

## BOOK REVIEWS

**Deprivation and Health in Scotland.** By Vera Carstairs and Russell Morris. (Pp 334; £19.95). Aberdeen University Press 1991. ISBN 0-08-037979-6

This is a book stacked full of useful empirical data. Indeed, if weight of tables and diagrams alone made for quality of reading, it would be a best seller.

The book aspires to provide "the first comprehensive description of the 'inequalities in health' which exist within the population of Scotland". Thus, it could be considered a Scottish "Black Report". But, unlike the Black Report, which drew very extensively upon a range of pre-existing sources, Carstairs and Morris have produced their own analyses which consist of correlating, at the post code sector level of geographical aggregation, a range of health and health related measures with their own "deprivation index".

Health is measured in terms of mortality (all causes and cause specific), morbidity (taken as "maternity events", perinatal and infant mortality, temporary and permanent sickness, as measured at the 1981 Census, cancer registrations, and mental hospital admissions), and use of beds in general hospitals. The inadequacies in available health indicators, particularly in respect of morbidity and self perceptions, have been often stated and need not be repeated here.

There is a chapter on the implications of the analyses for the SHARE and RAWP resource allocation procedures, a penultimate chapter on "Conclusions and explanations", and a curiously located concluding chapter "Considering deprivation and area-based methods". Appendices provide details of the technical methods employed and a full listing of some of the raw data.

Given the extent to which it is relied on for the empirical findings, the book could be judged to stand or fall on the adequacy of the authors' "deprivation index". Discussion of its theoretical validity is slight, and conducted in relation to competitor indices. Citing Townsend, the authors claim that "our approach attempts to locate areas (and populations within them) on a dimension which reflects the access people have to material resources". Empirical evidence of the efficacy of the index comes later and relates to the comparative ability of the index to correlate with the health measures under investigation. This is characteristic of a peculiar self referential cycle within which area based studies of deprivation and health appear to have become stuck. The independent variable to be used to "explain" variations in health is validated by its ability to correlate with these variations. On a wider front, this tautological thinking reached its apex in the recent deliberations on the suitability of deprivation indices as candidates for inclusion in the respective resource allocation formulas. The point is perhaps underscored when the authors go on to criticise methods (admittedly my own), which attempt to avoid this self referential

cycle by independent conceptualisation of "deprivation". They complain that "it is not clear by what process the relevance of these variables to the determination of health planning was established".

Given the well known and well discussed limitations in the data sources available to conduct small area studies of health, a degree of expedition is unavoidable, but this should not be an excuse for avoiding thinking through fundamental concepts. (One would have hoped that the ghost of crude empirical approaches would have been laid to rest in the 1960s and 1970s when social geographers endeavoured to "define" deprivation by stuffing as many census variables as possible into a computer and using principal component analysis to sort them out.)

Issues of definition apart, my major criticism of the book is that it is at least five years too late. It seems strange that a book published in 1991 should, apart from very passing references, refer only back to 1981 census data. The 1991 census has already been conducted. It has a different (not totally improved) potential for conducting small area investigations. If this important field of study is to have meaningful input into policy debate (the real point of the exercise) it is to be hoped that the time lag in reporting, next time round, won't be so great.

COLIN THUNHURST  
Nuffield Institute for Health Services  
Studies  
University of Leeds

**Epidemiology of Congenital Malformations.** By E G Knox, R J Lancashire. (Pp 221; £29.) London: HMSO, 1990. ISBN 0-11-321327-1

This volume is an excellent facility for those who have the time to browse through other people's data sets to assist in the derivation of hypotheses. Unlike publications of other data sets, however, this also has a complete set of analyses of various aspects of the data collected in Birmingham over the past 21 years. The information relates not only to the congenital malformations identified up to one year of age, but also to the basic background information on all births in the geographically defined area.

This publication is of great value in describing the Birmingham Congenital Malformations Registry. It lists the 79 publications emanating from the Unit, provides valuable information concerning ethnic variation, social class, maternal age and parity effects, examines for a possible effect from x ray prior to pregnancy on incidence of malformations (small if any effect), looks for seasonal variation (but only finds it with neural tube defects), shows that the pattern of associations with anencephaly is not exactly the same as those with spina bifida, and that twin concordance rates are very slight for congenital malformations in general.

The main focus of attention, however, comprises the variation over time in the incidence of various disorders, and clustering within time and space. Many of the findings are reported here for the first time and are to be seen as hypothesis generation, but there is

one particular set of analyses that must be considered as confirmation of a hypothesis. This relates to congenital hydrocephalus. The authors show clear evidence of clustering within time and space, confirming a previous report that I myself had published some 20 years ago. This, supported by animal experimental evidence, confirms a possible infectious aetiology for hydrocephalus. The authors were able to take this one step further and compare the temporal variation of hydrocephalus with isolations of various viruses. They show a strong relationship with the Coxsackie A viruses. Their findings must now provoke studies concerning the possible exposure of mothers to Coxsackie A during those pregnancies which result in infants with congenital hydrocephalus. Other pointers of excitement concern a cluster of eye defects in an area where there was likely to have been high levels of air pollution related to a local incinerator.

In conclusion, this is a very valuable resource for which the authors are to be congratulated. My only quibble would be over the lack of an index. This is a volume that I will put on my bookshelf with pleasure, and refer to frequently.

JEAN GOLDING  
Department of Child Health  
Royal Hospital for Sick Children  
Bristol

**Primary Health Care: Public Involvement, Family Medicine Epidemiology, and Health Economics.** Eds Petra Bergerhoff, D Lehmann, Peter Novak. (Pp 290; DM89.) Springer-Verlag, Heidelberg, 1990. ISBN 3-540-18426-0.

This is a volume of proceedings of a conference organised by the Department of Medical Sociology, University of Ulm, Germany, in which international scientists discuss to what extent the industrial countries are achieving the World Health Organization (WHO) Targets "Health for all by the year 2000".

It is suggested that in many European countries and in America the level of health is stationary due to increased specialisation in the medical sciences as well as to structural flaws in health care systems and increasing cost. To achieve "more health", primary health care on a regional level is considered to be of vital importance—a lesson which the developing countries have already learnt.

Separate sections of the book consider the primary health care system in relation to public involvement, family medicine, epidemiology, health economics, and institutional requirements. Regional variations in primary health care are examined and The Netherlands and Belgium, although neighbours, contrast markedly. The fast growing field of "small area analysis" in health services research is illustrated. Health promotion of chronically ill heart patients is reported from Germany where comprehensive counselling, self help, and patient responsibility are advocated. In Sweden nurse managed hypertension clinics improve the quality of care and lower the costs. From Ireland it is suggested that a more