Author's response to reviews

Title: Baseline assessment of adult and adolescent primary care delivery in Rwanda: an opportunity for quality improvement

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Author's response to reviews: see over
Dear Editor(s) and Reviewer:

Thank you for consideration of our manuscript above, and for the extremely helpful reviews. We have attempted to address each of the comments in detail and in a point-by-point fashion as described below:

Review #1 – Mirkuzie Woldie

1. Comment #1 – “The research question being addressed in the article has to be indicated at the end of the background.”
   a. We agree, and have amended the text on p.1, paragraph 1, to read: The objective of this study is to describe the routine quality of care for adults and adolescents at OPDs in a rural district in Rwanda in order to document the current quality of care, identify needs for improvement, and propose possible interventions going forward.

2. Comment #2 - The authors have to clearly show whether the eight health centers are the only health centers in the study district. If not indicate the criteria for selection of those HCs.
   a. On page 6, paragraph 2, we clarify the language: The study was conducted at all eight of the Ministry of Health (MOH) health centers that fall under the district hospital catchment area, and all of which receive support from Partners In Health-Inshuti Mu Buzima (PIH-IMB).

3. Comment #3 - Why was the age of 13 years taken as the cut-off point? Please, elaborate on this issue in the study population section.
   a. We have clarified this point on page 6, paragraph 2, under “Study Population”, by adding the following sentence (with references): There is no clearly defined age cut-off between childhood and adolescence in Rwanda [50]. Age 13 was chosen for this study based on definitions used by the United States’ Centers for Disease Control (CDC) [51]. Data at each health center were collected over one week, with all centers visited in eight successive weeks.
4. Comment #4 - I strongly suggest that the authors have to sufficiently justify why they chose not to obtain consent from both the provider and the patient. Although no identifiers are reported it is not fair to intrude in the privacy of the patient and the provider without informed consent of both parties.
   a. We have clarified the waiver of informed consent on page 9, final paragraph under "Ethics", which now reads as follows: This study was approved by the Rwandan National Ethics Committee and the Institutional Review Boards (IRB) at Partners Healthcare and the London School of Hygiene & Tropical Medicine. Data were collected as part of routine program monitoring of an ongoing mentorship and quality improvement intervention in the study district. No identifying nurse or patient information was collected. As such, the IRB approved a waiver of informed consent under the routine use of program monitoring data. However, patients were explained the purpose of the data collection and could opt-out if desired.

5. Comment #5 - Every time an abbreviation is introduced there is a need to indicate its full meaning. Please, do that for IMAI in the findings section of the abstract.
   a. We have, instead, defined the IMAI abbreviation earlier in the abstract under "Methods" (line 8), and then re-use the abbreviation on line 21 under “Conclusions”

6. Comment #6 - Please, provide at least a reference for this statement: "However, there is little agreement on what defines quality of care to adults and adolescents for many conditions managed in this primary care setting." Which works indicate this disagreement?
   a. We have rephrased this to read: “However, there are currently no benchmarks or targets established to define quality of care for adults and adolescents for most conditions in this primary care setting.”

7. Comment #7 - On the first sentence of paragraph 2 of the background section then you have to correct the subject verb disagreement: “Little rigorous study” should be “Few rigorous studies…”
   a. This has been done as advised.

8. I suggest that the authors separately present the data collection procedures and data analysis sections.
   a. This was also done as advised.

Associate Editor’s Comments

1. Comment #1 - This paper provides a useful, but unsettling base line on the quality of diagnostic and therapeutic care for adults at primary health care level. It would be useful to clarify that these are only two (but essential) components of quality of care more broadly.
   a. On page 16, paragraph 1 we write: We have also presented clinical decision-making on diagnosis and therapeutics as a proxy for quality of care, but these are only two key components. We did not measure clinical outcomes, nor define current costs, infrastructure, and human resources which all impact or help define quality and which could be pursued in future research.

2. Comment #2 - I also feel that more information is needed in the background on the nature of the algorithms and approaches used by IMAI - not all readers will be familiar with them.
a. Page 5, paragraph 2 we have added the following text: Like IMCI, these syndromic protocols are organized around symptoms (e.g. fever, cough, diarrhea, etc.) and include a simplified approach to patient history and physical exam. These protocols then provide prescriptive guidance on the management (triage, screening, diagnose, treatment, and follow-up and referral) for a variety of conditions commonly seen in adult outpatient care.

3. Comment #3 - I will ask you to respond to reviewer's comments - in particular, the sample needs to be clarified and the decision not to seek informed consent expanded - most ethics committees would see the process as potentially intrusive, even where confidentiality was preserved.
   a. See response to Reviewer #1 above, Comment #2, and #3 regarding the sample, and Comment #4 regarding informed consent procedures.

4. Comment #4 - The other issue that was conspicuous was the dissonance between diagnosis and treatment in many conditions - comment on this would be useful.
   a. We have also added a comment in the Discussion on page 14, paragraph 2: Nurse diagnosis and treatment decisions were in agreement with the clinical mentor approximately half of the time or less. Agreement in diagnosis and treatment for the same condition often varied dramatically (eg, epigastric pain, fever), suggesting large variation in individual practice.

5. Comment #5 - The study presents a baseline from which action needs to be taken - a short indication of how the IMAI might respond to these inadequacies and what form of intervention would be proposed would be useful.
   a. On page 15, final paragraph, we write: The data demonstrate that nurses manage some illnesses better than others, and that performance differs significantly between sites, suggesting that standardization of care, as well as performance measurement coupled with mentoring and systems-based quality improvement are needed. In addressing issues of decision support, integrated training, and standardization of care, protocols such as IMAI could represent an important part of a toolkit for developing a common standard of OPD care for adults and adolescents and improving quality of OPD services.
   b. On page 16, 2nd paragraph under Conclusions, we have clarified: Care based on IMAI or other integrated protocols, accompanied by a robust system of mentorship and supervision that focuses on individual performance as well as systems-level gaps, could be an important approach to simplifying and standardizing the delivery of care for common acute presentations for adults and adolescents in the ambulatory setting.

6. Comment #6 - Tables: Please ensure that the order in which your tables are cited is the same as the order in which they are provided. Every table must be cited in the text, using Arabic numerals. Please do not use ranges when listing tables. Tables must not be subdivided, or contain tables within tables. Please note that we are unable to display vertical lines or text within tables, no display merged cells: please re-layout your table without these elements. Tables should be formatted using the Table tool in your word processor. Please ensure the table title is above the table and the legend is below the table. For more information, see the instructions for authors on the journal website.

7. Comment #7 - Please remove the key words from the title page and place it after the abstract section of your manuscript.
   a. Done as advised
8. Comment #8 - Kindly state that consent was specifically waived by ethics committee.
   a. This has been added.

Thank you so much for your consideration and for your time and effort in reviewing our work. We hope we have addressed all of your concerns to your satisfaction, and if this is not the case, that we will have further opportunity to do so. We look forward to your response.

Sincerely,

Ashwin Vasan, M.D., M.Sc. (on behalf of the authors)