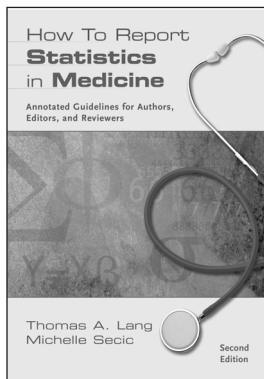


Lang TA, Secic M. *How To Report Statistics in Medicine*. Philadelphia: American College of Physicians; 2006.



An experienced biostatistician and a clinical investigator read this book, wrote this review together, and think that the book is great. In a nutshell, the first edition was an excellent resource guide to best practices in statistical reporting in the medical literature. The second edition, which is a major reworking and expansion of the first, is even better. The second edition's authors have successfully built on the foundation of the first edition in several ways. For statistician writers, the book offers clear guidelines. For clinical investigators reporting research results, the book offers, in addition to guidelines, a refresher course about biostatistical concepts and methods plus easy-to-read material for potentially unfamiliar areas. For the most part, the authors assume that clinical investigator readers are somewhat familiar with statistical concepts and summarize these succinctly and cogently throughout. The authors have further expanded the material on the most meaningful ways to incorporate statistical methods and results into manuscripts and research thinking.

As a start, the discussion of "Differences between clinical and statistical significance" captures the essence of the basic distinctions between the 2 and how they relate to each other in a rapid-fire short 2 pages. Throughout the book, improved visual techniques include annotated bullet points to highlight examples, methods to check findings, potential problems to which to be alert, and related information. These effectively sensitize the reader to be more critical and proactive in writing and interpreting medical literature while supplying methods for back-of-the-envelope techniques to check statistical results in publications.

Part 1 remains a basic set of guidelines, but the chapter titles and subtitles are even more conceptually meaningful. Part 2 moves beyond reporting pure statistical information to guidelines specific to different study designs. It pulls together all the guidelines that were previously published separately for individual study designs (e.g., randomized trials and cohort and case-control studies) into 1 cohesive section. The authors have taken the annotated reference list of guidelines in the first edition and present them as full individual chapters organized by study design. For example, the reader has the benefit of not only a CONSORT checklist for reporting randomized trials but a well laid out, detailed, and carefully written chapter that includes additional information on handling outlying values, accounting for all observations in study participants, and explaining or dealing with missing data. Part 3 is an entirely new section: "Reporting integrated research methods." This section of 3 chapters summarizes statistical information and guidelines relevant for reporting the statistics associated with evidence synthesis. There are dedicated chapters for systematic reviews, meta-analyses, economic evaluations, decision analyses, and clinical practice guidelines.

The book also contains cues to potential problems, important cautions, and simple errors that writers tend to inadvertently make in their statistical reporting or that we may miss as readers of medical research. For example, page 26 highlights the point that a large relative risk reduction may hide the fact that the absolute risk reduction, which should guide clinical decisions with patients, is actually quite small. Cues on page 67 briefly explain potential fallibilities in subgroup analyses and ways to identify acceptable subgroup analyses.

Overall, the book is a superb guide to reporting statistical results in the medical literature. It has exceptional additional value regarding critically designing studies and appraising the medical literature. The breadth of its audience is large and includes research fellows, investigators at most levels, and all faculty. The second edition has a wonderful mix of text, tables, and figures to promote learning and retention. The statistics are focused on concepts presented in language, tables, and figures that are easy to understand and teach succinctly. Best of all, the book is easy to pick up and put down, to read short sections productively as needs determine and time allows.

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*How To Report Statistics in Medicine* can be obtained from [www.acponline.org](http://www.acponline.org) for \$54.95.