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## India malaria deaths hugely underestimated, says report

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**The number of people dying from malaria in India has been hugely underestimated, according to new research.**

The data, published in the *Lancet*, suggests there are 13 times more malaria deaths in India than the World Health Organization (WHO) estimates.

The authors conclude that more than 200,000 deaths per year are caused by malaria.

The WHO said the estimate produced by this study appears too high.

The research was funded by the US National Institutes of Health, the Canadian Institute of Health Research and the Li Ka Shing Knowledge Institute.

The new figures raise doubts over the total number of malaria deaths worldwide.

### Difficult diagnosis

Calculating how many people die from malaria is extremely difficult. Most cases that are diagnosed and treated do not result in fatalities.

People who die of extremely high fevers in the community can be misdiagnosed and the cause of death can be attributed to other diseases and vice versa.

As most deaths in India occur at home, without medical intervention, cause of death is seldom medically certified.

There are about 1.3 million deaths from infectious diseases, where acute fever is the main symptom in rural areas in India.

In this study, trained field workers interviewed families, asking them to describe how their relative died. Two doctors then reviewed each description and decided if the death was caused by malaria. This method is called verbal autopsy.



Malaria can be cured easily if diagnosed and treated quickly

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Some 122,000 premature deaths between 2001 and 2003 were investigated.

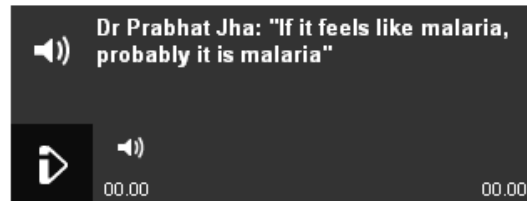
The data suggests that 205,000 deaths before the age of 70, mainly in rural areas, are caused by malaria each year.

### 'Serious doubts'

The WHO estimated that malaria caused between 10,000-21,000 deaths in India in 2006.

The UN health agency welcomed new efforts to estimate the number of malaria deaths.

Dr Robert Newman, the director of its global malaria programme, said: "It is vital to evaluate cause of death correctly because different diseases require different strategies for control."



He concedes that WHO current evaluation methods have their limitations, but has serious doubts about the high estimates from this study.

Verbal autopsy, he said, was not a trustworthy method for counting malaria deaths because the symptoms of malaria are shared with many other common causes of acute fever.

This, he said, along with what the WHO called "implausibly high case incidence rates", indicates that the findings of this study cannot be accepted without further validation.

He added that the WHO is working closely with the Indian government in the fight against the disease.

### Work needed

The authors say these figures, as well as global estimates, require urgent revision.

Professor Prabhat Jha, director of the Centre for Global Health Research in Toronto, Canada, is one of the study's lead authors.

He told BBC News: "Malaria kills not just children, but adults too in surprisingly large numbers.

"India is the most populous country where malaria is common, and it is a surprisingly common cause of death."

He added that there is a real need to reconsider how malaria deaths are calculated and that similar analysis needs to be done in other highly populated malaria endemic countries.

There may also be considerable under-reporting of malaria deaths in other highly populated countries like Bangladesh, Pakistan and Indonesia.

The authors say that aggressive malaria control programmes are needed, as well as scaling up treatment - particularly in adult rural populations.



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Professor Prabhat Jha  
Centre for Global Health  
Research