

# India - The Summary Index of Malaria Surveillance (SIMS): a stable index of malaria within India

**Centre for Global Health Research - St. Michael's Hospital; University of Toronto**

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# Overview

## Identification

### ID NUMBER

ind-cghr-imi-2010-v01

## Overview

### ABSTRACT

**BACKGROUND:** Malaria in India has been difficult to measure. Mortality and morbidity are not comprehensively reported, impeding efforts to track changes in disease burden. However, a set of blood measures has been collected regularly by the National Malaria Control Program in most districts since 1958.

**METHODS:** Here, we use principal components analysis to combine these measures into a single index, the Summary Index of Malaria Surveillance (SIMS), and then test its temporal and geographic stability using subsets of the data.

**RESULTS:** The SIMS correlates positively with all its individual components and with external measures of mortality and morbidity. It is highly consistent and stable over time (1995-2005) and regions of India. It includes measures of both vivax and falciparum malaria, with vivax dominant at lower transmission levels and falciparum dominant at higher transmission levels, perhaps due to ecological specialization of the species.

**CONCLUSIONS:** This measure should provide a useful tool for researchers looking to summarize geographic or temporal trends in malaria in India, and can be readily applied by administrators with no mathematical or scientific background. We include a spreadsheet that allows simple calculation of the index for researchers and local administrators. Similar principles are likely applicable worldwide, though further validation is needed before using the SIMS outside India.

## Coverage

### GEOGRAPHIC COVERAGE

National

## Producers and Sponsors

### PRIMARY INVESTIGATOR(S)

Name	Affiliation
Centre for Global Health Research	St. Michael's Hospital; University of Toronto

## Metadata Production

### METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Centre for Global Health Research	CGHR	St. Michael's Hospital; University of Toronto	Metadata Producer

### DDI DOCUMENT VERSION

Version 1.0. This is the very first version of this DDI document

### DDI DOCUMENT ID

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## Sampling

No content available

## Questionnaires

No content available

## Data Collection

### Data Collection Dates

Start	End	Cycle
2010	2010	N/A

### Data Collection Mode

Face-to-face [f2f]

## Data Processing

No content available

## Data Appraisal

No content available