Reviewer's report

Title: Malaria treatment in the retail sector: drug sellers' knowledge and practices in rural Tanzania

Version: 1  Date: 30 January 2008

Reviewer: Ceilia Stalsby Lundborg

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Review Cecilia StÅ¥lsby Lundborg
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General comments

The area comparison of performance in general stores as compared to drug stores is new and interesting. The manuscript is generally well written, but there are several points that need to be attended to before it is possible to fully evaluate the paper.

Specific comments

1. The title should more correctly illustrate the content of the paper. It should be clear that both specific drug shops and general shops are in included. The use of mystery shoppers could maybe be reflected or the result that drug stores generally performed better.

2. The abstract could generally be more informative. A more specific statement of the aim is needed. The methods are poorly described.

3. Background is generally ok, but the aim needs to be more specifically presented. It is somewhat unclear if and if so which antimalarials can be sold in â##Duka la Dawa Baridisâ##. To my knowledge, which may be old at least SP was allowed to be sold in these shops.

4. The methods section needs several clarifications. It is unclear what is meant by â##a complementary qualitative study using mystery shoppersâ##. In what respect is this study qualitative?
   a. Under â##Shop censusâ## it is mentioned that shop keepers were asked to mention signs and symptoms of malaria. How was this done, with or without prompts? How were the case scenarios â##Uncomplicated malaria in a childâ## and â##in an adultâ## presented? Was it really the shop keepers that were interviewed? Other persons without medical training may be acting as substitutes.
   b. Under â##Mystery shoppersâ## it is unclear why the sample of 111 general shops was chosen. A better description of the sampling is needed. What implications did the sampling strategy have for the analyses?

   What is meant by that the â##case scenarios were randomly assigned to each
shopâ##?

What is a â##suitableâ## mystery shopper? It was good that local people were used as they would fit in the context, but it also raises several methodological issues. If I understand correctly, each mystery shopper only visited one shop. How similar were the visits to different shops, how were the â##shoppersâ## trained? Were they not recognized in the shops if they were local people? Maybe they even knew the seller? How could a healthy child be presented as a child with severe malaria? The scenarios could be presented more in detail.

5. Data entry and analyses. Nothing is said about the so called qualitative analysis. Generally qualitative analyses can not be performed by any software. Please describe. Something could also be said about the analysis of the quantitative data. What implications does it have that a finite number of drug shops are compared with a random sample of general shops? When a finite number is used, the true value is obtained and the confidence interval has really no meaning. Please explain.

6. Ethics. Were not the data reported back in any form to the shop keepers? The pictures included, is there any permission from the shop owners to use them?

7. Results. With reference to what is mentioned about the finite number and CI above, the variation would be more interesting to present for drug shops. Generally it is difficult to comment the result section before clarifications have been made regarding the method. However to present percentage with one decimal regarding the 29 (in some cases only 17 shops selling drugs, in some cases is even 10/11 presented as 90.9%) shops is not a good way of presenting results. In such a small sample it is questionable to give percentage at all (since one observation in the case n=29 would be approximately 3%), and defiantly not with a decimal. The result section is also very long with unnecessary repetitions from the tables.

Figure 1 lacks legend and explanations and is generally difficult to understand.

8. Discussion. The start of the discussion would fit better as part of the introduction. There are some inconsistencies. Also I donâ##t understand the comment on upgrading general store to drug retailers, page 18. If I understand the ADDOs program correctly that is about upgrading already existing drug sellers by training and interventions to improve their self-esteem and allowing them to sell a few prescription only drugs.

Please number your comments and divide them into

- Major Compulsory Revisions
All my comments belong to this category.

- Minor Essential Revisions
Some of the comments also includes this type of comment,

- Discretionary Revisions
9. I have not made any such comments.

What next?
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Based on your assessment of the validity of the manuscript, what do you advise should be the next step?
- Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest
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- An article of importance in its field

Quality of written English
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- Acceptable

Statistical review
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- Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests
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- Do you have any non-financial competing interests in relation to this paper?
I'm involved in similar studies in Tanzania.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.