

Researcher says 200,000 malaria deaths preventable annually

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Professor Prabhat Jha of medicine and an international team of researchers from India, Canada and the U.K. say their new study shows the number of premature deaths from malaria in India has been vastly underestimated.

The new study is of a nationally representative sample of all deaths from any cause in India, asking family members to describe the fatal illness. Its results show that [malaria](#) accounts for about 200,000 (2 lakh) premature deaths before age 70 in India (including 80,000 children below age 15 and 120,000 adults). Previous estimates of malaria deaths were less than 10 per cent of this new figure.

“What is striking about these numbers is that, unlike AIDS or cancer, malaria is curable if treated promptly,” said Dr. V.M. Katoch, secretary of the Indian Department of Health Research and director-general of the Indian Council of Medical Research. “We have safe, effective and inexpensive drugs that can quickly cure malaria patients. What we need is rapid access to healthcare facilities.”

The findings are from the first nationally representative sample of the causes of all deaths in India. The research, led by teams from the office of the registrar-general of India and from the Centre for Global Health Research (CGHR) at Toronto's St. Michael's Hospital and University of Toronto is published online Oct. 21 in The Lancet, a leading U.K. medical journal.

“This is the first nationwide study that has collected information on causes of death directly from communities all over India. It shows that malaria kills far more people than previously supposed. Most of these deaths are in the few Indian states where the most dangerous type of malaria parasite is common,” said co-lead author Jha, director of CGHR.

The Indian state of Orissa had more malaria deaths than any other state, 50,000 each year. The other large “high-malaria” states, also in eastern India, were Chhattisgarh, Jharkhand and Assam.

The study covered 6,671 areas, each with about 200 households. These areas had been randomly chosen to be representative of the whole of India. In them, 800 field workers interviewed 122,000 families of people who had died in 2001-2003, asking them to describe the symptoms and circumstances surrounding the deaths. The written reports of these household narratives were then each coded independently by at least two physicians to attribute a probable cause to each death.

The coders eventually agreed that malaria was the probable cause of about four per cent of all deaths at ages one month to 70 years. This proportion varied with age (zero per cent in the first month of life, six per cent later in childhood and three per cent in adults). Within each age range, the annual number of deaths from any cause in the whole of India is known from national statistics, the percentage attributed to malaria is known from this study and combining these gives the national number of deaths from malaria.

Overall, malaria was found to cause a total of about 200,000 (2 lakh) premature deaths each year. Of the deaths attributed to malaria, 90 per cent were in rural areas and 86 per cent occurred at home without any sort of medical attention.

In an accompanying editorial, Dr. Simon Hay of Oxford University,

U.K., co-founder of the Malaria Atlas Project, explained how the estimate of only 15,000 malaria deaths a year previously accepted by the World Health Organization (WHO) could have missed most of the malaria deaths where illness came on quickly and was never seen by any healthcare worker.

He added that, since most malaria deaths in India occur far from any healthcare facilities, “deaths from malaria are predominantly invisible to the health reporting system.”

The study authors concluded: “If WHO estimates of malaria deaths in India, or among adults worldwide, are likely to be serious underestimates, this could substantially change disease control strategies, particularly in the rural parts of states with a high malaria burden.” They further suggest that better estimates of malaria incidence and mortality in India, Africa and elsewhere could provide a more rational foundation for affordable access to community treatments for both children and adults.

Kenneth J. Arrow, Professor of Economics at Stanford University and 1972 Nobel Prize Laureate in Economics added that “Artemisinin combination therapies are strongly efficacious and can be available at low cost through the Affordable Medicines Facility for Malaria. The treatment should be made easily accessible to both children and adults through public and/or private distribution channels.”

Provided by University of Toronto

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