

Global Mapping of Infectious Diseases: Methods, Examples, and Emerging Applications

Simon I. Hay, Alastair Graham,
and David J. Rogers, editors

Academic Press, London,
United Kingdom, 2007
ISBN-10: 012-031762-1, ISBN-13:
978-0120317622
Pages: 399 + 34 plate pages
and DVD; Price: US \$169.95

In 1849, John Snow pioneered the application of mapping to public health by producing a map depicting locations of cholera cases around the Broad Street pump in London (1). Thus, any book describing recent advances in mapping infectious disease is potentially of interest to practicing public health officials. The topics covered in the 11 chapters in this book range from the very technical, such as descriptions of satellite-obtained environmental data, to the geographic and climatic distribution of dengue and yellow fever, plotted in risk maps for those diseases. However, most public health officials will likely find this book overly specialized, particularly the first 4 chapters. These contain detailed descriptions of the technical aspects of measuring, modeling, and analyzing climatic and geospatial data. Public health officials are likely to appreciate the chapters describing the distribution and factors potentially affecting further spread of disease. These chapters present data on the distribution of malaria, dengue, yellow fever, soil-transmitted helminths, and tickborne diseases, and information on how global transport systems and climate changes could alter the distribution of diseases.

Some of the authors have fallen prey to the rather regrettable tendency to address "hot topics," such as bioterrorism and the spread of pandemics, even if such topics are somewhat outside the domain of the rest of the book. The result is that in 1 chapter there are 1 or 2 pages in which the authors briefly, and mostly uncritically, review some of the most well-known literature on these topics. Readers would have been better served had the authors of that chapter focused on vectorborne diseases, for which they are justly well known. Furthermore, even in chapters focusing on practical aspects of disease distribution, many sections contain detailed descriptions of methods that most public health officials are likely to want to skip over. Placed at the back of the book are the color plates of maps (the central feature of such a book). This placement is annoying because it makes it difficult to quickly find the figures being described in a given chapter. Overall, this book is more likely to appeal to the specialist, who will find it a useful addition to a technical library, while most public health officials will likely be better served in seeking a book containing more general descriptions of mapping infectious diseases.

Martin I. Meltzer*

*Centers for Disease Control and Prevention, Atlanta, Georgia, USA

Reference

1. Richardson BW. Snow on cholera. New York: Commonwealth Fund; 1936.

Address for correspondence: Martin I. Meltzer, Centers for Disease Control and Prevention, Mailstop D59, 1600 Clifton Rd NE, Atlanta, GA 30333, USA; email: mmeltzer@cdc.gov

The opinions expressed by authors contributing to this journal do not necessarily reflect the opinions of the Centers for Disease Control and Prevention or the institutions with which the authors are affiliated.

Handbook of Helminthiasis for Public Health

D.W.T. Crompton
and Lorenzo Savioli

Taylor & Francis CRC Press,
London, United Kingdom, 2006
ISBN: 0849333288
Pages: 362; Price: US \$139.95

"I'll never forget the day I read a book." Daniel Pinkwater begins his book commentaries for National Public Radio with this Durante-Barnett tune. This came to mind when I realized I have never before read a textbook on parasitology from start to finish. I usually rely on a reference to refresh my memory about a detail of this or that life cycle or to reinforce a grant application with the number of those afflicted across the globe. Handbook of Helminthiasis for Public Health by D.W.T. Crompton and Lorenzo Savioli, however, bears reading straight through. What makes a complete reading so well worthwhile and also sets the book apart from most on either public health or parasitology is its successful marriage of these 2 points of view. This book covers the most common helminths by focusing on the parts of their biology that are most relevant to public health. Methods for rapid inexpensive surveys, international health initiatives, the economics of boreholes, and latrine design are discussed next to metacercarial development.

The focus on helminths also sets this book apart. In the first place, helminths are naturally engaging because of their ability to integrate their own complex biology with human biology and culture. Second, a significant re-evaluation is under way regarding the influence of parasitic worm infection on health. This refutes the perception in some circles that

most helminthic infections are less harmful than the common cold. The first chapter of this book presents the more complete recent analyses that give a broader view of the true consequences for health.

Handbook of Helminthiasis for Public Health is structured in 3 parts: Human Health and Helminth Infection, Helminthology, and Control Interventions. Part 1 establishes the context for understanding the effects of helminth infections, the economics of these infections, and the resources required to control these infections. These are important aspects of infection because poverty, sanitation, national politics, and economic influences all contribute to the spread of helminthiasis but are often the most neglected aspects of helminth epidemiology. The book also recognizes the importance of urban settings for these infections, which is appropriate for a year during which, many projections say, the global human population becomes predominantly urban. The first chapter returns to specifics by ending with a comprehensive list of helminths that have been found to infect humans, a list that extends for 10 pages.

Part 2, Helminthology, is organized in part by phylogeny and in part by common transmission characteristics; thus, cestodes and schistosomes

are presented in separate chapters while the soil-transmitted and food-borne helminths are grouped together. This section is devoid of the usual life-cycle diagrams but does a good job of describing the biology most relevant to public health surveillance and control measures. Useful diagrams are provided of parasite morphology and a large number of tables and charts about age and geographic distribution, illness rates, response to control campaigns, and drug dosages.

In part 3, Control Interventions, problems such as drug resistance, health education, assessment of health awareness in a population, the structure of latrines, and the place of helminth control in the international political arena are addressed and made concrete by reference to many specific infections covered in the preceding section. The book also offers 4 appendices: a glossary, a list of journals about helminthology and control intervention, detection methods in helminthology for stool samples, and a model framework for control of foodborne trematodes. A list of the 63 tables is provided, and the table of contents is well organized.

No book is without its faults; there are a few frank errors. Death from *Schistosoma mansoni* and *S. japonicum* is primarily a result of portal hypertension and esophageal

bleeding with preservation of hepatic function, rather than hepatic failure as indicated in the book. The immunology references are old, except where current vaccine development is discussed. The book also fails at times from overgeneralization. Cysticercosis is diagnosed in the United States and Canada; it is just rarely transmitted in these countries. More abbreviations (e.g., U5MR, FBT, MDG, FECRT, KAP) should be included in the glossary or index. An abundance of useful figures and tables are provided, but more maps would be useful in Part 2 of the book.

Handbook of Helminthiasis for Public Health is very readable. The core audience, according to the jacket cover, is readers who have a public health background and workers involved in control programs. However, the book should interest parasitologists and even basic researchers who wish to understand the full context of helminth biology.

Ronald Blanton*

*Case Western Reserve University, Cleveland, Ohio, USA

Address for correspondence: Ronald Blanton, Case Western Reserve University, Center for Global Health and Diseases, Wolstein Research Bldg, 2103 Cornell Rd, Cleveland, OH 44106, USA; email: reb6@case.edu

EMERGING INFECTIOUS DISEASES *online*

www.cdc.gov/eid

To receive tables of contents of new issues send an email to listserv@cdc.gov with `subscribe eid-toc` in the body of your message.