Reviewer's report

Title: Costs of vaginal delivery and caesarian section at a public sector hospital in Islamabad, Pakistan

Version: 5 Date: 5 July 2009

Reviewer: Albrecht Jahn

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The paper is much improved. However, some issues remain around the sampling methodology:

Major Compulsory Revisions

1. Sampling and significance testing:
   As clarified in the revision, the authors used a convenience sampling. However, all their statistics apply to random samples only. Furthermore, they test the hypothesis that costs of normal deliveries and C/S are different. This hypothesis is self-evident and not very useful. Thus, it is no surprise that the abstract does (rightly) not refer to statistical differences between the 2 groups.

   The study is essentially descriptive and the convenience sampling approach is only acceptable in this context. As mentioned in the earlier review, the significance testing presented in the paper just proofs the obvious and is methodologically unsound. It is proposed to present the data without testing for significance (Table 3); giving the confidence intervals is more informative and allows the reader to assess the differences. After all, finding out that the costs are higher and that the length of hospital stay is longer after CS than vaginal delivery is hardly surprising.

   Table 4 does not provide additional inside and the two key finding (longer hospital stay is more expensive and poor people spend less than richer ones) can be mentioned in a few words in text, if deemed to be important.

   Table 5 again is problematic due to the fact that the sample was purposive and the chance to be included was directly related to the length of the hospital stay. Furthermore, some variables such as length of stay can never be “explanatory” for the mode of delivery, because they happen later and are a result of the mode of delivery! The other data are already presented in table 3. In any case, this study was not designed to identify risk factors for CS.

   It is suggested to remove the tables 4 and 5.

2. Limitations:
   The new paragraph on limitations is appreciated, but the effect of the convenience sampling is not discussed there. Interviewing “those available” gives those with a longer stay a higher chance to be included. Thus, women with an
uncomplicated quick delivery, who went home almost immediately after delivery, were unlikely to be included. Women with complications after CS had a much higher chance. Thus, the sampling approach is biased towards complicated deliveries and likely to result in too high cost estimates and may explain why the costs are higher than in comparable studies.

Minor Essential Revisions

The title should include the information that that study is about a "tertiary level public hospital" or similar, as most other comparable studies refer to secondary level (district) hospitals. Tertiary hospitals tend to have higher unit costs than secondary level hospitals. This aspect should also be taken up in the discussion.

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

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

'I declare that I have no competing interests'