

Reviewer's report

Title: Self-rated Health among Mayan Women participating in a Randomised Intervention Trial reducing Indoor Air Pollution in Guatemala

Version: 2 **Date:** 9 April 2008

Reviewer: Brendon Barnes

Reviewer's report:

The paper explores the relationship between improved cook stoves and self-rated health outcomes amongst Mayan women participating in a randomised trial in Guatemala. Results suggest that women who received the intervention were significantly more likely to report health improvements compared to women who did not receive the intervention. The paper makes an important contribution to the broader indoor air pollution alleviation literature and, more specifically, the literature on caregiver perceptions of indoor air pollution and health. The work is well written and should be accepted for publication subject to the following minor essential amendments

- Abstract: page 2, methodology section, combine the two paragraphs or clearly separate them.
- Abstract: page 2, results section, change (e.g. eye discomfort, headache) to (for example, discomfort, headache and so forth).
- Background: page 5, third line from the top, change 'heath of the women' to 'health of the women'.
- Methods: page 5, second paragraph, it should be made clear that the planchas were offered free of charge.
- Methods: the authors need to explain why there were two recruitment groups/waves?
- Methods: more contextual information is needed on baseline burning behaviours. Were open fires burned in a separate kitchen or room in the house? Do fires fulfil both a cooking and space heating function? Are children usually present when fires are burning?
- Methods: more detail is needed on the interview process. For example, how long were the interviews? Was anyone else present? Who conducted the interviews?
- Methods: page 7, point B, did respondents give answers not covered by the pre-structured categories? If yes, how were these captured and managed?
- Results: page 8, it would be useful to have the minimum and maximum age values as well as the mean and standard deviation.
- Table 1: change footnote reference from symbol to 'e'.
- Results: page 9 (reference to Table 3),

- o A clearer explanation and/or a revision of the layout of Table 3 is needed. For example, does the table summarise the sample stratified by any, respiratory or other symptoms (with the same explanatory variables in each)? If the table is based on these three categories, it is misleading to claim that average/poor health ratings are related to increasing number of symptoms (page 9) as this is not evident in the table.
- o What was the age cut-off used in the binary logistic regression? This is important to interpret the claim that average/poor health rating is associated with increased age.
- o Clarify why 'fieldworker' is included as a variable and not any others (for example, asset index).
- o Change 'moths' to 'months'.
- Table 4: change 'N' to 'n' in the table.
- Discussion: page 12, third paragraph, replace "perceptions: Firstly" with "perceptions. Firstly".
- Discussion: it would be very useful to outline recommendations for future studies.

There are also a number of discretionary amendments

- Amongst others, one of the more interesting findings is that planchas were associated with improved social status. Could the authors explain why and/or how this may operate?
- Given some of the disadvantages, did any of the participants attempt to adapt or modify the planchas in any way?
- Discussion: page 14, change 'should be due attention' to 'should be given due attention'.

Recommendation

The manuscript should be accepted subject to minor essential revisions outlined above.

Level of interest

An article whose findings are important to those with closely related research interests.

Quality of written English

Acceptable

Statistical review

No

Declaration of competing interests

I declare that I have no competing interests.

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