## Book Reviews

M R Smallman-Raynor and A D Cliff, War epidemics: an historical geography of infectious diseases in military conflict and civil strife, 1850–2000, Oxford University Press, 2004, pp. xxxv, 805, illus., £100 (hardback 0-19-823364-7).

In this hugely ambitious study, two distinguished historical geographers, M R Smallman-Raynor and A D Cliff, set out to examine the relationship between epidemics and war (broadly defined) from the mid-nineteenth century to the recent past. Although the focus is on the last 150 years, the book provides a substantial amount of information on previous conflicts, against which modern experiences can in some degree be measured. War epidemics is arranged in four sections. The first sets the scene with an overview of disease and war from ancient times to 1850. The second examines temporal trends, while the third examines regional differences. The book ends by considering probable trends in future outbreaks of war-related disease.

War epidemics is built around detailed studies of conflicts from the Crimean War to the late twentieth century, most of which appear to have been selected because of the richness of morbidity and mortality data. The authors argue that their statistical analysis yields insights that cannot be obtained qualitatively, as only a quantitative analysis can illuminate certain patterns and processes of epidemic spread. Extensive use is made of regression analysis and time-sequence maps, for example, which demonstrate the spread of disease spatially over time, a process of spread that the authors term "contagious". The authors show that disease typically expands in a wave-like manner outwards from its point of introduction in a given country or region. This process is accompanied by a "hierarchical" mode of dispersal, whereby disease moves progressively from the largest centres of population downwards.

Section one provides a useful introduction to the historical literature on wars and epidemics

that appear to be related to them. Much of the information in previous scholarship is presented in statistical and tabular form, which is useful for ease of reference, but arguably tends towards oversimplification, as much of the data—as the authors are well aware—is questionable. The authors acknowledge the problems of making retrospective diagnosis but are sometimes rather too definite about the identity of diseases, such as those which ravaged the New World from the early sixteenth century following European conquest; they pay rather less attention to the hotly disputed identity of these epidemics than most historians, nor do they consider the ideological dimensions of the ways in which these epidemics have been represented, both at the time and subsequently.

The book's second section is more substantial, being based on more reliable data sets, from the 1850s onwards. The section begins with a useful summary of the debate over the causes of mortality decline in industrial nations. The authors then go on to show that, within the context of mortality decline from the mid-nineteenth century, traditional killers such as typhus and measles returned in wartime to cause excessive mortality among civilian populations; they attribute this higher mortality to population movement and the reduction of available medical care. The authors then move on to consider military populations, comparing the incidence of diseases such as measles and HIV/AIDS with that in the civilian population. Using data from the American, British and Australian armies, they show the dangers of mobilization and troop concentration, as well as the "sympathetic" relationship between outbreaks of disease in military and civilian populations. The final chapter in the section focuses on displaced persons and concentrates on the period from the First World War up to the recent past. In it, the authors show that whatever the exact causes and nature of displacement, it has invariably been linked to the geographical spread of infectious diseases, in patterns that would appear to be predictable and, hence, preventable.

Section three of the book examines regional patterns of disease related to warfare. Here, the authors examine five themes: military mobilization as a breeding ground for epidemics; the spread of disease within and around military camps; the relationship between warfare and emerging and re-emerging diseases; sexually transmitted diseases; and "island epidemics", or epidemics among geographically isolated and non-immune populations. In this section the authors usefully employ time-sequence maps to illustrate the geographical spread of disease, showing, for example, that different phases of mobilization have distinctive epidemiological profiles. Major epidemics such as the smallpox epidemic that accompanied the Franco-Prussian war are illuminated using regression analysis, demonstrating, among other things, the importance of prisoner of war camps in the transmission of disease. The section ends with a chapter that considers a number of themes not easily incorporated in earlier chapters, such as disease in "concentration" camps during the South African and Spanish American Wars. The book ends on a relatively pessimistic note, concluding that, although immunization and other health programmes have dramatically reduced levels of many infectious diseases, war is an increasing cause of mortality, albeit concentrated largely in the Middle East and Sub-Saharan Africa.

There is much that historians can learn from this large volume, which convincingly demonstrates the value of a quantitative approach to the study of epidemics in wartime. The statistical techniques employed do provide important insights into the spread of disease during and after armed conflict, and we now have a far clearer idea, particularly, of the complex patterns of geographical diffusion. We learn rather less about changes over time, as much of what the authors have to say about changes in civilian mortality and morbidity will already be familiar to many readers, while the importance of organizational factors—rather than simply technical and medical innovations-in diminishing mortality is overlooked. Yet some aspects of the temporal relationship between war and disease are set out more clearly and examined

with greater rigour than in previous studies, and are represented succinctly in graphs and tables. This compensates somewhat for some of the structural weaknesses of the book. The use of numerous case studies and the division of the book into sections on temporal and geographical trends make it seem rather disjointed. The question also arises as to how far one can generalize from the case studies that have been chosen. This reviewer would have liked to see more in the way of a methodological rationale for the choices, or at least one that goes beyond their value as data sets.

Some historians may also challenge the very notion of "war epidemics". Roger Cooter, for example, has warned of the dangers of coupling war and epidemics and of detaching them from their social and political contexts (Cooter, 'Of war and epidemics: unnatural couplings, problematic conceptions', Social History of Medicine, 2003, 16(2): 283-302). Have the authors of this book made a strong enough case for "war epidemics" as a distinct epidemiological category? Not quite. The authors themselves acknowledge the diversity of the phenomena they have studied and it is not clear that a single category can adequately encompass them all. However, Cliff and Smallman-Raynor demonstrate that disease dynamics in periods of "war" and "peace" tend to differ significantly and this is probably sufficient justification for their endeavour.

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**Paul Julian Weindling**, *Nazi medicine and the Nuremberg trials: from medical war crimes to informed consent*, Basingstoke and New York, Palgrave Macmillan, 2004, pp. xii, 482, £60.00 (hardback 1-4039-3911-X).

During the last decade or so, the relation between medical practitioners, biomedical scientists, and politics has received growing attention in the historiography of medicine. Central issues in this field of inquiry are