The book is written for a non-statistical audience, focusing on ideas and how to interpret results . The book will be useful as a reference to give to a non-statistical colleague ." (Soren Feodor Nielsen, Journal of Applied Statistics, Vol. 33 (6), 2006) "Readership: Biostatistics readers, post-graduate research physicians. This text is nicely written and well arranged and provides excellent, reasonably brief, information on the selected-topics." (N. R. Draper, Short Book s, Vol. 25 (2), 2005) "This book is designed for those who want to use statistical tools in the biosciences. It provides an excellent exposition of the application of different tools of regression analysis in biostatistics. This book can be a bridge between biostatistics and regression analysis . Survival analysis, repeated measurement analysis and generalized linear models are covered comprehensively. It could be used as a text-book for an advanced course in biostatistics, and it will also be helpful to biostatisticians ." (Shalabh, Journal of the Royal Statistical Society, Vol. 169 (1), 2006) "The focus is on understanding key statistical and analytical concepts--interpreting regression coefficients, understanding the impact of the failure of model assumptions, grasping how correlation in clustered sample designs affects analysis--rather than on mathematical derivations." (Michael Elliott, Biometrics, December 2006)From the Back CoverThis new book provides a unified, in-depth, readable introduction to the multipredictor regression methods most widely used in biostatistics: linear models for continuous outcomes, logistic models for binary outcomes, the Cox model for right-censored survival times, repeated-measures models for longitudinal and hierarchical outcomes, and generalized linear models for counts and other outcomes. Treating these topics together takes advantage of all they have in common. The authors point out the many-shared elements in the methods they present for selecting, estimating, checking, and interpreting each of these models. They also show that these regression methods deal with confounding, mediation, and interaction of causal effects in essentially the same way. The examples, analyzed using Stata, are drawn from the

biomedical context but generalize to other areas of application. While a first course in statistics is assumed, a chapter reviewing basic statistical methods is included. Some advanced topics are covered but the presentation remains intuitive. A brief introduction to regression analysis of complex surveys and notes for further reading are provided. For many students and researchers learning to use these methods, this one book may be all they need to conduct and interpret multipredictor regression analyses. The authors are on the faculty in the Division of Biostatistics, Department of Epidemiology and Biostatistics, University of California, San Francisco, and are authors or co-authors of more than 200 methodological as well as applied papers in the biological and biomedical sciences. The senior author, Charles E. McCulloch, is head of the Division and author of Generalized Linear Mixed Models (2003), Generalized, Linear, and Mixed Models (2000), and Variance Components (1992).