**Author’s response to reviews**

**Title:** Exploring the dynamics of food-related policy-making processes and evidence-use in Fiji using systems thinking

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**Author’s response to reviews:**

25th July 2017

Dear Editor,

Subject: Re-submission of manuscript - Health Research Policy and Systems - HRPS-D-17-00032

We are thankful for the comments and the opportunity to re-submit an improved version of our manuscript titled “Exploring the dynamics of food-related policy-making processes and evidence-use in Fiji using systems thinking”. We have considered all suggestions from the reviewers and have also provided point-by-point descriptions of the changes made in response to the concerns. All changes to the manuscript highlighted in the text below have also been highlighted in the attached revised manuscript. Please see our detailed responses below.

Kind Regards,

Gade Waqa (On behalf of the author-group)
Reviewer comments and author responses

Reviewer 1:

The authors utilized Group Model Building and Causal Loop Diagrams approaches to identify the primary barriers to hinder effective utilization of evidence in the dynamic food-related policy making process, which allowed the guidance to promote effective policy decision making through the systems thinking approach. The power of using the systems thinking approach was demonstrated through two food-related policy-making cases through groups of Ministry of Health and Medical Services and Ministry of Agriculture in Fiji.

Review comments

Author Response

Changes made to texts (Note all modifications in the manuscript are highlighted in yellow)

GENERAL RECOMMENDATIONS

• The authors didn't include the private sectors during the Group Model Building process, which left a limitation in providing comprehensive guidance in providing evidence-based policy decision making, as was discussed in the manuscript. I would be curious to see how the Causal Loop Diagram would change when new insights from relevant private stakeholders joining the discussion would be available.

  Thank you for this feedback. We agree that other insights would be gained from the private sector. Some of these insights have been explored by Mialon M, Swinburn B, Wate J, Tukana I, Sacks G. Analysis of the corporate political activity of major food industry actors in Fiji. Globalization and health. 2016 May 10;12(1):18.

Line 18: The following has been added to the Discussion.

This study was designed to give a deeper understanding of the use of evidence by government sectors. However, future GMB processes could include representation from the private sectors that would provide new insights into the causal loop diagram.

• In addition, during the policy decision-making process, efforts and insights from internal and/or external advisory board are critical as well. It would be interesting to include that portion of the pie to represent the

  Thank you for this constructive feedback. We have addressed this issue in the Discussion.

Line 3: The following has been added to the Discussion/Engagement with stakeholders.
real-world policymaking process. The possibility of including the insights of advisory groups in the policy-making process is another way of improving the use of evidence in policy-making.

- Overall, the manuscript is well written and informative and fits well in the scope of HRPS. The implications of the research and ramifications of the findings are worthwhile for researchers, private stakeholders and regulatory personnel for their direct and indirect contributions to food-related policy making at a national level.

We thank the reviewer for this positive comment.

REVIEWER 2: The manuscript "Exploring the dynamics of food-related policy-making processes and evidence-use in Fiji using systems thinking" aims to address the research question "Where could evidence levers be applied within the food-related policy-making processes in Fiji?" The method used was a Group Model Building with participants from health and agricultural ministries in two separate series of workshops (average of 10 participants in each series). The workshops resulted in identification of causes and consequences of insufficient evidence use, as well as leverage points to address this. The authors conclude that the workshops improved the participants’ understanding of the systems and led to some practical system level interventions in both ministries. The manuscript is generally well written, methodologically sound and addresses an important issue with relevance beyond Fiji.

However, I have a few questions/suggestions which might improve the manuscript.

Review comments

Author Response

Changes made to texts (Note all modifications in the manuscript are highlighted in yellow)

Major

1. It would be good to see a better alignment of the aims in the abstract and the introduction. I think the aim is not to describe the application of systems thinking (abstract), but to apply

We agree that the introduction better describes the aim of the study, so we have reviewed and made changes to the abstract accordingly.
systems thinking to identify the causes and consequences etc (introduction).

2. The recruitment was both purposive and convenient (page 5, line 24). Could you please provide some more detail about how the participants were selected and whether there were participants you wanted to include, but who you did not succeed in recruiting? Given that there probably were quite few participants compared to all that are working in these ministries, understanding a bit more who the participants were is important to interpret the results.

Line 4: The following change has been made in the Abstract.

This study aims to apply systems thinking to identify the causes and consequences of poor evidence-use in food-related policy-making in selected government ministries in Fiji and to illicit strategies to strengthen the use of evidence in policy-making.

We acknowledge these comments. We have reviewed the method, result and discussion section and added relevant text to each section.

The following changes has been made in the Method Result and the Discussion sections:

Method, Line 1: A purposive and convenience sampling approach was used to select and recruit policy-makers from the Ministry of Health and Medical Services (MoHMS) and the Ministry of Agriculture (MOA) based on their role in the formulation of food-related policies in Fiji. We aimed to recruit senior policy-makers who were involved with food-related policy-making, and had the power to influence change in the government system. Both the ministries were chosen because they are……

Results, Line 14: The majority of participants (72%) were senior managers (such as National Advisors, Directors and Principal level) who were directly involved in policy-making and, 28% were middle managers (those that are directly responsible to the senior managers) with potential to share evidence that influence the policy-making process.

Discussion, Line 21: Although the lead researcher had existing relationships with some of the participants, through joint involvement in the OPIC and TROPIC projects and other
3. The case studies were suggested by the participants. Were there other suggestions? What were these? Why were they not chosen? Participants recognized case studies as a useful way to frame thinking around the use of evidence. They considered recent examples that most, if not all, participants had been involved in. We have added detail of how they chose the case studies to clarity this.

The following has been added to the texts in Session 1 of Data collection:

Line 22: No other policies were suggested by the participants apart from the two case studies mentioned above. Furthermore, participants unanimously agreed that many of the obstacles involved in the selected case studies entailed other sectors; the case studies therefore allowed participants to retrospectively review the process employed in the development of selected policies and explore their understandings of the system.

4. There were three workshops, but 4 themes. How were the themes spread out across the 3 workshops? How much time was there between the workshops? We thank you for this comment.

The four themes were the outcome of 3 GMB workshops conducted over 3 consecutive days with each Ministry.

The following has been added to the texts in the Data collection/Session 4: action plan:

Line 23: The action ideas shared by participants in the third and final workshop were collated into four themes; from these, strategies were developed using the World Café approach [38].

5. How were the "reliability and validity" of the results ensured? We acknowledge these comments. We have addressed this in part in our response to...
comment 2 (reviewer 2 above). We have also added details of how reliability and validity of the results are ensured.

The following has been added to the texts in the Results/Participants:

Line 22: The selection of senior staff ensured a strong understanding of and expertise in the policy-making processes, plus awareness of what is going on in their organisation. The participants also used relevant and familiar case studies to help in understanding the GMB process.

We accept these comments of the reviewer, and have decided to consolidate all information into Figure 1.

The following has been added to the texts in the Results/causal loop diagram:

Line 4: These dynamics are captured on both maps in Figure 1.

Figures 2 and 3 have been replaced by Figure 1:

Line 26:…. together following consultation. Figure 1 also shows a reinforcing….

Line 9: However, there was a growing concern reflected in the balancing loop (B2) (Figure 1),,,,,

Access and use of evidence – Line 6: captures factors such as gaps in research that influence access to and use of evidence (Figure 1),,,,,

Footnotes are also included in Figure 1: Consultation: R1 - MoHMS staff appreciated some of the training that increased their understanding; R2 demonstrated that trust reinforced cooperation; B1 demonstrated
increasing political influence frustrated MOA policy-makers’ efforts to engage with the private sectors.

Engagement: R3 – indicates motivation to implement the policy, B2 - decreased collaboration within and between government sectors, and with farmers, negatively affected political support

Access and evidence-use: R4 captures factors such as gaps in research that influence access to and use of evidence

Delays: B2 captures delays in the policy process increased staff turnover in the MOA

Minor

• Page 5, line 26 - the end of the sentence, after MOA, can be omitted as it is covered by the next sentence.

We thank you for this comment and the particular sentence has been removed.

The following change has been made to the Methods section/Recruitment:

Line 26: A purposive and convenience sampling approach was used to select and recruit policy-makers from the Ministry of Health and Medical Services (MoHMS) and the Ministry of Agriculture (MOA).

• Page 9, line 10-11 - please describe what is meant by senior and middle managers.

We thank you for this comment and have described what we mean by these terms.

The following change has been made to the Results section/Participants:

Page 9, line 14: Eighteen participants from the MoHMS (n=9) and the MOA (n=9) participated in separate GMB workshops in August 2015. A majority (72%) were senior
managers (such as National Advisors, Directors and Principal level officers) who were directly involved in policy-making, whilst 28% were middle managers (persons directly responsible to the senior managers) with potential to share evidence that influence the policy-making process.

• Page 9, line 24 - write Figure 1 instead of Figure one Page 10, line 21-24 - Could you explain why there is increased turnover of staff?

We thank you for this comment and have explained in the text what we mean by increased staff turnover.

The following change has been made to the Results section/Consultation:

Page 9, line 24: Figure 1 shows the dynamics of consultation. We identified one balancing feedback loop (B1 or ‘frustration’ loop) and two reinforcing loops…………..

Page 10, line 22: Whilst the MOA staff have analytical and operational skills to work with the private sector, limited information and resources, coupled with multiple roles, limited time and competing deadlines, result in high staff turnover.

• Page 12, line 25 - process is written twice before ref 24, could once be enough?

We thank you for this comment and one “process” has been removed.

The following change has been made to the Discussion section/Consultation:

Page 12, line 25: Others have identified trust as an important factor for facilitating interactions between actors [46] and in understanding the power of food industries in interfering with the policy process [44].

• Page 14, lines 3-4 - I think the whole of government has been promoted as desirable for a while already, so perhaps try to be even more specific by indicating what might help to

We thank you for this comment. We have tried to be more specific with the addition of text to the discussion.

The following change has been made to the
Page 14, lines 3-4: The central focus of this reinforcing support loop (R4) demonstrates a wide and inconsistent range of practices and attitudes towards evidence across government agencies. In fulfilling the government’s responsibilities to a more systematic and whole-of-government approach to the use of evidence in policy-making, an agreement is required to provide policy guidance to sustain commitment across sectors.