Reviewers report

Title: Trend of disparity between coastland and inland in medical expenditure burden for rural inpatients with malignant tumor in southeast of China from 2007 to 2016

Version: 1 Date: 05 Nov 2019

Reviewer: Reviewer 2

Reviewers report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses one or several testable research questions? (Brief or other article types: is there a clear objective?)

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

No - there are major issues

EXECUTION - Are the experiments and analyses performed with sufficient technical rigor to allow confidence in the results?

No - there are major issues

STATISTICS - Is the use of statistics in the manuscript appropriate?

No - there are issues with the statistics in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are major issues

OVERALL MANUSCRIPT POTENTIAL - Has the author addressed your concerns sufficiently for you to now recommend the work as a technically sound contribution? If not, can further revisions be made to make the work technically sound?
GENERAL COMMENTS: The revised manuscript addressed most of previous reviewers' comments. In the revised manuscript, the authors further clarified the insurance reimbursement scheme and added additional analyses using the original expenses as requested. However, the paper remains a descriptive study, which misses the opportunity to explain the disparities in medical expenses across regions in Fujian, China. Moreover, writing can be significantly improved.

REQUESTED REVISIONS:

As the previous reviewer suggests, the underlying factors for the disparity in medical expenditure can be many. In the analyses, the authors only control the individual factors, which is problematic.

First, the distribution of hospitals is uneven between coastline and inland areas. Coast areas can have more, higher-level hospitals, which charge higher fees. Many township hospitals may not be qualified to treat patients with malignant cancers. If the authors dive into the hospital data, they may find some hospitals have zero patients with malignant cancer. At least, the authors need to control the structure of hospitals. Some patients may visit several hospitals for treatment.

Second, the authors need to identify patients with comparable characteristics in coastline and inland regions, e.g. same cancer with similar diagnosis or treatment at same level hospitals. Then we can make some judgment about the expenditure across regions.

Finally, the authors need to clarify the total expenditure and the out-of-pocket expenditure. The out-of-pocket expense/income ratio can be called burden. Without income data, it is not accurate to call the expenditure burden.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

This reviewer has been recruited by a partner organization, Research Square. Reviewers with declared or apparent competing interests are not utilized for these reviews. This reviewer has agreed to publication of their comments online under a Creative Commons Attribution License attributed to Research Square and was paid a small honorarium for completing the review within a specified timeframe. Honoraria for reviews such as this are paid regardless of the reviewer recommendation.
I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal