

The Development of Modern Epidemiology. Personal reports from those who are there

Book review

by

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This book is a nighttime reading book. It was published to celebrate the 50th anniversary of the International Epidemiological Association (IEA). The book collects the experiences of scientists who have been in the frontline of tackling conditions that affect humankind, by improving health services, reducing environmental and occupational hazard and in developing methods that can be applied to these problems.

A very interesting part of the book is that each of the contributors provides insight into how they came to the subject. A major drive for most of them is the recognition that there was a wider perspective than the treatment of individual patients if one wishes to influence health. They illustrate their commitment to the improvement not only of knowledge but also of the social conditions and health of populations.

The book is organised in themes. A first section gives an historical account of epidemiological concepts and ideas and portrays the current importance of the subject to the WHO and to global health issues. In the second section, the contribution of epidemiological knowledge to a number of specific disease areas (e.g. cancer, cardiovascular diseases, malaria, and tuberculosis) is described. Without being comprehensive, the illustrations provide insight into how epidemiological development in its concepts and methods has contributed to developments in health improvement and health policy in both communicable and non-communicable disease. As an example, the chapter on perinatal epidemiology illustrates how good epidemiology can make the improvement in maternal and child health and how it helps in the formulation of health policy. The chapter on 'Epidemiology in war and disasters' indicates how epidemiology can be used in coping with these situations, what actions can and should be taken, but also in questioning the way in which the findings are used. Section three describes the application and role of epidemiology in related domains such as public health, health services research, occupational and environmental epidemiology, social epidemiology and nutritional epidemiology. In the chapter on nutritional epidemiology, for example, two remarkable epidemiological developments are used to illustrate the necessity for a proper balance between the study of biological mechanisms and the study of phenomena of popula-

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tion health. First it is outlined how epidemiological observations followed by laboratory observations and a randomised controlled trial have led to the elimination of iodine deficiency disorder. The second example, about the investigation of diet in the aetiology of heart disease, demonstrates the complexity of the subject as the same findings were observed in the US and Australia but could not be demonstrated in the UK. Section four is mainly concerned with the methodological developments. It also illustrates the differences in views regarding the changes from concern with biology to reliance on mathematics. In this section the chapter on clinical epidemiology provides a balanced account and emphasises that clinicians now understand that epidemiology enables the application of a scientific approach to clinical medicine and that it has helped to involve health economists in epidemiology. The last section looks at the development of epidemiology and the concerns of individual countries and regions.

The book illustrates how over the years epidemiology has become a respected subject in medicine as epidemiological findings not only have contributed to the knowledge on specific diseases but also enabled major advances in preventing some diseases from occurring and eliminating others. The subject has been accepted by clinicians and has been used by them in the development of medical sciences, treatment and prevention. Which cannot necessarily be said of health policy makers.

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