PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Health insurance awareness and its uptake in India: a systematic review protocol
AUTHORS	B, Reshmi; Unnikrishnan, B.; Parsekar, Shradha; Rajwar, Eti; Vijayamma, Ratheebhai; VENKATESH, BHUMIKA

VERSION 1 – REVIEW

REVIEWER	Runguo Wu Institute of Population Health Sciences, Barts and The London School of Medicine and Dentistry, Queen Mary University of London
REVIEW RETURNED	13-Sep-2020

GENERAL COMMENTS	Awareness of health insurance in LMICs is a topic of interest and importance, and India is a very good showcase of policy intervention on promoting awareness of health insurance, so the work is worthwhile. However, I have some general concerns about the protocol. 1. There is no risk of bias assessment. Although the authors have stated in limitation, it would be valuable to develop a quality assessment system, such as a checklist. 2. As the interventions you include are those supposed to affect awareness of health insurance, its causal relation to utilisation of health care is not direct. 3. Your protocol includes varied types of health insurance schemes. Enrolment of private and public insurance can be decided by very different factors. I am not sure it is okay to mix them together in one review. Some details: Introduction Page 10/26, paragraph 1, line 5: give an English translation of the insurance project name. Page 10/26, paragraph 2, line 5: “Similarly, other LMICs have reported underutilization of national health insurance schemes”. You talk about coverage/take-up of health insurance in India previously but jump to utilisation of health insurance in other LMICs in this sentence. You should give reasons or add some transition sentences. Methods and analysis You should cite the WHO guidelines on rapid reviews

	Outcomes: Is it really necessary to include utilisation, since your focus is awareness or take-up of health insurance? table 2: I am concerned about Criterion C, which appears to include nearly all quantitative studies. Maybe you could suggest which type of quantitative studies you want to exclude. In addition, "If it clearly states that none of the listed methods and designs were used", I doubt few studies would make such a statement. table 2: Criterion D, "Does the study describe the details of intervention". Could you give some mandatory requirements for the details of an intervention? For example, essential information about who implements the intervention, to whom, population size, subsidisation or not, etc. table 2: Criterion G, same as C table 2: Criterion H, same as D Table 3: I'd suggest you include the starting time and duration of the intervention Page 23/26, Quantitative studies: I doubt the feasibility of conducting a meta-analysis, so it may be more realistic to focus on narrative synthesis.

REVIEWER	Saudamini Dabak Health Intervention and Technology Assessment Program (HITAP), Thailand
REVIEW RETURNED	26-Oct-2020

GENERAL COMMENTS	Thank you for the opportunity to review this paper, which is on an important topic in health financing, that of health insurance awareness and resultant utilisation of healthcare services. The authors have provided a good description of the topic and have identified the unique elements related to health insurance in India, with the aim of including grey literature as well. A few points for consideration: • It is not clear as to why the authors have elected to conduct a rapid review rather than a systematic review, with the former often being used to inform time-sensitive evidence needs of policymakers. Could the authors please provide more context on the choice of the study design? • The authors provide a good description of the current knowledge on the topic in the introduction, particularly in LMICs. It would be helpful if the authors could articulate the need for focusing this study on India - eg is there low uptake of the Ayushman Bharat scheme, and is lack of awareness the main stumbling block to achieving UHC? • In the PRISMA-P checklist, the authors have indicated that they will not assess the strength of evidence using tools such as GRADE nor conduct a risk of bias assessment. Could the authors please explain why? • In the data extraction form, the authors may consider adding a rural/urban dimension under location /settings. Further, might it be helpful to also include information on the type of health insurance scheme/services covered (eg mother and child care or tertiary care) as some schemes are more targeted in their benefits packages than others and this may impact awareness and utilisation. • It appears that a sub-group analysis will be critical to understanding the richness of the studies covered by the review

	and perhaps the authors could consider expanding on this in their analysis plan.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1 Awareness of health insurance in LMICs is a topic of interest and importance, and India is a very good showcase of policy intervention on promoting awareness of health insurance, so the work is worthwhile. However, I have some general concerns about the protocol.

1.1. There is no risk of bias assessment. Although the authors have stated in limitation, it would be valuable to develop a quality assessment system, such as a checklist. Reply: As a rapid evidence synthesis, considering the time constraints we had planned to omit this step. However, through our preliminary searches we have realized the extent of work and the seriousness of minimizing the bias considering the scope of the evidence generated through this review. Therefore, after holding the discussion we accept the suggestion and have decided to carry out a proper systematic review. Further justification is provided in reply to comment no. 2.1. below. Considering this, we would like to appraise the included studies using standard critical appraisal tools. We have added the section 'Critical appraisal of included studies' in the protocol on Page 23. We also would like to evaluate the certainty of the evidence using GRADE approach, reported on Page 24 (See also reply to comment 2.3.)

1.2. As the interventions you include are those supposed to affect awareness of health insurance, its causal relation to utilisation of health care is not direct.

Reply: We agree with the comment and therefore decided to not consider 'utilization of healthcare' as an outcome in this review.

1.3. Your protocol includes varied types of health insurance schemes. Enrolment of private and public insurance can be decided by very different factors. I am not sure it is okay to mix them together in one review.

Reply: It is a valid concern raised by the reviewer. We will not mix the factors for enrolment in private, public and community-based insurances. We will undertake subgroup analysis based on type of insurance. We have reported this on Page 24 under section quantitative analysis and mixed methods synthesis. Furthermore, as discussed in reply to comment no. 1.7. we will consider 'awareness as a factor for uptake and re-enrolment of health insurance' and 'demand- and supply-side factors for health insurance awareness'.

Some details: Introduction 1.4. Page 10/26, paragraph 1, line 5: give an English translation of the insurance project name.

Reply: As suggested English translation added in the bracket.

1.5. Page 10/26, paragraph 2, line 5: "Similarly, other LMICs have reported underutilization of national health insurance schemes". You talk about coverage/take-up of health insurance in India previously but jump to utilisation of health insurance in other LMICs in this sentence. You should give reasons or add some transition sentences.

Reply: We have made changes in the statement, "Similarly, other LMICs have reported poor registrations in the national health insurance schemes", see page 5.

1.6. You should cite the WHO guidelines on rapid reviews

Reply: The protocol now follows the methodology of a systematic review, we will follow Cochrane guidelines and accordingly it has been cited (page 8).

1.7. Outcomes: Is it really necessary to include utilisation, since your focus is awareness or take-up of health insurance?

Reply: We agree with the reviewer and therefore decided to not consider 'utilization of healthcare' as an outcome in this review.

There could be multiple factors for uptake of health insurance, of which 'awareness of health insurance' is one of the factors. As the focus of this review is on awareness of health insurance, after

discussion, we decided to restrict the factors for uptake of health insurance by considering only awareness as a factor for uptake or re-enrolment of health insurance. Factors associated with enrolment in health insurance could be scope of another review and there is systematic review level evidence available in India on the same (Prinja et al., 2017: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0170996). Additionally, as per the concern raised by reviewer in point no. 1.3. it would be difficult to mix different factors for public and private health insurances. Therefore, we split the last listed outcome into two separate outcomes and have added the re-enrolment category. Outcome in previous version was 'Demand- and supply-side factors for uptake and awareness of health insurance'. In the current version we have made it into two; 'Demand- and supply-side factors of awareness of health insurance' and 'Awareness as a factor for uptake or re-enrolment of health insurance' (See page 10).

1.7. table 2- I am concerned about Criterion C, which appears to include nearly all quantitative studies. Maybe you could suggest which type of quantitative studies you want to exclude. In addition, "If it clearly states that none of the listed methods and designs were used", I doubt few studies would make such a statement.

Reply: As per the suggestion we have removed the statement and added the exclusion criterion as "If the study is descriptive cross-sectional having single group" (See table 2)

1.8. table 2: Criterion D, "Does the study describe the details of intervention". Could you give some mandatory requirements for the details of an intervention? For example, essential information about who implements the intervention, to whom, population size, subsidisation or not, etc.

Reply: As per the suggestion, we have added the details of intervention (See table 2).

1.9. table 2: Criterion G, same as C

Reply: As suggested, we have made the changes (See table 2).

1.10. table 2: Criterion H, same as D

Reply: As suggested, we have made the changes (See table 2).

1.11. Table 3: I'd suggest you include the starting time and duration of the intervention Reply: As per suggestion, we have incorporated the time and duration of intervention in the table 3 (See table 3).

1.12. Page 23/26, Quantitative studies: I doubt the feasibility of conducting a meta-analysis, so it may be more realistic to focus on narrative synthesis. Reply: Yes, we agree with the comment and were aware of the heterogeneity. Therefore, we had mentioned in the previous version of protocol that 'if possible, we will perform meta-analysis'. However, now we made it more clear by adding a statement that if heterogeneity exists, we will not perform meta-analysis. "If there exist heterogeneity due to aforementioned components, we will not perform meta-analysis. After ruling out clinical or methodological heterogeneity, ..." (Pages 23-24)

Reviewer: 2 Comments to the Author Thank you for the opportunity to review this paper, which is on an important topic in health financing, that of health insurance awareness and resultant utilisation of healthcare services. The authors have provided a good description of the topic and have identified the unique elements related to health insurance in India, with the aim of including grey literature as well. A few points for consideration:

2.1. It is not clear as to why the authors have elected to conduct a rapid review rather than a systematic review, with the former often being used to inform time-sensitive evidence needs of policymakers. Could the authors please provide more context on the choice of the study design?

Reply: We agree with the comment that a rapid review/rapid evidence synthesis is an important evidence synthesis tool for time–sensitive evidence needs. Initially, due to a request from the funding organization, regarding immediate evidence (max in 3 months) on the topic and due to lack of time, we had conceptualized the proposed review as a rapid evidence synthesis. However, after more background readings, discussions with the stakeholders we have concluded that a systematic review, including all the systematic steps, is the appropriate evidence synthesis tool to answer this important topic with high practical/policy implications. We have done the required changes in the protocol document (Page 8).

As a result of these changes, we would like to propose an alternative title, "Health insurance

awareness and its uptake in India: a systematic review protocol".
2.2. The authors provide a good description of the current knowledge on the topic in the introduction, particularly in LMICs. It would be helpful if the authors could articulate the need for focusing this study on India – e.g. is there low uptake of the Ayushman Bharat scheme, and is lack of awareness the main stumbling block to achieving UHC?
Reply: Added section on the importance of this study for India, in the rationale section pg no 8.
2.3. In the PRISMA-P checklist, the authors have indicated that they will not assess the strength of evidence using tools such as GRADE nor conduct a risk of bias assessment. Could the authors please explain why?
Reply: As this was proposed to be a rapid evidence synthesis/review, we had not included Risk of bias assessment and GRADE in the methodology section. Since, we have changed the methodology to a systematic review, we have added the required sections to the main document (Pages 23 and 24) and the PRISMA-P checklist. The justification has been also reported in reply to point no. 1.1. above.
2.4. In the data extraction form, the authors may consider adding a rural/urban dimension under location /settings.
Reply: As suggested, we have added Rural/urban dimension under location/ setting of table 3.
2.5. Further, might it be helpful to also include information on the type of health insurance scheme/services covered (eg mother and child care or tertiary care) as some schemes are more targeted in their benefits packages than others and this may impact awareness and utilisation.
Reply: We have created a separate section of 'Insurance details' in table 3 and have mentioned subcomponents under this heading as suggested.
2.6. It appears that a sub-group analysis will be critical to understanding the richness of the studies covered by the review and perhaps the authors could consider expanding on this in their analysis plan.
Reply: Yes, we agree with the suggestion and following statement has been added in the protocol. "Subgroups could be based on study design, intervention type, insurance type (such as private and public), region and other contextual factors (e.g., urban/rural)." Page 24.
Contributorship statement Unnikrishnan, B.; Vijayamma, Ratheebhai; VENKATESH, BHUMIKA TUMKUR' included in your author's list. However, upon checking the contributorship statement, I cannot find an initial that corresponds to its name. Kindly confirm.
Reply: In the previous version of the protocol, we had written "All authors" instead of specifying every author's initials. However, now we have added the initials of authors wherever applicable. Page 25.

VERSION 2 – REVIEW

REVIEWER	Runguo Wu Barts and the London School of Medicine and Dentistry, Queen Mary University of London, UK
REVIEW RETURNED	27-Jan-2021

GENERAL COMMENTS	I am happy with the authors' responses and impressed with the improvement they have made since the last version. They have well addressed my main concerns, i.e. quality assessment and the possible irrelevance of health care utilisation. I only have a few minor suggestions/comments: 1. Page 5: "Similarly, other LMICs have reported poor registrations in the national health insurance schemes". I am not sure it is appropriate to claim this with only one study from Nigeria cited. I'd like to see more studies from other LMICs cited to support this claim.

	2. Table 1 looks oddly long. Is it necessary to list these terms in a table? 3. I still doubt the feasibility of a meta-analysis, but will not mind if you insist on including it in the protocol. I'd recommend acceptance of this review protocol. Since the points I raise above are minor, I will not necessarily review the revisions again.

REVIEWER	Saudamini Dabak Health Intervention and Technology Assessment Program (HITAP), Thailand
REVIEW RETURNED	13-Feb-2021

GENERAL COMMENTS	Thank you for addressing the comments from the two reviewers. I suggest that there be some minor proof-reading of the paper.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 1 I am happy with the authors' responses and impressed with the improvement they have made since the last version. They have well addressed my main concerns, i.e. quality assessment and the possible irrelevance of health care utilisation. I only have a few minor suggestions/comments:
Reply: We are grateful to the reviewer for the encouraging words.

1. Page 5: "Similarly, other LMICs have reported poor registrations in the national health insurance schemes". I am not sure it is appropriate to claim this with only one study from Nigeria cited. I'd like to see more studies from other LMICs cited to support this claim.

Reply: Thank for pointing this. We have added more references in support of this statement. Please refer to page 5 last paragraph.

2. Table 1 looks oddly long. Is it necessary to list these terms in a table?

Reply: Yes we agree that the table in long. We have now formatted table 1 without compromising on the key terms stated.

3. I still doubt the feasibility of a meta-analysis, but will not mind if you insist on including it in the protocol. Reply: We do understand that it may not be possible to conduct the meta-analysis, however we would like to explore this possibility after acquisition of the data. Therefore, we are in favour of retaining analysis approach stated under methods section.

I'd recommend acceptance of this review protocol. Since the points I raise above are minor, I will not necessarily review the revisions again. Reply: We would like to thank the reviewer for constructive feedback and affirmative response.

Reviewer: 2
Thank you for addressing the comments from the two reviewers. I suggest that there be some minor proof-reading of the paper.
Reply: Thank you so much for the kind words. Based on your suggestion, we requested one of our colleagues to critically proof read the manuscript and minor changes were done.