

Environmental Health

From Global to Local

SECOND EDITION

HOWARD FRUMKIN

EDITOR

 **JOSSEY-BASS**
A Wiley Imprint
www.josseybass.com

CONTENTS

Tables, Figures, and Exhibits vii

The Editor xxi

The Contributors xxii

Acknowledgments xxvii

Introduction xxix

Howard Frumkin

PART ONE: METHODS AND PARADIGMS

1. Ecology and Environmental Health 3

Bruce Wilcox and Holly Jessop

2. Toxicology 49

Jason R. Richardson and Gary W. Miller

3. Environmental and Occupational Epidemiology 79

Kyle Steenland and Christine Moe

**4. Exposure Assessment, Industrial Hygiene,
and Environmental Management** 109

P. Barry Ryan

- 5. Environmental Psychology** 137
Daniel Stokols and Chip Clitheroe
- 6. Genetics and Environmental Health** 173
Samuel H. Wilson and William A. Suk
- 7. Environmental Health Ethics** 195
Andrew Jameton
- 8. Environmental Justice** 227
Charles Lee

PART TWO: ENVIRONMENTAL HEALTH ON THE GLOBAL SCALE

- 9. Population Pressure** 259
Don Hinrichsen
- 10. Climate Change** 279
Jonathan A. Patz
- 11. Developing Nations** 329
Jerome Nriagu, Jaymie Meliker, and Markey Johnson

PART THREE: ENVIRONMENTAL HEALTH ON THE REGIONAL SCALE

- 12. Air Pollution** 387
Michelle L. Bell and Jonathan M. Samet
- 13. Energy Production** 417
Jeremy J. Hess

14. Healthy Communities 451

Sarah K. Heaton, John M. Balbus, James W. Keck,
and Andrew L. Dannenberg

15. Water and Health 487

Tim Ford

**PART FOUR: ENVIRONMENTAL HEALTH ON THE
LOCAL SCALE**

16. Solid and Hazardous Waste 559

Sven Rodenbeck, Kenneth Orloff, and Henry Falk

17. Pest Control and Pesticides 591

Mark G. Robson, George C. Hamilton, and Wattasit Siriwong

18. Food Safety 635

David McSwane

19. Healthy Buildings 689

Howard Frumkin

20. Workplace Health and Safety 729

Melissa Perry and Howard Hu

21. Radiation 769

Arthur C. Upton

22. Injuries 805

Jeremy J. Hess and Junaid A. Razzak

23. Environmental Disasters 843

Mark E. Keim

24. Nature Contact 877

Howard Frumkin

25. Children 915

Maida P. Galvez, Joel Forman, and Philip J. Landrigan

PART FIVE: THE PRACTICE OF ENVIRONMENTAL HEALTH**26. Prevention in Environmental Health** 963

Lynn R. Goldman

27. Environmental Health Practice 983

Sarah Kotchian and Robert J. Laumbach

28. Geographic Information Systems 1021

Lance A. Waller

29. Risk Assessment 1037

Scott Bartell

30. Environmental Health Policy 1063

A. Stanley Meiburg

31. Risk Communication 1099

Vincent T. Covello

32. Legal Remedies 1141

Douglas A. Henderson

INDEX 1181