Reviewer's report

Title: Systematic review of public health research on prevention of mother-to-child transmission of HIV in India with focus on provision and utilization of cascade of PMTCT services

Version: 1 Date: 20 January 2012

Reviewer: Rodrigo Cerda

Reviewer's report:

1. This is a very useful summary of the literature on the cascade of HIV PMTCT services in India, an area that clearly merits attention. It has a thorough methodological approach, which provides a comprehensive resource and bibliography for researchers and policymakers interested in the topic. Given the overview of existing literature, the paper also adeptly points out areas that deserve further investigation.

- Major Compulsory Revisions

2. While the literature is catalogued well, the findings of the literature need to be presented more powerfully in the results to better fulfill the second stated objective of this paper: “to describe the findings of public health literature on PMTCT.” This paper would benefit from a more accessible synthesis of the literature as a whole rather than listing out findings from papers in the text. It could be useful to graphically and perhaps statistically summarize the percentage drop-outs at each step of the cascade in order to more clearly point out high-yield focus areas. The paper starts to do this in the supplementary material, particularly in the section of “Numeric summary of uptake of services.”

Categories of the cascade could follow the experience of mothers in antenatal care, such as maternal access to ANC, counseling, testing, receipt of results, treatment, adherence, delivery, and linkage to care.

An example of a cascade of antenatal PMTCT is presented in:

For example, after a discussion of low rates of initial testing, a synthesis of findings regarding outreach, barriers to access, and counseling and testing can be discussed as explanatory factors. Other categories described, such as Treatment of ARV’s, Obstetrics, and Infant feeding should also fit in the cascade the authors could add to this paper.

3. A discussion of the data itself should be included in the discussion section, and point out areas for policy interventions in addition to areas for research. Using a rubric such as the one suggested above would help to point
policymakers to a need for either increasing the number of women accessing ANC, or increasing the provision of ARV’s to the particular testing facility, for example.

4. Furthermore, in areas where the published papers demonstrate a wide variability of uptake between them, there could be an opportunity to learn from the differences in each situation. This variability is recognized in the third paragraph of the discussion, though it is not clear if the particular differences between programs are not discussed because of scope considerations or because they are not stated in the papers. If they are not discussed, they are major methodological gaps, and if they are, then they should be compared to glean policy insights.

5. In the cost and cost-effectiveness category, variation among estimates from different papers is again an interesting finding. Further discussion on reasons for that variation, such as economies of scale mentioned in several of the Dandona papers, would be a useful point to highlight. It is also interesting that all of the papers except one in this category appear to have the same author. This may point out the need to attract and train more scholars to this field in India in order to allow for a richer academic discourse.

6. While in the penultimate paragraph the methods section mentions they did not exclude any study based on the methodological quality of the research, it is worthwhile to discuss the methodological quality of studies in the discussion. For example, in the third paragraph of the Discussion section, the paper describes loss to follow up papers that have very high retention rates. A critical discussion of these papers, including for example sample size and follow-up methodology, would be a good addition to this paper.

- Minor Essential Revisions

7. In the background, second paragraph: The sentence “Further, only 54% of women … received ARV” seems like it should specify that 54% of women ELIGIBLE FOR ARV’S received them.

8. Background, 4th paragraph: “it is important that appropriate strategies be devised which are evidence-based” could be revised to “it is important to devise appropriate evidence-based strategies” This is a very minor change, though the phrasing could be better.

- Discretionary Revisions

9. A recent article, published in October 2011, would be a good addition to this review. It looks specifically at the cascade of services in 30,000 women in various health facilities in India.

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