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## Buchbesprechungen/Analyses de livres

### Risiken durch ionisierende Strahlung und chemotoxische Stoffe: Quantifizierung, Vergleich, Akzeptanz.

Hähnel S., Heller H. (Hrsg.): *Klausurtagung 7./8. Dezember 1989. Veröffentlichungen der Strahlenschutzkommission, Bd.20. Stuttgart, Jena, New York: G. Fischer 1992. IX, 200 pp. ISBN 3-437-11452-2*

Der Strahlenschutz beruht auf Risikoschätzungen. Der Risikobegriff steht auch im Brennpunkt anderer Disziplinen, vorab der Epidemiologie und des Versicherungswesens. Dabei hat jede Fachwissenschaft entsprechend ihrem Gebiet eigene Schadens-, Gefahr- und Risikobegriffe ausgebildet. Im allgemeinen gehen in den Risikobegriff die zu erwartende Häufigkeit des Risikoereignisses und das beim Ereignisseintritt zu erwartende Schadensausmass ein. Am detailliertesten ist die Begriffsbildung bei der Quantifizierung der Schäden durch ionisierende Strahlung und deren Extrapolation auf niedrige Strahlendosen ausgebaut. In der Toxikologie, z. B. bei der Erfassung chemogenetischer Risiken von Arzneimitteln, ist die Standardisierung nicht soweit gediehen. Nicht banal ist der Einbezug der Zeit (mit den Aspekten Alter und

Nachbeobachtungsdauer) bei der Berechnung und Wahl der Risikomasse. Soweit einige Punkte zur ‚objektiven‘ Risikoermittlung, die in dieser interdisziplinären Monographie zur Sprache kommen.

Nicht minder lohnend sind die Kapitel zu den ethischen, psychologischen und sozietaalen Aspekten der Risikoakzeptanz. Objektives und akzeptiertes Risiko gehen oft nicht parallel. Wie lässt sich bei den Ängsten der Bevölkerung rationale Risikopolitik gestalten? Eine oft schwierige Aufgabe besteht darin, Risiken der Allgemeinheit verständlich zu machen. Risikoausagen geschehen oft isoliert, auch in der Epidemiologie. Die Beiträge dieses Buches (mit weiterführenden Literaturangaben!) vermitteln konzentriert Argumente und Anregungen für die Integration von Resultaten aus den Einzelwissenschaften in die gesellschaftlichen Informations- und Entscheidungsprozesse.

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### Coronary heart disease epidemiology: From Aetiology to Public Health

*Michael Marmot, Paul Elliott (eds.) ISBN 0-19-262124-6, Oxford University Press, Oxford OX2 6DP, United Kingdom, Oxford, New York, Toronto, 1992, 547 pp., Cloth Price 89.00 \**

Coronary heart disease (CHD) epidemiology is one of the success stories of modern medicine which has, however, never been comprehensively recorded in a book, except for the "Lectures in Preventive Cardiology" by J. Stamler, published in 1967, when the great wave of preventive trials had only begun. This gap has now been filled by an outstanding and eminently readable account which, as the editors say, "... started life as a Festschrift and ended as a textbook". The immediate occasion was the 65th birthday and retirement of Professor Geoffrey Rose who has played by far one of the key roles in establishing cardiovascular disease epidemiology as a science, leading the way to its prevention. A brief preface by the editors is followed by a foreword by K. Pyörälä which records the remarkable career of G. Rose, in itself a part of the history of CHD epidemiology. One

of Rose's great contributions is the bridge which he helped to build between clinicians and epidemiologists and it is particularly appropriate, therefore, that a further and delightful foreword is written by Sir Stanley Peart who was Rose's clinical colleague at St. Mary's Hospital in London. The stage for the main part of the book is set by an "Introduction", consisting of 2 chapters. The first is written by M. G. Marmot, the senior editor and Rose's successor as the Professor of Epidemiology at the London School of Hygiene and Tropical Medicine, tracing the modern epidemic of CHD in its rise and fall during the past decades. The second chapter is entitled "Contribution of epidemiology to understanding coronary heart disease" by F. H. Epstein, being a review of the development of CHD epidemiology since the end of the 1940s in terms of the lessons it taught. Following the "Introduction", the book is divided into 2 main sections, entitled "Aetiology" and "Public Health", reflecting the logical sequence from the knowledge of causes to its application toward prevention. There are 18 chapters in the first and 14 chapters in the second section, all written by epidemiologists who have been G. Rose's colleagues, friends and collaborators in research. This choice relates to the book being both a Festschrift and a textbook. For a textbook, the first consideration would have been expertise but, as the editors state in the preface, there was no conflict since expertise and personal association with G. Rose overlapped to a high degree. The textbook will surely be required reading for all cardiovascular disease epidemiologists who ought to want it not only for reference but as a source of data and ideas some of which even to them will be new. Other chronic disease epidemiologists can recognize in cardiovascular disease epidemiology a model which is relevant to the

prediction and prevention of chronic diseases in general. Graduate students with a background knowledge should find the book invaluable and an illustration of the "power and glory" of epidemiology; this might also apply to medical students with an inclination toward epidemiology.

The section on "Aetiology" starts with an encompassing review of the major risk factors by J. Stamler, followed by an up-to-date summary of the Framingham experience by W. B. Kannel. The early years of life are covered by a contribution on the maternal and infant origins of cardiovascular disease (D. J. P. Barker and C. Osmond) and a chapter on CHD risk factors in childhood by D. R. Labarthe. Concerning the elderly, there are chapters on blood pressure (C. J. Bulpitt) and CHD at older ages (W. R. Harlan and T. A. Manolio). The regional variations in CHD in Great Britain are related to environmental changes by A. G. Shaper and J. Elford. Moving on to nutrition, D. Kromhout and B. P. M. Bloemberg describe the methods used in nutritional epidemiology and H. Kesteloot and J. V. Joosens relate nutrition to international patterns of disease. The design and analytical approaches used in the INTERSALT study on the relation between salt consumption and blood pressure are presented by the co-editor, P. Elliot. A chapter on linoleic acid and antioxidant vitamins (D. A. Wood and M. F. Oliver) is followed by another on fish and fiber (P. C. Elwood, M. L. Burr and P. M. Sweetnam). Attention is drawn to metabolic factors in a contribution on "Diabetes, insulin, ethnicity" (P. M. McKeigue and H. Keen) and on obesity and fat distribution (B. Larsson). One of the founding fathers of CHD epidemiology, J. N. Morris, writes on "Exercise versus heart attack: history of a hypothesis". Equally authoritative accounts are given by T. Theorell on

the psycho-social environment and stress, on sex differences and hormones by K.-T. Khaw and E. Barrett-Connor, and on "Atheroma and thrombosis in cardiovascular disease: separate or complementary?" by T. W. Meade. The section is concluded by a chapter on the relationship between CHD risk factors and non-cardiovascular disease by A. Menotti; the recently intensified interest in the "low cholesterol" issue is but a part of this broader question.

The application of all this knowledge is dealt with in the section on "Public Health". It appropriately begins with a contribution by Geoffrey Rose himself, presenting the basic principle of the "strategy of prevention" in terms of the individual and the population. The subsequent 3 chapters are concerned with the high-risk strategy: N. R. Poulter and P. S. Sever address blood pressure, B. Lewis covers cholesterol and N. J. Wald discusses screening. Before moving further, the chapter of L. H. Kuller takes a last look, as it were, at the evidence in favor of prevention, assessing it in terms of the associated benefits and risks and providing at the same time a fascinating look into the workings of an epidemiologist's mind. The statistical approaches to assessing the evidence are considered by S. J. Pocock and S. G. Thompson, with special regard to meta-analysis. Moving further, secondary prevention of CHD is reviewed by L. Wilhelmsen and S. Johansson and the primary prevention of hypertension in the population, breaking new ground, by R. Stamler. The road from observation to policy is followed for cholesterol by B. M. Rifkind, illustrated by the pioneering experiences of the national programs in the United States; the same road for smoking is described by D. Simpson and K. Ball, stating the issues and indicating the main points of attack. Monitoring CHD in the community is a pre-requisite for

measuring changes in the burden of the disease as the result of preventive actions; H. Tunstall-Pedoe traces the development and methodology of monitoring systems. The ability to change behavior is the obvious sine-qua-non of any prevention program. Attempts to change individual behavior in multi-factorial intervention studies and their success are examined by M. Kornitzer. The crucial issues of changing community behavior, its scientific bases and its evaluation are comprehensively reviewed by H. Blackburn. The role of organized public health in cardiovascular disease prevention is the subject of a masterly treatise by the late R. D. Remington, providing at the same time a compelling view of what public health should and could be. The last chapter deals with national strategies for dietary change, changing diet also being, a sine-qua-non of CHD prevention: W.P.T. James and A. Ralph provide a profound insight into the problems involved; one example relates to the conflict between nutrition policy which is health-oriented and food policy which is primarily directed by the interests of agriculture and the food industry.

A book review is suspicious if it has only praise and is devoid of criticisms. The contributors have clearly all given their best and being as good as the are (the present writer is disqualified, being one of them!), their best is the best there is. Even though one's own work tends to be emphasized in a contribution to a Festschrift while a textbook requires comprehensive reviews, the authors have largely steered a successful middle course between these two guideposts. For a textbook, it might have been desirable to devote a separate chapter to the massive evidence from intervention studies which provide the link between etiology and public health; while the individual chapters mostly do refer to trials where

it is necessary, the total impact of their decisive importance is not conveyed. A textbook, too, in this day and age, ought to include a chapter of genetics, if only to put its role into perspective; presumably it was the intent to focus on lifestyles and environmental influences, pre-eminently important as they are for prevention. "Epidemiology is what the epidemiologist does" is one of the definitions of this discipline which is hard to define because of its many facets. All in all, this wonderful, stimulating and informative book presents a faithful picture of what cardiovascular disease epidemiologists do and it is also a joy to read. The message it carries is that, given the will, there is, a way to effective prevention.

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\* it is not specified if these are dollars or pounds