# Malaria Trends in Six Outpatient Sites in Uganda, 2008—2011

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## Objective

To estimate trends in malaria morbidity at six sentinel sites in Uganda.

## Introduction

Over the past five years, efforts to control malaria have been intensified in Uganda (1). With the intensification of these efforts, accurate and timely data are needed to monitor impact of the interventions and guide malaria control program planning (2, 3). We present data on trends in malaria burden over four years from six outpatient health facilities located in regions of varying malaria endemicity in Uganda.

## Methods

The study utilized data from the on-going malaria sentinel surveillance program involving six level IV outpatient health facilities: Aduku, Nagongera, Walukuba, Kasambya, Kihihi and Kamwezi. Major malaria control interventions between 2008 and 2010 in sub-counties where these sites are located included Indoor residual spraying (IRS) conducted in Aduku; insecticide-treated nets (ITNs) distributed in Nagongera and Kamwezi. There has been no major control intervention(s) in sub-counties where Walukuba, Kasambya and Kihihi are located. Treatment with artemisinin-combination therapies have however been deployed nationally. Patient information; demographics, malaria test results and diagnosis are recorded on a standardized patient record. The test positivity rate (TPR) defined as the number of persons testing positive for malaria divided by the total number of persons tested was calculated by year from 2008 to 2011 for two age categories (< 5 years and > 5 years ).

## Results

A total of 560,586 patients were seen, of which 25% were <5 years. Over 325,500 patients were suspected to have malaria, with the proportion of these having a confirmatory test done increasing from 62% in 2008 to 98% in 2011. Between 2008 and 2011, the proportion of the <5 years testing positive for malaria significantly decreased from 66% to 34% in Aduku, from 61% to 41% in Nagongera, and from 54% to 24% in Kamwezi. However, significant increases were seen in Kasambya and Kihihi from 41% to 51% and from 28% to 44% respectively. The TPR at Walukuba remained stable (41% to 45%). Similar trends were seen in the > 5 years.

## Conclusions

Sentinel site surveillance has been a reliable and timely method/tool for monitoring trends in malaria morbidity thereby informing and guiding the Uganda malaria control program.

## Keywords

Surveillance; Malaria; Trends

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