



SDI Review Form 1.6

PART 1:

Journal Name:	International Journal of TROPICAL DISEASE & Health
Manuscript Number:	MS: 2012/IJTDH/2110
Title of the Manuscript:	Evaluation of field performance of insecticide-treated mosquito nets in north-western Burkina Faso

General guideline: Reviewers are requested to follow these guidelines during review: *(Note: Title of different sections as proposed below may differ in case of review paper / case reports)*

- Introduction *(Is the problem/objective of this study original, important and well defined?)*
- Materials & methods *(Kindly comment on the suitability of the methods. Sufficient details of the methods should be provided to allow peers to evaluate and/or replicate the work)*
- Results & discussion *(Kindly comment on: 1. Are the data well controlled and robust? 2. Authors should provide relevant references during discussion. 3. Discussion and conclusions should be based on actual facts and figures. Biased claims should be pointed out. 4. Are statistical analyses must for this paper? If yes, have sufficient and appropriate statistical analyses been carried out?)*
- Conclusion *(Is the conclusion supported by the data, discussed inside the manuscript? Conclusions should not be biased and should be based on the data, presented inside the manuscript only)*
- Are all the references cited relevant, adequate? Are there any other suitable current references authors need to cite?
- This form has total 9 parts. Kindly note that you should use all the parts of this review form.

COMMENTS.

Introduction: The authors need to give more details on the importance of their study. As it is now they have made an assumption that readers of their work have prior knowledge on the current malaria control methods that are in use. This needs to be explained for the benefits of scholars, students and policy makers who are the likely beneficiary of this study. There is need for an explanation why LLINs are preferred to conventional ITNs, giving relevant references. On the pyrethroid resistance, the authors need to evaluate literature on the work of Anto et al 2009, in Kassens-Nankana district of Ghana, Rubaihayo J et al 2008, in western Uganda and Vulule et 1994 in western Kenya.

Methodology: 1. Study area; the author needs to give the geo-reference of the study area. 2. At line 50 and 51 the author states that the ITN evaluation method used was similar to the one used by Mueller *et al* 2002, for the benefit of readers who may not be able to access the reference, the author needs to describe the method in full. 3. A questionnaire was administered inquiring about ITNs



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characteristics, it is important to describe the kind characteristics that the author sought from the respondents that were relevant to the study. 4. The author needs to describe the method used to determine insecticide concentrations on nets and reference the original author of the method and should not give a reference of the study that used a similar method. 5. The author should give the reference to the WHO standard cone bioassay method used to measure ITN efficacy. 6. Finally, even though the statistical analysis package used was appropriate, some variable models used were not relevant to the study e.i why were variables like time since latest impregnation and number of washes since latest impregnation used as variables yet the nets that were used in the study were PermaNet an LLIN that are factory treated and do not need further impregnation in the field.

RESULTS AND DISCUSSION. The results are very brief, could do with more. For example with the large number of mosquitoes involved it would have been more informative if WHO tube tests would have been carried out using discriminatory doses of Deltamethrin to confirm the susceptibility status of *Anopheles* in North western Burkina Faso. More information needs to be given on the *Anopheles* strains used as negative and positive controls. The discussions are also very brief, with only one reference. There is need for more discussions on the authors findings and how they relate similar studies done elsewhere giving relevant references. The authors should consult the current WHO publications/reports on the same.

CONCLUSION: Before this conclusion is made, the author should familiarise himself with various WHO reports on definition of insecticide resistance particularly WHO/CDS/CPC/MAL/98.12. The standard criteria for determining resistance are: <80% mortality = resistance confirmed; 80-98% mortality = resistance needs to be confirmed with further testing; 98-100% mortality = population fully susceptible.



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PART 2: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part and write here 'Corrected'/ if not agreed, give suitable justifications)
<u>COMPULSORY REVISION</u> comments	All the section highlighted above: introduction, methodology, results/discussion and conclusion.	
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments	This is an important subject matter which the authors should be encouraged to publish.	

Reviewer Details:

Name:	Francis K. Atieli
Department, University & Country	Medical entomologist. With long outstanding experience in field and laboratory evaluations of insecticide treated materials used for malaria vector control."Kenya