

1. Record Nr.	UNINA9910731467403321
Titolo	Teaching Biostatistics in Medicine and Allied Health Sciences // edited by Damian J. J. Farnell, Renata Medeiros Mirra
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-26010-4
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (219 pages)
Disciplina	170 570.151950711
Soggetti	Medicine Medicine—Research Biology—Research Dentistry Medical care Biometry Clinical Medicine Biomedical Research Health Care Biostatistics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	A Survey of Biostatistics Teaching in Medicine and Dentistry in Higher Education in the UK -- Evidence-based practice teaching for undergraduate dental students -- Teaching Medical Statistics within the context of Evidence Based Medicine -- Teaching Null Hypothesis Significance Testing (NHST) in the Health Sciences: The Significance of Significance -- Teaching conceptual understanding of p-values and of confidence intervals, whilst steering away from common misinterpretations -- Using directed acyclic graphs (DAGs) to represent the data generating mechanisms of disease and healthcare pathways: a guide for educators, students, practitioners and researchers -- Statistics without maths: using Random Sampling to teach Hypothesis Testing -- COVID-19: Online not distant – MSc students' feedback on

an alternative approach to teaching 'Research Methods and Introduction to Statistics' at UCL Queen Square Institute of Neurology -- Common misconceptions of online statistics teaching -- Authentic project-based assessment using the Islands: Instructor's view -- An interactive application demonstrating frequentist and Bayesian inferential frame-works -- Teaching data analysis to life scientists using "R" statistical software: challenges, opportunities, and effective methods -- Statistics in a world without science -- Killing me softly with your stats teaching: How much stats is too much stats? -- Life as a medical statistician.

---

Sommario/riassunto

This book discusses the theory and practice of teaching biostatistics to students in the life sciences, in particular medical and dental trainees and researchers, as well as its crucial importance to biomedical research and evidence-based health care. Specific tools and resources to biostatistics teaching (e.g., "R shiny") are described, and how they can be used effectively to increase interaction with students and improve engagement with the subject. The book is structured into three parts: teaching and learning of statistics in medicine and allied health sciences; the move to online learning and online learning methods, especially in light of the impact of COVID-19; and computer tools and resources. It provides a unique insight into teaching biostatistics to medical and dental students from some of the most prominent biostatisticians who also have a very strong interest in biostatistics pedagogy. Biostatistics teaching is important for maintaining the quality of biomedical research and also in evidence-based medicine, both of which are key to the health and well-being of the world population. This book is particularly useful to readers who are new to the field of biostatistics teaching as well as to more experienced teachers as it presents the latest accounts of the teaching and learning of biostatistics, recent experiences of increased use of online teaching, and useful computer resources and tools for teaching biostatistics.

---