Author’s response to reviews

Title: Addressing malnutrition among children in routine care: How is the Integrated Management of Childhood Illnesses strategy implemented at health centre level in Burundi?

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Author’s response to reviews:

Reviewer’s comments Response

Reviewer 1

Overall

This reviewer appreciates the opportunity to read this informative work. Studies of this kind are needed to evaluate the implementation of strategies to address malnutrition. The authors have carefully outlined the shortcomings and made a compelling case for action to strengthen the integrated approach to addressing malnutrition in Burundi's healthcare settings

Author: Thank you

"Height" should be changed to "height/length" since length is the likely measure for the youngest children.

Author: Well noted and addressed as suggested

Abstract:
The abstract effectively summarizes the manuscript.

Author: Thank you

Introduction:

Line 62: Please provide estimates of under-5 mortality.

Author: Addressed Line 60-61

“with an average under-five mortality rate of 79 deaths per 1,000 live births in 2016”


Line 64: Missing citation.

Author: Thank you, we’ve added the citation (line 63).

Line 94-96: The research question should be rephrased as it implies a measure of change. This study design is unable to address improvement since there is no pre-IMCI baseline with which to compare

Author: Sorry for the misunderstanding, the question is below actually. The sentence you mention was reformulated as follows: “Whether or not IMCI guidelines are implemented by HWs in the management of health needs of children under five, our focus in on screening and management of malnutrition” (Line: 93-94)

Methods:
Line 184: There is no mention of the statistical tests used for the bivariate analyses. Where p-values adjusted for multiple comparisons? There are 64 comparisons in Tables 6 and 7.

Author: We apologize for that. Our aim was not to measure the strength of the association with certain characteristics (moreover there are other characteristics that may be associated with HW performance that were not measured and actually required qualitative work, like the level of motivation, income of HWs, etc.) but rather to explore how HWs behave in the presence of children. We addressed your comment by adding the following text:

“Finally, bivariate analysis was used to explore associations between HWs performance and their characteristics (such as gender, age, contract type, etc.) with regards to the malnutrition component of IMCI guidelines. We used the Pearson's chi-squared test to compare HWs for some of their characteristics and adjusted the p-value for multiple comparisons using the Bonferroni correction.” (Line: 176-179)

Line 179: This is a good place to define "systematically." It is not until line 226 that it is made abundantly clear that systematically means "for every child."

Author: Thank you, well noted and addressed as suggested (Line: 173-174)

Results:

Line 243-245: The word "advice" is both singular and plural.

Author: Well noted and addressed (line 235-237)

Line 250: missing the word "likely."
Author: Well noted and addressed (line 248)

Line 251-253: It is unclear what the bivariate comparison between male and female adds to the study as it is not addressed in the discussion section. Are male and female health workers trained differently or given different responsibilities? I am inclined to interpret the significant result here as a Type I error. Surely the p-value of 0.04 would no longer be interpreted as statistically significant if the p-values were adjusted for multiple comparisons. However, the tables show that the female health workers are performing better than the males on every task and warrants discussion regardless of statistical significance.

Author: Well noted and taken into account, a possible assumption (below) is added in the discussion section: “This is because in our culture, it is the women who care most about the children at home (breastfeeding, feeding them, getting them to vaccination, or in curative consultation in case of illness). It is quite possible that these mothers who are used to care children needs better investigate the problems of the child who is brought to a curative consultation”.

Line 271: remove the word "On."

Author: Well noted and addressed as suggested (line 264)

Discussion:

The discussion fails to provide a potential explanation for the gender and contract differences in health worker performance.

Author: Line 304-310 added:
"Overall, the results suggest that female health workers perform better than males on every task. We believe that this can be glued to the fact that in our culture, it is the women who care most about the children needs at home (breastfeeding, feeding them, getting them to vaccination, or in curative consultation in case of illness). It is quite possible that these mothers who are used to care children needs better investigate the problems of a child who is brought to curative consultation.

We also found that HWs who have a contract with the government perform better, suggesting that the stability these contracts confer does not entail their motivation, on the contrary.

Line 283: This reviewer would avoid using judgmental language. Perhaps replace "is disappointing" with something like "indicates a missed opportunity to benefit Burundi's children."

Author: Well noted and addressed as suggested (line 274-275)

Line 315 and line 321: These sentences are, in my view, too judgmental and warrant rephrasing with the target audience in mind.

Author: Well noted and addressed as follow:

Line 315: this sentence is actually deleted(because information that it referred to was given
elsewhere)

Line 321–line 316: sentence rephrased as:

Even these minimal tasks are not properly completed.

Line 326: Is the word "same" a typo for "SAM"? If so, the suggestion of having every child screened by the health worker in charge of managing malnutrition seems to run counter to IMCI and its feasibility is questioned.

Author: It is not a typo; however, sentence rephrased as follow:

These results suggest that allocating nutritional services as well as curative consultations to

the same HW would increase screening for malnutrition (Line 321)

Line 362 - 366: Take care not to generalize these results beyond your study population. Comparing your results to those of similar studies is good; however, this study alone does not have implications for non-studied countries.

Authors: Well noted Rephrased as follow:

But the implications of our study go also beyond Burundi. As shown in our discussion, our findings are consistent with those of other countries studied. There seems to be a serious problem with the implementation of the IMCI strategy in those countries. This is very worrying as the strategy, designed for countries with high child mortality and low availability of medical staff, is the cornerstone of pediatric care for hundreds of millions of children.(Line 357-361)

Table 2:
Revise headers: "Cases asked (%)", "95% CI"

Author: Well noted and addressed

Table 3:
Add total sample size to title

Author: Well noted and addressed (N=145)

Tables 4 & 5:
Add a note defining "systematically."

Author: Well noted and addressed

Tables 6 & 7:
Add total sample size to title

Author: Well noted and addressed

Were the p-values adjusted for multiple comparisons? Once done, add a note explaining this and the statistical tests performed.

Author: Well noted and addressed as follow:

Table 6:
P-values were adjusted for multiple comparison and after Bonferroni correction,

p-values were no more significant.

Table 7:
P-values were adjusted for multiple comparison and after Bonferroni correction,

p-values were no more significant.

Add 95% CI around the differences, so readers can understand the precision of your estimates.

Author: Well noted and addressed
Reviewer 2

The paper is interesting and well designed. Findings from this study might add another important piece in the complex healthcare management in this country.

Author: Thank you

limitations should be highlighted in the discussion section

Author: Limitations are described lines 335-341

English language needs to be polished

Author: manuscript reviewed by someone who is fluent in English