Author’s response to reviews

Title: Evaluating capacity at three government referral hospital emergency units in the Kingdom of Eswatini using the WHO Hospital Emergency Unit Assessment Tool

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Author’s response to reviews:

Abstract

• Please be sure the aim matches the Conclusions. In this case, perhaps you could add to the aim something like: "and provide recommendations to guide future improvements."
We feel that the current aim – “to evaluate the current capacity of hospital emergency care areas using the WHO Hospital Emergency Unit Assessment Tool (HEAT) at government referral hospitals in Eswatini” – is represented in the first sentence of the conclusion. The following sentence is intended to suggest next steps using such results. (p2)

Background

• The references seemed problematic. They jump from reference 5 to reference 10. Later on, I did see references 8 and 9 cited, but never did see citation of numbers 6 or 7. Some of the actual references do not seem complete - like #8 for example.
Apologies – our references were, indeed, out of order. They have been updated.
• Also, several of the references refer to Swaziland. Please note that Eswatini is (or formerly was, or whatever is correct) also called Swaziland, which will help readers' orientation.
Thank you for this important suggestion. This has been noted within the introduction to assist readers in orienting themselves. (p4)
• I would eliminate the work "back" from "was assessed back in 2014."
Removed and revised. (p5)

Methods
• Although there is a brief description of the HEAT tool, we really need more. I did not find any references to its creation, validation, etc.

An original draft of this manuscript included a more extensive description of the tool and its derivation from numerous other existing tools; however, this information is at the discretion of WHO to provide upon request and is beyond the scope of the researchers. We have added commentary about the lack of validation in the limitations section and hope that this can aid readers in assessing the limitations in the data we present. (p14)

• The text says the four regional hospitals were randomized, with half being selected. What was the randomization method used? Why didn't you just study all four? Were the two you selected different from the other two?

We have clarified the process for selection (a random number generator) as well as rationale for limited inclusion (time and human resources) and setting of regional hospitals (all rural). (p5)

• In the long sentence that begins "The HEAT assesses…” and ends with reference #17 - I did not think reference 17 actually supported the information in that sentence. Please double check.

Perhaps this was erroneous when the references were out of order. The current version references numbers 11 and 12, both of which describe components of the HEAT that are used to assess capacity. (p6)

• A link to the HEAT tool would be helpful, as I am unfamiliar with it and it was not easy to find online. The HEAT can be made available upon reasonable request to WHO. Making it publicly available is beyond the scope of our team of researchers. We have noted this in the “Availability of data and materials” sub-section of Declarations, where we should have noted it initially! (p15)

Results

• Please give a few more details about the regional hospitals involved. How big is the catchment area of each? Do the populations differ? Why does Regional Hospital #2 have so many more emergency visits per year than the others?

We have included the approximate catchment population for the regional hospitals (p9). Specific numbers are not reported for catchment populations so as to allow some level of anonymity for these facilities. There is no explanation or documentation available for why Regional Hospital #2 saw a substantially higher number of emergency visits per annum, and the we do not feel that we can speculate on this.

• Also, since the results seem somewhat subjective, what training did investigators receive to translate subjective results into un-biased data? Were interviewers trained? Was there any concordance testing to be sure that similar answers were similarly coded?

HEAT results are minimally subjective (as described on p9). All data were either binary, numeric, or objective free-text (e.g. “name of facility”). There was no need for translation when coding any responses. Researchers were trained by tool developers in both administration, and data entry and analysis.

• It would be helpful to clarify which hospitals have which facilities. There are repeated occurrences whereby you say 2 of the 3 facilities had triage for example. Given the very different nature of each site as per Table 1, it would lend more context and clarity if you stated tertiary hospital and regional hospital one for instance or put it in a table.

We have clarified this where appropriate.
Conclusions

• I would like to see more recommendations, based on the close understanding that the authors got of the data. You should make clear that these go beyond the data, but you are in a position to better inform policy makers. We do not feel that it is appropriate to add additional recommendations within the Conclusion. We feel that the current content provides an adequate overview for readers; all relevant stakeholders at both the facility- and national-levels have received detailed reports outlining all recommendations.

• Please make sure that somewhere you tell the readers whether or not the authors had independence in writing the manuscript, or if the DoH or any other government officials influenced or ordained the content.

The Eswatini MoH is cited as an affiliated institution in the beginning of the manuscript. In the Declarations section, we note that all affiliated institutions have provided consent to publish.