

LETTER TO THE EDITOR

The relationship of patients' sex to reproduction in multiple sclerosis

Few studies have examined the consequences on reproduction of chronic diseases beginning in early adult life. When a disease, such as multiple sclerosis (MS), has no major effect on fertility, the number of offspring depends on decision making by the couple, which is influenced by fear of recurrence in children,¹ uncertainty on the course of the disease, and for female patients, concern about the possible effects of pregnancy on the course of MS.²

Mean number of children in male (M) and female (F) patients according to age at onset of multiple sclerosis and age at the time of the study.

Age at time of the study (years)	Age at onset (years)							
	<		25-30		30-35		>35	
	M	F	M	F	M	F	M	F
<30	0.30** (184)	0.52 (390)	1.05 (18)	1.10 (49)				
30-40	1.08 (346)	1.16 (625)	1.45 (251)	1.57 (421)	1.68 (116)	1.67 (253)	1.54 (24)	1.69 (45)
40-50	1.62 (138)	1.50 (322)	1.75 (152)	1.89 (322)	1.87 (143)	1.90 (305)	1.98 (214)	2.14 (403)
>50	1.86 (98)	1.73 (264)	1.71 (115)	2.04 (309)	2.11 (137)	1.93 (349)	2.27 (521)	2.16 (1144)

** p=0.01
() number of patients

From a nationwide epidemiological survey of MS, we studied reproduction of 5296 female patients and 2506 male patients. Women were slightly older than men at the time of the study (46.9 v 45.7 years, p<0.001). Mean age at disease onset was 31.2 years in both sexes. The mean number of children was 1.7, both in men and women; proportions of MS patients with no children were 21.6% and 19.4% for men and women respectively. When we stratified our sample according to both age at MS onset and age at the time of the study (table), we found no significant differences between female patients and male patients in any strata, except in patients under 30 years of age; in this stratum, women had more children than men.

To investigate further the influence of age at symptom onset on the number of children,

we studied MS patients who were older than 40 years at the time of the study, assuming that the majority of them would have no more children. In patients with first symptoms of MS before the age of 25 years, mean number of children was 1.6 in women versus 1.7 in men with onset of MS after 35 years, the mean number of children was the same ($\bar{x}=2.2$) in both sexes and was significantly higher than in the patients with early onset of MS. At 40 years of age, the mean value in the French population is nearly 2.6 children. Thus this study shows that MS patients with disease onset before the age of 25 have, on the average, one child less than the French general population. As expected, the mean number of children increases with the age at first symptoms.

There have been few data on reproduction in female patients with MS³ and to our knowledge, none about male MS patients. A surprising finding of this study is the absence of any differences between men and women.

Fear of recurrence in offspring and awareness of consequences on child raising of uncertain long term prognosis have similar impact on the decision to plan a family in male and female patients with MS. Surprisingly, the possible influence of pregnancy on disease course seems to play a minor role in couple's decision making.

- 1 Sadovnick AD. Empiric recurrence risks for use in genetic counselling of multiple sclerosis patients. *Am J Med Genet* 1984; 17: 713-4.
- 2 Thomson DS, Nelson LM, Burns A, Burks JS, Franklin GM. The effects of pregnancy in multiple sclerosis: a retrospective study. *Neurology* 1986; 36: 1097-9.
- 3 Poser S, Poser W. Multiple sclerosis and gestation. *Neurology* 1983; 33: 1422-7.

M-H VERDIER-TAILLEFER
A. ALPEROVITCH
INSERM U169,
16 Av P Vaillant-Couturier,
94807 Villejuif Cedex, France

BOOK REVIEWS

Epidemiology and the Prevention of Mental Disorders. Ed Brian Cooper, Thomas Helgason. (Pp. 367; £40.00.) Routledge, for the World Psychiatric Association, 1989. ISBN 0-415-00015-7.

This book records a selection of papers from the 9th Scientific Symposium, held in 1987, of the World Psychiatric Association's

Section of Epidemiology and Community Psychiatry. Five previous books have reported earlier symposia, concentrating on methodological issues and the testing of research methods. The implication is that in the present volume we should be seeing the fruits of applied research based on previously described methods.

The theme of the book is psychiatry as a public health discipline and it is divided into six parts. Logically these range from the "Goals, strategies and constraints of prevention in psychiatry" to "promoting healthier public policies". Coordination of the parts could have been improved by linking text from the editors. The first part draws attention to the neglect of prevention in standard psychiatric texts and in teaching.

Models which are familiar in the sphere of traditional public health are outlined, though they stand repetition in the psychiatric field. For example, the adaptation of a person or host to external environmental or psychological factors with alteration by extrinsic or intrinsic modifying factors is set out as one model. However, as Tirrill Harris points out in the chapter on "Implications of the vulnerability model for the prevention of affective disorder", the translation of epidemiological findings into preventive strategies is rarely simple. In psychiatry, unlike physical illness, there is the added complication that it is not just the person's response to some environmental agent or stressor but his response to his conscious or unconscious interpretation of environmental factors.

The research papers and reviews encompass an important range of public health issues in psychiatry, such as dementia, alcoholism and suicide. If the compilation has a fault, it is in failing to identify sufficiently clearly and to discuss (except for Harris's contribution) the stressor risks which are amenable to intervention and the form that the intervention should take. It was also encouraging to read of the healthy debate that is taking place in the Netherlands concerning the priority to be given to prevention in psychiatry by the year 2000. There are worries in that country that the benefits of prevention are being overestimated and that this will have negative consequences for the care of persons already suffering from psychiatric conditions. To date, such debates in Britain have been somewhat muted, though they could be stimulated by this book.

D P FORSTER

Research Methods in Occupational Epidemiology. (Monographs in Epidemiology and Biostatistics, vol 13.) H Checkoway, N Pearce, DJ Crawford-Brown. (Pp 344; £30.) Oxford University Press, 1989. ISBN 0-195052242.

To uncover the links between occupational environments and disease, Ramazzini advised doctors to add one more question to those recommended by Hippocrates—"What is your occupation?" Occupational epidemiology has its origins in this simple question, although with the complexity of modern day industry, it has had to refine its methods and expand its ideas. Today, it forms a thriving and distinct subdiscipline of epidemiology and occupational medicine.

This book is divided into two main sections. The first section, chapters 1-7, describes the historical development of occupational epidemiology, a variety of approaches for characterising exposures in the workplace, and methods for designing and executing investigations (cohort, case-control, and cross sectional studies). There is also a useful chapter on potential sources of bias. The second section of the book, chapters 8-10, covers advanced statistical analyses, dose and exposure modelling, and special applications of occupational epidemiology—with particular emphasis on models of carcinogenesis and risk assessment.

The authors have compiled their chapters thoughtfully. Each includes, where appropriate, an overview which clearly states what is to be covered; this is followed by the main body of the chapter, which is followed by a summary of the major points made, and a

glossary of the terms and notation used. Each chapter ends with a comprehensive list of references, which includes both up to date citations and also the "classics". A feature, which the authors use to great effect, is the liberal inclusion of both real and hypothetical examples; these help to consolidate new concepts, and are essential for the innumerate in following the statistical procedures. This is a very practical book. Even a novice will be able to use the techniques described in the first section, and to follow, at least conceptually, the procedures described in the second part of the book.

As with all books, there are minor irritations: table 6-3 is 11 pages away from its first and only mention; the OPCS has superseded the Ministry of Pensions (p113) as a source of vital status tracing; and the style of English is stodgy in places. Nevertheless, this is an excellent book, which should be on the shelves of every library. It will be invaluable to anyone with an interest in occupational epidemiology, and especially to professionals who do not have ready access to the support of a statistician.

F L R WILLIAMS
O LI LLOYD

HPV and Cervical Cancer. (IARC Scientific Publication No. 94.) N Muñoz, FX Bosch, OM Jensen. (Pp 155; £19.00.) International Agency for Research on Cancer, Lyon, 1989. ISBN 92-832-1194-4.

The role of the human papillomavirus (HPV) in the aetiology of cancer of the uterine cervix has been one of the most intriguing epidemiological issues of the last decade. Initial optimism that the key aetiological agent had been identified has now been tempered by a realisation that HPV 16/18 can also be identified in the normal cervix and that integration of virus DNA into tumour cell DNA does not necessarily reflect a causal mechanism. Nevertheless, the debate is not yet over, particularly with the continued development of DNA technology and the recognised deficiencies of previous studies, and this book gives an authoritative and readable account (even to the non-specialist) of the story up to last year.

The book is divided into eight chapters: four dealing with the epidemiological evidence, two with DNA hybridisation techniques and the experimental evidence for HPV oncogenicity, and two with clinical issues. Most readers of this journal will turn eagerly to the last chapter, which summarises and tabulates the 30 or so published epidemiological studies and discusses the methodological difficulties encountered. There is also considerable interest for the epidemiological enthusiast in the chapters on time trends and on measurement error. But this is not just a book for the expert. I was gratified to be able to read with reasonable comprehension of the chapter on DNA hybridisation techniques: an understanding of the strengths and limitations of HPV identification is as important as an understanding of the epidemiology in assessing the available evidence. The chapter on oncogenicity is more closely written but it is only four pages long and it rewards a little concentration.

Overall, this is an ideal sort of book: short, readable, paperback, well referenced and with a good eight page summary. Although it deals with a rapidly changing field, the book

references papers as recent as 1988 and it is the best review available at present.

DAVID MANT

Environmental Health Decision Making: the Politics of Disease Prevention. Jens Steensberg. (Pp 325, price not stated.) Almqvist & Wiksell International, 1989. ISBN 91-22-01260-6

This paper back has been written by a medical doctor with a long experience of work in the Danish national health and environmental protection administration, following a period as a visiting scholar at the University of North Carolina in the USA. The research for the work was carried out in 1982 and the text written in 1983. The work has already formed the basis of a PhD degree and appeared as a supplement to the *Scandinavian Journal of Social Medicine*.

The book is in four parts, each with one or more chapters. Part 1 comprises a background; part 2 covers various aspects of our environment including air, noise, water, food, work, home and chemicals; part 3, the process of decision making, principally in Denmark and the USA; and part 4, a short summary of the politics of disease prevention. There is one 1984 reference in the text and a few for 1982, but most of the references, which total over 500, are for 1981 or earlier.

Although aimed at medical doctors and other health and scientific personnel in the fields of public health policy and administration and of environmental health administration, it is not a reference work. Moreover it is difficult to envisage such a wide appeal for a book with this title which barely mentions the nuclear industry, one of the biggest political issues in environmental health in the past forty years. Indeed the nuclear industry merits only one paragraph, a brief mention of the Three Mile Island incident in 1979. It seems odd for a book with this title to be published in 1989 which makes no mention of Chernobyl, nor the effect this has had on the politics of nuclear power. Although the author justifies the late publication on the grounds that the functions of our administrative and political systems are changing slowly, not many would be prepared to agree.

IAN G JONES

Technology Assessment and New Kidney Stone Treatment Methods. (Commission of the European Communities Health Services Research Series No. 4.) Eds F Kamper-Jorgensen, S Challah, T Folmer Andersen. (Pp 189; £25.00.) Oxford University Press, 1988. ISBN 0-19-2616-498.

This is the proceedings of a workshop held in Copenhagen in March 1986 and sponsored by the Health Services Research Committee of the European Economic Community. As a step towards European collaboration in the assessment of health care technology—a difficult task being tackled by only a few researchers in each country—it is welcome. Nevertheless, it must be judged against the high standards set by the published proceedings of two previous workshops devoted to health technology assessment: that held in Switzerland in April 1982 and devoted to renal dialysis, computerised tomography and cimetidine,¹ and that held in Birmingham

in October 1984 and devoted to economic perspectives on health technology assessment.²

Judged by these criteria, the book devoted to kidney stone treatment methods is disappointing. First, it engenders real concern that neither the theory nor the practice of health technology assessment has advanced since 1982, at least in Europe. Of the three countries that claim to have tried, or begun, to assess extracorporeal shock wave lithotripsy (ESWL), only the United Kingdom generates a chapter that is both clear and detailed. That chapter tells how the randomised trial proposed by researchers was rejected as unethical by urologists confident that ESWL was markedly superior to all other therapies. Unfortunately, the descriptive, and therefore much weaker, study that replaced the proposed trial has since suggested that ESWL may be less effective, and less efficient, than percutaneous nephrolithotomy.³ Thus, although all concerned (clinicians, researchers and the British Department of Health) acted with the best of intentions, the first British assessment of ESWL generated little firm evidence.

Unfortunately, the book under review will do little to improve the mediocre standards of health technology assessment that it portrays. The editors have failed to exercise either the sapiential leadership or the editorial skills that characterised their predecessors.^{1,2} The result is a pot-pourri of contributions from seven countries that will tell researchers little about new kidney stone therapies, and urologists little about health technology assessment.

IAN RUSSELL

1 Culyer AJ, Horisberger B, eds. *Economic and medical evaluation of health care technologies*. Berlin: Springer, 1983.

2 Drummond MF, ed. *Economic appraisal of health technology in the European Community*. Commission of the European Communities Health Services Research Series No. 2. Oxford: Oxford University Press, 1987.

3 Mays N, Challah S, Patel S, et al. Clinical comparison of extracorporeal shock wave lithotripsy and percutaneous surgery in treating renal calculi. *Br Med J* 1988; 297: 253-8.

Disablement in the Community. Ed Donald L Patrick, Hedley Peach. (Pp 230; £17.50.) Oxford University Press, 1989, ISBN 0-19-261434-7.

The recent national survey on disability has highlighted the extent of need amongst those living in the community. This book reports on one local survey carried out between 1977 and 1983 in the London borough of Lambeth. We are told that the various elements of the survey, referred to in the text as the "Lambeth studies", were planned as an inquiry to provide information on the epidemiology of disablement, in order to apply this information to health and social policy questions affecting the community, and disabled people in general.

Donald Patrick introduces the book with a chapter on the sociomedical approach to disablement, using the concepts of impairment, disability and handicap from the International Classification of Impairments, Disabilities and Handicaps (ICIDH), published by WHO in 1980. After opening chapters which deal largely with methods, the book is loosely structured on these concepts, with later chapters dealing with impairment