



Occupational Health and Safety for the 21st Century

By Robert H Friis

PhD, Emeritus Professor and Chair, Department of Health Science - California State University, Long Beach, California, USA

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Professor Friis is a Member of the Royal Society for Public Health, and has written several books, including textbooks on epidemiology, environmental health, biostatistics and public health. Professor Friis has extensive experience in his field: he is a former director of the California State University, Long Beach Health Care System Joint Studies Institute, and a former clinical Professor of Community and Environmental Medicine at the University of California, at Irvine. He has worked in many departments, including Clinical Medicine, Neurology, and Social Ecology, and has researched and published extensively in the US and abroad. He also has practical experience working in the field of epidemiology and applying public health knowledge during the everyday functions of a local US Health Department. He believes in using hazard and disease surveillance data for their true purpose: the prevention of disease.

Prof. Friis has written a book extensively covering his field of worker health. The book consists of 10 chapters covering: occupational health policy; epidemiology and toxicology; chemical, physical and biological hazards; major occupational diseases; injuries and fatalities; psychosocial stress; and the prevention of occupational diseases.

Using reputable published and peer-reviewed information, the book delves into the history of occupational health from Ancient Greece to the present. The text explores far-ranging occupational environmental hazards, from radiation to biological and ergonomic exposures. He reviews the potential health effects of these hazards and identifies procedures for preventing illnesses and injuries.

He provides fascinating case reports, bringing diverse topics to life, such as illnesses arising from exposure to organic bone dusts, and the effects of psychological stress at work. One such example is a case, from 1937, of Mad Hatter's syndrome in a hat maker, where the tell-tale symptoms of shyness, headaches, and twitching from mercury poisoning are described. Prof. Friis has expertly summarised the original research paper into a shortened 140 word summary.

The chapter on epidemiology and toxicology comprises 42 pages dedicated to basic concepts and relevant definitions, beginning with John Snow's epidemiological detective work in 1854 to trace the source of a London cholera outbreak.

The writing is easy to follow, with subtle humour, and the language used makes difficult topics easy to understand. For example, in a table headed 'The process of epidemiological inference' he

paraphrases the concept to 'How epidemiologists think about data'.

Practical advice is frequently presented. A chemical hygiene and safety plan (CHP) is a written programme stating the policies, procedures and responsibilities required by US Occupational Safety and Health Administration (OSHA) to protect workers from chemicals that are used in a workplace. The CHP for chemical storage at the Lawrence Berkley National Laboratory is presented as an example.

Chapter Two on policy provides insights into the workings of OSHA and other policy-making bodies. A table describing OSHA's inspection priorities, accessed from the OSHA website (2014), as well as information on the most frequently cited violations, is provided. The legislation in the US is designed to be 'technologically forcing' and the implementation of these policies and the diligence of OSHA has been particularly successful in the case of coal mines: the annual death toll in the early 19th century was in the order of thousands; it had decreased to 19 by 2012. There are valuable lessons to be learned from the discourse to emulate this scenario.

Apart from the US Federal agencies for occupational health and safety, such as OSHA, National Institutes for Health, Environmental Health Sciences, and The National Institute for Occupational Safety and Health (NIOSH), the book references a list of 13 private organisations dealing with health and safety in US workplaces, including the National Examination Board in Occupational Safety and Health (NEBOSH), an independent accreditation-awarding body. The information presented in this regard gives a glimpse of how state and private bodies contribute to effective health and safety service delivery.

The book can be used as a textbook for both undergraduate and post-graduate students, as well as for seasoned occupational health practitioners. Useful features include relevant illustrations and definitions, learning objectives for each chapter, chapter outlines, and study questions and exercises. There is also a comprehensive 16-page section on basic occupational health terms which is useful for the novice.

I highly recommend this book as a resource for teaching as well as for self-study.

Review by:

Kevin Renton

e-mail: kevin.renton92@gmail.com