

him giddy. A coronary thrombosis or a complete heart block should be notified to the Licensing Centre because these are 'prospective' disabilities which may in time become 'relevant' ones. The distinction between the two is not always clear. Diabetes in itself is neither prospective nor relevant but if controlled by insulin becomes a prospective disability. Epilepsy is a relevant disability and is a bar to driving a private car for three years and public service or heavy goods vehicle driving for life. Multiple sclerosis, on the other hand is a prospective disability, and as such must be notified, but sufferers may drive during remissions.

There is an excellent chapter on the effect of drugs on driving ability. No fewer than 35% to 50% of motorists drive at least once a year after taking psychotropic drugs, often in association with alcohol. Most of them say they have not been warned of the dangers by their doctors. Neither MIMS nor the National Formulary give specific references of the effects of most drugs on driving. Driving may not be impaired by small doses of tranquillisers, but tricyclic antidepressants, monoamine oxidase inhibitors, anti-histamines, and analgesics such as Distalgesic do have an effect, and patients taking them should be warned by their doctors. Public service drivers should be given sick leave until it is seen that they have no reactions to these drugs. The effects of fatigue in long-distance driving is discussed in detail. A rest after three hours' driving abolishes fatigue with complete recovery and improved performance; after six hours' driving recovery is uncertain, and after nine some hours of sleep are needed for recovery.

There is as much information about disease, drugs, and driving as anyone is likely to need, but doctors nonplussed by complex problems are invited to discuss them with the Medical Advisory Branch of the Licensing Centre. Its telephone number is supplied in the penultimate paragraph of the book.

ANDREW SMITH

**Medical Research: A Statistical and Epidemiological Approach.** By John M. England. (Pp. 190; £2.25). Churchill Livingstone: London. 1975.

The title of this book is misleading without the subtitle and it would have been better to have recognised this. Statistical variability is an important characteristic of human beings and consequently of patients but it

is very far from being the major theme of medical research.

The body of the text is confined to 124 pages in which space the author attempts to cover most of the elementary statistical methods plus the techniques and results of epidemiology and clinical trials. A further 44 pages contain appendices of tables and technical notes on some of the statistical points and a reprint of the MRC leaflet on responsibility in investigations on human subjects.

As there are many figures and diagrams the author has left himself very little space to discuss a large and highly technical subject. I do not think he has been very successful and I feel he would have written a much better book if he had devoted more space to exposition and less to technical methods. As it stands, the book should be read in conjunction with a statistical textbook and not as a substitute for one, as the technical discussion of methods is sketchy and in places misleading. For example, the chapter on correlation and regression seems to me very confusing for a beginner as it begins with a discussion of classical Galtonian regression and goes on, almost tangentially, to the commoner and simpler case of regression of a dependent variable on one selected dependent variable or more. It also makes the bald statement that variables must be normally distributed for a correlation analysis to be possible, which is as it stands simply not true.

Other doubtful assertions that strike the eye may be quoted:

'The parameter which is measured is called a variate' p. 1. The distinction between a parameter and a variate is fundamental in statistics.

'There is no way to prove mathematically that the normal law describes experimental errors; it is simply an observed fact that it does so' p. 16. Perhaps 'sometimes' should be inserted between 'it' and 'does'.

'Variation of height and weight . . . can be predicted by the normal distribution' p. 17. Weight is not normally distributed and in any case, given that one of these distributions is normal, the other could not be.

It is stated that the hyperbolic confidence limits of a regression line are due to small numbers of observations at outlying values, p. 80. This is not so. It is due to the fact that random errors in estimating the regression coefficient have larger effects at greater distances from the mean.

The standard errors of some simple

mathematical expressions are given without indicating that they only apply to uncorrelated variables, p. 131. The formula for the error of a ratio is wrong.

This book is worth browsing through for examples of statistical method but the methods themselves should be learnt elsewhere.

C. C. SPICER

**Occupational Health and Safety in Hospitals. Proceedings of a Seminar presented by Division of Occupational Health and Radiation Control, Health Commission of New South Wales on 26th November 1974.** (Pp. 100; No price given).

The Division of Occupational Health and Radiation Control, Health Commission of New South Wales, organised a seminar on Occupational Health and Safety in Hospitals, held one knows not where, and this is a typescript account of the proceedings.

The 90 participants are listed at the end but it is not stated how they came to be gathered together. There were doctors, nurses, other medical workers, health and hospital administrators, and safety officers among them. Four were from private industry but the rest came from various government or similar departments. About 50% were administrators, medical or otherwise, but justifiably so when the objective seems to have been to sell the concept of occupational health and safety services to the hospital service.

The list of contents is inviting for although the formal papers have somewhat hackneyed titles, the reports of the eight group discussions promise something of substance, such as 'What are the physiological hazards to which hospital staff may be exposed?' Though 'physiological' turns out to be 'psychological' in the report itself, and there are a number of similar misprints, this is unimportant compared with the disappointingly naive presentations and group reports, especially emphasised in the latter by summarising them later in tabular form. On the other hand, it has to be remembered that an account of a seminar of this kind is not intended as a reference work and the participants were largely only being introduced to the subject.

Miss N. Bundle's contribution on Occupational Health Services for Hospital Staff acknowledges indebtedness to the Tunbridge Report in giving a good account of the ideal. Hospital Health Services, from Dr J. Toohey is a useful