Reviewer's report

Title: The burden of malaria to the poorest household is unjust but redeemable: Inequities in incidence, morbidity and expenditures on prevention and treatment in southeast Nigeria

Version: 2 Date: 10 November 2008

Reviewer: Jane Chuma

Reviewer's report:

General comments

• Introduction requires strengthening and authors should highlight clearly what their contribution to the literature is.

• Methods section and the way results are presented is weak. P-values are missing and where they are included it is difficult to tell what they are comparing (i.e. is it differences across or within villages)

• Table headings need to be reworded to reflect what is presented in the table.

Major compulsory revisions

Introduction

• Please check recent literature (e.g. Snow et al., 2005) regarding malaria mortality, that documents evidence that malaria morbidity/mortality is on the decrease

• Review/background presents evidence on the inequitable nature of malaria burden in Nigeria and elsewhere. It is therefore not clear what the contribution of this paper is to the literature. The authors need to clearly spell out what their contribution is or whether or not their aim was just to confirm the existing literature.

Methods:

• It is not clear how malaria was defined in the study

• Provide details on the number of households that formed the sampling frame

• Might be useful to provide some information on key variables included in the SES index

• Provide information on how expenditure on malaria were estimated

Results

• Table 1 in general is not necessary and requires editing should it be included in the paper. Authors should discuss the variables relevant to the study (mainly SES indicators). The last row in particular can easily be deleted without losing any value. Quartile means 25%, hence no point to show the number of households per quartile.
• Table 2: provide age category for children. Not clear whether paper is referring to under fives only or anyone <18 yrs
• It is surprising that a larger proportion of adults reported malaria in the last one month compared to children, who are known to be more vulnerable to malaria. Does this have to do with the nature of malaria transmission in the setting? If yes, this should be picked up in the discussion
• Paper is comparing which villages had higher levels of malaria etc..but fails to provide p-values to support their argument
• SES difference in occurrence of malaria: are they calculated per village? Have the P-values been adjusted for clustering?
• Expenditures to treat malaria: provide p-values for the differences in spending across villages. The last sentence on this section is not clear i.e. least poor children most likely to recover???
• Table 4 & 5: Cost of prevention- not clear what the values refer to. Also Table 5 should be edited- what should be in the brackets? %?
• Expenditures to prevent malaria: states that <5% of households owned an untreated net. Is this 5% of all households? Also states higher SES more likely to own nets…but not all are significant

Discussion
• 3rd paragraph states that the poorest households spent the highest proportion of their income on treatment, but data on household income were not collected, hence not possible to make such conclusions from the findings presented in the paper.

Conclusions
• The conclusions are not supported by the data provided

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
'I declare that I have no competing interests'