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RISK ASSESSMENT FOR ENVIRONMENTAL HEALTH

Mark Robson
William Toscano
Editors



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PREFACE

Understanding risk to humans is one of the most important challenges in environmental public health. Over the past twenty-five years, schools of public health have developed courses to meet the growing needs of environmental health students as well as other public health disciplines to understand the risk assessment process used by government, industry, and academic researchers.

Courses in risk assessment in schools of public health vary in the approaches taken. In discussion with colleagues, it became apparent to us that there is no appropriate text that covers environmental health risk assessment and meets the needs of public health students. Because of the importance of risk assessment in environmental and occupational health sciences, the Environmental and Occupational Health Council of the Association of Schools of Public Health selected risk assessment as a topic for their annual summer meeting held in 2004 at the University of Minnesota. We organized and chaired the meeting and used it as the framework on which to build a risk assessment textbook. This textbook is the deliverable for the 2004 Minneapolis meeting. It is written primarily by faculty colleagues at the member schools of the Association of Schools of Public Health. The chapters and topics in this volume were identified at the meeting as the most relevant for textbook use in a graduate-level introduction to the risk assessment process. In addition, case studies used by faculty for illustrative purposes in their own courses are included.

This book should be considered a useful primary resource for students in public health, environmental science, environmental engineering, and other related disciplines. There are many other important references used by faculty: the classic “Red Book,” *Issues in Risk Assessment* (1993) from the National Academy of Sciences, the WHO document *Human Exposure Assessment: An Introduction* (2001), and the EPA Superfund document *Volume I: Human Health Evaluation Manual, Part A* (1989).

Risk assessment is constantly changing with the advent of new exposure assessment tools, more sophisticated models, and a better understanding of disease processes. Risk assessment is also gaining greater acceptance in the developing world, where major environmental problems exist.

We hope you find this textbook of value in your teaching, and we welcome your comments on improving the chapters, adding case studies, and expanding the topics contained in the text.

Acknowledgments

We express our deep thanks to all the authors who contributed to this book. This volume was developed in response to a general agreement that there were few textbooks appropriate for graduate students studying environmental health risk assessment. We were overwhelmingly pleased when many of the faculty who expressed a need for a textbook on this subject were the very same authors who agreed to contribute to the text. We also thank the individuals from our public health partners who contributed to this book. We hope that the content of the textbook reflects the appropriately diverse backgrounds of the authors.

The staff of the Association of Schools of Public Health (ASPH) deserve credit for keeping this project on track—particularly in keeping its editors on task despite our most serious efforts to the contrary. Without the support of the ASPH staff on this project, this book would not have been published.

We also thank the staff of Jossey-Bass/Wiley for their support on this project. Their guidance and support made this a rich learning experience for all involved. In particular, we thank our editor, Andy Pasternack, for his unwavering support and for believing in this effort. We also thank Seth Schwartz and Kelsey McGee for their work in pulling these manuscripts together in final format.

We also acknowledge the support of our federal partners, which have provided support for the ASPH Environmental and Occupational Health Council over the past decade, enabling the council to meet and develop this book. These federal agencies include Centers for Disease Control and Prevention, Health Re-

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Lastly, we thank the deans of schools of public health for collectively supporting this project and making this an official publication of the Association of Schools of Public Health Environmental and Occupational Health Council.

September 2006

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