Statistical Methods in Environmental Epidemiology

Duncan C. Thomas
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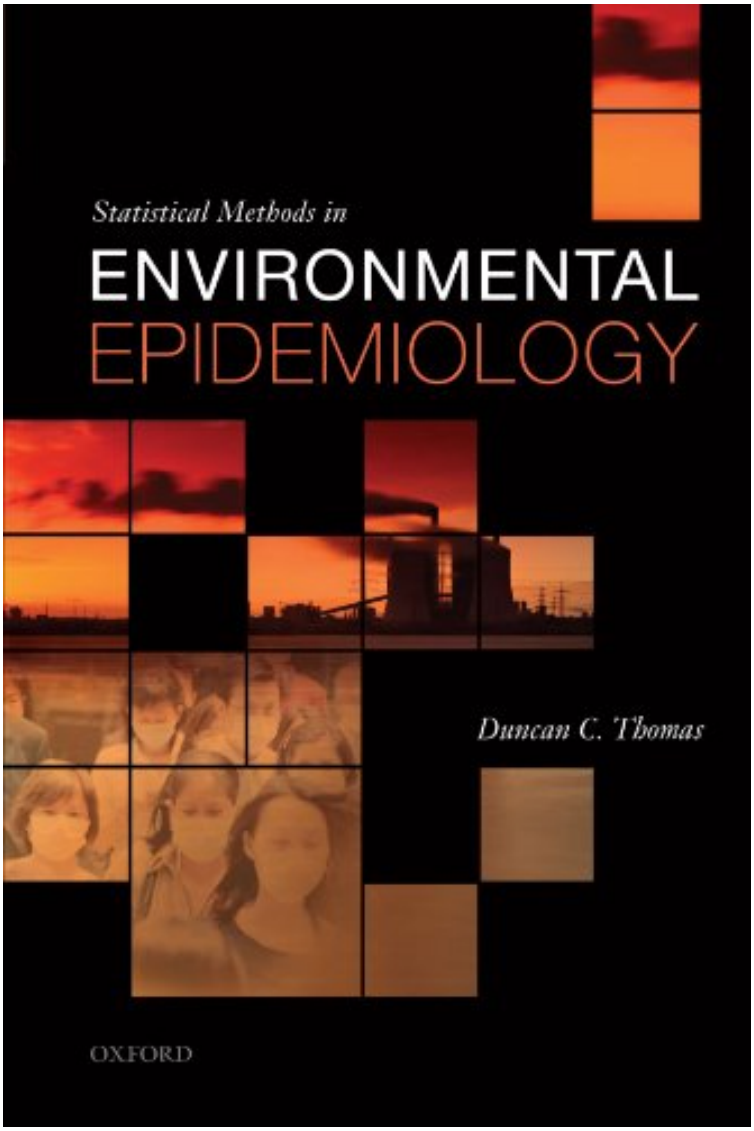

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Duncan C. Thomas : Statistical Methods in Environmental Epidemiology before purchasing it in order to gage whether or not it would be worth my time, and all praised Statistical Methods in Environmental Epidemiology:

5 of 5 people found the following review helpful. stats for environmental epiBy amthe book is great, but it covers some topics superficially. there are general chapters that you don't need to review if you know some basic stats, and would not get this book if you did not know basic stats, therefore those chapters are useless. the notation could be improved (for example, all terms could be defined below the equations for the readers who are not reading all the chapters in order). references are great and so are the examples.the delivery of the book was timely and neat.

Environmental epidemiology is the study of the environmental causes of disease in populations and how these risks vary in relation to intensity and duration of exposure and other factors like genetic susceptibility. As such, it is the basic science upon which governmental safety standards and compensation policies for environmental and occupational exposure are based. Profusely illustrated with examples from the epidemiologic literature on ionizing radiation and air `ollution, this text provides a systematic treatment of the statistical challenges that arise in environmental health studies and the use of epidemiologic data in formulating public policy, at a level suitable for graduate students and epidemiologic researchers. After a general overview of study design and statistical methods for epidemiology generally, the book goes on to address the problems that are unique to environmental health studies, special-purpose designs like two-phase case-control studies and countermatching, statistical methods for modeling exposure-time-response relationships, longitudinal and time-series studies, spatial and ecologic methods, exposure measurement error, interactions, and mechanistic models. It also discusses studies aimed at evaluating the public health benefits of interventions to improve the environment, the use of epidemiologic data to establish environmental safety standards and compensation policy, and concludes with emerging problems in reproductive epidemiology, natural and man-made disasters like global warming, and the global burden of environmentally caused disease. No other book provides such a broad perspective on the methodological challenges in this field at a level accessible to both epidemiologists and statisticians.

Featured in Mathematical sAbout the AuthorDr. Thomas is Professor of Preventive Medicine, Director of the Biostatistics Division, and Verna R. Richter Chair in Cancer Research at the University of Southern California Keck School of Medicine. He received his undergraduate degree from Haverford College, an M.S. in Mathematics from Stanford University, and a Ph.D. in Epidemiology and Biostatistics from McGill University in 1976. His primary research interest has been in the development of statistical methods in epidemiology, both environmental and genetic. He was a member of President Clinton's Advisory Committee on Human Radiation Experiments, as well as the National Academy of Sciences Committee on the Biological Effects of Ionizing Radiation (BEIR V), and radiation advisory committees for other governmental agencies. Dr. Thomas has many publications in statistical genetics, including the textbook Statistical Methods in Genetic Epidemiology (OUP, 2004), and is a past President of the International Genetic Epidiology Society. Books by the same author: Statistical Methods in Genetic Epidemiology, 2004