Reviewer's report

Title: Parasite-based malaria diagnosis: Are Health Systems in Uganda equipped enough to implement the policy?

Version: 3 Date: 2 July 2012

Reviewer: Heidi Hopkins

Reviewer's report:

General comments: This is a timely and potentially valuable report on the current capacity of health centers (clinics) in Uganda to implement parasite-based malaria diagnosis, a critical public health priority. The study makes the important point that overall health systems needs must be addressed when implementing a seemingly-simple new public health policy – in this case, the WHO and national policies to confirm malaria diagnosis using microscopy and rapid diagnostic tests (RDTs) – and the manuscript supports this point using data collected from a representative sample of Ugandan health centers. In its present draft, this manuscript provides valuable instruction for public health leaders within Uganda; with some revisions, it will also be a timely and useful message for the larger global health community.

My specific comments are listed below. All page numbers listed refer to the pdf document downloaded from the BMC reviewers' website.

“Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)”:

1) The data presented in this manuscript cover a broad range of “capacity needs,” and the authors make good use of a conceptual framework (Potter & Brough, reference 12) to categorize these needs for analysis and reporting. However, within each category or “tier” of needs, it is not always clear what standards were used for assessment of the health centers surveyed. For example, in the Results section, 36% of health workers are described as “sufficiently knowledgeable in identifying clinical symptoms and signs of severe malaria” (page 8, Skills, sentence 3); and “support supervision was weak and erratic” (page 8, Staff and Infrastructure, Supervisory capacity, sentence 1); and “10% patients referred had received adequate referral care” (page 10, first sentence) – but I cannot find any description in the Methods or Results section of what criteria were used to draw these conclusions. As much as possible, it would be very helpful for each category or tier, to systematically: a) specify in the Methods which survey instruments (see comment 2 below) and standards were used; b) specify in the Results what specific data or information was obtained (using summary statistics/proportions as appropriate), and then c) draw conclusions and editorialize in the Discussion section. The authors make an excellent point with this manuscript – and a clearer, more precise presentation of the information collected and measurement standards used will bolster the
strength of their message.

2) Methods, Study design and setting, paragraph 1, last sentence, states “Most survey instruments were adapted from the WHO hospital care assessment tools.” However, no reference is provided. I think that many readers would be interested to review the survey tools, possibly with the intention of using them in their own settings. At the very least, please provide references and links for these tools. In keeping with comment 1 above, I think it would be even more useful to provide the actual survey instruments used for this study (as supplementary on-line documents, etc). This will help readers’ comprehension of the current report, and also will enable replication of the study approach in other settings.

3) The current draft of the manuscript includes several terms that are not widely understood or used outside Uganda, e.g. “HC II” and “HC III,” “askari,” “in-charge,” “malaria focal person,” and some clinician titles (“enrolled nurse,” etc). Some of these are defined at some point in the manuscript, but in general the use of these local terms detracts from the report’s readability and relevance outside Uganda. Please use generic, globally understood terms as much as possible. For example, for the purposes of this manuscript, the difference between HC II and III relates mostly to size of the catchment population, intended presence or absence of microscopy, and staffing levels. This could be briefly described in the Methods (as already done to some extent in the first paragraph of that section) and then referenced where necessary in the Methods and Results sections; but the Abstract, Introduction and Discussion are likely to be clearer if the health centers are considered as one category of “peripheral health facilities” or “lower level health facilities” as already used in the Discussion. “Askari” can be translated as “guard.” For the various clinician categories (clinical officer, enrolled nurse, etc), perhaps relevant details of education and responsibilities could be briefly summarized in a table or in a paragraph in the Methods section.

“Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)”:

4) Please clarify how the health workers interviewed were selected. The current manuscript states only (page 8, Skills, sentence 1) that “a total of 131 health workers found at the health centers were interviewed.” Does this mean that any health workers who happened to be at the center on the day interviewers visited were interviewed? Or another approach?

5) Page 9, Referral practices, sentences 3 and 8 appear to be contradictory and/or redundant.

6) Please provide reference citations for the following sentences:

a) Page 4, Background, paragraph 1, sentence 4: “In 2008, 33 of 43 malaria-endemic countries in Africa were working to institute…”

b) As in comment 2 above, page 5, Methods, Study design and setting, last
sentence: “Most survey instruments were adapted from the WHO…”

c) Page 6, Staff and infrastructure, sentences 2-3: “The recommended staffing norms for HC II are…”

d) Page 13, Staff and infrastructure capacity, sentence 9: “The ethical challenge is that nursing assistants … offer are a form of ‘unrecognised and unregulated task-shifting’.”

7) For the final manuscript, please proofread and standardize usage of capital letters, punctuation and abbreviations. For example:

a) Generic drug names are not capitalized, e.g. artesunate rather than Artesunate.

b) Standardize punctuation, e.g. most of the semi-colons (;) in the current draft should be replaced with colons (:).

c) Use abbreviations or acronyms sparingly; and where they are used, define them early and then use them consistently throughout the rest of the manuscript. E.g. currently, “PDM” is presented early on as an acronym for “parasite-based diagnosis of malaria” but then it is not used consistently throughout the manuscript. “SSA” (sub-Saharan Africa) and “EMSH” (essential medical and health supplies) are introduced but then used only once afterward – these abbreviations are not really necessary. “LLHF” (lower level health facility) may be usefully introduced earlier in the manuscript as it can generically encompass “HC II and III” which is not understood outside Uganda. Etc etc etc.

“Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)”:

None, besides general copy editing and proofreading which can be done for the final version of the manuscript.

Level of interest: An article of importance in its field

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.