Reviewer's report

Title: Uterotonic use immediately following birth: estimating population coverage in four countries

Version: 1 Date: 14 August 2014

Reviewer: Jane Hirst

Reviewer's report:

- Major Compulsory Revisions

The author must respond to these before a decision on publication can be reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

Overall comments: The authors set out to describe the process of quantifying the use of uterotonics immediately following birth which is information that is not commonly recorded, thus making any estimation very difficult. The authors describe a semi-quantitative method to approach this, although more information is needed on the quantity and sources of information and process of data synthesis from different levels to enable this process to be repeated by other groups (i.e. presenting this as scientific rather than sociological methodology).

UUIFB is likely to be an important process indicator to measure maternity care quality, and this should be made clear in the introduction (it is not an outcome in itself; post partum haemorrhage and/or maternal death are the outcomes of interest).

The authors state the aim of this paper is to develop an exercise to help national stakeholders estimate population level UUIFB coverage, however it seems perhaps the main benefit was helping identify the gaps in current service provision through a comprehensive review of the availability and accessibility of this intervention.

Specific comments:

- Title: This should reflect that this paper describes development of a novel methodology with estimation of population coverage in four countries

- Page 6, paragraph 2: UUIFB is not, to my knowledge, a very widely used term or indicator in this field and thus to make clear to readers, it would be useful to spell out what the authors mean by AMTSL and why they feel UUIFB is the key component of this and why it could be a better indicator to use (or should countries report both?). The authors do state in the next paragraph line 136 that UUIFB is not widely adopted as an indicator (indeed it would appear this the purpose of this publication is to push for it to be adopted as an indicator beyond their programs). As a great deal of effort has gone into scaling up AMTSL
globally, and the evidence from the Cochrane collaboration would still support controlled cord traction as part of AMTSL, this is definitely worth including in the introduction.

- Page 7: 149: Methods: As this is an assessment of care quality, the authors need to define exactly what they mean by UUIFB (i.e what does a health provider need to do to achieve this indicator). This should be in terms of (i) timing (ii) type of uterotonic (iii) dosage and (iv) route of administration.

- Page 8, line 162. Whilst a hybrid of the six possible methods of UUIFB was recommended, it is not clear whether these were applied hierarchically when making the estimates. Also if there were any situations where more than one level of information was available, was there any evidence of internal consistency (internal validity and reliability) in the estimates at different levels? This would help justify the use of lower levels of evidence in other settings.

- Page 9, line 195: Should this equation consider a time factor also as presumably one important use would be to compare progress in achieving full coverage in the future? It is unclear from the description of the data sources whether they were limited to a specific timeframe (i.e past 2 years) or not.

- Page 12, line 266: it is not clear how the information on stock out rates and quality of oxytocin was sourced from each site (was this expert opinion or were there databases on procurement and supply that were accessed).

- Page 13: Results : It would be useful to know for each country the amount and quality of information obtained as per the 6 categories to decide on the estimate. The only country this is clearly described is Yemen where it seems like there was no evidence other than the expert panel.

- Page 16, line 361: Discussion: This should start with a statement of the main findings of this research rather than justifying the need to measure UUIF

- Page 18, line 392: The authors give an example of how this process was useful for the participants in terms of identified actionable areas for policy review. This would seem to me to be the most important outcome of a process such as this, as the authors acknowledge the point estimates lack precision and validity (i.e if the process were to be repeated with other in country experts, the results are unlikely to be the same). A table listing the key recommendations and actionable outcomes would be useful to illustrate the value of this for others in LMIC settings.

- Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

- Page 6, line 125: Reference 5 does not mention UUIFB. Please check this is the best reference to use here.

- Page 7 line 160: Would be useful to know how many and how representative of LMIC these experts were.

- Page 8, line 173: Spell out HMIS for first use.
• Page 10, line 213: It would be useful to know any information on MMR rates in these settings and deaths from PPH/rates of PPH if known.
• Page 13, line 279: Consistency in the terms used for the ‘global expert panel’ with page 7, line 160.

- Discretionary Revisions

These are recommendations for improvement which the author can choose to ignore. For example clarifications, data that would be useful but not essential.

Please note that both the comments entered here and answers to the questions below constitute the report, bearing your name, that will be forwarded to the authors and published on the site if the article is accepted.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I DECLARE THAT I HAVE NO COMPETING INTERESTS