How to report statistics in medicine

AUTHORS Thomas A. Lang, Michelle Secic
PUBLISHER American College of Physicians, 190 N Independence Mall W, Philadelphia, PA 19106-1572, USA;
TELEPHONE 800 523-1546;
WEBSITE www.acponline.org
PUBLISHED 2006/490 pp/$54.95 (US)

OVERALL RATING Excellent
STRENGTHS Comprehensive; successfully explains complex statistical concepts; well organized
WEAKNESSES None
AUDIENCE Health practitioners, especially family physicians

Written for health care providers in a language that is neither condescending nor full of jargon, How to Report Statistics in Medicine is a very comprehensive book about statistics. The authors accurately explain complex statistical concepts without overwhelming readers with how to obtain the results.

The book helps readers to properly report and understand research findings; it does not attempt to teach how each technique is applied to the data.

The authors emphasize the importance of comprehending the assumptions from various statistical techniques used to analyze data and present the strengths and limitations of each technique with reasons that are easy to understand.

The book’s introduction is a great navigational tool for readers, as it helps them quickly find the chapters relevant to their needs. The introduction is followed by a section called Differences Between Clinical and Statistical Significance, an area usually neglected by textbooks despite its importance in understanding research results.

The book is divided into 6 parts, which include chapters within them. Chapters contain many examples that illustrate the main points, and each chapter has its own list of references. There is also an extensive list of general references provided for the reader with an appetite for more details.

Living with diabetes: a practical guide to managing your health

AUTHORS Rosemary Walker, Jill Rodgers, Canadian Diabetes Association
PUBLISHER Dorling Kindersley Ltd, 662 King St W, Ste 304, Toronto, ON M5V 1M7;
TELEPHONE 416 469-4008;
WEBSITE www.dk.com
PUBLISHED 2005/224 pp/$30.00

OVERALL RATING Excellent
STRENGTHS Readable; solution focused; very good question-and-answer vignettes included in most chapters; contains many practical tips
WEAKNESSES None
AUDIENCE Canadians living with diabetes and their support networks

Living with Diabetes aims to present a practical and comprehensive guide to Canadians living with diabetes. Guides targeted at patient populations, rather than at health care professionals, should present solid evidence in a manner that can be easily understood by the range of people suffering from the illness. Guides should also contain helpful advice and provide solutions to the day-to-day issues that might reasonably be experienced. This book, published in cooperation with the Canadian Diabetes Association, certainly meets these criteria.
Divided into 6 sections, the book deals with the main issues confronting diabetes patients and also provides invaluable information for members of their support networks. The book is written in non-technical language and contains colour illustrations, which enhance the book’s readability. Practical tips are found in every section; these tips should complement and confirm information that is provided by physicians and other health care professionals.

I was particularly impressed by the question-and-answer vignettes included in nearly every chapter. The questions are similar to those that patients pose daily in clinical practice settings, and the answers are direct and unambiguous. Although the book is clearly geared directly to those living with diabetes, it provides physicians with an opportunity to experience the daily challenges and frustrations of diabetes through patients’ eyes. Living with Diabetes avoids the usual pitfalls of this type of book because it is, first and foremost, solution focused. I believe that even the most sophisticated reader will learn something from this book.

—Paul Nehra MB ChB CCFP MICGP FCFP

Dr Nehra practises family medicine in Victoria, BC.

The complete Canadian health guide, revised edition

AUTHOR June Engel
PUBLISHER Key Porter Books, 6 Adelaide St E, 10th Floor, Toronto, ON M5C 1H6;
TELEPHONE 416 862-7777; FAX 416 862-2304;
WEBSITE www.keyporter.com
PUBLISHED 2005/608 pp/$39.95

OVERALL RATING Very good
STRENGTHS Evidence-based, comprehensive home reference book
WEAKNESSES References to original articles or suggestions for further reading are not provided
AUDIENCE Well-educated health care consumers

First published in 1993, the Complete Canadian Health Guide, Revised Edition is designed to be a “home medical reference” and aims to “translate medical knowledge into clear comprehensible terms.”

The book is divided into several sections (eg, lifestyle, nutrition, sexuality, adolescent health, and mental health issues) and provides thoughtful, balanced, evidence-based overviews of these topics. The illustrations are clear and well labeled and the key points are highlighted in orange-coloured boxes throughout the book. The index includes entries under both the common and medical terms, suggests additional search terms, and directs readers to key pages for each topic.

My concern with this book is that there seems to be a bit of a disconnect between the stated purpose of the book—to “translate medical knowledge into clear comprehensible terms”—and the final product. Although attempts are usually made to explain medical terminology, the average reader will find much of the material fairly difficult. The book is much better suited to the well-educated health care consumer. However, from my experience, I know these folks like to delve into the literature and read the original studies or recommended texts on the topic. Here, the book disappoints.

While great efforts have been made to present information based on clinical evidence, there are no references provided for readers to locate these original studies or papers, nor are there any suggestions for further reading at the end of each major section.

Given that the publication date is 2005, the book is best used in conjunction with one of the excellent websites recommended at the back of the book, such as NIH MedlinePlus or the Canadian Health Network site. I recommend this book as a basic home medical reference for those who are already comfortable with medical terminology and who will access additional resources if required.

—Vicky Duncan MLS

Ms Duncan is an Information Services Librarian at the Health Sciences Library at the University of Saskatchewan in Saskatoon.
Defying dementia

AUTHOR Robert Levine
PUBLISHER Praeger Publishers, 88 Post Rd W, Westport, CT 06881, USA; TELEPHONE 203 226-3571; WEBSITE www.praeger.com PUBLISHED 2006/232 pp/$34.95 (US)

OVERALL RATING Poor
STRENGTHS Interesting and important topic
WEAKNESSES Unsupported statements; inappropriate language for intended audience
AUDIENCE Intelligent laypeople

Defying Dementia is a disappointing offering that doesn’t adequately serve the needs of its intended audience of “intelligent lay people” who want to learn about dementia and its prevention. While recent research indicates we might be able to delay the onset of dementia by treating vascular risk factors and following a healthy lifestyle, the author goes beyond the available data to make unwarranted statements. Levine does not deal well with the potential of harm arising from some of his suggestions. I can’t recommend this book to either the general public or family physicians.

The first part of Defying Dementia deals with dementia, its confounders, and causes. It is too long, taking up approximately two-thirds of the book. The terminology used is more appropriate for a medical audience. How many well-educated lay readers would even understand terms like “amyloid beta derived diffusible ligands” and abbreviations such as APOE-4, PSEN1, or PSEN2? Family physicians who want an introduction to the various forms of dementia would be better served by a recent review article such as “The primary care of Alzheimer disease” by C.D. Rubin.
The lifestyle recommendations, though difficult to argue against, have not been proven as ways to prevent dementia. We already have convincing reasons for patients to be more active and to follow a healthier diet. I have greater concerns about other suggestions; for example, Levine states that daily acetylsalicylic acid is “one of the major weapons in our arsenal in the battle against … dementia.” Yet the observational data for this is inconclusive.\(^2\) In fact, a controlled trial examining whether ASA prevented cognitive decline was negative.\(^3\) And no mention is made of the increased risk for both hemorrhagic strokes and gastrointestinal bleeding with ASA.\(^4\) When advising individuals on disease prevention, we must be confident that we’ll see the greatest good for the greatest number. We aren’t there yet for the prevention of dementia. 

—David B. Hogan MD FACP FRCP

Dr Hogan is the Brenda Stratford Foundation Chair in Geriatric Medicine at the University of Calgary in Alberta.

References