Medical Uses of Statistics, 3rd Edition
John C. Bailar (Editor), David C. Hoaglin (Editor)

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DESCRIPTION

A new edition of the classic guide to the use of statistics in medicine, featuring examples from articles in the New England Journal of Medicine

Medical Uses of Statistics has served as one of the most influential works on the subject for physicians, physicians-in-training, and a myriad of healthcare experts who need a clear idea of the proper application of statistical techniques in clinical studies as well as the implications of their interpretation for clinical practice. This Third Edition maintains the focus on the critical ideas, rather than the mechanics, to give practitioners and students the resources they need to understand the statistical methods they encounter in modern medical literature.

Bringing together contributions from more than two dozen distinguished statisticians and medical doctors, this volume stresses the underlying concepts in areas such as randomized trials, survival analysis, genetics, linear regression, meta-analysis, and risk analysis. The Third Edition includes:

- Numerous examples based on studies taken directly from the pages of the New England Journal of Medicine
- Two added chapters on statistics in genetics
Two new chapters on the application of statistical methods to studies in epidemiology

New chapters on analyses of randomized trials, linear regression, categorical data analysis, meta-analysis, subgroup analyses, and risk analysis

Updated chapters on statistical thinking, crossover designs, p-values, survival analysis, and reporting research results

A focus on helping readers to critically interpret published results of clinical research

Medical Uses of Statistics, Third Edition is a valuable resource for researchers and physicians working in any health-related field. It is also an excellent supplemental book for courses on medicine, biostatistics, and clinical research at the upper-undergraduate and graduate levels.

You can also visit the New England Journal of Medicine website for related information.

∧ ABOUT THE AUTHOR

JOHN C. BAILAR III, MD, PhD, is Scholar in Residence at the National Academy of Sciences and Professor Emeritus at the University of Chicago. He served as statistical consultant for the New England Journal of Medicine for more than ten years and was chairman of the board of the National Institute of Statistical Sciences. Dr. Bailar has published numerous papers in the areas of epidemiology and scientific communications.

DAVID C. HOAGLIN, PhD, is Principal Statistician at Abt Bio-Pharma Solutions, Inc., a global provider of integrated clinical, health economic, and commercialization solutions for the pharmaceutical, biotech, and medical device and diagnostics industries. In thirty years with Abt Associates Inc., he worked on studies and experiments in public health, income security, health services, housing, education, and law and justice. He has held faculty and research positions in statistics at Harvard University and also served for
five years as core biostatistician for the Harvard Anesthesia Research Center. Dr. Hoaglin has published papers in exploratory data analysis, outliers, meta-analysis, surgery, anesthesia, vaccination, and multiple sclerosis.

FEATURES

• Features examples directly from articles in the New England Journal of Medicine

• Is written by over two-dozen of the world’s leading authorities in the field.

• More than half of the content is new and the remaining material has either been updated or fine-tuned

• Reflects the new developments in the area of medical statistics that have occurred since the last edition (in 1992).

• Provides insights and resources for understanding the role of most of the statistical methods that medical practitioners and students will encounter in the literature and in their daily work routines.

• Assists the readers in effectively interpreting published results in clinical research.

• Is oriented toward an understanding of ideas – when and why to use certain statistical techniques

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