

## BOOK REVIEWS

**The Strategy of Preventive Medicine.** By Geoffrey Rose. (Pp 138; £17.50.) Oxford Medical Publications, Oxford 1992. ISBN 0-19-262125-4.

During the past decade, Professor Rose's articles about the 'high risk' and 'population' strategies of disease prevention have attracted considerable attention. This book is a development of the same themes, but it is not merely a restatement of the earlier ideas.

Professor Rose begins with a brief discussion of the objectives of preventive medicine. He then shows how the rational choice of preventive policy depends on a knowledge of the shape of the dose-response relationship between exposure and risk (whether linear, curved, or J shaped) and the distribution of exposures within the population. The particular importance of small but widespread risks and the limitations of a preventive policy addressing only people at high risk is addressed in detail. The core of the book deals with the population strategy of prevention, which the author regards as critical in the prevention of mass disease. Professor Rose discusses at length a pair of crucial assumptions underlying the population strategy, namely that the average level of exposure to risk in the population (whether of plasma cholesterol or alcohol intake) determines the prevalence of very high risk exposures and that shifts in the average value will influence that prevalence. The closing sections of the book examine the influences that can produce population-wide changes in risk and the practical and ethical difficulties of attempting to bring about these changes. These issues are simply but skilfully discussed and the political issues are addressed without risking the charge of authoritarianism. The book includes many practical examples. While many are from the field of cardiovascular epidemiology in which Professor Rose is perhaps best known, the implications of population strategies in many other contexts (osteoporosis, radiation induced cancer, mental illness, and violence, for example) are considered.

This book will be of interest to all concerned with the prevention of mass diseases. The arguments put forward are strong and some are beginning to achieve wide currency (the *Health of the Nation* white paper, for example, includes the goal of reducing the average level of systolic blood pressure in the population). However, much of the evidence on the effects of population strategies are based on extrapolations from observational data. The book is a challenge, to the epidemiologist, to the public health physician, and to the politician, to test the population strategy of disease prevention in practice.

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**Alcohol and Drugs: the Scottish Experience.** Eds Martin Plant, Bruce Ritson and Roy Robertson. (Pp 199; £16.95) Edinburgh University Press, Edinburgh, 1992. ISBN 0-7486-0377-8.

The moral crusade against alcohol consumption in Scotland in the earlier part of the 20th century forms the backdrop to this book. This historical perspective informs several contributions and enables comparison of Scotland and other countries, in particular England. While the "Legend of Drunken Scotland" described in chapter 2 still persists, the evidence in other chapters points to little regional variation in modern day Britain, although Scotland does seem to have, for many reasons, higher morbidity associated with alcohol use. Today alcohol is no longer viewed as subversive, and the threat to society is now perceived to come from other drugs, such as heroin and to a lesser extent cannabis. The book contains less detail on the evolution of drug use compared with alcohol in Scotland and virtually all of the contributions relate to injected drug use and its association with AIDS. Part 2 of the book considers "Prevention and Controls" and highlights the difficulties in evaluating the impact of education, advertising, and legal constraints on alcohol/drug use and interventions for "problem" users. Thinking in this area is dominated by the idea that if people are alerted to the dangers of alcohol and drug use they will change their behaviour. John Davies and Niall Coggans point out that the logic of this argument is invalidated by the fact that people engage in all kinds of activities for pleasure and excitement with full knowledge of the dangers involved. Instead they advocate harm reduction policies which reflect the fact that some people regard trying drugs as being both a rational and a positive choice. This perspective, has been influential among those providing services to injected drug users, as described in the last section of the book on "Service Provision". Overall, this volume provides a useful introduction to those seeking a broad overview of past and current concerns in the addictions field in Scotland.

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**Cocaine: Scientific and Social Dimensions,** Ciba Foundation Symposium 166. (Pp 306; £42.50.) John Wiley & Sons, Chichester, 1992. ISBN 0-47193179-9.

This must have been a very interesting symposium, for the book is stimulating, comprehensive, and contains useful information. It considers the pharmacology and toxicity of cocaine, and the epidemiology and treatment of cocaine use.

Some chapters are particularly interesting. David Musto provides a history of cocaine use, concluding that historical investigations of patterns of drug use are important in developing long term views of drug misuse. Don des Jarlais has found that injecting cocaine may be more strongly related to exposure to HIV than injecting heroin, and discusses the exchange of sex for crack cocaine.

Liberalisation of drugs law is considered in various chapters. Reese Jones, suggests a number of alternative treatment strategies, including prescription of cocaine in safer, controllable form. Alan Maynard presents

arguments for and against this, mainly with regard to costs of current drug enforcement policies in the UK (£140 million in 1988).

I found the penultimate chapter most thought provoking. In it, Brenda Almond discusses the ethical issues surrounding drug abuse. With reference to Plato, Kant, and Mill, this chapter concludes that there are no ethical reasons for decriminalisation of drugs, and that an individual decision to use drugs "cannot be ethically justified". The arguments are narrow, but nonetheless interesting.

Overall, I found this book very useful. Because each chapter contains many references, it is also a good starting point for further reading. A couple of the chapters are excessively theoretical, however, especially the chapter on "casual users" of cocaine. Also, the discussion sections at the end of some chapters are often too long, and I think that a brief summary of the discussion points would be equally informative. Finally, it is disappointing that only two of the contributors, apart from the chairman, were from the UK.

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**Growth, maturation and body composition: the Fels longitudinal study 1929-1991.** By Alex F Roche. (Pp 282; £37.50.) Cambridge University Press, Cambridge, 1992. ISBN 0-521-37449-9.

It is salutary to be reminded that earlier this century the onset of an economic depression prompted the business community to fund research to discover how to protect children from the worst effects of such far reaching monetary disaster. It is interesting not only for the perception of the research opportunity, but also for the assumption of long term risk inherent in the consequent design of the projects. Alex Roche describes how in the late 1920s and early 1930s a series of now renowned American longitudinal multi-disciplinary studies were begun in "a sudden rush", including the Fels longitudinal study, which is the subject of this book.

Mr Fels, a Philadelphia industrialist and philanthropist who financed the enterprise, ignored the scepticism about the potential value of a study from conception to adulthood. Accordingly, the Fels study began in 1930, collecting data in one community from volunteer women during pregnancy, enrolled at the rate of up to 20 per annum from then on, with a gap only between 1974 and 1981. The population now comprises 1036 men and women on whom a wide range of biological, cognitive, behavioural, and social data have been collected.

The gradual data collection and slow enrolment of the study population enabled the investigators to maintain strong quality control. Scrupulous attention to detail and local recruitment no doubt enabled the researchers to achieve extraordinary feats of data collection, including persuading 205 mothers to keep daily dietary records for between four and seven months.

The value of such a study is clear in the detailed Fels work on growth; but the design impeded work on other kinds. For instance findings, described here, of work in the 1930s on the fetal effects of maternal smoking, were far ahead of their time, but were not pursued because the small sample size and the marked

variability in findings threw doubt on their value. Roche, who has worked on the Fels study for most of his career, candidly describes both the problems as well as the achievements in the history of this long term study, including its rescue on two occasions from intellectual stagnation—once in a re-orientation in the 1950s when the value of the archive was recognised not only as a detailed and wide ranging data collection of information, but also as a resource for hypothesis testing; and again in 1976 when work began on risk factors for cardiovascular disease.

This book summarises the study's most consistent strands of work, on growth, maturation, and development, as well as the findings on risk factors for cardiovascular illness. The main purpose of the work was the study of individual development, and there was much less work on secular trends. The book provides an invaluable bibliography of published material on these topics.

The Fels study, like most of the other American developmental investigations begun at the same time, for example the Berkeley and Oakland growth studies, has also been used since the 1960s for social and psychological studies. Although discussed disappointingly little in this volume, between them these studies did indeed show the powerful effects of the great American depression on the physical and mental health, development and wellbeing of children, and the long term effects on adult life of the experience of such adversity in childhood.

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**Personality, Elevated Blood Pressure, and Essential Hypertension.** Eds E H Johnson, W D Gentry, and S Julius. (Pp 344; £42.00) Hemisphere Publishing, Washington, 1992. ISBN 1-56032-142-3

This book is the latest in a series of publications on health psychology and behavioural medicine. It aims to bring together research into personality factors, cardiovascular reactivity, and hypertension, and should therefore be of interest to many different groups.

It is divided into four sections, the first of which describes methods of measuring personality, including questionnaires and interview techniques, and examines studies that have shown a link between personality and hypertension. Several chapters concentrate specifically on the measurement of anger and type A personality, but there is unfortunately little mention of blood pressure measurement and its associated problems, particularly observer variability. The second section of the book focuses on the role of stress induced cardiovascular reactivity in blood pressure research, describing the changes in blood pressure that occur during everyday activities, and how these may predict the development of essential hypertension. The third section discusses pathophysiological mechanisms linking personality factors and blood pressure, concentrating particularly on the possible roles of sympathetic tone and insulinaemia, and how these pathways might be affected by

dental meditation. A discussion of how these factors might be affected by personality and whether the relationship is one of cause or effect is included in the final section. The final section also considers possible confounding factors and outlines areas of future research. It includes a comprehensive definition of personality that might more usefully have been included in the first chapter.

In general, the book seems to have been well researched and represents a comprehensive overview of information obtained from a variety of different specialities. It might be criticised for some repetition and a lack of continuity, but it should be a useful text for anyone concerned with cardiovascular disease research who is interested in the underlying mechanisms and regulatory responses associated with personality factors.

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**The Childhood Environment and Adult Disease.** Ciba Foundation Symposium 156. (Pp 234; £39.50) Chichester, Wiley and Sons, 1991. ISBN 0-471929573.

There is much merit in bringing together an interdisciplinary group of researchers with a common interest, in this case the importance of early life events in determining adult disease. However, the success or failure of such an enterprise is dependent on finding a "common" language. The proceedings of this symposium on the whole succeeds in being accessible to readers from different disciplines, although at times is fairly heavy going. Both observational epidemiological as well as animal experimental evidence is presented. The various strands of evidence are tied together under the concept of "programming", a process whereby an abnormality in a "critical period" leads to irreversible damage that persists into adulthood. This concept is most elegantly illustrated by the work of Blakemore and the effects of visual deprivation. However, alternative explanations exist to explain the associations between abnormalities in early life and adult disease. As Barker points out (p204), an adverse effect in early life may simply increase vulnerability in later life, hence the importance of an interaction between effects acting throughout an individual's life. This idea is elaborated in the chapter by Michael Rutter on the psychosocial consequences of early experience. Mott *et al* also present interesting data on how both infant and adult diets in baboons affect bile acid excretion and cholesterol production. In addition abnormalities in early life may simply be a marker of later adverse effects. To overcome confounding it is necessary to either undertake experimental studies or obtain observational data on unusual populations where this confounding is broken.

From the epidemiological perspective this book has largely been overtaken by successive publications from the Southampton group, but it still contains an interesting collection of basic science research. Such work is essential to generate more specific hypotheses on the possible mechanisms by which early life factors may play a long term role in disease aetiology.

YOAV BEN-SHLOMO

## Short reviews

**AIDS up to the year 2000. Epidemiological, Sociocultural, and Economic Scenario Analysis for the Netherlands.** Steering Committee on Future Health Scenarios. (Pp 314; £52.00) Dordrecht, Kluwer, 1992. ISBN 0-7923-1895-1.

The epidemiological, sociocultural and economic scenario of AIDS in the Netherlands is discussed in this publication produced by an expert committee. The main purpose is to project the impact of AIDS up to the year 2000 accounting for significant changes in such diverse fields as sexual behaviour, drug use, the effectiveness and organisation of AIDS prevention programmes, and the demand for delivery of care. This book should be of interest to those involved in the planning of services for AIDS.

**Current Issues in Cancers.** Ed G M Mead. (Pp 147; £9.95.) British Medical Journal, London, 1992. ISBN 9-780727-907752

Oncologists describe today's practice and what is known about the biology of various cancers. Some of the most common cancers such as lung, early breast, and colorectal cancers are covered as are rare diseases such as Hodgkin's lymphoma which may act as models for research in other cancers. Detailed but readable this book provides valuable information for those who are not specialists and perhaps epidemiologists who wish to know more about the present state of knowledge of cancer and its management.

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## NOTICE

**Making New Friends: The Public Health Challenge in Primary Care.** A one day conference organised by the Public Health Alliance for all those interested in the purchase and provision of health promotion in primary care will take place in Birmingham on 6 July 1993. Contact address: The Public Health Alliance, Room 204, Snow Hill House, 10-15 Livery Street, Birmingham B3