Reviewer's report

Title: Effectiveness of an integrated approach to reduce perinatal mortality: Recent experiences from Matlab, Bangladesh

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Reviewer: Sennen HOUNTON

Reviewer's report:

I thank the authors for the revisions made, however the data presented would present more a 'compelling case' to support the main conclusion of the study (The interventions in icddr,b decreased the perinatal mortality rate within a short period of time) if the following points (mentioned in the first review) are addressed.

Major revisions

1. ‘The authors indicated that Matlab HDSS does not collect the information other than those presented in Table 1 in the government service area. Therefore, it is not feasible to provide additional details on services provided in the government SA’. The review is not requesting other data, but to analyze the same data presented for the government SA for other neighboring Upazilas (districts), NOT TO HAVE SUB-GEOGRAPHICAL LEVELS SUCH AS NORTH AND SOUTH, BUT OTHER DISTRICTS. This is possible through the national health information system. We should be able to look at historical change of ANC, Institutional delivery and C-section, in other districts, especially other districts with comparable background to the icddr,b. We need to be able to compare like with like, at least some level of comparability not necessarily confined to Matlab, especially vis-à-vis the key determinants (ANC, institutional delivery, C-sections).

2. Regarding figure 2, one can see clearly that perinatal mortality started to decrease significantly before the intervention in 2007 (nearly 20% decrease from 2006 to 2007) and continue throughout 2009. The discussions need to explain this initial important decrease even before the intervention package. The authors replied that ‘the initial reduction of perinatal mortality in 2007, immediate after initiation of the interventions, reflected the improvement of knowledge and skills of health care providers and the interventions already in place at facility levels in a short period of time’. However, figure 2 indicates decrease before 2007 (start of the intervention, NOT immediately AFTER initiation of the interventions as mentioned). So the authors have not addressed the reviewers’ comments.

To better clarify my comments regarding ‘a compelling case’ the differences of differences (see table below), computed from table 2 of the manuscript, indicated that a part from ANC, there was actually a fastest increase in institutional delivery in Government SA compared to ICDDR,B (63% improvement compared to 32% improvement in icddr,b), and a comparable increase in C-sections rates over the
period of comparison (91% compared to 102%) even without the financial incentive. In summary, please provide some comparability using health information system with regards to changes in ANC, institutional delivery, C-sections in other districts over the period of comparison; and please explain the decrease in perinatal mortality even before the intervention and what will make us think the continuous decrease has anything to do with the intervention. We indeed need to provide arguments that the outcomes have less to do with the context of icddr,b of better health indicators (ANC, institutional delivery, C-sections), better literacy rate, etc. and more to do with whatever aspects of the intervention package, and point 1,2 could help us build this case.

**Level of interest:** An article of limited interest

**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'