BOOK REVIEWS

Improving infant health; The effectiveness of health promotion activities to reduce stillbirth, infant mortality and morbidity: a literature review. Jo García, Merry France-Dawson, Alison Macfarlane (£5.99) *Health Education Authority, 1994.* ISBN 0-7521 0230 3.

Anyone in this field expecting to learn anything much or to be excited by this 60 page booklet is likely to be disappointed, and even depressed. Those outside the field may well be bored. The subtitle implies that it will review the evidence and one expects it to emerge with some crisp, well supported conclusions, or at least some critical discussion of the serious evidence. The fact that it does neither of these things is not all the fault of the authors: it may be a hallmark of the subject or the *genre*.

The "evidence" is contained in a reference list of about 270 items, which are mostly uncritically discussed. Only a little over half of them are from peer-reviewed journals, of which nearly a half in turn are ten years old or more. The rest are from reports, leaflets, and books, three quarters of them from official government or similar reports, with the usual lowest common denominator flavour characteristic of most of these "official" committee products, which rarely contain much evidence.

The first quarter of the booklet is preamble and introduction. This is followed by a section on lifestyle in pregnancy, in which the account of smoking, alcohol, and addictive drugs is straightforward enough but scarcely new. The section on maternal diet manages to steer mercifully clear of most of the vociferous but cranky minority views we hear so often, which are not evidence anyway. It leads to the probably correct conclusion that apart from vitamin D and folate there is nothing striking to recommend to the overwhelming majority of pregnant women in contemporary Britain. Even the underprivileged tiny minority, although theoretically short on RDAs, are almost certainly not thereby jeopardising their fetuses (as might have been expected), which they largely do by smoking, drug abuse, and alcohol. A rather scrappy literature does exist on the possibility that the minority of mothers and their fetuses living in poverty in our inner cities might sometimes benefit from supplementation, but the research is woefully inadequate, and some of it is given a bit too much credence here. It is curious that the evidence from the very extreme starvation suffered during the *hungerwinter* in wartime Holland is mentioned, however interesting. This extreme situation, where mothers lived largely on tulip bulbs providing about 700 kcal/day, has no bearing on 1990s Britain, where even the underprivileged diet is greatly superior to that of the Dutch cities at that time; if it had to be mentioned it is odd that the preliminary paper by Smith (1947) is quoted, instead of the major definitive work by Susser and Stein. It is refreshing to find that preconceptional measures, so much trumpeted about by activist groups in the popular press and elsewhere, and more properly belonging to the "business section", are scarcely mentioned.

When it comes to the impact of service use (antenatal care, breastfeeding promotion, etc) on maternal and child health, the general conclusion is that the effects are small, both on a population and an individual level, and that what research there is, is often inadequate. The section on genetic screening is more useful, and correctly concludes that although it has a low potential impact on health promotion at a population level, that for individuals is high.

So we are only left with the very strong facts about smoking, drinking and taking drugs, but didn't we know that?

It is probably not exclusively the authors' fault that the "evidence" is not exciting, but one wonders if this report will have any impact on either policy making or on individuals. An index would have been helpful. Perhaps it is time we had fewer of these inadequate, anodyne accounts from bodies such as the Health Education Authority and the Department of Health?

JEAN SANDS
JOHN DOBBING
*Perinatal Survey Unit,
St Mary's Hospital,
Manchester*

Medical Statistics on Personal Computers (2nd ed). RA Brown and J Swanson Beck. (Pp 147; £10.95) London: *BMJ*, 1994. ISBN 0 7279 0771 9

The advent of powerful personal computers and good quality statistical packages to run on them has made it easy for those engaged in small scale research to analyse their data. However, in cutting out the statistician middleman there is the danger of blunders. The authors of this book aim to help their readers approach data handling and simple data analysis competently.

This work is not tied to any particular model of personal computer or data analysis package. It gives an account of how to organise data and how to select and apply appropriate analytic techniques. It is left to the reader to consult his data analysis package's manual to find out how to implement the analyses. The emphasis is on understanding when to apply a technique, how to interpret the results, and pitfalls which could be encountered. Topics covered include: data preparation and summary; analysis of data from one or more groups (leading to analysis of variance); regression and correlation; distribution free methods; handling categorical data; methods for diagnostic tests; survival analysis (introducing Cox regression); sample size and power; and writing up the statistical analysis in a scientific paper. There is also a brief review of five commonly used statistical packages. The prose is lucid and gives an accurate account of the techniques discussed.

The work appears initially to have been conceived with pathologists in mind and many of the examples reflect this. However, its content and presentation should be acceptable to anyone in the clinical disciplines. Used by itself this book will not cover the needs of those engaged in epidemiological research.

In terms of its stated purpose, this book can be recommended with reservations. Even with the authors' clear guidance many of the techniques, such as regression analysis, which nowadays are computationally straightforward, nevertheless require considerable

sophistication and experience to be used properly. Hence the book might best be used in conjunction with an elementary statistics course. However, standing alone it would be useful to anyone seeking to better understand analyses presented in published papers.

It is a pity that there is a plethora of books that seem to imagine that data arise from thin air and give the impression that their analysis can be undertaken without much thought to their provenance – that is, the conceptions which led to the study, the underlying theoretical framework, the study design, and the measurement procedures. Data analysis, or perhaps more accurately *data processing*, might have been reduced to a simple task using a personal computer but there is a danger that many will not come to understand the broader art and science of designing, undertaking, analysing and interpreting studies. This danger is particularly so for the kind of people attracted to books of this type. By all means use it but as, by definition, you will be a beginner, do consult a professional at the planning stage of your study.

A S ST LEGER
Associate Editor JECH

A Dictionary of Epidemiology (3rd ed). John M Last (ed) (Pp 180; £29.50 hbk; £12.95 pbk) Oxford: Oxford University Press, 1995. ISBN 0 19 509668 1 (pbk), 0 19 509667 3 (hbk)

Epidemiology does not exist for the gratification of its practitioners. It is justified when its findings influence disease control and policies to promote the public health. Hence its concepts and the terms used to express them should be accessible to members of the many disciplines that consume epidemiological findings. Furthermore, the terms should be used consistently.

Publication in 1983 of the first edition of the dictionary marked the coming of age of epidemiology. Its practitioners had moved toward agreement on their technical terms and hence it might be said that a Kuhnian paradigm was emerging. The dictionary was remarkably successful and editions have appeared in at least ten languages with more in preparation or planned.

The third edition contains almost 300 new entries and revisions of previous entries. Because the boundaries of epidemiology and other disciplines are not closely defined, the scope of the entries has increased and there is improved coverage of infectious disease epidemiology and control, health promotion, genetics, informatics, health economics, and biomedical ethics. The definitions have been produced after consultation among the editorial team and many experts. For the most part they represent a consensus view.

In the preface to the second edition the editor expresses the hope that the dictionary will be "authoritative without being authoritarian". A scan through the definitions of the third edition quickly confirms the authoritative nature of the work. There are few definitions with which one would quibble and barely any with which one could not live. Indeed, perhaps the time has come for those who teach epidemiology to set aside their favourite but idiosyncratic definitions and proselytise those from the dictionary in an authoritarian manner; the first edition of the dictionary was most helpful to me in resolving the confusion students had with the variety