Book Reviews


Smallpox: fearsome scourge for over 3000 years, causing at least 10% of deaths in the middle ages: reduced somewhat by Jenner’s discovery of 1796; over ten million cases and 59% of the world’s population in endemic areas in 1959; abolished by a decision of the World Health Assembly in 1966? This last seems unbelievable in a world declared of piety rather than realism. Yet the 1966 decision to set up the Intensified Smallpox Eradication Programme with the goal of global eradication in ten years led to success in eleven. The story of smallpox eradication should be as well known as that of penicillin, the double helix or the heart transplant. This book is also a result of a WHO decision, this time to record the story. It is unique, magnificent, and enthralling.

Written by five men who personally contributed greatly to the campaign, but drawing on 78 others for review, this is the authoritative document on smallpox and for this reason alone should be widely available. But in the 1500 beautifully produced and illustrated pages the photographs, mini biographies and details of the successes and the failures of the programmes make this much more than a technical story.

The presentation is superb. The maps and graphs of the control programme can be flipped quickly to get a moving picture of the battle. Vignettes throughout the text have quotations and “human interest”; there are pictures of patients, religious artefacts, smallpox medals, stamps, health workers, nomads, vehicles, villages, ... It would make a fine presentation item.

The technical aspects can hardly be faulted. The clinical and pathological aspects of the disease are dealt with fully, with a series of full page photographs of the progression of lesions in one patient, and discussion of the effects of vaccination, differential diagnosis, virology and immunology. The history from Egyptian mummies to the 1966 situation is dealt with fully. Then the eradication campaign in each country is described. This is not mere statistics; we read of the effects of war in Somalia and Ethiopia, new epidemics after hopes of containment in India and Bangladesh, deaths of health workers in accidents, and of political and administrative problems everywhere; all leading up to the picture of Ali Maow Maalin, whose willingness to give directions to workers taking two patients to an isolation unit led to his becoming the last case of naturally occurring disease. And to my one criticism of the book—did he recover?—we are not told! The certification programme is discussed, and the final (we hope) tragedy of the Birmingham outbreak and Professor Bedson’s suicide. If there are yet those who despise the past, the final chapters on related diseases and on the lessons from the programme are valuable. Those interested in global issues, be it AIDS, HFA 2000, greenhouses or ozone holes, will find much of relevance in this success story of global cooperation.

One is tempted into popular review by this book; “the monumental story over many generations of triumph, despair, setback, and tragedy... soon to be a major movie?" Well, I hope so. This story deserves a wider audience and this book could excite an Attenborough or a Puttnam into bringing it the attention it deserves.

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Over the past decade or two the emphasis of occupational and environmental epidemiology has moved from case-control studies—the subject of the first volume—to cohort studies, as researchers have sought to address more detailed questions about exposure-response relationships. In their earlier book Breslow and Day stressed the essential similarity of statistical methods applicable to these two approaches to epidemiological research, the flexibility of new methods for handling a variety of data configurations, and the wide range of problems that could be approached from a common conceptual foundation. The present volume maintains their pursuit of unity and flexibility. It falls into seven main chapters dealing with the role of cohort studies in cancer epidemiology, rates and rate standardisation, comparisons among exposure groups, fitting models to grouped data, fitting models to continuous data, modelling the relationship between risk, dose and time, and design considerations. As with the previous volume each statistical idea is illustrated with practical examples. Two data sets, one of grouped data from an American study of respiratory cancer in smelter workers and the other of individual (and grouped) data for a Welsh study of lung and nasal cancer in nickle refiners, are given in full to allow the student/researcher to test out ideas advocated by the authors and even to see the effect of developing their own alternative approaches to the analysis.

As the authors rightly note, this is one of the