Author’s response to reviews

Title: Malaria Parasitaemia and the use of Insecticide-Treated Nets (INTs) for Malaria Control Amongst Under-5 Year Old Children in Calabar, Nigeria.

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Version: 1 Date: 11 Nov 2015

Author’s response to reviews:

Cover Letter Detailing Changes Made on the Manuscript
Reviewer #1 Comments and Suggestions and Our Corresponding Responses

Minor Essential Revisions

Abstract/result

• Percentage writing in words should be improved. E.g fifty five point four percent shall be changed. Please write the number followed by % in brackets. X(55.4%) of the febrile children…..

• The preferred wording could be: x(55.4%) of the febrile patients had malaria parasitaemia by RDT and 61.2% of them had malaria parasitaemia by microscopy.

RESPONSE: Changes effected in page 2, line 45-50

Methods:

• …’Perception and practices of ITNs of caregivers of under-five.’ should be revised. The perception and practices of caregivers of under-five children on the use of ITN…
• The method section should follow standards: Study area, study design and population, data collection, data analysis and ethical consideration. Please replace questionnaire survey with data collection procedures. In the data collection procedure section, include both interview and lab related procedures

RESPONSE: Changes effected in page 5-9, line 117-211

Results:

• Please avoid unnecessary terms e.g Concerning malaria, 264(97%) correctly….264(97%) correctly identified …is more economical and correct

RESPONSE: Changes effected in page 12, line 264

• There are many grammatical, and typographical errors in the result section. Thorough revision is necessary.

RESPONSE: Revisions done

• Please avoid subtitle of Univariate and multivariate analysis in the result section

RESPONSE: Univariate and Multivariate Subtitles Removed from the result section

• Table 1: ‘Age continuous’ should be removed. Mean age of child(months) is the correct one. Do the same for caretakers

RESPONSE: Changes effected on page 29, Table 1.

• Table 4: it is not clear at all. What are the n(%) under fever? Are you referring yes and no?

RESPONSE: Table 4 has been removed, but results were still reported. Table 4 was a cross tabulation of under-5 that came to the clinic with fever and parasitaemia (tested with microscopy or Rapid diagnostic kits). 258 children were tested for parasitaemia using RDT, of which 103 had fever and 46(55.4%) of this number that had fever also had parasite in their blood films.

Using Microscopy, 166 (please not 167 as given in the table) were tested for parasitaemia, and 69 of them had fever. Out of this 69 that had fever 41 (61.2%) tested positive to parasitaemia.

“No” and “Yes” under Fever heading stand for “has no fever” and “has fever”respectively. n(%) stands for number of those with/without fever and their percentage.
• Table 5, 6 and 7 should be revised. Eg. You should put ownership in the column and yes(%) and no(%) under it table 6. The Same is true for table 7.

RESPONSE: Table 5 removed. Reason: It was considered not too important and also to reduce the number of tables.

Tables 6, 7, 10 & 11 were revised and combined into one new table-now Table 4. Hence we did not exactly put it the way you suggested in order to gain space.

References: It is not inline with the journal style. Please revise again

RESPONSE: This has been revised accordingly. See Reference section from page 23.

Major compulsory revisions:

Background

➢ The justification of the study is not well stated in the background. What is the main focus of the study (perception and practice or malaria parasitaemia)? Why you did the study is not clearly articulated.

RESPONSE: The Title of this study has been adjusted slightly to convey a better meaning and justification (page 1, line 1-2). Justification of the study: About three years prior to this study, WHO assisted survey was carried out (Nigerian Malaria Indicator Survey) in which it was found that the prevalence of malaria parasitaemia was high in the City of Calabar (capital city of Cross River State), Nigeria. The survey findings also revealed that ITNs ownership and use was low compared to other regions in the country. Though there had been diverse campaigns to reduce malaria burden in the city even before the Survey, efforts had more than doubled, both from the state, the nation and globally to assist to alleviate malaria burden in this city. Most of the efforts were given in the form of free ITNs distribution to pregnant women and under-five children.

So this study was to determine if the efforts have paid off in terms of increased ITN ownership and utilization which should translate to reduced Malaria parasitaemia. See page 5, line 108 to 114.

Methods:

➢ The definition of malaria-related febrile illnesses is not clear. Do you mean children with any fever? How was fever measured?

RESPONSE: Malaria-related febrile illnesses has been removed. We saw it was indeed confusing. And fever was measured with clinical thermometer. A child was said to have fever if the axillary body temperature was greater or equal to 37.5 degree Celsius. See page 8, line 186-187.
The study population, sample size and sampling procedure are not described properly. Who were your study population (admitted children, outpatients etc….)? How did you determine your sample? How did you select them?

RESPONSE: Study population (see page 6, line 129). Sample size calculation (page 6, from line 131). Sampling procedure (page 7, line 147-150)

How did you ensure quality during the lab procedures e.g microscopy

RESPONSE: page 8, line 184-185

How did you define parasitaemia? This should be clearly defined

RESPONSE: Page 8, line 184

How did you build the multivariate model?

RESPONSE: Page 9, line 197-208

Results:

You have many tables but the can be merged to give meaningful results. Please see the below table and do similarly for ITN use and ownership

RESPONSE: The tables and figures have been revised. Figures 2 and 4, and Tables 3, 4 and 5 have been removed and their results summarized in texts. Tables 8 and 9 combined into one new table-Table 3

Tables 6, 7, 10 and 11 now combined into one new table-Table 4. Please see page 31 and 32

Discussion:

Your study is facility based and you compared your findings with the Nigeria MICS findings. The methodology and the study population are totally different. Your study population may not represent the community and the study tools could not be similar. Your conclusion and discussion should consider these issues very seriously. Please also clearly articulate the limitations of your study

RESPONSE: Page 14, line 318-321. Limitations of the study included, page 21, from line 492.
REVIEWER #2

Major Issue 1

RESPONSE: We have either removed completely or just made only brief comments on non-significant results in the Discussion section.

Concerning the contradictory statistical analyses: we noticed that the problem originated from errors in interpreting coding (prediction is lower category while higher category is reference, but we did otherwise) in the multivariate logistic regression analysis. This correction has somewhat changed the interpretation of our statistical analyses. Please see page 13, line 302-312, page 16, line 370-384 and page 18, line 422-428

Major Issue 2

RESPONSE: The data analysis and methods have been revised. The independent variables tested included malaria parasitaemia, Ownership of ITN, and ITN Utilization. Up to 4 different categorical variables were also included. The multiple logistic regression model included and properly explained.

Please see page 8, line 187-210.

Major Issue 3

RESPONSE: The tables and figures have been revised. Figures 2 and 4, and Tables 3, 4 and 5 have been removed and their results summarized in texts. Tables 8 and 9 combined into one new table. Table 3

Tables 6, 7, 10 and 11 now combined into one new table. Table 4. Please see page 31 and 32

Minor Issue 1

Poor writing:

RESPONSE: We have generally reviewed and have rewritten some sections we felt were poor.

Minor Issue 2

RESPONSE: Corrected, please see page 10, line 219-221

Minor Issue 3

RESPONSE: Non-adding up of numbers corrected. Please see page 11, line 251-258 and page 12, line 274-281.
Thank you.