Reviewer's report

Title: Differentials of fertility in North and South Gondar zones, Northwest Ethiopia

Version: 2 Date: 18 July 2008

Reviewer: K Joseph

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No Major Compulsory Revision

Minor Essential Revisions

1. This study is described as a case-referent (case control) study. One critical issue in such studies is the method of case identification and control selection. The authors should provide a more detail regarding this. For instance, were both cases and controls randomly selected (after multistage cluster sampling)? How was the approximately 1:1 ratio achieved?. Were controls selected from the same neighbourhood as the cases? Were cases and controls matched on age (or why was age not examined as predictor of fertility status in the analysis)? Such additional details would help readers understand the design better.

2. Page 14, lines 6-8

Backward stepwise regression is employed to obtain a parsimonious model, with all variables retained being independent predictors of the outcome. Issues of multicollinearity are related but this is not the purpose of employing stepwise elimination.

3. In all instances where the odds ratio is interpreted, it would be helpful if the authors edited the sentence as follows (or to something similar):

   e.g., page 14, lines 10-12,

   “...women living in rural villages were 2.8 times greater in having high fertility as compared to those living in big towns......”

   to

   “Women living in rural villages were 2.8 times more likely to have high fertility as compared to those living in big towns......”

   e.g., page 14, lines 4-6 from the bottom, please edit this to

   “Women who were currently married had a different fertility experience from those not currently in such a union; currently married women were 62% more likely to have a high fertility as compared with unmarried women (OR 1.62, 95% CI 1.20, 2.19).

4. Page 18, line 2 from the bottom
Please expand these acronyms TFR, EDHS.

5. Page 4, lines 10-11
Please provide the denominator for the maternal mortality ratios (? per 100,000 live births).

6. Page 20, lines 1-3
The first 2 lines talk about a study showing HIGHER fertility levels in women with a few years of schooling (reference 14). The next sentence begins with the word “similarly” but the authors go on to talk about studies which show that primary education is NOT associated/very slightly associated with age at first birth. This discrepancy should be corrected.

7. Page 24, lines 6-7 explain the lack of fertility differences between rural areas and small towns by stating that this could be due to a “....large number of women who had no ...education in these small towns”. This explanation is not entirely satisfactory as that particular finding was obtained from the adjusted model i.e., after the effect of education had been controlled through adjustment. Please delete sentence, discuss residual confounding or offer an alternative explanation.

8. Please edit “correct period of pregnancy” to ‘safe period during the menstrual cycle’. Also edit responses to ‘correct’ and ‘incorrect’ instead of ‘correct’ and ‘wrong’.

9. On page 26 and 27, a series of recommendations are offered. These are prefaced by the word ‘conclusion’. The same issue appears in the Abstract under the subheading ‘Conclusions’. Although it is appropriate to discuss such recommendations in the Discussion section of the manuscript, please note that your paper is focussed on factors associated with high fertility. Please mention the principal findings from this study in the conclusion sections. The recommendations can precede the conclusions in the Discussion section.

10. More careful attention to the English (or having a English language editor review the paper) may be helpful.

Page 7, line 2 from the bottom
Use the word ‘Consequently’ instead of ‘Subsequently’.

Page 8, line 8
Edit ‘....would have five or more children...’ to ‘....could have five or more children...’

In the methods and Results section avoid using the present tense (always use the past tense). e.g., Page 13, line 6 change 'is' to 'was'.

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.