Reviewer's report

Title: Determinants of maternal health services utilization in Uganda

Version: 7 Date: 7 May 2015

Reviewer: Natalie McGlynn

Reviewer's report:

This paper has improved substantially. In addition to the minor points below, more grammatical editing is necessary.

Minor
In the abstract, you mention: Women who lived in regions outside Kampala, Uganda’s capital were less likely to utilize the desirable package of maternal health services. Please insert Risk Ratio & 95% CI after that.

The writing is much better. However, it still needs improvement.

Lines 91-93. Mentioning that you used Andersen’s behavioural model in analysis at this place in your text does not make sense. Introduce your project, and then mention that you used andersen's model.

Lines 94-103. Your last paragraph needs re-working. You begin by discussing the strength of your study before your study has been introduced. Your paper would read better and appear stronger if you re-order each sentence.

I suggest:

While there is a strong rationale for improving utilization of health services to improve maternal health, there are limited studies that identify factors affecting uptake of maternal health services, especially among vulnerable groups in Uganda. Previous Ugandan studies have only addressed one of the components of care and not all. [6, 16–18].

This study investigated the predictors of low utilization of maternal health services encompassing prenatal, delivery care and post-delivery. Andersen's behavioural model of health care services utilization, which has been widely applied on survey data and various health services and populations [13–15], was used to guide selection of covariates that could affect maternal health services (MHS) utilization. Therefore, the purpose of the following study was to explore the association between selected socio-economic and demographic factors and the likelihood of utilizing moderate and desirable packages of MHS. This paper, therefore, contributes towards enhanced understanding of factors that influence uptake of maternal health services in Uganda, based on a combined indicator of skilled attendance at delivery, antenatal care and post-natal care.

Line 116 – put in 'according to Andersen’s Behavioural model, ”, the reader might
not know what model you are talking about.

Lines 116 – 138. I think your discussion of Andersen's behavioural model in context is a tad long-winded and confusing.

I would shorten to

In this study, Andersen's behavioral model of health service use was adapted to examine the relationship between individual-level socioeconomic and demographic factors and the utilization of a specific package of maternal health services. According to Andersen’s Behavioural model, healthcare utilization is a function of three major elements: predisposing factors (socio-demographic factors), enabling factors (e.g. income and health insurance) and healthcare needs such as functional disability and chronic illnesses [13, 14, 16]. The predisposing factors in the model were: age, education level attainment, region of residence, type of place of residence, religion, marital status and number of children ever born. Wealth indicator was considered an enabling factor, while visiting the health facility in the year prior to the survey was included in the model as a proxy for the need factor.

You need to insert your Risk Ratios into the Results section. Many times you only report confidence intervals i.e. Line 236.

Please take out confidence intervals in the Discussion.

Line 249 change 'percent' to %

Line 243-244. You also found that there was a reduced risk of moderate MHS utilization for mothers who indicated distance to a health facility is a big issue. Please insert this here.

Discretionary

In the abstract, I would consider putting the actual relative risk ratios in, along with the 95% Confidence.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests