Author’s response to reviews

Title: Effect of a typical systemic hospital reform on inpatient expenditure for rural population: the Sanming model in China

Authors:
Zhaolin Meng (mengzhaolin2005@126.com)
Min Zhu (zmmin2002@126.com)
Yuanyi Cai (caiyuanyi_541@163.com)
Xiaohong Cao (xhcao@cmu.edu.cn)
Huazhang Wu (hwzu@cmu.edu.cn)

Version: 2 Date: 27 Jan 2019

Author’s response to reviews:

January 28, 2019

Dear Dr Maria Elisabeth Johanna Zalm and Dr Akila Sridhar,

We would like to thank you and the reviewer for the wonderful suggestions for our study "Effect of a typical systemic hospital reform on inpatient expenditure for rural population: the Sanming model in China" (BHSR-D-18-01894).

We have revised the article according to the suggestions of the reviewer. The changes to the manuscript are indicated in the text by using track changes.

All authors have read and approved the revised manuscript, and there are no financial or other relations that could lead to a conflict of interest.

If you have any further question or any suggestion about our revised manuscript, please contact me. We are very grateful for your input.

We look forward to hearing from you.

Yours sincerely,

Huazhang Wu
Response to the reviewers’ comments:

1. The title and the overview of the study: Since Sanming is not a rural county and the data includes all inpatient records, the study may not only be limited to rural populations.

   Response: We are sorry for this ambiguity. In China, rural population obtain their health insurance from the rural new cooperative medical scheme (NCMS). In this study, the data includes all inpatient records for rural population from the NCMS database in Sanming from 2007 to 2016, so our study is limited to rural population (Page 7, line 148).

2. Abstract: The method section is very brief. Significant more details are needed. The higher OOP expenditure among seniors with chronic diseases is well understood. Consider removing it.

   Response: We appreciated the suggestion. We added some detailed information in the method section in 'Abstract' (Page 2, line 36-41). Meanwhile, we deleted the information about higher OOP expenditure among seniors with chronic diseases in 'Abstract'.

3. Some texts are in red.

   Response: We are sorry that we didn’t make it clear. The major modifications were shown in red color in the last revised manuscript. In this revised manuscript, the changes to the manuscript are indicated in the text by using track changes.

4. Line 116: More explanations about the two-invoice system. Is it only applicable to medicine or any other medical devices.

   Response: We are sorry for this ambiguity. "Two Invoices" system was only applicable to medicine in Sanming. We added some more explanation about the two-invoice system (Page 6, line 121-129).

5. A summary paragraph is needed in the introduction.

   Response: Thanks for the suggestion. We added a summary paragraph in the 'Introduction' section (Page 7, line 138-144).
6. Line 156. Length of stay is endogenous regards to the OOP. The authors may consider using it as an outcome and examine how the reform affected the LOS.

Response: Thanks for the suggestion. We used LOS as an outcome and also examined how the reform affected the LOS (Page 10, line 199; Page 11, line 241-242; Page 12, line 243). We represented the results of the LOS at Table 4.

7. Statistical methods. Did the author control the fixed effects of the year or hospitals? Also the clustering effect of the repeated admitted patients in the same hospital.

Response: Thanks for the reviewer’s wonderful suggestions. We conducted a robustness check by controlling the fixed effects of the year and hospitals. In addition, we included cluster standard errors by hospital to account for interactions among groups of patients who were admitted to the same hospital (Page 12, line 244-261).

8. Discussion. The authors may remove the discussion on higher expenditures among seniors with more chronic diseases. It's well documented in the literature.

Response: Thanks for the reviewer’s suggestions. We deleted the discussion on higher expenditures among seniors with more chronic diseases in the 'Discussion' sect