# PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

## **ARTICLE DETAILS**

TITLE (PROVISIONAL)	Impact of public funded health insurances in India on health care utilization and financial risk protection: a systematic review
AUTHORS	B, Reshmi; Unnikrishnan, B.; Rajwar, Eti; Parsekar, Shradha; Vijayamma, Ratheebhai; VENKATESH, BHUMIKA

## **VERSION 1 – REVIEW**

Filc, Dani

REVIEWER

REVIEWER

**REVIEW RETURNED** 

	Ben-Gurion University of the Negev, Politic and Government
REVIEW RETURNED	11-Apr-2021
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GENERAL COMMENTS	The paper addresses a very important issue: the impact of public funded health insurance on health utilization and financial protection. The paper presents a thorough and methodologically sound meta-analysis of research on the topic, and has important policy implications. Those are the reasons that merit to publish it. However, my impression is that in order to be suit for publication it requieres a major review.  1) While it is clear why the authors aim to answer the questions about utilization and financial protection, the question about willingness to pay is not sufficiently address in the introduction.  2) The discussion about inequality and inequity in the introduction is not clear enough.  3) The presentation of the results does not explain clearly enough why the results on financial protection are inconclusive. Moreover, in the discussion the authors state "there was no effect of the PFHI schemes in financial risk protection" (page 11), but there is a difference (not discussed), between claiming that the results were inconclusive and claiming that there was no effect.  4) I find the discussion lacking in attempting to explain the results, especially the apparently counter-intuitive finding on financial protection.  In sum, while I think that it is an important research, it should be revised and corrected before publication.

GENERAL COMMENTS	Impact of public funded health insurances in India on health care utilization and financial risk protection: a systematic review  Comments
	The present study presents a systematic review of literature on

Foundation of India, HEalth Economics

Indian Institute of Public Health, Delhi (IIPHD), Public Health

Karan, Anup

15-Jun-2021

impacts of publicly funded health insurance schemes in India on two important outcomes of policy interest: i) financial risk protection and ii) healthcare utilization by eligible population. The study presents a comprehensive analysis of the methodology used in and results present by different studies conducted on the subject till 2020 in India. Authors have carefully chosen the two very important outcomes (financial risk protection and health care utilisation) of health insurance as the two have been the most talked outcomes in literature and are of crucial policy interest in India. The study used a standard and rigorous methodology of systematic review as suggested in the Cochrane handbook of interventions. Although such studies already exist, which authors recognised and cited, the present study is the first systematic review after the introduction of PM-JAY in India. The study is welcome and is likely to help policy in identifying the issues related to functioning of publicly funded health insurance schemes in India.

I have only minor comments which are aimed to improve the quality of the study. My main comments are as follows:

- 1. There are few studies in India which also assessed impact of publicly funded health insurance schemes on health outcomes. I am wondering if authors would like to include such studies. If not, why? 2. Authors can present a brief paragraph about different publicly financed health insurance scheme containing information on which scheme is pan-India and which are state specific, which state, benefit package, coverage of the services, launched in which year, what is management of those schemes etc. This will set a context to the review of the schemes.
- 3. Authors have written about a paragraph on inequality and equity in the background section. I don't think this is very relevant for the present study. Almost all the publicly funded health insurance schemes in India is available for poor only, although the identification criteria may differ across schemes. If at all authors are interested in this issue, they should cite more literature on this topic covering how OOPE disrupts living of poor population.
- 4. A few main findings in the literature should also be present in the manuscript, such how many and which studies reported positive or no impacts on impacts on financial risk protection and healthcare utilisation. Presently authors only mention sweeping statements like literature is inconclusive or no financial risk protection. Smaller tables using findings from the current large tables containing the main findings could be presented for a better reading. Large (Table 1 and Table 2) can be sent to supplementary document.
- 5. I would also recommend to identify the main issues raised in the literature for the success/failure of the schemes and present those issues in the results and discussion sections. These issues could provide important insights to policy makers and implementer of the schemes.

## **VERSION 1 – AUTHOR RESPONSE**

#### Response to Comments

We are grateful to the editor and the reviewers for their critical comments and suggestions to enhance the quality of our paper. Below we have provided point-by-point reply to each comment and necessary changes are made in the main manuscript file. The changes in the manuscript file are highlighted using red font colour.

Formatting Amendments (where applicable):

1. Please include figure legends at the end of your main manuscript.

Response: We have added the figure legend at the end of the main manuscript (after the tables).

2.2.Upon checking the manuscript, I have noticed that the uploaded file 'HI review\_impact\_supplementary file 2\_Search strategy.pdf (v1.0)' is uploaded as 'Supplementary file 2' label but the file is incorrectly uploaded as supplementary file 1.Kindly amend accordingly Response: Thank you. We have done the required changes. We have created one supplementary file consist of additional information.

Editor(s)' Comments to Author (if any):

- Please revise the 'Strengths and limitations' section of your manuscript (after the abstract). This section should contain five short bullet points, no longer than one sentence each, that relate specifically to the methods. The results of the study should not be summarised here. Response: We have revised the section and have added new points to under strengths and limitations. Please refer line number 53-64.
- Please complete a thorough proofread of the text and correct any spelling and grammar errors that you identify.

Response: Thank you. A thorough proofread of the document was done and grammatical or spelling errors were corrected.

Reviewer: 1

Dr. Dani Filc, Ben-Gurion University of the Negev

Comments to the Author:

The paper addresses a very important issue: the impact of public funded health insurance on health utilization and financial protection. The paper presents a thorough and methodologically sound meta-analysis of research on the topic, and has important policy implications. Those are the reasons that merit to publish it. However, my impression is that in order to be suit for publication it requires a major review.

- 1) While it is clear why the authors aim to answer the questions about utilization and financial protection, the question about willingness to pay is not sufficiently address in the introduction. Response: Thank you for the comment. We have added information on why we want to assess 'willingness to pay' in this paper and how it is linked to impact of the PFHI schemes. Please refer line no 117-121.
- 2) The discussion about inequality and inequity in the introduction is not clear enough. Response: Yes, we agree that the information on inequity and inequality is not clear and might not be relevant for the paper. We have modified the paragraph and have removed the additional information on inequality and inequity, to make the introduction more suitable for the current paper. Please see line number 66-84.
- 3) The presentation of the results does not explain clearly enough why the results on financial protection are inconclusive. Moreover, in the discussion the authors state "there was no effect of the PFHI schemes in financial risk protection" (page 11), but there is a difference (not discussed), between claiming that the results were inconclusive and claiming that there was no effect. Response: Thank you for your comment. Due to word count limitation, we had not put a lot of text in the results section. However, now, we have added information that will make it clear why the evidence was inconclusive. We have also added a summary in table 3&4, these tables will be presented in the main manuscript document alongside the results sections, so that readers can get a clear picture about the results. Please see line numbers 229-259, 267-270 & 272-276.

We agree that the statement "there was no effect of PFHI schemes in financial risk protection" does

not accurately reflect the findings, therefore, wherever necessary, we have changed the statement. Please see line number 282-283 and 386-387. Also, in the discussion section, we have added the plausible reasons for the inconclusive findings on financial risk protection (please see line number 291-297).

4) I find the discussion lacking in attempting to explain the results, especially the apparently counter-intuitive finding on financial protection.

Response: Thank you for the comment. We have added few points to discuss reasons to explain results on financial protection. Please refer line numbers 291-297, 312-314.

In sum, while I think that it is important research, it should be revised and corrected before publication.

Response: Thank you so much for the positive feedback.

#### Reviewer: 2

Dr. Anup Karan, Indian Institute of Public Health, Delhi (IIPHD), Public Health Foundation of India Comments to the Author:

Impact of public funded health insurances in India on health care utilization and financial risk protection: a systematic review

#### Comments

The present study presents a systematic review of literature on impacts of publicly funded health insurance schemes in India on two important outcomes of policy interest: i) financial risk protection and ii) healthcare utilization by eligible population. The study presents a comprehensive analysis of the methodology used in and results present by different studies conducted on the subject till 2020 in India. Authors have carefully chosen the two very important outcomes (financial risk protection and health care utilisation) of health insurance as the two have been the most talked outcomes in literature and are of crucial policy interest in India. The study used a standard and rigorous methodology of systematic review as suggested in the Cochrane handbook of interventions. Although such studies already exist, which authors recognised and cited, the present study is the first systematic review after the introduction of PM-JAY in India. The study is welcome and is likely to help policy in identifying the issues related to functioning of publicly funded health insurance schemes in India.

I have only minor comments which are aimed to improve the quality of the study. My main comments are as follows:

Response: We are grateful for your kind and encouraging words.

1. There are few studies in India which also assessed impact of publicly funded health insurance schemes on health outcomes. I am wondering if authors would like to include such studies. If not, why?

Response: Thank you for raising the concern. We do understand there are few studies in India that assessed impact of PFHI on health outcomes but the outcomes were chosen at the time of proposal submitted to the funders. We did have a discussion at the planning stage of this review to include health outcomes but decided to skip it for couple of reasons. Firstly, health is a broad term and having multiple health outcomes would have diluted the focus of our review and it would have been challenging to summarize the findings, as we had already included another broad outcome of financial risk protection. Secondly, our funders were more interested in financial and health care access related outcomes. But as the reviewers rightly pointed, we also feel it would be good to assess impact on health outcomes and this can be considered by future reviews.

2. Authors can present a brief paragraph about different publicly financed health insurance scheme containing information on which scheme is pan-India and which are state specific, which state, benefit package, coverage of the services, launched in which year, what is management of those schemes

etc. This will set a context to the review of the schemes.

Response: Thank you for the suggestion. We have provided a brief summary on the PFHI schemes. Due to word count limitation in the main document, we have briefly mentioned the schemes in the main text document and have provided other details in a new table (table number 2). Please see line number 213-220.

3. Authors have written about a paragraph on inequality and equity in the background section. I don't think this is very relevant for the present study. Almost all the publicly funded health insurance schemes in India is available for poor only, although the identification criteria may differ across schemes. If at all authors are interested in this issue, they should cite more literature on this topic covering how OOPE disrupts living of poor population.

Response: Yes, we agree that the information on inequality and inequality is not clear and might not be relevant for the paper. We have modified the paragraph and have removed the additional information on inequality and inequity, to make the introduction more suitable for the current paper. Please see line number 66-84.

4. A few main findings in the literature should also be present in the manuscript, such how many and which studies reported positive or no impacts on impacts on financial risk protection and healthcare utilisation. Presently authors only mention sweeping statements like literature is inconclusive or no financial risk protection. Smaller tables using findings from the current large tables containing the main findings could be presented for a better reading. Large (Table 1 and Table 2) can be sent to supplementary document.

Response: Thank you for the comment. As mentioned, we have added a summary of the results in the 'results' section which was prepared using findings from table 2 (now table 3&4). We have also provided findings or results in table number 3&4, these tables are supposed to be presented in the main manuscript alongside the results section, and the detailed synthesis is added in supplementary file. Please see line number 229-259, 267-270 & 272-276.

5. I would also recommend to identify the main issues raised in the literature for the success/failure of the schemes and present those issues in the results and discussion sections. These issues could provide important insights to policy makers and implementer of the schemes.

Response: Thank you for the comment. In addition to the existing points, based on our knowledge and literature we have discussed some more plausible reasons for the effects of the schemes. Kindly refer to lines 291-297 & 312-314. Furthermore, there is need for more research such as qualitative studies, formative evaluations etc. to identify specific reasons for success or failure, that we have already mentioned under implications for policy and research. Please refer lines 376-377.

#### **VERSION 2 - REVIEW**

REVIEWER	Filc, Dani
	Ben-Gurion University of the Negev, Politic and Government
REVIEW RETURNED	04-Oct-2021
GENERAL COMMENTS	The authors have fully addressed my comments, so in my view the
	paper is ready for publication.
REVIEWER	Karan, Anup
	Indian Institute of Public Health, Delhi (IIPHD), Public Health
	Foundation of India, HEalth Economics
REVIEW RETURNED	13-Oct-2021
GENERAL COMMENTS	None.