

Successes and Failures of Malaria Control

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Malaria is one of the biggest killer diseases in the developing world today. Despite the immense advances that have fundamentally changed medical science in the past 50 years or so, malaria, a relatively older disease (compared to newer killers such as AIDS and SARS) has maintained its position as a dreaded and debilitating disease.

In this book Lancy Lobo studies malaria in its social context in three villages in the Surat district of contemporary Gujarat. The title of the book refers to "western India", therefore, the statistics, fieldwork and conclusions derived refer to the three ecologically distinct villages that the author has studied. Through a closely-written account of the disease and its manifestations and descriptions of the state-aided provisions for anti-malaria programmes in the three villages, Lobo produces an exhaustive account of the successes as well as failures of malaria control in contemporary India. There have been three fundamental changes in the history of the disease itself in the past century. The first, of course, was the discovery and dissemination of the insect-vector theory of malaria, which helped to distinguish its causes from all other generic fevers. The second was the dissemination of dichlorodiphenyl-trichloroethane (DDT) which could destroy entire anopheline populations from the infected areas. The World Health Organisation (WHO) began its Malaria Eradication Programme (MEP) in 1953 after the huge initial successes of the DDT programme. The third major development was the creation of synthetic quinine and chloroquine, by German and later American pharmaceutical companies during the second world war. Both DDT and the commercial

BOOK REVIEW

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availability of chloroquine contributed to enormous contemporary optimism on the part of both the international health agencies and new nation states about the total global eradication of malaria.

A Complex Disease

But malaria, unlike smallpox, which was successfully subject to a complete eradication programme is a very complex disease with several variables. The carrier anophelines, for instance, belong to several species, each particular to a specific kind of environment. For instance, the *Anopheles stephensi* survives mostly in urban areas, whereas all the subspecies of *Anopheles gambiae* survive in rural sub-Saharan Africa. In the inter-war years, malariologists promoted a limited destruction of carrier mosquitoes through "species sanitation". This consisted of epidemiological surveys of each malaria-endemic area, and the subsequent destruction of specific habitats of the predominant carrier anopheline mosquitoes in each respective area. These ecologically-minded surveys and anti-malarial sanitation measures were only partly successful. Their relative lack of success demonstrates why DDT provided such a fillip to anti-malarial measures by governments and health agencies. It promised the wholesale destruction of all possible vectors of the disease, without expensive and time-consuming surveys.

As the author and others have pointed out, the MEP stalled due to a combination

of organisational failures and increased resistance of mosquitoes to insecticides, although it did temporarily reduce the incidence of malarial fever between 1960 and 1980. Meanwhile, the manufacture of synthetic quinine also set free the production of anti-malarial drugs from the constraints of a limited supply of quinine from cinchona plantations, and enabled the widespread use of the chloroquine when malaria did occur. Unfortunately, as often happens with dependence on scientific/medical technology, the resurgence of malaria in India and in Africa during the last 30 years is owed to random use of insecticides and consequent immunity developed by carrier mosquitoes, as well as the widespread lack of provision for curative doses of chloroquine and also its misuse, leading to gradual quinine-resistance among the population.

Social Situation of Malaria

The above-mentioned institutional and clinical failures are the context of Lobo's in-depth sociological research. Although the author has not stated it specifically, the comprehensive micro-study is an attempt to socially situate malaria in local contexts, including the economic background, habitation patterns, and morbidity and mortality rates in the respective villages. In two fascinating chapters, the author has also described the social and economic lives of the local inhabitants who are for the most part poor Kolis. He has furnished a comprehensive list of their perspectives on fevers in general, and listed their nomenclatures and home remedies for the cure of the disease. The author has also studied in depth the settlement patterns, water-supply, sanitation, the use of floor-space in their dwellings, and the delivery of preventive as well as curative medicine at the three villages. Sanitation and use of their dwelling places point to several techniques of collecting and storing water that induce the breeding of carrier anophelines.

A distinctive feature of this book is that the author has provided an

account of, in contemporary parlance, “alternative” treatments of malaria that are used by the local inhabitants in the area. These include both faith-healers and herbalists, whose treatment consists, heterogeneously, of the application of prayers, chants, herbs and roots to cure the disease. The author points out that the local people, including the faith healers themselves, often use traditional healing methods alongside medicines bought from local pharmacies as well as those obtained from consultation with allopathic physicians. It is clear that Muslims and Hindus of many castes as well as Christians all continue to avail themselves of the services of traditional healers or priests’ prayers as an integral part of their treatment for malaria and indeed, other diseases as well.

Although the author has not articulated it in so many words, the stark difference between the cost of allopathic medicine and the expense and bother of travelling to receive western medical treatment is one reason why traditional

methods are in use. The greatest loss from malaria to the working (male) population in the area was through consultation fees and the cost of medicine; often the expense of one visit to the doctor exceeding their daily income. It is a severe indictment of the public health system that government hospitals and medical practitioners are either not available or not considered effective enough for the working rural poor here; when they do approach doctors, they often prefer expensive private ones.

‘Dialogic’ Techniques

Finally, the book suggests a “re-thinking of the traditional-modern dichotomy” and argues for a more syncretic understanding of malaria (and by extension, of its treatment); “even though knowledge of malaria broadly overlaps with biomedically defined malaria, the logic which explains these concepts and ...interlinks them follows principles outside biomedical explanations” (p 162). The book also demonstrates the need

for healthcare providers to initiate “dialogic” techniques for the training of anti-malarial personnel (p 175).

Overall, although this book focuses on a relatively small area in western India, it provides a comprehensive socio-logical account of the reasons for the continued prevalence of malaria and provides several indications of controlling the disease. One may critique this book in that the anthropological and sociological studies seem geared towards a prescriptive approach; the anthropological subjects in this study seem to provide a mere backdrop to an examination of how malaria should be eradicated in the region. This limitation is possibly also its strength; it will be of great use to healthcare providers, both national and international, as well as readers interested in the biography of malaria in a postcolonial state.