Reviewer’s 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: 2 Date: 10 Jan 2020

Reviewer: Reviewer 2

Reviewer's 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?)

No - there are minor issues

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?
Maybe - with major revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: The authors conducted additional analyses by adding tumor site and the levels of hospital in the analyses. Another important change is to create an outcome variable as ratio of out-of-pocket expenses to disposable income. These revisions help improve the analyses overall. However, there are still a few remaining issues to be resolved. One main one is that the disparities were not clearly defined. There are the disparities overall between coastline and inland, then stratified disparities between patients with/out surgeries between two regions. Also the time trend differences were compared. Given so many disparities to compare, the authors need to restructure the paper to make the readers easy to follow. Also the absolute difference may not be meaningful to compare. More revisions are needed.

REQUESTED REVISIONS:

1. A patient may be admitted to different hospitals across regions. Can the data trace the same patient across hospitals? If not, the authors need to list it as a major limitation.

2. Absolute difference (A-B) is not very helpful. The authors may think about the relative difference, e.g. making coastline as the reference group.

3. The authors need to define the disparities clearly, e.g. overall difference between two regions, difference between patients with/out surgeries in two regions, and the difference in trends between two regions (with/out surgeries?) The current version just mixed too many disparities, which is very confusing.

4. Using the average disposable income should be listed as the limitation.

5. Provide the rationale using the logarithm to calculate the different but not using the raw numbers to compare.

6. Figure needs high resolution. The current version is hard to read.

7. The authors should acknowledge the limitations in discussion.

8. The writing needs to be significantly improved. For example, on page 11, the authors just listed the sentences, which is not a good practice.

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

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