



ENVIRONMENTAL HEALTH

FROM GLOBAL TO LOCAL

Howard Frumkin, Editor

CONTENTS

Tables and Figures ix

The Editor xvii

The Contributors xix

Introduction xxix

Howard Frumkin

PART ONE: METHODS AND PARADIGMS 1

1 Ecology and Human Health 3

John Wegner

2 Toxicology 24

Jason R. Richardson, Gary W. Miller

3 Epidemiology 46

Kyle Steenland, Christine Moe

4 Exposure Assessment, Industrial Hygiene, and Environmental Management 72

P. Barry Ryan

- 5 Environmental Psychology 96
Daniel Stokols, Chip Clitheroe
- 6 Genetics and Environmental Health 128
Samuel H. Wilson
- 7 Environmental Health Ethics 143
Andrew Jameton
- 8 Environmental Justice 170
Charles Lee
- 9 Religious Approaches to Environmental Health 197
Daniel J. Swartz

PART TWO: ENVIRONMENTAL HEALTH ON THE GLOBAL SCALE 219

- 10 Population Pressure 221
Don Hinrichsen
- 11 Climate Change 238
Jonathan A. Patz
- 12 War 269
Barry S. Levy, Victor W. Sidel
- 13 Developing Nations 288
Jerome Nriagu, Jaymie Meliker, Mary Johnson

PART THREE: ENVIRONMENTAL HEALTH ON THE REGIONAL SCALE 329

- 14 Air Pollution 331
Michelle L. Bell, Jonathan M. Samet
- 15 Energy Production 362
Richard Rheingans

- 16 Urbanization 387
Sandro Galea, David Vlahov
- 17 Transportation and Health 414
John Balbus, Dushana Yoganathan Triola
- 18 Water and Health 454
Timothy Ford

PART FOUR: ENVIRONMENTAL HEALTH ON THE LOCAL SCALE 517

- 19 Solid and Hazardous Waste 519
Sven Rodenbeck, Kenneth Orloff, Harvey Rogers, Henry Falk
- 20 Pest Control and Pesticides 544
Mark G. Robson, George C. Hamilton
- 21 Food Safety 581
David McSwane
- 22 Indoor Air 625
Michael J. Hodgson
- 23 Workplace Health and Safety 648
Melissa Perry, Howard Hu
- 24 Radiation 683
Arthur C. Upton
- 25 Injuries 715
Junaid A. Razzak, Jeremy J. Hess, Arthur L. Kellermann
- 26 Disaster Preparedness 745
Eric K. Noji, Catherine Y. Lee
- 27 Nature Contact: A Health Benefit? 781
Howard Frumkin
- 28 Children 805
Maida Galvez, Joel Forman, Philip J. Landrigan

PART FIVE: THE PRACTICE OF ENVIRONMENTAL HEALTH 847

29 Prevention 849

 Joel A. Tickner

30 The Practice of Environmental Health 895

 Sarah Kotchian

31 Geographic Information Systems 926

 Lance A. Waller

32 Risk Assessment 940

 Scott Bartell

33 Environmental Health Policy 961

 Barry L. Johnson

34 Risk Communication 988

 Vincent T. Covello

35 Health Care Services 1010

 Robert Laumbach, Howard M. Kipen

36 Legal Remedies 1032

 Douglas A. Henderson

Name Index 1067

Subject Index 1081