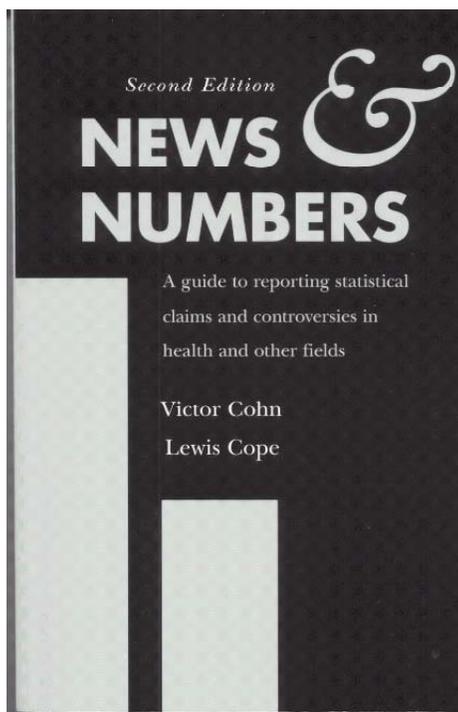


edited by Stephanie Deming



**NEWS & NUMBERS: A GUIDE TO REPORTING STATISTICAL CLAIMS AND CONTROVERSIES IN HEALTH AND OTHER FIELDS. 2ND ED. VICTOR COHN AND LEWIS COPE. AMES: IOWA STATE UNIVERSITY PRESS; 2001. 211 PAGES. SOFTCOVER \$24.99. ISBN 0-8138-1424-3.**

Victor Cohn and Lewis Cope's *News & Numbers: A Guide to Reporting Statistical Claims and Controversies in Health and Other Fields* is designed to help news reporters interpret and evaluate statistical claims. This practical, engaging, and well-illustrated guide has much to offer for science writers in particular but also for all reporters writing stories involving numbers. Among the guide's most valuable features are lists of questions that reporters can ask—but more on that later.

The first edition of *News & Numbers*, published in 1989, was conceived and developed when Victor Cohn was a fellow at the Harvard School of Public Health. That first edition, like the second edition, focused on human health. However, numerous examples from other fields are provided, and the second edition includes a new chapter on evaluating the results of opinion polls.

In the opening chapter of *News & Numbers*, Cohn and Cope outline four areas in which reporters may have room for improvement in their reporting of numbers-based stories. The authors, both past presidents of the National Association of Science Writers, note that “we sometimes overstate and simplify”, “we work fast, sometimes too fast”, “we too often omit essential perspective, context, or background”, and “we are influenced by intense competition and other pressures”. In chapter 2, the authors describe the scientific method and point out that almost every scientific finding is accompanied by some degree of uncertainty. They encourage reporters to communicate the degree of uncertainty clearly when they report new findings.

In chapters 3 through 5, Cohn and Cope offer detailed guidance on interpreting and evaluating scientific studies. In chapters 3 and 4, they discuss the statistical concepts of probability, power, bias, and variability and how these are related to scientific experiments, and they review principles of good study design. Then, in chapter 5, they provide a detailed list of questions that reporters can ask to evaluate a study's strengths and limitations,

including questions about study design and power, potential sources of bias, follow-up time, alternative explanations for findings, the fit between new findings and other available evidence, and the real-world significance and applicability of findings. In my view, this list of questions alone is worth the price of the book. (Other useful lists of questions are scattered throughout the book, including, in the appendix, questions that should be asked when one reports on a disease outbreak.)

Chapters 6 through 10 offer guidance on interpreting vital statistics and advice for critically evaluating diagnostic tests, drug trials, environmental risks, health plans and hospitals, and polling data. Chapter 11, the final chapter, is a collection of examples of numbers in the news from the realms of politics, sports, education, crime, and more, with pithy advice intermingled with these examples.

In addition to the lists of questions, this guide has several features that I found particularly effective. The ample use of real-world examples, which are effectively woven into the text to illustrate issues and potential pitfalls in science journalism, makes the text lively and engaging. Also effective are the numerous quotations from respected scientists and science writers. These underscore the depth and breadth of the expertise (in addition to their own) that Cohn and Cope drew on in preparing *News & Numbers* and lend added weight to the advice that appears in the book. I also enjoyed the humorous quotations sprinkled throughout the text.

I do have one criticism of *News & Numbers*: It could be better organized. There is substantial repetition between the early chapters, and although in some cases this was useful to reinforce concepts, at times I was bothered by seeing advice repeated. Better grouping of similar topics might eliminate some of the repetition. I also wished that some of the statistical concepts covered in the book were explained in more detail—for example, the addition of a simple illustration would have made the discussion of normal distributions and bell curves clearer. The authors do,

however, provide a helpful annotated bibliography that directs interested readers to more in-depth sources on statistics.

I believe that most established science writers will be familiar with the basic concepts presented in this guide, and surely science writers who are themselves life scientists or physicians will have learned most of the concepts in the course of their professional training. This guide may be most valuable, then, for novice science writers who lack specialized medical or scientific training (including students in medical- or science-writing classes) and for journalists who report on science topics only occasionally. That said, even established science writers may wish to consult this second edition of *News & Numbers* for the new chapter "Polls: Measuring What We Think" and the new sections on evaluating disease outbreaks and managed health-care plans.

This book may also prove to be fascinating reading for anyone else who wishes to become more sophisticated about evaluating science stories and other "numbers" stories in the news. As Cohn and Cope state in their final paragraph, "We reporters can report studies, polls, and other statistical claims in ways that will allow our readers and viewers to more fully appreciate their worth, as well as their limitations. And the public can learn to read and listen more wisely."

**Stephanie Deming**

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## Book Notes

**COVERING THE QUALITY OF HEALTH CARE: A RESOURCE GUIDE FOR JOURNALISTS.** MINNEAPOLIS: ASSOCIATION OF HEALTH CARE JOURNALISTS; 2002. XIV + 224 PAGES. SOFTCOVER; FREE TO WORKING JOURNALISTS, \$30.00 PLUS SHIPPING FOR NONPROFITS AND ACADEMICS, \$40.00 PLUS SHIPPING FOR OTHERS. AVAILABLE ONLINE AT [WWW.AHCJ.UMN.EDU/QUALITYGUIDE/](http://WWW.AHCJ.UMN.EDU/QUALITYGUIDE/).

Written and edited by a team of experienced medical reporters under a Robert Wood Johnson Foundation grant to the Association of Health Care Journalists, *Covering the Quality of Health Care: A Resource Guide for Journalists* readably presents much useful information. Topics of major sections include medical errors and malpractice; care of patients with chronic illnesses; comparison of doctors, hospitals, and health plans; pharmaceuticals and medical devices; long-term care; disparities in health care; mental health; and alternative and complementary medicine. Each major section contains background information, story ideas, pointers for avoiding mistakes, and information about some

previous stories. A 53-page resource list identifies relevant organizations, government agencies, experts, background reading, Web sites, and other information sources. Although tending to emphasize investigative journalism, the guide can aid in various types of reporting on health-care quality and related topics. Editors for the popular media are likely to find the guide helpful when choosing story topics, directing writers to resources, and evaluating and refining stories. Staff members at journals receiving occasional submissions on health-care quality may find this guide a ready source of background information and of leads for identifying peer reviewers. May the Association of Health Care Journalists, established in 1997, continue to produce such valuable materials!

**Barbara Gastel**

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