OPEN PEER REVIEW

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Advantages of "Open Peer Review" process

- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
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- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://brieflands.com/briefland/knowledgebase/category/tree.html#opr.html

Health Scope
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Peer Review Report for "Understanding Household Catastrophic Health Expenditures and Fairness of Financing for Cancer Treatment: A Cross-sectional Case Study in West of Iran"

Author(s): Aziz Rezapour, Soraya Norayi Motlagh, Banafsheh Darvishi Teli, Negar Yousefzadeh, Payam Haghighatfard

Review Timeline:

Submit Date: 4 Oct 2021
Revised Date: 16 Mar 2022
Accepted Date: 6 Apr 2022

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

Masoud Behzadifar: Reviewer | **Revision** (0) 30 Oct 2021

I read the manuscript entitled: Understanding Household Catastrophic Health Expenditure and its Determinants in Cancer Treatment: a Cross-Sectional Case Study from West of Iran

I think it is interesting. But I have some comments:

1. Please add (Iran) to the keyword section.
2. In the method section, please write the formula and replace it with the figure of the formula.
3. Please add abbreviations of phrases in the text, for example, World Health Organization WHO), and out-of-pocket (OOP).

The general comment:
1. The text needs grammatical editing.

Hossein Ansari: Reviewer | **Revision** (0) 4 Nov 2021

1- The sampling method should explain completely. The “convenience random sampling” is not correct.
2- In Tables 2, 4, and 5 it is unknown who the independent variables belong to. The patients or the supervisor of the family?
3- In table 5, the reference group and type of some independent variables are unknown. Such as employment status, household education, and employment number.
4- The authors should explain more about the variable household education.
5- the authors should explain the model evaluation in this study

Eshagh Barfar: Reviewer | **Revision** (0) 5 Nov 2021

Dear Associate Editor,
The manuscript needs major revision as follows:

Abstract
1. In the objectives, instead of the province, the city and the hospital of the study should be mentioned.
2. For data analysis, STATA and EVIEWS are mentioned, while in the Method section, only STATA is mentioned.
3. Choose a more appropriate word instead of “Household” in the Keywords.

Background
4. It is better to add literature about catastrophic health expenditures in cancer and other chronic diseases in Iran.

Methods
5. The city of the study should be added.
6. The method of calculating and interpreting the indices for measuring the fairness of financing should be added.
7. The age of the patient, the stage of the disease, and the type of cancer can affect households to face catastrophic health expenditures. Why are these important variables not considered?
8. Determine exactly whether the demographic variables are related to the patient or the head of the households in Study variables?
9. The incidence of catastrophic health expenditure is defined as the share of the population spending more than a given fraction of a household’s expenditure on OOP payments for health care. The focus is on the burden of direct outlay of cash made by households to improve or restore the health of any of their members. OOP payment is defined exclusively as direct medical payments made to health providers at the time of use net of any reimbursement received and includes payments for all household members. It is a measure of the performance of the health financing system, at the overall population level (WHO and World Bank, 2015). On the other hand, the indicator of catastrophic total costs incurred by households affected by a disease, refers instead to the total economic burden (direct and indirect costs combined), related to one diagnosed health condition only, treated in a particular type of setting, to total household income (wagstaf, 2003). The two indicators are

therefore not comparable. What is your explanation for this fundamental flaw in this study?

Results

10. It is better to merge Tables 3, 4, and 5. Figure 1 can even be merged with Table 3.
11. What is the meaning of numbers 1 to 5 in the income groups of Table 3?
12. What are the axis titles in Figure 1?
13. In many cases, the items presented in the main text do not match the figures in the tables, especially in the statistical relationship between variables. Please check them carefully.
14. In general, the Results section needs to be rewritten more carefully.

Discussion

15. According to the results of the study, what is the meaning of this sentence? “These results indicate that the current health system in protecting households from the financial burden of health expenditures in the study population …”
16. Is this sentence true?!! “the presence of people over 65 years of age in the household showed a significant effect on exposure to catastrophic health expenditures.”
17. It is necessary to compare all the results of the study with the results of similar Iranian and international studies. This is not considered in some cases. For example, in the case of the Kakwani index or the relationship between the number of household members and facing catastrophic health expenditure.
18. The last sentence (“A study in China also found that people with higher incomes to health expenditures.”) has no reference.

Conclusion

19. Study limitations should be added.
20. Suggestions for future studies should be added.

Acknowledgment

21. Moved the ethical code of the study to the Method section.

Best Regards

Eshagh Barfar: Associate Editor | **Revision** (0) 6 Nov 2021

Dear Editor-in-Chief,
The manuscript needs major revision as follows:

Reviewer 1

Abstract

1. In the objectives, instead of the province, the city and the hospital of the study should be mentioned.
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3. Choose a more appropriate word instead of “Household” in the Keywords.

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chronic diseases in Iran.

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9. The incidence of catastrophic health expenditure is defined as the share of the population spending more than a given fraction of a household's expenditure on OOP payments for health care. The focus is on the burden of direct outlay of cash made by households to improve or restore the health of any of their members. OOP payment is defined exclusively as direct medical payments made to health providers at the time of use net of any reimbursement received and includes payments for all household members. It is a measure of the performance of the health financing system, at the overall population level (WHO and World Bank, 2015). On the other hand, the indicator of catastrophic total costs incurred by households affected by a disease, refers instead to the total economic burden (direct and indirect costs combined), related to one diagnosed health condition only, treated in a particular type of setting, to total household income (wagstaf, 2003). The two indicators are therefore not comparable. What is your explanation for this fundamental flaw in this study?

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Conclusion

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20. Suggestions for future studies should be added.

Acknowledgment

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Reviewer 2

1- The sampling method should explain completely. The “convenience random sampling” is not correct.

2- In Tables 2, 4, and 5 it is unknown who the independent variables belong to. The patients or the supervisor of the family?

3- In table 5, the reference group and type of some independent variables are unknown. Such as employment status, household education, and employment number.

4- The authors should explain more about the variable household education.

5- the authors should explain the model evaluation in this study

Reviewer 3

I think it is interesting. But I have some comments:

1. Please add (Iran) to the keyword section.

2. In the method section, please write the formula and replace it with the figure of the formula.

3. Please add abbreviations of phrases in the text, for example, World Health Organization WHO), and out-of-pocket (OOP).

The general comment:

1. The text needs grammatical editing.

Best Regards

Ramazan Mirzaei: EIC | **Revision** (0) 7 Nov 2021

Dear Author

According to reviewer comments, the manuscript needs “Major revision”.

Best Regards

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Reviewers' Comments:

Reviewer 1:
Dear Associate Editor
The manuscript needs minor revisions as follows:
1.

Q: What model was used to evaluate the factors affecting the CHE? How was the model interpreted?

R: a Chi-square test was used, and for the interpretation of the model a significance level of 0.05 was considered ($P<0.05$).

2.

Q: The manuscript has typographical and grammatical errors. It should be edited by an English-speaking person.

R: **the typographical and grammatical errors of the manuscript have been edited and**

The editorial certification was uploaded in a separate file.

OPEN PEER REVIEW

Revision (1)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

Masoud Behzadifar: Reviewer | **Revision** (1) — 15 Jan 2022

I think this format is ready for publishing.

Eshagh Barfar: Reviewer | **Revision** (1) — 18 Jan 2022

Dear Associate Editor
The manuscript needs minor revisions as follows:
1. What model was used to evaluate the factors affecting the CHE? How was the model interpreted?
2. The manuscript has typographical and grammatical errors. It should be edited by an English-speaking person.
Best regards

Hossein Ansari: Reviewer | **Revision** (1) — 31 Jan 2022

The authors Have revised the manuscript based on the reviewers' comments.

Eshagh Barfar: Associate Editor | **Revision** (1) — 1 Feb 2022

Dear Editor in chief
The manuscript needs minor revisions as follows:
1. What model was used to evaluate the factors affecting the CHE? How was the model interpreted?
2. The manuscript has typographical and grammatical errors. It should be edited by an English-speaking person.
Best regards

Ramazan Mirzaei: EIC | **Revision** (1) — 1 Feb 2022

Dear Author

According to reviewer comments, the manuscript needs “Minor revision”.
Best Regards

OPEN PEER REVIEW

Revision (2)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Reviewers' Comments:

Reviewer 1:
I read the manuscript entitled: Understanding Household Catastrophic Health Expenditure and its Determinants in Cancer Treatment: a Cross-Sectional Case Study from West of Iran

I think it is interesting. But I have some comments:

1.

Q: Please add (Iran) to the keyword section

R: Iran added to the keyword section

2.

Q: In the method section, please write the formula and replace it with the figure of the formula.

R: In the method section, the Figur of the formula is replaced by its text format(sample size section)

3.

Q: Please add abbreviations of phrases in the text, for example, World Health Organization WHO), and out-of-pocket (OOP).

R: Abbreviations of phrases in the text including WHO(in abstract section, line 6), OOP (abstract and keyword section), CHE, and FFCI added. (lines 9&10 in the abstract section). Consequently, these abbreviations were corrected throughout the text.

The general comment:
1.

Q: The text needs grammatical editing.

R: Done

Reviewer 2:
Dear Associate Editor,
The manuscript needs major revision as follows:

Abstract
1.

Q: In the objectives, instead of the province, the city and the hospital of the study should be mentioned.

R: At the end of the "background section", the city and the hospital of the study are added.

2.

Q: For data analysis, STATA and EVIEWS are mentioned, while in the Method section, only STATA is mentioned.

R: the mistake has been corrected.

3.

Q: Choose a more appropriate word instead of “Household” in Keywords.

R: Done.

Background
4.

Q: It is better to add literature about catastrophic health expenditure in cancer and other chronic diseases in Iran.

R: in the Background section, some of the previous studies (references 17 and 19) were added.

Methods
5.

Q: The city of the study should be added.

R: in method section, in the first line(setting), "khoram abad" added to the text

6.

Q: The method of calculating and interpreting the indices for measuring the fairness of financing should be added.

R: The method of calculating and interpreting the indices for measuring the fairness of financing has been added. (From the "Data analysis section" to the end of the method section)

7.

Q: The age of the patient, the stage of the disease, and the type of cancer can affect households to face catastrophic health expenditures. Why are these important variables not considered?

R: the age of the patient and the type of cancer added.

8.

Q: Determine exactly whether the demographic variables are related to the patient or the head of the households in the Study variables?

R: In the method section, lines 19 to 22("study variable") were corrected.

9.

Q: The incidence of catastrophic health expenditure is defined as the share of the population spending more than a given fraction of a household's expenditure on OOP payments for health care. The focus is on the burden of direct outlay of cash made by households to improve or restore the health of any of their members. OOP payment is defined exclusively as direct medical payments made to health providers at the time of use net of any reimbursement received and includes payments for all household members. It is a measure of the performance of the health financing system, at the overall population level (WHO and World Bank, 2015). On the other hand, the indicator of catastrophic total costs incurred by households affected by a disease, refers instead to the total economic burden (direct and indirect costs combined), related to one diagnosed health condition only, treated in a particular type of setting, about total household income (wagstaf, 2003). The two indicators are therefore not comparable. What is your explanation for this fundamental flaw in this study?

R: in the background section, lines 1 to 11, this problem was corrected. CHEs and the Fair financial contribution index (FFCI) as the main indices for evaluating the performance of health systems, reflecting the degree of financial support of people in the face of health expenditure, and these indices are separately reported in this study.

Results
10.

Q: It is better to merge Tables 3, 4, and 5. Figure 1 can even be merged with Table 3.

R: the tables were merged under table 1.

11.

Q: What is the meaning of numbers 1 to 5 in the income groups of Table 3?

R: this variable is income and is reported in Table 1. The first quintile is the poorest and the fifth quintile is the wealthiest households. (lines 11 to 14 in "Results section")

12.

Q: What are the axis titles in Figure 1?

R: In the horizontal axis represents the "income quintiles". the vertical axis showed the percentage of households exposed to CHEs in cancer treatment.

13.

Q: In many cases, the items presented in the main text do not match the figures in the tables, especially in the statistical relationship between variables. Please check them carefully.

R: Done
14.

Q: In general, the Results section needs to be rewritten more carefully.

R: the "Results section" completely revised.

Discussion
15.

Q: According to the results of the study, what is the meaning of this sentence? "These results indicate that the current health system in protecting households from the financial burden of health expenditures in the study population …"

R: this sentences corrected.(in Disscusion section, 4th paragraph,line 1)
16.

Q: Is this sentence true?!! "the presence of people over 65 years of age in the household showed a significant effect on exposure to catastrophic health expenditures."

R: the mistake was corrected.
17.

Q: It is necessary to compare all the results of the study with the results of similar Iranian and international studies. This is not considered in some cases. For example, in the case of the Kakwani index or the relationship between the number of household members and facing catastrophic health expenditure.

R: "Discussion section" completely revised.

18.

Q: The last sentence ("A study in China also found that people with higher incomes to health expenditures.") has no reference.

R: at the end of the "Discussion section" reference "37" was added.

Conclusion

19.

Q: Study limitations should be added.

R: at the end of the "Discussion section" study limitation has been added.

20.

Q: Suggestions should be added.

R: Done
Acknowledgment
21.

Q: Moved the ethical code of the study to the Method section.

R: the ethical code of the study moved at the end of the "Method section"

Best Regards

Reviewer 3:
1-

Q: The sampling method should explain completely. The "convenience random sampling" is not correct.

R: The "convenience random sampling" was replaced by "simple random sampling" and the Sampling method was explained in the "sample size" section.

2-

Q: In Tables 2, 4, and 5 it is unknown who the independent variables belong to. The patients or the supervisor of the family?

R: As shown in Table 1, household head variables were listed clearly from other independent variables.

3-

Q: In table 5, the reference group and type of some independent variables are unknown. Such as employment status, household education, and employment number.

R: Done

4-

Q: The authors should explain more about the variable household education.

R: the variable of education corrected to "educational status of the household head"

5-

Q: The authors should explain the model evaluation in this study.

R: In the "Data analysis" section (in methods), completely explained.

OPEN PEER REVIEW

Revision (2)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

Eshagh Barfar: Associate Editor | **Revision** (2) 6 Apr 2022

Dear Editor in Chief
Since the necessary revisions were made, the manuscript is qualified for publication in the journal.
Best regards

Ramazan Mirzaei: EIC | **Revision** (2) 6 Apr 2022

Dear Author

According to reviewer comments, Your article has been accepted for publication
Best Regards