Author’s response to reviews

Title: Hepatitis C virus-related policy-making in Iran: a stakeholder and social network analysis

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Author’s response to reviews:

Reviewer reports:

Reviewer #1: Dear Authors,

Thank you for this interesting and relevant article. Please see the following suggestions:

There were no page numbers given, so comments are by section.

Thanks a lot for the appreciation of our manuscript.

1) Background - Giving background on how health policy is made in Iran would be helpful for readers. Who has policy authority? What is the process, who writes policy, who votes on policy, who implements and oversees policy implementation, funding, is it centralized or decentralized?

Thanks a lot for this comment. We have added that “The Iranian Ministry of Health and Medical Education (MoHME) is the main sponsor of health. The government, according to the different needs of the ministries and their programs, provides the necessary budget. The parliament, according to the representatives of the delegates, ultimately approves the budget and adopts measures to implement it. The MoHME allocates adequate financial resources for each program and runs them through its medical universities in all provinces. For other programs and policies,
other ministries can help the MoHME. More specifically, the National Hepatitis Committee based at the Centers for Disease Control and Prevention focuses on major HCV-related programs in order to implement them. HCV-related policies are run through the Secretariat of the Supreme Council for Health and Food Security, in collaboration with other ministries, if needed. Implementation of HCV-related plans is under the responsibility of the MoHME, health authorities and organisms, and other organizations which independently monitor the various processes through different quality indicators”.

2) Methods - Are you using a theoretical basis for this framework on interests? Did interest, position, power and influence come from an established framework or did it come from the data?

Thanks a lot for this comment. We have added that “Based on our aim, in order to examine the various dimensions and effects that stakeholders can have on HCV-related policies in Iran, the suggestions and the theoretical framework adopted by the World Bank (26), and by Varvasovksy and colleagues (13) were deemed appropriate and chosen for our study. As such, stakeholders were analyzed and characterized based on four items: namely interest, position, power and influence”.

3) Methods - Length of interviews and interviewed participants are results - please move from methods

Thanks a lot for this comment. It has been moved, as requested.

4) Methods - How many people collected and analyzed data? (Who performed the interviews, who analyzed the data, how were these standardized if more than 1 person?) The author's contributions states this, but this should also be listed in the methods section.

Thanks a lot for this comment. This information has been added in the methods section and in related tables, as requested.

5) Methods - Under SNA, I recommend to briefly describe terms including "degree centrality" "closeness centrality" "betweenness centrality" and "eigenvector centralities".

Thanks a lot for this comment. We have added that “More in detail, degree centrality is the number of direct relationships (links/edges connecting neighboring nodes) that a stakeholder has (33). Closeness centrality (or simply, closeness) is the reciprocal of the sum of the length of the shortest interactions (paths, links or edges) between a stakeholder (node) and all the other actors
Betweeness centrality is based on the shortest paths: a stakeholder can, indeed, reach the other stakeholders (neighboring nodes) through different paths, but only the shortest one is computed (35). Eigenvector centrality is a proxy of the influence of a stakeholder and its importance, in terms of connections with high-scoring (“central”) nodes (36).

6) Methods - was the 5 point scoring system (low, low-medium, medium, medium-high, high) used in the SNA analysis? Please clarify.

Thanks for this comment. We have clarified that “To carry out SNA, average scores were used based on the views of the participants, as well as the association of each organization/institution with all the other organizations”.

7) Results - How many documents were reviewed?

Thanks a lot for this comment. We have added a table (current Table 2) to provide the reader with this information.

8) Results - It is not clear how political and government agencies are divided - what differentiates these from each other? Furthermore, Table 1 shows 13 governmental agencies, but the results section states 16. I thought the governmental agencies and political groups had been combined, but political groups were then listed separately. Please clarify.

We thanks the reviewer for this comment. We have amended (16, not 13).

9) Results - please spell out the names of each group the first time used in the paper and list the organizations alphabetically in the abbreviations section

It has been done. Thanks a lot.

10) Results - again, it would be helpful to know where the interest, position, power and influence framework comes from as a theory or whether this comes from the data.

See reply to question 2.
11) Results - Please double check your article to ensure congruence with your data tables. For example, the paper states "PPC also play a relatively high role in patients' treatment" but it is listed as "low" on table 2. Other such areas were noted. It is also helpful to provide more information as to why these are low or high (e.g., "Prisoners, as one of the most high-risk groups for HCV, have made the SPSCMO authorities interested in harm reduction programs…")) Please add more rationales / clarity for other interest groups to be in the high/low categories. Aka, more details on the mechanisms of influence. Having the background of how policies are made would help clarify this (e.g., Parliament vs. the Ministry).

We have added more rationale and double-checked results.

12) Results - again, not sure what went into the SNA analysis. Adding this to the methods will be helpful.

Thanks for this comment. We added that “To carry out SNA, average scores were used based on the views of the participants, as well as the association of each organization/institution with all the other organizations”.

13) Results - "Based on SNA-related items, the MOHME has the highest rank for HCV-related policies in Iran" What does this mean in practical terms? Are they the ones who write and enforce and fund health policies?

Yes. This has been added.

14) Results - "Based on these findings, stakeholders like social media, news websites and Islamic republic of Iran broadcasting (IRIB) are the most centralized…” What does this mean in practical terms? Are these state-run agencies? Are they censored by government? If so, by whom specifically? A policy network discussion would be helpful.

IRIB is state-directed, whilst social media and news websites are society directed.

15) Discussion - "Discussions and different standpoints concerning the development and implementation of healthcare policies can be a challenge, even though negotiations can mitigate such contrasts…." Background would be helpful to understand the types of different standpoints and positioning of these different groups.

This information has been added, as requested.
16) Discussion - "Through political dialogue, these weaknesses can be somewhat reduced" I don't feel I have enough understanding of the political processes to judge this and there has been no explanation to support this.

We have detailed results in order to support this information, as well as provided references.

17) Discussion - "Moreover, due to the limited financial resources and economic difficulties…all financial resources for the treatment of patients are not provided." Is this stating that no one in Iran is being treated currently for Hep C? Please clarify.

We have rewritten as follows: “Moreover, due to the limited financial resources and economic difficulties caused by international sanctions in Iran, not all the necessary financial resources for the treatment of patients are provided to every patient”.

18) Discussion - "…because of some cultural problems associated with HCV…." No background provided on this, what are the "cultural problems"?

We meant stigma. This has been clarified in the text.

19) Discussion - "The centrality of stakeholders such as social media, news websites and IRIB…” Are these state-directed or society-directed? See point #14

IRIB is state directed, the other stakeholder society-directed.

20) Discussion - "Consultation with all stakeholders can help them design…." Help who? See points 1 and 13.

See above replies.

21) Discussion - Are there any research implications found from this study?

Thanks a lot for this comment. This study can provide valuable information for designing and making appropriate decisions. The present study can also serve as a case-study for healthcare systems in other countries.
22) Conclusion - "All HCV policy-making and decisions should not be handled by the MOHME alone…" Is the MOHME the one who makes policy? This was never clarified earlier in the paper - see points 1, 13, and 20. Also, is this from the data or personal opinion?

It has been clarified. Conclusions are from the data.

23) Conclusion - "…so that policy-makers can have a more comprehensive understanding (recommend to add "of a health issue") and make better (recommend to change to "more informed") decisions.

Done. Thanks a lot.

24) Table 1 - What are "municipalities" in this context? Are they not part of government?

They are not governmental institutions, since in Iran they do not receive financial support directly from government.

25) Table 2 - It would be helpful to sort this table in some way - I suggest by organization type, following Table 1, but it could be an algorithm from High to Low. It is hard to follow since it is not alphabetical, by organization or by findings right now.

We re-sorted alphabetically.

Grammar/editorial points -

Needs grammar revisions throughout.

Thanks a lot for this comment. Manuscript has been carefully edited and revised from grammar.

Thank you for the opportunity to review your manuscript. This is a very important topic area and will certainly serve as a template for others. I look forward to seeing your revised manuscript.

Thanks a lot for the appreciation of our manuscript.
Reviewer #2: Hepatitis C virus is an important health concern and author/s had conducted a valuable work in this regards. However, there are some issues that it is recommended to address by the author/s as bellow:

Abstract:

1- The aim/s of the study should be stated at the end of the background section.

Thanks a lot for this comment. It has been moved to the appropriate section (background), as suggested.

2- The aim of the study (that has been mentioned in the methods) is "to analyze the roles and characteristics of all stakeholders involved in HCV-related policies in Iran". What do you mean by stakeholders in HCV-related policies? Does it mean those who are involved in policy development? or implementation? or evaluation?

Thanks a lot for this comment. We have clarified this detail. In particular, in the full text, we have added that “The identified stakeholders were involved at different steps of the processes of HCV-related policy making. For instance, the MoHME was involved in policy development, implementation and evaluation, whereas SPSCMO in implementation, the MUs in policy implementation and evaluation and IDCH in policy development”.

3- It is strongly recommended to explain the methodology in the method section instead of explaining about the aims. The method section needs revision in terms of number of participations, type of participation, the approach used for data analysis, …

Thanks a lot for this expert comment. We have amended as requested. We rewrote as follows: “An approach based on social network analysis (SNA) was utilized. Data collected included relevant document searches and in-depth interviews to a sample of 18 key-informants”.

4- The results section is very general and doesn't include any relevant findings of the present study. The author/s stated that many stakeholders involved with HCV policy in Iran. It is better to stay for example how many stakeholders are involving in? in which phase of policy making? Or it has stated that "the extent of their participation and support in policy making is different". We know that the extent is different, here we want to know what is this differences, who are stronger? The last sentence, "All HCV policy-making and decision should not be handled by the MOHME alone, but should receive support and advocacy from all stakeholders". Is it your
finding? or your conclusion? If it is your findings, it is not clear how to find this? if it is your conclusion, how to come to this?

Thanks a lot for this expert comment. Results section now reads “Various stakeholders were found to be involved with HCV-related policies in Iran. The extent of their participation and support in policy making was different. More in detail, international agencies had a high interest for HCV-related policy-making, whereas media and members of the private sector were characterized by a medium interest and governmental and non-governmental bodies by a highly variable interest, ranging from low to high, depending on the specific organism. Moreover, media as well as members of the private sector, non-governmental institutions and international agencies were rated low in terms of position, were governmental actors were rated low-to-high. Furthermore, media were rated medium in terms of power, whereas international agencies and members of the private sector low-to-medium and low, respectively. Non-governmental actors were rated low, while governmental bodies low-to-high. Finally, media, members of the private sectors and international agencies were rated medium in terms of influence, whereas non-governmental and governmental actors were rated low-to-medium and low-to-high”.

5- the conclusion section should be re-written. It includes some principals that we know them. It is suggested to show the key messages and implications of the present study in this section.

Thanks for this comment. We have re-written as follows: “Policy-making involves trust, negotiations, and integration of the different views of all stakeholders. SNA was critical for identifying stakeholders and showing that in Iran involvement in HCV-related policy-making is generally low. This information has practical implications for policy- and decision-makers in order to adopt more favorable and effective strategies”.

Introduction:

1- Page 4 (20-21): "Due to lack of …..population (8)"/ page 4 (35-37): "Essentially, ….. them". These sentences do not make sense.

Thanks for this comment. We have re-written as follows: “Despite the lack of funding, efforts are made to reduce the health-related costs of the illness (7) and to provide a variety of financially sustainable programs in order to reduce mortality and transmission of disease to the general population (8)”. The second sentence now reads as “Healthcare problems are complex, nonlinear and multi-factorial, and the various stakeholders involved in the process of policy-making may have a different impact on them (11)".
2- Reference # 13 has been repeated in two following sentences.

Thanks a lot for this expert comment. We have amended.

3- The status of current knowledge regarding the importance of stakeholder's analysis for successful implementing of HCV-related policies should be explained in the introduction section.

Thanks a lot for this expert comment. We added a sentence that explains that “Understanding the actors and their interests will make it possible to know how to develop and implement policies to counteract the spreading of HCV. The stakeholders in relation to a given health-related policy are actors that can have a direct or indirect effect/influence and may increase or weaken the authority and the effects of that policy (13)”.

Method:

1- The author/s defined the stakeholder and explained about the importance of stakeholder's analysis twice (in the background and in the method). There is no need to do this. I suggest they introduce this issue once (in the introduction) and then illustrate a bit more about the methodology you followed in the method section (your study design, time and place of your study, for instance)

Thanks a lot for this expert comment. We have revised as suggested.

2- Page 5 (35): "In the first phase, in-depth interviews were conducted with people involved with the HCV-related program and policies". What does the author/s mean by people? It is better to name them participants or key-informants and then state the number of participant and their positions here.

Thanks a lot for this comment. We have amended as requested.

3- The author/s mentioned that the length of each interview varied between 30 and 45 minutes. Regarding the questions of the interview (asking about the actors and the organizations), the duration of the interview is more than expected time. 30-45 minutes is mainly used for those interviews to investigate the perspectives. I think this study is a part of PhD work and may be asking about the stakeholders is one of the questions of the main topic guide that requires more time to ask.

Thanks a lot for this comment. We amended. The length of the interview was 10-15 minutes.
4- What is the exact difference between "actors" and "the organizations/institutions that are effectively involved in/stakeholders"?

Thanks for this expert comment. We have clarified that there are no differences between the two terms. As such, we reformulated the question.

5- Use the phase or step for different sections of your methodology.

We used phase consistently.

6- It seems that document analysis has also been used. Is there any added value for this? or for interviews? explain about them if there is any added value.

Document analysis was performed to identify stakeholders.

7- How were the data (interviews and documents) analyzed? by whom?

Thanks a lot for this expert comment. We have added this information.

8- The Ministry of Health and Medical Education is correct for Iran.

Thanks a lot for this comment. We confirm it is correct.

9- What do author/s mean by "related organizations" Page 5 (36,37), How many documents were investigated? By whom? How?

Thanks a lot for this comment. We have added a table (table 2) to show this information.

10- It is said that participants who had experience and knowledge about HCV-related programs were interviewed. what were your inclusion criteria for experience and knowledge? How many participants took part?

We added table 1 to show this information.
11- Two more tables related to participants and documents characteristics is required to be added.

Thanks a lot for this expert comment. We have added them as requested.

12- "The study protocol was approved by the Ethics Committee of the School of Management and Information of Iran University of Medical Sciences". Put this state at the end of a method or in acknowledgement.

Thanks a lot. We have moved as requested.

13- Page 5: (35-37): Similar/overlapping data were removed and eventual differences were identified and solved through discussion. What do the author/s mean by this? what overlap? what difference? how were these overlaps and differences solved?

Thanks for this expert comment. We agree that this sentence was misleading. We have deleted it.

14- Why did the author/s category into 6 categories? Was there any framework or rational for this categorization.

It was done on the basis of available data, after coding them.

15- What was the reference/s used for definitions of interest, position, power and influence on HCV-related programs and policies?

Thanks a lot for this comment. We have added that “Based on our aim, in order to examine the various dimensions and effects that stakeholders can have on HCV-related policies in Iran, the suggestions and the theoretical framework adopted by the World Bank (26), and by Varvasovský and colleagues (13) were deemed appropriate and chosen for our study. As such, stakeholders were analyzed and characterized based on four items: namely interest, position, power and influence”.

16- I think author/s followed two phases: Identifying the stakeholders (through interviews and documents) AND examining the view of participants toward stakeholder's roles (through expert opinions)
Thanks a lot for this observation. We followed exactly these steps. We have clarified this in the text.

17- More explanations about the last phases of the study are needed? How many questionnaires were sent? how? how were they collected? how were the answers analyzed? what do you mean by the average response?

Questions were on a likert-scale. Average was the mean of the scores.

18- "Social network analysis" should be introduced in the introduction.

It has been done, thanks a lot.

19- How the author/s guarantee the vigor of the present study? should explain more details about the vigorous.

It was done independently by different authors and agreement was assessed.

Results:

1- 29 HCV-related stakeholders in Iran were identified. How about the actors? If there is no difference, why did the author/s ask two questions?

Thanks for this comment. We agree with your observation. Since there were no differences, we rewrote the question.

2- Page 7: "while 2 stakeholders (1.73%) in the private sector and international agencies": Replace 2 by 4.

Done. Thanks a lot.

3- MU (the main health care providers in Iran): What does it mean? How did you conclude they are main? I think it is better to introduce 29 stakeholders, add one paragraph for each stakeholder. The audiences are not Iranian and they need to be familiar with the context of Iran and different stakeholders as well.
Background has been added as requested.

4- Page 5 (28). "according to the comments of the participants", Or "According to participant's viewpoints" which comments or view point? there is required to write the quotation if there is any view point or comments.

Thanks a lot for this expert comment. We have replaced with scores.

5- Abbreviations in the results section should be briefed.

It has been done, thanks a lot.

6- The results section is very short and not informative. It is not clear how to come to these findings.

We thanks a lot for this comment. We have significantly expanded it. “Interest analysis Among the stakeholders identified, the MoHME and the MUs (the main health care providers in Iran), the IBTO (the major provider of blood transfusion and blood donation), the WHO and the EMRO had the highest interest level towards HCV-related policies in Iran. Moreover, according to the scores given by the participants, the SPSCMO and PPCs had a medium-high interest for HCV-related policies. Prisoners, as one of the most high-risk groups for HCV, have made the SPSCMO authorities interested in harm reduction programs for prisoners. PPCs have become interested in developing anti-HCV drugs in recent years. Elites, GIs, GPCs, IDCH, NWs, PIs, SCs and SM had a medium interest for the process of HCV-related policy-making. Stakeholders like the IKRF, the IRC, the IRIB, JS, the LEF, NGOs, the Iranian Parliament, and SWO were found to have a low-medium interest for HCV-related policy-making. Other stakeholders, such as clerics, municipalities, MFs, the MoE, the MoSRT, and the MoSY, had a low interest towards HCV-related policies. Summarizing, international agencies had a high interest for HCV-related policy-making, whereas media and members of the private sector were characterized by a medium interest and governmental and non-governmental bodies by a highly variable interest, ranging from low to high, depending on the specific organism. Position analysis The MoHME has been recognized as the most important stakeholder in terms of position, having a lot of support for all its activities aimed at preventing, controlling and treating the disease. Also stakeholders such as the IBTO, MUs, and the SPSCMO, were found to rank high in terms of position. Furthermore, GIs and GPCs have been rated medium-high, they have, indeed, increased their support for reducing the costs and helping patients to adhere to treatment. SM and SWO were rated medium, whereas municipalities and elites low-medium in terms of position. PPCs also play a relatively high role in patients' treatment programs, even though they were rated low,
together with clerics, the EMRO, the IKRF, the IDCH, the IRC, the IRIB, the LEF, the JS, the MFs, the MoE, the MoSRT, the MoSY, NW, NGOs, the Iranian Parliament, PIs, SCs, and the WHO. Summarizing, media as well as members of the private sector, non-governmental institutions and international agencies were rated low in terms of position, were governmental actors were rated low-to-high. Power analysis Participants rated the Parliament, the MoHME, the GIs, and the SPSCMO as the most important HCV-related policy- and decision-makers in terms of power. In recent years, for instance, the SPSCMO has taken effective steps to control the disease through screening activities for prisoners, in collaboration with the MoHME and the JS. The latter stakeholder, together with IDCH and the MUs, has a medium-high power. Actors like GPCs, the IBTO, NW, SM, SWO, and the WHO, were found to have a medium power, whereas the IRIB was rated low-medium in terms of power. In general, most stakeholders, such as clerics, the EMRO, elites, the IKRF, the IRC, LEF, MFs, the MoE, the MoSRT, the MoSY, municipalities, NGOs, PIs, PPCs, and SCs, were rated low in terms of power. Many organizations, despite having the institutional tasks and duties of controlling the spreading of HCV, do not use their power to influence HCV-related plans and programs in Iran. Summarizing, media were rated medium in terms of power, whereas international agencies and members of the private sector low-to-medium and low, respectively. Non-governmental actors were generally rated low, while governmental bodies low-to-high. Influence analysis The MoHME, the Iranian Parliament, GPPs, GIs, MUs, SWO, IRIB and IBTO agencies have a great influence on the policy of HCV-related screening and treatment programs, as well as on the economic-financial plans. In general, the community elites have an important role to play in influencing policies, and they can provide Iran with more effective programs by communicating effectively with policy- and decision-makers and expressing their views. PIs, SCs, SPSCMO were rated medium-high whereas clerics, IKRF, IDCH, IRC, JS, MFs, the MoE, the MoSY, NW, NGOs, PPCs, SM and the WHO were rated medium. EMRO and LEF were considered to have a low-medium influence, whereas the remainder (the MoSRT and municipalities) were judged to have a low influence. Summarizing, media, members of the private sectors and international agencies were rated medium in terms of influence, whereas non-governmental and governmental actors were rated low-to-medium and low-to-high”.

Discussion and conclusion:

1- It is expected to discuss the findings of the study here in the discussion section. noting to some general statement like "Disagreements and different standpoints concerning the development and implementation of healthcare policies can be a challenge (34), even though negotiations can mitigate such contrasts and contribute to find an optimal compromise (35)" is not appropriate. Instead, the author/s should explain their findings and give the key messages and implications of the study. What is the contribution of the present study to current knowledge?
This study has clarified the involvement of stakeholders towards HCV-related policy-making in Iran.

2- "In the case of HCV-related policies in Iran, a lack of cooperation has hindered a proper implementation of the plans" what is the reference? it is a claim needs a reference.

Reference has been added as suggested.

3- "One of the noticeable findings of the present investigation is that, despite the fact that HCV was identified as a challenge for Iran's health sector, many stakeholders believed that they could not do much. Many stakeholders tended to consider the disease merely as a priority of the MOHME". Based on which finding, the author/s came to this conclusion?

We came to this conclusion based on the ranks and metrics properties of the stakeholders. This point has been clarified.

4- Page 8, 59: "…low, and this is a challenge that can affect policy implementation" how can affect?

This point has been clarified.

5- Generally, the discussion section includes findings and claims that are not clear for me how the author/s came to them? It is required to rewrite this section with regard to highlight the main findings (not repeating the findings) and then show how these findings can contribute to current knowledge, what are the implications both for policymakers and public?

Discussion has been improved and amended, as requested.

6- Similarity, the conclusion is very general and does not encompass any clear message.

Thanks a lot for this comment. Now conclusion reads as “The findings of this study showed that there are many stakeholders involved with HCV-related policy in Iran. The extent of their participation and support in the process of policy making is different and variable. In general, involvement in HCV-related policy-making is generally low. This information has practical implications for policy- and decision-makers in order to adopt more favorable and effective strategies. All HCV-related policy-making and decision processes should not be handled by the MoHME alone, but should receive support and advocacy from all involved stakeholders. This is essential for succeeding in the ambitious goal of managing and controlling this disease. Proper
policy-making involves trust, ongoing negotiations, integration and implementation of the different views of all involved stakeholders. In the present investigation, SNA was a critical point for identifying stakeholders as well as gaps and weaknesses so that policy- and decision-makers can have a more comprehensive understanding of health issues and processes and make more informed decisions”.

General:

1- For all abbreviation, it is needed to state the full format at the first use.

We thank for this comment. It has been done.

2- Editing by a native English man is required, some words such as a fight with the diseases are not popular.

Thanks a lot for this comment. It has been edited, as requested.