Book Review

War Epidemics: An Historical Geography of Infectious Diseases in Military Conflict and Civil Strife, 1850–2000

Matthew Smallman-Raynor, Andrew Cliff. Oxford (England): Oxford University Press; 2004. Hardcover; 842 pages; $270.

War Epidemics is a comprehensive treatise on the subject of war and disease in the modern era. The product of at least 20 years of extensive, exhaustive research in archives around the world, combined with detailed analyses of official military documents, this book reviews, catalogs, quantifies, and compares military and civilian casualties from war, civil disturbances, and their consequences. Although the authors make no claim of providing an encyclopedic review of all war epidemics across the course of human history, and while European conflicts and those associated with British colonialism or occurring in English-speaking countries receive greater attention, the monograph provides a panoramic, global perspective on its subject.

The authors are no strangers to complex topics concerning human health and disease. In collaboration with Peter Haggett, Andrew Cliff coauthored *Atlas of Disease Distributions: Analytic Approaches to Epidemiologic Data* (Oxford University Press, 1988). Both authors also collaborated with Haggett on books concerning measles and global epidemics, and together wrote the landmark *Island Epidemics* (Oxford University Press, 2000). While *War Epidemics* falls within the academic subdiscipline of historical geography, it has clear relevance to epidemiologists, biostatisticians, infectious disease specialists, and public health practitioners.

As with many of the duo's previous monographs, *War Epidemics* is arranged in a topical outline structure, in which each chapter begins with an introduction, followed by sections with subtopics, numbered in a decimal sequence (i.e., section 3.3.4 focuses on geographical patterns of decline in international patterns of 20th century trends in mortality), with figures, tables, and illustrations numbered sequentially within each chapter.

Smallman-Raynor and Cliff divide the monograph into four sections. Part I begins with a delineation of the authors' basic thesis and organizing principles. Immediately following the introductory chapter, the authors review patterns of disease in wars and conflicts prior to the mid-19th century. That they are able to accomplish this task in a mere 60 pages is more a testament to the paucity of accurate and specific source materials concerning casualties of war than to a lack of militarism and the use of force for political, economic, and religious purposes in earlier eras. Although the authors make the disclaimer that their review is incomplete, those interested in the subject will find the discussion and examples invaluable guides to additional studies.

In Part II, temporal trends in mortality and morbidity in warfare since 1850 are examined—first among civilian populations, then among the military, and finally in displaced populations. Within each chapter, sections focus on broad topics interspersed with more focused vignettes. For example, in the chapter on displaced populations, the authors provide background on global patterns of displacement in the second half of the 20th century and on the epidemiologic consequences of displacement. They then turn their attention to a careful study of disease and mortality associated with wartime evacuation in the United Kingdom during World War II.

Part III, which comprises almost half of the monograph, provides a world regional perspective on war epidemics. Following an introductory chapter on methodologies for tracking epidemics, the authors devote separate chapters to infectious disease epidemics associated with wars in the Western Hemisphere, Europe, Asia and the Far East, Africa, and Oceania, concluding with a chapter examining morbidity in the aftermath of conflicts in the Boer War in South Africa (1899–1902), the conflict in Cuba and the Spanish-American War (1888–1902), prisoners of war in Asia (1942–1944), and civilian epidemics in Europe associated with the two World Wars.

The monograph concludes with Part IV, a single chapter on prospects for morbidity, mortality, and disease transmission in future conflicts. This chapter touches on a number of topics of current interest, including emerging infectious diseases, bioterrorism, the effect of militarism on democracy and economic opportunity in both developed and developing countries, and post-combat syndrome, among others.

The authors reveal their logical positivist roots in the quantitative revolution in geographical analysis early and often as the text progresses. They formulate and test hypotheses with biostatistical and spatial statistical methods frequently, and make broad generalizations concerning the patterns their analyses reveal. Among other generalizations, we learn that even as

technological advances in military armaments have made conflicts more deadly, infectious disease—far from being eliminated from battle zones—remains an unwanted partner of modern warfare.

War Epidemics is illustrated throughout with detailed maps, graphics showing temporal trends and statistical relationships among phenomena of interest, statistical tables, and photographs of key individuals, locations, and related illustrations. The authors document the text comprehensively, providing 40 pages of references and an index. Several chapters have appendices describing specific analytical methods in sufficient detail to serve as reference materials for courses in spatial analysis of human health and disease.

While the book's price may seem daunting, it is hoped that the publisher will provide an American paperbound edition, as foreign exchange rates have increased the cost considerably. Comprehensive public health collections should consider acquiring *War Epidemics*, students interested in spatial analysis of health and disease will wish to consult its pages, and interested readers should request that their librarians acquire copies. Given the comprehensive and methodological approach taken by Smallman-Raynor and Cliff, the monograph will become the standard reference on the subject of war and disease for the foreseeable future.

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