

Threat of Malaria

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ABSTRACT

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Background: In India, about 2 million confirmed malaria cases and 1000 deaths are reported annually, although 15 million cases and 20,000 deaths are estimated by WHO South East Asia Regional Office. India contributes 77% of the total malaria in Southeast Asia.

Objective: To find out the influence of management practices in lowering malaria morbidity and mortality.

Result: Malaria morbidity decreased in EMCP districts by 43% and nationwide by 38%. Almost one million fewer cases were diagnosed in 2004 than in 1997. Three states Gujarat and Andhra Pradesh, and Maharashtra, reduced malaria morbidity by 65-70%.

Keywords: Burden of Malaria, Malaria Control, National Anti-Malaria Program

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Since antiquity, malaria had a major impact on world history. Overview on clinical features of malaria from Hippocrates to Osler is available.¹

In India, about 2 million confirmed malaria cases and 1000 deaths are reported annually, although 15 million cases and 20,000 deaths are estimated by WHO South East Asia Regional Office. India contributes 77% of the total malaria in Southeast Asia. Multi-organ involvement/dysfunction is reported in both *Plasmodium falciparum* and *P.vivax* cases. Nine Anopheline vectors are involved in transmitting malaria in diverse geo-ecological paradigms. The profound impact of complicated malaria in pregnancy includes anemia, abortions, low birth weight in neonates, still births, and maternal mortality. Retrospective analysis of burden of malaria showed that disability adjusted life years lost due to malaria was 1.86 million years. Cost-benefit analysis suggests that each Rupee invested by the National Malaria Control Program pays a rich dividend of 19.7 Rupees. Most of the malaria burden is borne by economically productive ages. The states inhabited by ethnic tribes are entrenched with stable malaria, particularly *P. falciparum* with growing drug resistance.²

The burden of Malaria in Kerala is however trivial. Kerala in fact was the first state to be declared as having eradicated Malaria under the National Malaria Eradication programme. However there is no place for any complacency, The study done by Dr. Sandeep

published in this issue of KMJ reveals that the state is still facing the burden of Malaria.³ A longitudinal study on malaria was carried out from 2003 to 2005 in an area of unstable malaria in central India. An increasing trend was recorded in malaria prevalence from 30.2% in 2003 to 46.6% in 2004.⁴ This shows that the rate of the disease can vary and calls for keen attention even in hypo endemic areas.

It would be prudent to analyze the success stories in control of malaria. While many countries struggle to control malaria, four countries, Brazil, Eritrea, India, and Vietnam, have successfully reduced malaria burden. Common success factors included conducive country conditions, a targeted technical approach using a package of effective tools, data-driven decision-making, active leadership at all levels of government, involvement of communities, decentralized implementation and control of finances, skilled technical and managerial capacity at national and sub-national levels, hands-on technical and programmatic support from partner agencies, and sufficient and flexible financing. All these factors were essential in achieving success. If the goals of Roll Back Malaria are to be achieved, governments and their partners must take the lessons learned from these program successes and apply them in other affected countries.

Many malaria-affected countries have found it difficult taking these interventions to scale. Insufficient financing, weak health infrastructures, limited skilled

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human capacity, and poor quality private sector services are posited as barriers to scaling up.⁵

After several years of increasing malaria morbidity and mortality, the Government of India sought and received a \$165 million credit from the World Bank in 1997 to implement the Enhanced Malaria Control Project (EMCP) in 100 high-risk districts in eight north Indian states. A primary goal of EMCP was to enable India's National Anti-Malaria Program (NAMP) to transition from its unsuccessful eradication strategy to more modern control methods (World Bank Project Appraisal Document). The EMCP put emphasis on full-scale implementation of early diagnosis and prompt treatment of cases at facility and village levels, introduction of ITNs, and alternative vector control methods (including environmental management and use of carnivorous fish). The quality and completeness of malaria surveillance was improved and laboratory diagnostic capacity was expanded. Progress during the first years of the project was slow. However new leadership to the Ministry of Health and Family Welfare and the NAMP negotiated with the World Bank to lift the suspension after meeting a series of benchmarks, and implementation took off rapidly (World Bank Project Supervision Reports). India benefited from a high number of skilled district level staff who had been trained in malaria control during the time when eradication activities were being carried out. Financing provided to district authorities stimulated local governments, community groups, and non-governmental agencies (NGOs) to become involved in activities such as re-treatment of ITNs, stocking of larvivorous fish in water bodies, and community awareness campaigns.

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The challenge posed by Malaria can definitely be addressed. Dr. Sandeep has highlighted his observations on the reasons for cases still occurring in Kerala. Those facts should be seriously looked into. Due attention needs to be paid to case surveillance as well as preventive measures.

END NOTE

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