BOOK REVIEWS

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Global Disease Eradication: the Race for the Last Child

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The first authoress is expert in clinical and diagnostic microbiology. She is head of ICAN Productions, a company dedicated to the public communication of science and technology, at Stowe, Vermont. The second author is a freelance writer and editor. As the authors declare in a prologue entitled "Eradication", global reduction/elimination of disease is a goal that many in the health community see as ultimate achievement of public health. In subsequent chapters the history of three separate campaigns to eradicate a major infectious disease worldwide is outlined.

In first chapter, entitled **"Malaria and the Magic Bullet"**, malaria has been extensively discussed. Current interventions – insecticide treated bed-nets, mosquito control, rapid diagnosis, chemoprophylactic and curative treatment for patients and pregnant women are sufficient to bring this protozoal disease under control. Nevertheless, campaign against malaria though undertaken with ambition and optimism, ultimately failed. As this chapter makes clear, in spite advances in biology and medicine, malaria is still widespread in close to 100 countries, it threatens the health of more than 2,4 billion people every year, and the global situation is worsening.

Next coming chapter focuses on **"Smallpox: the Right Disease, the Right Time"**. Although less common than malaria, for centuries smallpox was a frightful and devastating disease, it always presented an uglier face: swollen pustules, scars, blindness, death. For centuries smallpox was the source of mystery and indiscriminate terror. Paleopathologists inspecting the mummy of Ramses V speculate that he died of smallpox in 1157 B. C. The famous personages – Queen Elisabeth I of England, Queen Mary II, Abraham Lincoln – only underscore the point that smallpox was a disease no one could avoid. At once the disease set in, nothing could be done except to watch and await its oucome. In the fall of 1977, the world health community recorded what was considered the very last case of naturally transmitted smallpox on Earth. Three years later, the world was declared officially free of this deadly infectious disease. "Smallpox Eradication Programme" is one of most memorable achievements: smallpox was the first disease ever eradicated, this was a public health victory of remarkable proportions.

Third chapter entitled **"Polio: the Rise and Fall of a Disease"** is concerned with the poliovirus. Poliomyelitis, in all probability, is an infection associated with mankind since ancient times. Medical historians agree that the earliest record of polio is situated in an over 3500 old Egyptian stela exhibiting a young man with an atrophic right leg. A few centuries later Hippocrates wrote about a deformity he called "acquired clubfoot" – possible paralytic consequence of a previous poliovirus infection. The idea that the disease was caused by an infection and transmitted from person to person had to wait, until the disease, or rather its frequency, began to change. At the end of the 19th century, a shift in the epidemiology appeared – from sporadic cases to epidemic outbreaks. Like preceding two campaigns, poliomyelitis eradication is both a medical and political enterprise. The world has the knowledge, resources and capacity to eradicate polio threath of disability this diseases poses to millions of people. Success of smallpox eradication smoothed the way for polio. At the beginning of the eradication of the campaign in 1988, polio paralyzed more than 1000 children a day. In 2001 there were far fewer than 1000 cases for the entire year. The polio vaccine contains attenuated live virus, able to infect and immunize its recipients. In one out of every two million or so children immunized, the vaccine virus reverts through mutation to full virulence and causes the disease. Until recently, vaccine-derived poliomyelitis remained an isolated incident. Unfortunately, the possibility is real that the virus could get back to the circulation. Concerns about the potential for reversion are such that many countries have switched from using the oral to the killed vaccine. Concluding two chapters provide insights into the future for global diseases eradicaton and an overview of voices from the eradication campaigns.

Needham and Canning contribute a clear and compelling look why these campaigns are so complex. What is the value of global disease eradication. What are the costs of an eradication program. Are such massive global initiatives really worth it? In the style of Paul De Kruif, this book offers a delighting reading and presents a companion to conventional textbooks of infectious diseases.

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