Description: Study design and statistical methodology are two important concerns for the clinical researcher. This book sets out to address both issues in a clear and concise manner. The presentation of statistical theory starts from basic concepts, such as the properties of means and variances, the properties of the Normal distribution and the Central Limit Theorem and leads to more advanced topics such as maximum likelihood estimation, inverse variance and stepwise regression as well as, time-to-event, and event-count methods. Furthermore, this book explores sampling methods, study design and statistical methods and is organized according to the areas of application of each of the statistical methods and the corresponding study designs. Illustrations, working examples, computer simulations and geometrical approaches, rather than mathematical expressions and formulae, are used throughout the book to explain every statistical method.

Biostatisticians and researchers in the medical and pharmaceutical industry who need guidance on the design and analysis of medical research will find this book useful as well as graduate students of statistics and mathematics with an interest in biostatistics.

Biostatistics Decoded:
- Provides clear explanations of key statistical concepts with a firm emphasis on practical aspects of design and analysis of medical research.
- Features worked examples to illustrate each statistical method using computer simulations and geometrical approaches, rather than mathematical expressions and formulae.
- Explores the main types of clinical research studies, such as, descriptive, analytical and experimental studies.
- Addresses advanced modeling techniques such as interaction analysis and encoding by reference and polynomial regression.

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