Review

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Careful Analysis of Medical Statistics Builds a Model of Army Life

For those who enjoy statistical research as essential validation of historical writing, this epidemiological and medical analysis of the iconic Seventh Cavalry, one of forty regiments operating at the height of the American Indian Wars in post-Civil War America, makes fascinating reading. Following an incisive overview of nineteenth century medicine, disease categories (nosology) and their application to military illnesses, and an introduction to the materials available at the National Archives and Records Administration, including the all important Carded Medical Records (i.e., hospital ledgers, prescription books, report of wounded and operational forms), the authors provide a detailed analysis of life, health, illness, and death within the U.S. Army. Applying medical anthropology, human biology, epidemiology, demography, osteology, and anthropometry to the regiment (commissioned and noncommissioned officers and troopers), they infer similarities with other regiments at the time and even broaden their analyses to more contemporary trends and themes. In their analyses season by season and year by year of the lives of those who served in the Seventh Cavalry, the authors build a model of army life, including the frequency of disease incidence, injuries, combat deaths, desertions, recidivism, under-reporting, and other variables. Their study differentiates between native-born troopers and immigrants; military ranks with their respective privileges; and stature, age and ancestry. Their results provide an insightful proxy model for nineteenth century military medical practice without endangering or complicating their observations by committing the common error of presentism, i.e., interpreting past events in terms of modern values and concepts. Nevertheless, each chapter includes historical and present-day perspectives on specific diseases, methods of treatment, seasonal differences, results, demography, discussion, and summary of results.
Whether looking at rates of desertion, head and neck diseases, pulmonary diseases, malaria, sexually transmitted infections, cold injuries, battle and other injuries (i.e., fractures, lacerations, sprains, gunshot wounds, concussions, burns, bites), or post-traumatic stress disorders, the methodology is consistent and provides ample information, replete with graphs and other forms of statistical modeling. The study supports much of what has already been written, for example, that the majority of military frontier deaths were from disease, followed by accidental deaths, accounting for over seventy percent of mortality. Also statistically significant is the fact that suicides were the next most frequent category of deaths, and that new recruits constituted a high-risk population within the corps. The authors also correct a number of mistaken assumptions about Army health and disease, like the presence of more dental disease than previously reported and that troop strength served as a major determinant of death frequencies. Of particular interest is the geographic patterning of deaths: the most dangerous state was Texas, followed by Kansas, Montana Territory, Arizona and the Dakota Territories. Also interesting is the discussion of treatment of injuries caused by hypothermia and how military personnel turned to extra gear, including buffalo, bear, burlap and other materials, to mitigate the extreme temperatures on the plains. The study also includes evidence of what is today labeled post-traumatic stress disorder (PTSD) found among soldiers from the days of Herodotus to the veterans of Iraq and Afghanistan.

The issues which this reviewer has with the book are more like quibbling at the edges. For example, the authors note differences between U.S. Army and contract physicians, including eclectics, homeopaths and botanics, without providing supportive statistical evidence or analysis of these differences. It would be helpful to know the numbers of sectarian doctors who practiced during this period and statistical information on their respective treatments. While a number of anthropometric studies are referenced, conspicuously ignored is the study initiated by the U.S. Sanitary Commission and underwritten by life insurance companies following the embarrassing Union defeat at the first battle of Bull Run on June 13, 1861. Finally, this reviewer’s personal preference would have been for the authors to have divided the book into two parts: one being a survey of findings, followed by a second section that contained the statistical information, graphs, tables, maps, etc. This might have allowed for easier reading of the summary observations and conclusions.

However, these criticisms are inconsequential to the overall quality and importance of the book in its insight into the health and disease of the Seventh
Cavalry and its application to the overall health of the U.S. Army during the Indian Wars of the late nineteenth century.