Author's response to reviews

Title: Use of traditional cooking fuels and the risk of young adult cataract in rural Bangladesh: a hospital-based case-control study

Authors:

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Version: 6 Date: 12 May 2011

Author's response to reviews: see over
Reviewer #1: Version 3 (12 April, 2011)

Major compulsory revisions

1. Abstract
   a. Methods sections should be changed from
      “A majority of males (64-80% depending on group) had never used biomass
      cooking fuels, while the rest had used wood/dry leaves, with only 6 having used
      rice straw and/or cow dung”, to “A majority of males (64-80% depending on
      group) had never cooked, while the rest had used biomass cooking fuels, mainly
      wood/dry leaves, with only 6 having used rice straw and/or cow dung”

      Done, as suggested (in Results subsection of the Abstract).

   b. Conclusions. The last sentence should be changed to reflect the possibility of
      confounding by other factors such as wealth which were not measured in the
      study.

      The end of the Conclusions subsection of the Abstract now reads:
      “There is a possibility that these apparent associations could have been the result of uncontrolled
      founding, for instance by wealth. The nature of the associations, therefore, needs to be further
      investigated.”

2. The authors state that “In the male model, the comparator category is non-use
   of wood/dry leaves or any other biomass fuel.” I take this to mean that men who
   don’t cook are still included in the analyses both for men only or for all people
   combined. As stated before I do not consider that it is meaningful to include men
   who don’t cook because they therefore do not have a cooking exposure type for
   comparison.

   The authors understand this point. However, the lack of any other substantial variation in
   exposure to cooking fuels among men means that no comparator exposure equivalent to that in
   females is realistically possible. The authors have emphasized the difference between the two
   sex-specific models (for ever use) in the following sentences added to the Discussion:
   “It is important to note that, in our study, the association of young adult cataract with using rice
   straw for cooking among females is relative to the use of other biomass fuels. Because of the sex
   differences in the patterns of exposure to cooking and the fuels used, the comparator group for
   males was no exposure to cooking. In contrast, other studies have examined the associations
   between cataract and the use of cheaper, biomass or solid fuels relative to the use of clean
   fuels.”

3. The discussion compares the results of this study with other studies in India or
   Nepal (page 15 and 16); however those studies compared biomass fuels with
   clean fuels which the authors cannot do. They should modify their sentence on
Page 15 “The association with case status of cooking with rice straw is consistent with the findings of several previous studies in which a link was detected between the use of cheaper, biomass or solid fuels and the risk of cataract.” The results for this study can only be interpreted in terms of the relative effects of one biomass fuel compared with another and not for biomass fuels compared to clean fuels.

The revision indicated above in response to point number 2 addresses this issue, and removes the statement regarding consistency between the current study and those from India and Nepal.

**Minor modifications**

1. Tables 4, 5 and 6 should give the numbers in the analyses.

Table 4 already shows the numbers. Numbers of patients have been added to Tables 5 and 6.