



SDI Review Form 1.6

Journal Name:	<u>International Journal of TROPICAL DISEASE & Health</u>
Manuscript Number:	Ms_IJTDH_33730
Title of the Manuscript:	Malaria and Agriculture: Examining the Cost Implications and Effect on Productivity among Farm Households in Kogi State, Nigeria
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



SDI Review Form 1.6

PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	Abstract: - To present this part of the paper as depicted in the guide for authors (i.e. Aims, Place and duration of study, Results, Conclusion and Keywords) - Some factors significantly influenced malaria incidence. So, add P-value (Significance) in the abstract and delete the expression "at 5% level of significance" - Add standard deviation (SD) of all quantitative variables presented in Abstract (i.e. age and farm size). - Also present direct and indirect costs in US Dollars (USD). Keywords: I think "Productivity" should be a keywords Methodology: - LGAs, farming communities and farmers were randomly selected through which randomization method? Have you used a random numbers table to mimic hazard for instance? - Lines 82-83. "In all, a total of 240 respondents were sampled for the study" Precise the number of farmers living in the "study area" section of the manuscript. It is important the reader has an idea whether or not your sample size is representative in order to appreciate the quality of conclusions which will be	Effectuated Effectuated Effectuated Disagreed. The exchange rate of the USD to the naira has been unstable lately; hence the research was carried out based on Nigeria Naira. Effectuated Simple random sampling technique as indicated in the work. No current data as to this effect. However, a representative sample size was used for the study.



SDI Review Form 1.6

	drawn from the study. - Which sampling method was used to include households (simple random method, systematic method, etc)? - How have you evaluated the goodness-of-fit of your Tobit model? I think you should use parameters as Akaike information criterion (AIC), Schwartz criterion or even likelihood maximum. - There is no information on how malaria-related costs were computed in "Methodology" section of the paper. In addition, whether these costs are related to complicated or simple malaria is not presented in the paper. If the malaria episode is severe, so "hospitalization" should be included in the cost-related computation. - In addition, why did not you take into account "Diagnostic" item for computing direct cost? If this item was overlooked in this study, so you have to mentioned this in Discussion as a limitation as these costs you computed are logically underestimated. Ethical Issues: There is not mention about the Financial support sources for the present study along with obtaining ethical clearances (identification number). Results: - Variables referred as to "Distance to health facility", "Distance to water", Preferred treatment method" and "Number of visit by health workers" to be summarized (i.e. variables, categories, percentages and mean/mode values) in a Table as for Table 1.	Simple random sampling technique as indicated in the Methodology. Yes. The tool was evaluated before use. Malaria related costs used in this study were pointed out in the introductory aspect. Outside the scope of the work. However, it is noted. No financial support from external sources. The study was a non-invasive one and was not likely to cause any physical harm. To deal with ethical issues associated with this study, verbal permission was sought from all farmers, community heads and respondents associated with the study. The purpose of the study was comprehensively explained to them and they were given the opportunity to decide whether they will like to participate in the study or not. Data collected were also held in strict confidence. Disagreed. Descriptive analysis of these
--	--	---



SDI Review Form 1.6

	- Table 3. (Lines 207-210). Also present these figures in US Dollars (USD). - Table 4. In the Methodology section, you stated that three functional forms of your OLS regression analysis had to be investigated (Linear, Semi-log and Double-log). Present results of these three models in Table 4. It is critical as we need to know which model fit data the best based on R^2. It would be friendly for understanding. References: References to be presented as depicted in Guide for authors of the Journal.	variables is not too relevant. Disagreed. The research was carried out in Nigeria Naira and the USD equivalent is not stable. Disagreed. Estimate of the Semi-log model was presented as the lead equation based on econometric considerations as stated in the Methodology. Effected
--	---	---



SDI Review Form 1.6

Minor REVISION comments	Introduction The reference [3] is not mentioned in this part of the manuscript. You have pointed out malaria infection the leading cause of morbidity and mortality in SSA countries. So, present some figures on morbidity and mortality worldwide and Africa. You can consult world malaria report of 2016. You forgot the item “Diagnostic” in the definition of direct costs related to economic impact of malaria. Lines 56-57. “.....very little research has been recorded on the subject matter.” Present this “little research” i.e. So to speak to present some studies addressed the topic of your study (Effect of malaria infection on productivity and economical impact). Materials and methods Line 70. “The state has a significant farming population.” It is not sufficient to say such allegation without mentioning figures on farming population in Kogi state. It is critical for readers to appreciate how important this study area is in terms of farming activities. Line 84. “Primary data obtained through questionnaire administration.....” What are these primary data? In addition, these ones were collected using a questionnaire but the method of collecting is not mentioned (i.e. interview for instance) in the manuscript. Structure the “Methodology” section as: 2.1. Study area	Effectuated Report on figure was narrowed down to Nigeria as a country in SSA. Noted Effectuated Effectuated. No exact figure on this. However, the percentage was given. Data are of two types: primary and secondary. Primary is the one used for this study. they are data obtained directly from the respondents. Questionnaire administration is a method of
---------------------------------------	--	--



SDI Review Form 1.6

	2.2. Sampling method and study population 2.3. Questionnaire 2.4. Direct and indirect costs of malaria infection 2.5. Ethical issues 2.6. Statistical analysis Line 129. Change “will be analyzed” to were analyzed. Line 130. Change “will be selected” to was selected. Results and discussion Table 1. Some information to be completed and mistakes corrected. - Standard deviation (SD) to be associated with mean values of variables “Age”, “Farming experience (years)” and “Farm size (hectares)”. - Categories “Widower” and “Widowed” should be combined as a whole. - Percentage value of farmers having Farming experience (years) is miscalculated. Indeed, you computed 16.7% for farmers having experience ranging 31-40 years instead of 10.8%. Percentage value of farmers ranging between 41-50 years was also miscalculated. Table 2. This table should be properly captioned. For instance, “Dist to water” stands for what? t ? Std. Err.? Etc. Lines 147-148. “The mean age of 43 years age could be seen as a productive and is requisite for manual labour required for agricultural production.” I think this explanation does not allow understanding the relation to mean age. If not, reformulate and argument. Lines 149-151. Younger farmers could possess the immunity to withstand malaria incidence and as well have reduced days of	data collection. Effected Effected Effected Effected Disagreed. They are different. Effected Effected
--	--	---

incapacitation with increased output. I think this explanation is not necessary in this part of the "discussion" section focused on socioeconomic data of respondents. You could use it when relation between age and malaria incidence will be addressed as a statistically significant association has been found between these both variables in this study.	Effectuated
Lines 151-152. Marriage could be seen as the basis for labour availability necessary for farming activities. This explanation is too elusive. Develop this idea about the relation between marriage and farming activities.	Effectuated
Lines 158-161. The average year of farming of 9 years among the respondents..... with its effect on higher output. You express too much assumption. Did you study the relationship between number of farming years and productivity?	Labour availability is also necessary for farming activities.
Lines 162-163. Most farmers are into farming venture as source of livelihood and not necessarily for commercialization Is it a result you are being presented or rather one item of discussion?	Effectuated
Line 178. The coefficient (0.123) of farm size was positive and significant at 1%.	
Many researchers around the world have misconceptions about the interpretation of P-value. For most of them, $p < 0.05$ and $p < 0.0001$ are referred as to "Significant" and "Very significant". One of the pioneers of inference-based statistics (i.e. Ronald Fisher) randomly set the 0.05 threshold. Knowing this, I think distinction between $p < 0.05$ and $p < 0.0001$ is nonsense. You should used the threshold of 5% to draw all you conclusions only.	It is in furtherance of the farm size. Trying to justify the small farm holding among the respondents.



SDI Review Form 1.6

	Lines 178-183. "The coefficient (0.123) of farm size..... hence malaria trans-mission." I think you should also focus on the duration of exposure to malaria transmission to explain the link between farm size and malaria incidence. Indeed, farmers having larger farm size will spend more time to agricultural activities than their counterparts having smaller one. Line 183. Change "trans-mission" to transmission. Lines 192-198. "The coefficient (-0.048) of age..... in incidence rate." Find some authors having reported the influence of age on malaria incidence in adults. Line 213. Why do Costs of transportation to health facilities are not presented in Table 3? Line 219." Furthermore, the mean household income per....." How Income of household heads was documented? Present descriptive statistics of this variable in Table 1. Table 4 within this paper should be properly captioned. Line 263. Change "prevents" to prevent Present some limitations of this study.	Disagreed. This study distinguish between $p < 0.05$ and $p < 0.01$. The threshold of 5% was used to draw general conclusion in the abstract. Noted Effectuated Relevant author was cited. Distance to health facility takes care of that. Relevant descriptive statistics have been presented in Table 1. Effectuated Effectuated No serious limitation
<u>Optional/General</u> comments	This study is very relevant especially in field of health economics.	Noted!