Reviewer's report

Title: Modeling the relationship between women's perceptions and future intention to use institutional maternity care in the Western Highlands of Guatemala

Version: 2  Date: 15 Oct 2017

Reviewer: Virginia Savage

Reviewer's report:

Overall, I believe that you addressed most of my previous comments, and that this paper offers very interesting information about the various factors that affect women's decisions to seek facility-based maternal health care in Guatemala. However, I have a few comments regarding some of the new additions to the manuscript, which I have listed below.

Writing style

1.) You have improved the clarity of terms, but I think the readability could be further improved, particularly in the new sections that were added. For example, there are some uses of parentheses that are not necessary. i.e., on page 7-8, "The Healthy Motherhood Law includes respect for traditional and cultural practices of indigenous populations and reinforces public services should be free and accessible (geographically, culturally)" when you could just say "should be free and culturally and geographically accessible." In another example, some sentences throughout the new sections begin with the general references "this" or "it," and it is not always clear to what those terms are referring.

Background

1.) On pages 6 and 7, the authors have added new sentences about: "Prior to the analysis of data, the authors developed a conceptual model to generate the hypotheses to be tested." Were the conceptual model and hypotheses developed before the analysis of data or before the development of instruments, collection of data, and analysis?

Setting

1.) You mention that 61% of births in El Quiché are attended by trained midwives, 33% are attended by doctors, and 3% are attended by nurses. Does that mean comadronas attend only 3% of births in the region? Or are "trained midwives" and comadronas (which were
specified in the paper as "traditional midwives") referring to the same type of birth attendant? And do midwife-attended births happen at home? Some countries have incorporated programs where midwives are available within health facilities, so it would be good to add a brief statement to clarify.

Methods

1.) In the first two paragraphs of the Methods section, I am still a bit confused as to the instruments and methodology. You mention "A census and accompanying household survey were conducted in 15 villages in Ixil during a five-week period" and later mention "URC granted permission to use the data for the present secondary analysis." However, you mention that "the authors employed a mixed-method approach...." I think it would be good to clarify what components of the manuscript draw from primary data analysis and from secondary analysis, as right now it remains a bit unclear.

2.) On page 10, you classify the two study groups as "those with experience using childbirth services" and "those potentially without experience, but who may be influenced by hearsay and experiences of others who have used facility care (home birth group)." I believe that women were grouped only depending on the location of their last birth. Did you consider participants who may have not delivered with a doctor or nurse for their most recent births, but had delivered in a health facility for previous births?

Discussion:

1.) On page 24 - "Another limitation may stem from recall bias when questioning women about experiences that may have occurred within a five-year time-frame. Such biases may be minimal, however, as women's recollections of obstetric events even more than five years later were found to be accurate, though this may pertain to more tangible events rather than subjective feelings" - Please specify that this finding comes from one study in Ghana. The way the sentence is worded now implies you are talking about your same study population.

Conclusion:

1.) In the first sentence of the second paragraph, "phenomenon" should either be written as "a phenomenon" or "phenomena."

2.) On page 30, when you say: "There is potential to adapt or build upon these indicators for future population-based or more routine data collection efforts," are "these indicators"
referring only to "willingness to recommend" questions or multiple measures that were included in the study? It would help to clarify.

3.) I believe "For example, the elements related to mistreatment or respectful care outlined by the Healthy Motherhood Law and other existing intercultural care guidelines from Guatemala" is a fragment.

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