Book reviews

Persons at High Risk of Cancer: An Approach to Cancer Etiology and Control. Edited by Joseph F. Fraumeni, Jr. (Pp. 544; no price given). National Cancer Institute: Bethesda, Maryland and Academic Press: New York.

The basis of this book is a conference called to define the present state of knowledge of risk factors in cancer, and thence to apply that knowledge more expeditiously in the identification and protection of high-risk subgroups of the population. Supported by the American Cancer Society and the National Cancer Institute the conference was attended by nearly 100 people, mainly from the USA, interested in various aspects of cancer epidemiology.

It is an excellent up-to-date and authoritative reference book for virtually all the risk factors in human cancer. Individually, whether by site of tumour or by aetiological factor, the comprehensive index provides the location of all references to the subject, and can lead to a rapid summary of current knowledge. In the body of the book the subject-matter is dealt with in 32 chapters divided into five sections, followed by an *Envoi*. Each chapter is of the same general form: a paper, varying in length from half a dozen to 20 or more pages, reviewing the particular topic of its title, with a summary, and a list of references (amounting to over 200 in some cases), and a discussion, which is a precis of what followed the delivery of the original paper.

Each of the five sections concludes with an overview which, in different ways as suits its author's intention, provides a conspectus of the section and its relevance to the main theme of the book. The first section, Host Factors, deals with genetic and familial susceptibility, immune deficiency and predisposing diseases, pre-cancerous lesions and multiple primaries. The next section is headed Environmental Factors, and as befits its title is the longest single section. Occupation is one of the chapter-headings of this section, and it includes a useful classification of occupa-

tional carcinogens. Among other chapters of this section are Tobacco, Alcohol, Radiation, Drugs, Diet, Air Pollution. The third section includes demographic and geographical factors and is based both on studies of worldwide comparisons, and on internal studies of the USA. In the first chapter of the fourth section, Higginson lists high-risk groups by exposure patterns to chemical carcinogens, giving the sites affected, the relative risk and the latent period. Screening methods and other detection, and education of the public are in the same section. The fifth section attempts a further delineation of high-risk groups, and includes an important chapter by Selikoff and Hammond on multiple risk factors in environmental cancer, describing the synergistic effects for instance of asbestos exposure and cigarette smoking in the aetiology of bronchial cancer. The overview chapter of this section, by Knudson, is also an overview of the whole of the book. The final two chapters (the *Envoi*) are based on the findings of two discussion groups set up at the meeting, and provide valuable summaries of the conference in terms of the future prospects and opportunities for cancer control, and for cancer aetiology.

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Shiftwork: Economic Advantages and Social Costs. By M. Maurice. (Pp. 146; 15 Sw. fr.). International Labour Office: Geneva. 1975.

The International Labour Office had an early interest in this subject, three of the six conventions adopted at its opening session in Washington in 1919 being concerned with hours of work or night work. The current publication (translated from French) is one of a number planned by the International Labour Office in the area of hours of work or their arrangement and 'is intended as a general introduction to the question'.

In that it covers extent and kinds of shiftwork, reasons for its introduction, effects on health, performance, social life, and so on, it does not differ from a number

of other reviews of the subject which have appeared in recent years. This would not matter if its content really did fulfil the promise of the introduction that the various aspects of the subject would be dealt with 'on the basis of the information available'.

Frankly, however, it is not very up to date. For example, although it makes a number of references to the Industrial Society's 1966 survey of 'current practice in Great Britain' it ignores the Society's follow-up survey in 1970 which illustrated a number of changes in shift practice. Only 12 of the 121 references are dated after 1966; only one is later than 1969. This is not necessarily a criticism of earlier material, although a number of the conclusions about shiftwork derived from wartime and earlier studies no longer apply under changed social and economic conditions, but it does undermine the author's avowed aim of encouraging research by pointing out gaps in the evidence.

There are certainly gaps in the evidence still, but not quite so great as this review suggests. It shows in particular a curious reluctance to make use of the last 10 years of British research (some of which has been reported in the *British Journal of Industrial Medicine*). For example, it is a little hard to discuss questions of health and absence in relation to shifts without any reference to the work of Taylor and his colleagues at the London School of Hygiene, to say nothing of Taylor's earlier studies on shiftwork and absence in the oil-refining industry.

Other major omissions include the National Board for Prices and Incomes' 1970 report on *Hours of work, overtime, and shiftwork* (particularly for its discussion of social effects); the experimental studies of Colquhoun and his colleagues at Cambridge and Sussex on hours of work and performance; and the more recent investigations of Wedderburn in the steel industry. In all these studies there is a wealth of well-documented evidence, based on carefully planned and executed research, to open up some of