Reviewer's report

Title: Knowledge, attitudes and practices towards malaria prevention among vulnerable groups in the Buea Health District, Cameroon

Version: 1 Date: 3 June 2014

Reviewer: James D Millard

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Major Compulsory Revisions

Line 118-119: Need to clarify if the questions asked were multiple-choice or allowed any answer to be given. Difficult to interpret the results section without this.

Line 135: Need to explain how a ‘community’ was defined. Need to explain how random selection was actually performed.

Line 200: Need to explain who made these distinctions and on what basis.

Line 271-277: Unclear that a multivariate analysis was warranted as none of the univariate analysis were statistically significant. In addition the statement “The odds of having a good level of knowledge on malaria was 0.43 times higher among the secondary/high school/university level participants compared with none/primary level participants ” does not appear to make sense. I suggest this section is removed.

Lines 364-384: As above, I don’t not think this is supported by the evidence in the study.

Lines 405-407: It is not clear what this limitation refers too. More importantly, there is no mention of other potential limitations to the study.

Minor Essential Revisions

Line 55-56: “Malaria is a serious public health problem in Sub-Saharan Africa. It affects the health and wealth of nations and individuals alike [1].” This statement does not appear to be supported by the reference quoted.

Line 56-57: “Annually, malaria kills more people in the tropics than any other infectious disease.” This statement needs a reference. The authors should also consider using a more specific term than ‘the tropics’ as this statement is unlikely to be true for all tropical regions.

Line 60-61: “In Cameroon, malaria is known to be a disease of poverty and a cause of poverty and its effects are most dangerous in children under five and pregnant women” These statements need referencing. Also need some explanation as to why children and pregnant women have been identified as
‘vulnerable groups’.

Line 66: “convulsion” should be plural

Line 66: “In children under five, the adverse effects include: convulsion, anaemia, coma and death.” This statement needs to be referenced.

Line 67-68: “Preventing malaria is of prime importance in reducing the rates of morbidity and mortality in the country.” Would suggest supporting this statement by giving some statistics r.e. the burden of malaria in Cameroon.

Line 70-73: “The practice of malaria preventive measures has been related to the level of knowledge and belief of people. The understanding of the possible causes, modes of transmission and decision about adoption of preventive and control measures vary from community to community and among individual households [2].” These statements don’t appear to be fully supported by the reference, particularly the variation from community to community as the reference is only from 1 setting.

Line 73-74 “The current emphasis on malaria control is centred on community-based strategies.” This statement needs referencing.

Line 88-90 “As such practices for the control of malaria have been unsatisfactory despite the serious adverse effects of the disease in the Buea Health District, thereby necessitating an update on the situation in the area” Again, I would like to see this statement supported by some information on the local burden of disease.

Line 105-106: “However, there are a significant number of other ethnic groups from all over the country as well as foreigners” Does this have a reference?

Line 135-37: Need to explain how each household was defined.

Line 210: Again, need to establish if multiple choice or not. If not, then how many answers did each participant give? i.e. did they given one ‘correct’ answer amongst several ‘wrong’ answers but still counted as “at least one correct answer”?

Line 217: As per comment for line 210.

Line 244: What were the correct methods stated?

Line 261: It is not clear what this line means.

Line 264: Presumably they mean ‘was not’ significant rather than ‘was’ significant.

Line 320-322: “This shows that the knowledge of the community is far from perfect and misconceptions are common.” I don’t think that this statement is supported by the study, particularly as they report 93% of participants characterising malaria as a dangerous disease in the same paragraph.
Line 333-334: Need to comment on the comparability of these two studies i.e. did the other study define “correct understanding of malaria” in the same way.

Discretionary Revisions

Line 40-41 – Consider re-wording the statement “Overall, 92% of respondents had the right perception of malaria...”. Statement presupposes a knowledge of what ‘right’ is in this context.

Line 41-42 – Consider re-wording “The most popular sign of malaria was fever” to something like “The most recognised sign of malaria was fever”.

Line 69 – Consider re-wording “…will save lots of money that...” to something less informal.

Line 168-69 – Consider re-wording “Most of the interviewees were indigenous Bakweris (144, 33%)” to something like “The single largest ethnic group were.....” because ‘most’ of the interviewees (77%) are not Bakweris.

Lines 305-308: Consider the fact that high malaria endemicity may be due in large part to optimum environment conditions for malaria rather than health care.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests