Author’s response to reviews

Title: Cost of Illness for Cholera in a High Risk Urban Area in Bangladesh: An Analysis from Household Perspective

Authors:

Abdur Razzaque Sarker (arazzaque@icddrb.org)
Ziaul Islam (zia@icddrb.org)
Iqbal Ansary Khan (iak@icddrb.org)
Amit Saha (amit@icddrb.org)
Fahima Chowdhury (fchowdhury@icddrb.org)
Ashraful Islam Khan (ashrfk@mail.icddrb.org)
Firdausi Qadri (fqadri@icddrb.org)
Jahangir A M Khan (jahangir.khan@icddrb.org)

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Author’s response to reviews: see over
Dear Editor,

Following your letter regarding the manuscript entitled “Cost of Illness for Cholera in a high risk Urban Area in Bangladesh: An analysis from household perspective”, we are submitting revised manuscript including the issues raised by the reviewer. We found the comments very helpful for betterment of the manuscript. We declare that we have no potential conflict of interest. The manuscript has not been submitted or published in any other journal. The revisions are addressed below.

Best regards,

Abdur Razzaque Sarker (corresponding author)
Ziaul Islam
Iqbal Ansary Khan
Amit Saha
Fahima Chowdhury
Ashraful Islam Khan
Firdausi Qadri
Jahangir A M Khan

**Reviewer's report**

**Title:** Cost of Illness for Cholera in a High Risk Urban Area in Bangladesh: An Analysis from the Household Perspective

**Version:** 1  **Date:** 7 July 2013

**Reviewer:** Luis Roman Carrasco

**Reviewer's report:**

**OVERALL EVALUATION**

This a concise article that estimates the average cost of cholera episodes in an urban setting in Bangladesh. The article is well written and very clear and the sample size is considerable. I have however some concerns that I think could improve the paper and I describe in detail below.

**Major Compulsory Revisions**

**GENERAL COMMENTS**

1. My main concern is that only those patients that got hospitalized (and hence confirmed) were selected for the study. This creates a bias towards the most severe cases that should be made...
clear in the manuscript, especially in the abstracts, methods and discussion when the estimate is compared with previous rural estimates that are considerably lower ($12 vs. $30).

Response: The concern of the reviewer is reflected in the text. Please find in abstract (page 2, paragraph 2, and line 2), method (page 4, paragraph 3, and line 1) and discussion (page 9, paragraph 3, and line 5)

2. Looking at the tables, the standard deviation is many times an order of magnitude higher than the average. I think this way to present the data is not informative as the distribution seems to have a long fat tail (some cases are very expensive and others very cheap). I suggest that the median, 5th and 95th percentiles are added to the tables. This will depict better the distribution of the cost.

Response: We have calculated the values of median, 5th and 95th percentiles of each cost item. We have incorporated these values for total, direct and indirect costs in paragraph 2 in the ‘Result’ section (page 6).

3. The paper will be much stronger if some epidemic data were presented as well. It would be good to know the statistics of the length of stay for instance (median and percentiles), proportion of cases that had complications or proportion of cases that underwent certain treatment. This will give the reader an idea of the distribution of severity and the subsequent distribution of costs.

Response: Some epidemic data updated in background section (page 3, paragraph 2). The length of cholera episode (mean, median, 5th and 95th percentiles) has now been incorporated in the text. Please see page 6 paragraph 4 and last line.

4. Expenditure on food is factored in as a cost due to cholera but I suppose that such a cost would be incurred even if the person had no cholera. It would be good to explain the rationale for its inclusion.

Response: For inpatients food is mostly supplied by the hospitals. Some food items, like banana, coconut, chira (dry rice) etc. are not provided by the hospital, but are bought by the patients/caregivers during their stay in the hospital. Further, extra money is spent for buying food (breakfast, lunch and/dinner) for caregivers. When sharing food at home with other household members, the marginal cost of food is not as high as when it is bought for individuals separately from the market.

5. Are the costs incurred by people visiting the patient to the hospital accounted for?

Response: In our study we include the cost of attendants, who are directly taken care of the particular patient. But the visitors’ costs are not including in the analysis.

6. The study was conducted in an area where vaccines were being rolled out. Some information on the vaccine coverage and whether some patients had been vaccinated would be interesting.
Response: In the target area, a total of 123,661 people had been completely vaccinated. However, in our study sample 84 out of 310 were vaccinated. The data for this study was collected when the vaccine trial had just started and the effect of vaccination might have not been started by that time. Please see page 8, paragraph 1, and line 4.

SPECIFIC COMMENTS
7. Please insert line numbers in the document. It is hard to refer the comments.

Response: This is done as suggested.

8. When stating a cost, I am used to see the “US$” ahead of the cost, not after. Please consider updating this. E.g. in second line of the “findings” paragraph in the abstract: “7.4 US$” replace by “US$ 7.4”.

Response: The suggestion is incorporated in this current version.

9. First line of findings: “estimated to be” instead of “estimated to cost”.
Response: This line has been modified. Please see page 2 paragraph 3 and line 1.

10. First line of Background: “Cholera presents a substantial” instead of “Cholera is a substantial”.
Response: This line has been modified. Please see page 3 paragraph 1 and line 1.

11. Please spell out COI.
Response: This line has been incorporated.

12. Second paragraph is background. Provide reference for studies in Beira, Kolkata…
Response: This paragraph has been modified and refers the previous study (ref 7). Please find the reference section. Please see, page 8, paragraph 2, line 7.

13. Last line of second paragraph of background: “health policy making” instead of “making health policy”.
Response: This paragraph has been modified. Please see, page 3, paragraph 2, line 14.

14. Please spell out icddr,b’s. If an acronym, shouldn’t it be capitalized?
Response: Our organization has decided to use the abbreviation in small characters (icddr,b) instead of spelling out the whole.

15. Since it is the core method, please provide an English version of the questionnaire utilized. That could go in supporting information.
Response: Please find attached the English version of the questionnaire with the email.

16. In several instances there is not space between a work and the reference number, please insert those.
Response: It has been done in the current version.

17. Please specify how you quantify the contribution of children to the household. I think I didn’t understand well, are there standard salaries for children?

Response: There is no standard salary that can be used for estimating the production loss of the children. However, children’s wage has been considered as one-third of the wage of adult persons, which has been applied in calculating production loss of children.

18. Please provide a reference for the assumption that half of the wage is applied to unpaid home workers.
Response: It has been done in the current version. Please see, page 5, paragraph 2, line 11.

19. In second paragraph of “Measuring household costs of cholera” (please do not capitalize cholera) please specify what age groups you have allocated one half and three-quarters (note instead of three-fourth) of the wage.

Response: This paragraph has been modified. The age groups used in article did not mention exactly which ages were referred by teenagers and children less than 5 years of age. In our analysis we consider age group 13-19 as teenagers and 6-12 as child. Please see, page 5, paragraph 2, line 9.

20. First line of “Data analysis”: “data were” instead of “data was”.
Response: This is now corrected. Please see, page 5, paragraph 3, line 1.

21. Second paragraph in “Data analysis”: “assumptions” instead of “assumption” unless you specify what specific assumption you refer to. In the last line, “as in an earlier study” instead of “as earlier study”.

Response: Suggested change is made in the text. Please see page 5, paragraph 5 and line 5

22. Please use the same number of decimal places throughout the article. E.g. inconsistency in the first paragraph of the discussion.

Response: One decimal after point is used throughout the current version of the manuscript.

23. In the second paragraph of the discussion. It is stated that the health seeking behavior of adults and children differ (children go to private practitioners). Are there data to support this finding? In the same paragraph: “inject saline solution” instead of “inject saline”.

Response: The data from current study shows that the children are generally taken to hospitals (now mentioned in text in page). We do not have any other reference in this regard. Change is made as suggested regarding “inject saline”. Please see, page 9, paragraph 1 and line 5.

24. Last paragraph in discussion: “data have” instead of “data has”. “to minimize the bias” instead of “for minimizing the biasness”.
Response: Corrections have been made. Please see, page 9, paragraph 3 and line 2.
25. In conclusions is the first reference to case duration, please provide the data.
Response: This line has been modified in this current version. Please see page 6 paragraph 3 and line 12.

26. In tables 3 and 5: “indirect” instead of “in-direct”.
Response: Correction is made. Please see, page 13.

**Level of interest:** An article whose findings are important to those with closely related research interests
**Quality of written English:** Needs some language corrections before being published
**Statistical review:** No, the manuscript does not need to be seen by a statistician.
**Declaration of competing interests:**
I don’t have any competing interests to declare.