viously unreported associations, even though some of these associations appeared to be highly significant.

Some of the limitations of the study, including insufficient sample sizes for some cancers, are adequately discussed. Others would seem to merit further thought. According to Doll and Peto,¹ diet, alcohol, and smoking, between them, contribute nearly 20 times more to overall cancer risk than known occupational factors. The value of the present study is arguably limited by failure to take potential confounding variables sufficiently into account. Thus the categories used for smoking adjustment seemed crude, while the only types of food (carotene containing) for which data were collected were not even considered in the analysis.

In his introduction to the book the author comments on "the imbalance between rhetoric and knowledge concerning environmental carcinogens". Despite the widely perceived importance of environmental carcinogens very few of the many thousands of chemicals with which man comes into contact have been evaluated epidemiologically, and the study is a brave attempt to correct this perceived imbalance. The results are clearly presented and the book is well written. The question is, do the contents of the book justify undertaking larger studies of similar design?

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1 Doll R, Peto R. The causes of cancer: quantitative estimates of avoidable risks of cancer in the United States today. *J Natl Cancer Inst* 1981; 66: 1191-308.

Manual of Clinical Microbiology (5th Edition). Eds Albert Balows, William J Hausler Jr, Kenneth L Herrmann, Henry D Isenberg, H Jean Shadomy. (Pp 1364; \$84.50.) American Society for Microbiology, 1991. ISBN 1-55581-029-2.

This book on clinical microbiology, which seems to be written principally as a reference text for the clinical microbiologist working in the United States, is a huge tome of 122 chapters contained in 10 sections; the introduction gives a useful indication of how the book is structured and should be used.

Section I (chapters 1-7) provides an interesting overview of general issues in clinical microbiology such as pathogenicity, specimen handling, and assessment of new technologies. Section II on diagnostic technologies in clinical microbiology is very detailed and may be useful to the communicable disease specialist wishing to learn more about specific tests. Section III on nosocomial and community infections contains some very interesting chapters on the epidemiology, monitoring, and control of hospital acquired infection plus the investigation of a community outbreak. However, this is the American perspective and is not entirely applicable to the United Kingdom situation. The following five sections (IV to VIII) contain chapters dealing with specific micro-organisms, the emphasis being on micro-

biological aspects; the brief epidemiological descriptions relate primarily to the United States. The final two sections deal with antimicrobial agents and susceptibility tests plus aspects of quality control.

In the introduction, the Editor in Chief states that the intended users of the book are "those who work in any . . . laboratory settings . . . and whose job responsibilities include clinical microbiology in any or all of its ramifications" and that "users must have knowledge of the fundamentals of microbiology and possess basic laboratory skills". Public health physicians working as control of infection officers, whether as full time consultants in communicable disease control or combining this work with other responsibilities, should have a degree of cross training in medical microbiology and will undoubtedly require reference texts on the subject. While this may initially seem to be an excellent text for this purpose, it will be difficult for the public health physician working in the United Kingdom to know how applicable many of the methods and procedures are to laboratory practice in this country, and for this reason the *Manual of clinical microbiology* may be of limited value for this group.

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Health and Class: The Early Years. By C Power, O Manor, J Fox. (Pp 216; £29.50.) London: Chapman and Hall, 1991. ISBN 0-412-41570-4

The persistence of class differences, despite nearly half a century's use of an almost free health service, is one of the less attractive aspects of British society. The National Child Development Study has been following the fortunes of 17 000 people born during one week of 1958, 10 years after the creation of the NHS. In this book, researchers from the Social Statistics Research Unit at London's City University examine findings from its 1981 survey (based on interviews with three quarters of its original sample), plus material from earlier interviews, to explore class differences in the health of these young adults.

Health and class is well set out and produced. What does it tell us? Health differences between classes at age 23 years are established early in the book, and explanations sought under four headings: circumstances at birth, socioeconomic circumstances during childhood and adolescence, education, and personal habits. The wealth of available material has been trimmed: class differences at 23 are reduced to contrasting classes I and II subjects with those from classes IV and V. Class III is simply excluded. Outcome variables have been limited to self rated health, a neurotic symptom checklist, the reporting of psychological and emotional problems, and height.

The teasing out of significant intervening variables forms the core of the book, and yields both self evident and surprising results. Social mobility makes little impact. Getting a paper qualification at the end of schooldays is

hardly a surprising candidate but scoring a deviant rating on the Rutter Scale at age 16 is less obvious. School teachers have an ability to spot losers. Or do they create self fulfilling prophecies? This is the kind of question this useful analysis raises for others to solve.

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Interpretation and Uses of Medical Statistics (4th edition). By Leslie E Daly, Geoffrey J Bourke, James McGilvray. (Pp 441; £25.95.) Oxford: Blackwell Scientific Publications, 1991. ISBN 0-632-02911-0

In the 20 or so years since it was first published this book has more than doubled in size, gained four helpful appendices and acquired a new author (Daly) who has ascended the batting order. The latest edition is true to the aims set out in the preface to the original: interpretation not calculation; an aid to understanding rather than a textbook on statistical methods.

Included is most of what might be expected from an introductory text on medical statistics: data presentation and summary; introduction to probability and sampling theory; hypothesis testing, regression and correlation; and ANOVA (a brief but clear introduction). New to this edition are greatly expanded sections on confidence intervals (in line with recent trends in medical publications); and multivariate analysis and the control of confounding (complete with well warranted caveats about seeking expert help). All these areas are introduced gradually and lucidly, with the emphasis on explaining the underlying concepts and promoting insight into the methods. Detailed proofs are avoided which generally works well, although unexpected formulae are sometimes disconcerting, as are exhortations to accept what is written on faith. An appendix conveniently summarises the statistical procedures discussed, allowing a quick assessment of each technique's requirements and assumptions, and detailing the necessary calculations.

The book earns broader appeal by including chapters on epidemiological statistics, vital statistics, randomised controlled trials, and bias and measurement errors. Each of these sections is balanced and thorough, being much more than a glib synopsis. However, the (mercifully short) section on computers in medical research adds nothing of value, managing to be simultaneously banal and abstruse.

The book is written in a relaxed and readable style making judicious use of examples, but it includes no exercises and is rather light on references, with some notable omissions (eg, Pocock on clinical trials). Imperfections notwithstanding, it can without doubt be recommended for all those seeking to make sense of the medical literature, as well as those involved in generating and using medical data.

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