Author's response to reviews

Title: Contribution of the Japan International Cooperation Agency health-related projects to health system strengthening

Authors:

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Author's response to reviews: see over
June 22, 2013  
Emily Crow  
Executive Editor, BMC International Health and Human Rights

Dear Dr. Emily Crow:

Our manuscript MS: 7077623919177676 entitled "Analysis of the contribution of JICA health-related projects to health system strengthening using the WHO framework of the six building blocks" was finished to revise according to the reviewer’s comments. I would like to present our response to the reviewers as below:

Response to the Referee-1
Dr. Federica Secci, I would like to express great gratitude to your fruitful suggestion and recommendation. I revised our manuscript based on your comments.

Comment: Major Compulsory Revisions
Background
The authors should state clearly why this study is important and needed, why they chose to adopt the method they decided to use (why they had to construct a matrix from the six building blocks), and why this method is important and innovative.

Response: In the background, we added the below sentences underlined.

However, although on average approximately 40 technical health-related projects have been implemented annually anywhere in the world, so far these projects have seldom been evaluated systematically from a systems perspective. Accordingly, we aimed to describe the types of JICA health-related projects and targets of interest by examining their impact on each of the WHO’s building blocks. In particular, we assessed the contribution of the JICA projects to health system strengthening by focusing on governance. To accomplish this, we developed a method by which we could examine the configuration of different healthcare systems. Since 2007, most health system appraisals have been undertaken with reference to the WHO’s framework of six building blocks, but the JICA has designed its projects using a framework known as the Project Design Matrix (PDM). We developed an analytical matrix of program activity
and output in which the WHO’s framework and the PDM integrated in order to assess JICA’s projects from a view of the WHO building blocks.

**Comment:** Data Sources for JICA Projects

The introduction to the Project Design Matrix (PDM) is not quite clear. The authors should rephrase the first part of this section to make it more easily accessible to those who are not familiar with the JICA: why does it need a logical framework? What is the Logframe Matrix? Why is it mentioned? How and why was it modified? How is this linked to the PDM?

It would be very useful if the authors could provide a diagram to illustrate what the PDM does and link activities, output, purpose and goal of the project (if Figure 1 is supposed to serve this purpose, the authors might need to think about a way of complementing it).

**Response:** We added Figure 1 which illustrates a logical framework and explains the process of project in the footnote. To make the context simple, the term of LogFrame Matrix was removed. Instead, the concise explanation regarding a logical framework was added and we revised the text underlined as below:

*Generally, JICA technical cooperation projects should be designed within a logical framework: a 16-cell matrix with four columns and four rows known as the PDM. It serves as a management tool for efficiently designing, monitoring and evaluating a project at every level, has been widely used by bilateral and multilateral donor organizations, and is employed in a participatory process of project design (Project Cycle Management). The Japanese Foundation for Advanced Studies on International Development (FASID) adopted and modified the PDM framework as its primary project design and management tool for JICA programs. The JICA project manager and practitioner are required to monitor and evaluate progress using the PDM. The PDM summarizes the narrative of activities, outputs, project purpose and overall goal of the relevant project (Figure 1). In general, the project is launched when preconditions exist, and then activities are initiated (arrow shows the process in Figure 1).*

**Comment:** The authors mention they included projects conducted between Jan 2005 and Dec 2009, as well as those ongoing. They should be more specific and clarify whether they included projects that: (1) started or were ongoing in this period, (2) were completed in this period, (3) started and were completed in this period, or the like. They should also say why they made that choice and why they
chose this period of time.

**Response:** We launched the study in the late of the year 2010, therefore we decided to collect the PDMs until the end of the year 2009. We could collect enough number of samples (more than one hundred) for five years, so we made a period of five years. Since we consumed much time to develop the analytical method and analyze the PDM data, we submitted this manuscript to your Journal in 2013.

**Comment:** It would be even more useful if they could provide one of the PDMs they used, so that the reader can see the "raw data". Otherwise, it is quite hard to picture the process by which the authors went from the project data to the matrix based on the building blocks and the reader has no way of accessing the data and have to rely only on the analysis provided.

**Response:** Figure 2 was added as an example of the PDM. Using this example, an example of application to the analytical matrix of outputs and activities can be shown in Figure 3. These revisions need addition of the below sentences underlined in the text;

*Figure 2 shows a partially modified and simplified example of the PDM.
Figure 3 shows an example of the analytical matrix to which the PDM in Figure 2 was applied.*

**Comment:** Analysis of the JICA Projects
The authors seem to treat Governance in a different way compared to the other building blocks. However, it is not clear why they decided to do so and whether or not governance really needs to be treated differently. This should be clarified and justified.

**Response:** We added the sentences as below to explain the above question of the reviewer.

*In our study, since governance was regarded as an overarching component to manage other blocks and generate quality health service, it was considered to be an independent block.*

**Comment:** The authors should explain why they chose correspondence analysis
for their assessment of JICA projects and how this choice of method supports the purpose of the paper.

**Response:** We revised and added the following sentences underlined to explain why the correspondence analysis was used, clarifying the purpose of analysis.

*Third, we tested for associations between project types and health fields using a standardized method for correspondence analysis of categorical data (SPSS statistics version 21, IBM Japan, Tokyo, Japan). By displaying the rows (types) and columns (health fields) in a two-way contingency table, correspondence analysis presents a geometrical association, indicating the extent to which a health field is likely related to a type.*

**Comment;** Conclusions

I would encourage the authors to be more critical and less descriptive about their findings, and to provide insights on lessons that can be learnt from their analysis.

As an example, they could point at financing as a possible area on which to focus in the future, given that it has been overlooked so far. In addition, given that they used a new matrix constructed on the building blocks, they might want to mention for example how this approach could be useful to other studies or why it should be adopted by other studies on health system strengthening.

**Response:** We revised and added the following sentences underlined in the conclusion.

*Recently, the global health society has been paying increasing attention to innovative international financing programs for health, protection from financial catastrophe and impoverishment, and universal health coverage; the need for support for financial systems is gradually increasing. Our findings suggest that JICA should not focus only on workforce capacity development and governance, but also on strengthening the financial functioning of health systems.*

*Our study also demonstrated how an analytical matrix can be used to elucidate which block a health-related project contributes to as output and activity. This method can be used to search which block of the system project managers and practitioners need to address from a health system perspective, and this methodology may be applicable to programs and projects other than*
Comment; Minor Essential Revisions

The authors should revise the first sentence of the Methods section of the Abstract as it is not clear. I suggest that they focus on the data they analyzed in the first sentence and mention the matrix they developed in the second sentence, in a similar way to what the authors do at the very end of the Introduction.

What do the authors mean by "method itself" in the third sentence of the Introduction? Can the state this sentence differently to make the massage more clear?

Response; We revised the methods section of the abstract as follows;

Methods: We collected a web-based Project Design Matrix (PDM) of 105 JICA projects implemented between January 2005 and December 2009. We developed an analytical matrix based on the World Health Organization (WHO) health system framework to examine the PDM data and thereby assess the projects' contributions to health system strengthening.

Comment; Discretionary Revisions

The title of the paper can be made sharper. At the moment mentioning "using the WHO framework of the six building blocks" does not add much relevant information regarding the contents or the contribution paper. On the other hand, the authors could spell out the acronym JICA, with which not all readers might necessarily be familiar. The title could simply be something along the lines of: "Contribution of the Japan International Cooperation Agency health-related projects to health system strengthening".

Response; We changed the title as follow;

(Before) Analysis of the contribution of JICA health-related projects to health system strengthening using the WHO framework of six building blocks
(After) Contribution of the Japan International Cooperation Agency health-related projects to health system strengthening

Comment; It would be very helpful, if possible, if the authors could provide more information or a table with an overview of the projects that were analyzed, including information such as the country in which they were implemented, the
duration, and the amount of funds. I understand data were drawn from the PDMs, but I wondered whether the authors might be able to provide important contextual information which could be useful in interpreting the study findings # e.g. variety as opposed to concentration of funds on a small number of countries, complementarities/synergies between projects in the same country. I would really encourage the authors to provide such information if available.

Response; In the first of the results, we added the data regarding implementing duration of the 105 projects by a targeted country, which were analyzed in the study as the below. However, we could not know the amount of funds;

Table 2 shows the duration of implementation of each of the JICA projects by a targeted country. The most frequent duration of the projects was 3 years, followed by 4-year periods (range 10 months – 7 years). There were notable differences in the number of projects undertaken per country, ranging from one to six in Zambia and China, with most projects being based in Asia.

Comment; Minor issues not for publication.
In the last paragraph of the Introduction, the authors say: "However, although approximately 40 technical health-related projects have been implemented annually..." Do they mean that 40 new technical health-related projects are implemented each year? If so, it might be useful to rephrase it.

Response; This sentence means that on average, about 40 projects have been continuously implemented anywhere around the world. It does not indicate new project. Therefore, we changed the sentence as below;

However, although on average approximately 40 technical health-related projects have been implemented annually anywhere in the world.

Comment; "Technically" in the first sentence of the Analysis of the JICA projects might be misspelled and should read "technical".

Response; We changed the term into "technical".

Comment; The authors should make sure that all acronyms (including EPI, ATM, MCH, and RH) are spelled out in the text and in the List of Abbreviations.
Response; We spelled out all acronyms in the text and added them in the list of abbreviations.

General comments;
In conclusion, I appreciate the authors’ attempt to analyze the JICA health-related projects with a focus on health system strengthening by using a novel matrix. However, I encourage them to be more explicit with the justification of the study and the methods, to be more clear in the explanation of the matrix and the methods they used, and to be more critical in their analysis and conclusions. It would also be very helpful if they could provide more contextual information about the projects. I do hope the authors find my comments helpful and I wish them all the best with their revisions to the manuscript.

Response; Thank you very much for your kindly comments. We revised our manuscript and added more information in the text according to your comments and suggestions as the above.

Response to the Referee-2
Dr. Yiannis Kyratsis, Thank you very much for your meaningful comments and recommendation. I revised our manuscript based on your comments.

Comment; Major Compulsory Revisions
General points
1. I could not identify in the text a clear, well defined research question; in the current draft there are only general statements of the study’s aims. The authors need to introduce a clear research question at the end of the introduction or methods section

Response; To make the aim of the study clearer, we revised the sentences underlined in the “Abstract” and “Background” section, respectively, as below;

In the Abstract;
This study aimed to describe the type of project and targets of interest, and assess the contribution of JICA health-related projects to health systems.

In the Background;
Accordingly, we aimed to describe the types of JICA health-related projects and
targets of interest by examining their impact on each of the WHO’s building blocks. In particular, we assessed the contribution of the JICA projects to health system strengthening by focusing on governance.

**Comment;** 2. The timeline of data collection requires clarification and justification; why did you choose the particular period (Jan 2005 to Dec 2009)? What is the justification for that? Why, for instance, did you not also include more recent projects as the reported data is already four years old? There is no information in the methods section of when was the study conducted. Did you include projects that were active during the aforementioned period, or projects that started / ended during the particular time period? This point also requires clarification in the methods section.

**Response;** We launched the study in the late of the year 2010, therefore we decided to collect the PDMs until the end of the year 2009. But, after collecting the data, we consumed much time to develop the analytical method through a trial and error process. In particular, we faced a difficulty to analyze huge amounts of qualitative data in the PDMs from a view of health system perspective. We think that this reason could not be mentioned in the text.

**Comment;** 3. The working definition of ‘health system strengthening’ used by the authors in the manuscript needs to be provided. This is essential given the central role of the concept in the article.

**Response;** We added the following sentence underlined in the first paragraph of the Background.

*The World Health Organization (WHO) defines health system strengthening as a process of identifying and implementing changes in policy and practice to improve one or more of the functions of the system to respond better to challenges.*

**Comment;** 4. The conclusion in the current manuscript is rather weak. It currently just summarises some findings in a purely descriptive form and there is no critical reflection of what these findings mean to the broader field of international health or what the potential implications are for the findings. How are we wiser now that this study has been done? The discussion and conclusions need to be more balanced and adequately supported by the data presented in the
Response; We added the following sentences underlined in the conclusion section of the text;

This study may be the first to examine the type and targets of interest of the JICA projects from the comprehensive perspective of a health system. Nearly half the projects were devoted to health system strengthening, followed by the prevention and control of infectious diseases, and maternal and child health, which together accounted for almost 90% of the assistance. An overwhelming majority of the JICA projects had contributed to building blocks for workforce and governance, and, as a result, service delivery through both outputs and activities. In contrast, the assistance for medical products and financing was minimal. Recently, the global health society has been paying increasing attention to innovative international financing programs for health, protection from financial catastrophe and impoverishment, and universal health coverage; the need for support for financial systems is gradually increasing. Our findings suggest that JICA should not focus only on workforce capacity development and governance, but also on strengthening the financial functioning of health systems.

Our study also demonstrated how an analytical matrix can be used to elucidate which block a health-related project contributes to as output and activity. This method can be used to search which block of the system project managers and practitioners need to address from a health system perspective, and this methodology may be applicable to programs and projects other than the JICA.

Comment; 5. There needs to be some illustration of the actual data the authors used. What are currently reported in the manuscript are the authors’ interpretations; therefore, there is no possibility for anyone to verify or validate the mapping and categorisation of the project data onto the analytic matrix. I would have expected at least a couple of working examples for each category used by the authors and a full list of the projects analysed with information about the purpose, context of application and the overall classification outcome the authors concluded to.

Response; We added an example of a PDM and an analytical matrix in Figure 2 and 3, respectively, in order to let readers to understand how to use our
developed analytical matrix. In addition, we showed basic information of the projects analyzed in Table 2.

Comment; 6. Abstract: I am not convinced that you actually assess the extent to which JICA projects contributed to health system strengthening (as stated in the methods sub-section). What I understand you have done, from my reading of the paper, is that you correlate and map some outputs and activities of projects implemented by JICA to the main health system functions according to the WHO framework used.

Response; We changed all of the “methods” sub-section in the abstract as follows:

**Methods:** We collected a web-based Project Design Matrix (PDM) of 105 JICA projects implemented between January 2005 and December 2009. We developed an analytical matrix based on the World Health Organization (WHO) health system framework to examine the PDM data and thereby assess the projects’ contributions to health system strengthening.

Comment; 6. Abstract: In the results sub-section the first sentence: “The majority of JICA projects.... Dec 2009” and another sentence half way through: “when examined in detail...investment in activities” are almost identical in content – the duplication needs to be removed.

Response; We removed the below sentence from the “results” sub-section in the abstract;

*When examined in detail from the perspective of the health system, JICA projects appeared to be highly aimed at achieving the goals of governance, workforce, and service delivery through investment in activities.*

Comment; 6. Abstract: The conclusions sub-section should summarise the ‘so what’ of having conducted the study.

Response; We thoroughly revised the conclusions sub-section in the abstract as below;

**Conclusions:** Our study confirmed that JICA projects met the goals of bilateral
cooperation by developing workforce capacity and governance. Nevertheless, our findings suggest that JICA assistance could be used to support financial aspects of healthcare systems, which is an area of increasing concern. We also showed that the analytical matrix methodology is an effective means of examining the component of health system strengthening to which the activity and output of a project contributes. This may help policy makers and practitioners focus future projects on priority areas.

Comment; 7. Background: The introduction is not very clearly written and needs to be strengthened. A definition of health system strengthening should be included. This is a central concept you use and you need to be clear of what you mean.

Response; We added the definition of health system strengthening which was cited from the WHO’s glossary in the text of the Background.

The World Health Organization (WHO) defines health system strengthening as a process of identifying and implementing changes in policy and practice to improve one or more of the functions of the system to respond better to challenges.

Comment; 7. Background: I would also have expected some context about the activity of JICA and the projects they fund worldwide (i.e. JICA is the second largest funder of international development aid in the world and studying the activities of the agency is thus important – there is no such discussion in the introduction). Has anyone else done a similar study for another agency such as USAID or UK DfID? If so, this study needs to build on that learning; if not, is it because the topic is not very interesting or maybe there are limited opportunities for new learning? So, the authors need to better justify the rationale for the study in the introductory section.

Response; The USAID and the UK DfiD conducted evaluation researched of health system which was supported and issued the English reports (e.x.; the lessons from the Basic Health Services Projects). Conversely, although the JICA also evaluated its impact of the projects on health system, most of the reports were published written in Japanese, and the majority of evaluations have been conducted via qualitative methods such as the five evaluation criteria. We mentioned in the first sentence; “This study may be the first to examine the type
and characteristics of JICA projects receiving assistance from the comprehensive perspective of a health system.”

We revised the sentence underlined in the text of the Background as below;

**So far these projects have seldom been evaluated systematically from a systems perspective.**

**Comment;** 8. Methods: Why should, the JICA projects, be designed within a logical framework? Is this because this is the norm for JICA and other international aid agencies or is it mandatory for example? The Logframe matrix discussion was also rather confusing to me; is it simply a project management approach/tool?

**Response;** We revised the first paragraph underlined in the “data resource for JICA projects” in the Methods, and added Figure 1 (illustrating a logical framework and explaining the process of project) and Figure 2 (showing the example of the PDM).

**Comment;** 8. Methods: To facilitate the reader, the authors could give an illustration in a figure of how a PDM looks like and how they developed their analytical matrix based on the PDMs – I would suggest that the current Fig 1 is replaced by a more informative figure that shows some examples of raw data classified by the authors in the matrix they have developed.

**Response;** As we mentioned previously, to facilitate the readers recognize the methodology, we show a framework of the PDM in Figure 1, and added an example of the PDM and the analytical matrix in Figure 2 and 3, respectively.

**Comment;** 9. Methods: The link to JICA’s web-site used by the authors to examine the projects’ PDMs needs to be provided in the text (and the time when this was accessed). The selected time period needs to be justified.

**Response;** We added the URL available in Japanese in the text;

*The PDMs obtained were publicly available on the JICA website ([URL: http://gwweb.jica.go.jp/km/ProjectView.nsf/VW02040105?OpenView&Start=1&Count=1000&Expand=2#2, accessed June 15, 2013, available only in Japanese]).*
We justified the selected five duration as below;

Collection of PDMs over 5 years provided an adequate sample of more than 100 projects.

Comment; 10. Methods: Regarding the classification of projects into types there needs to be some clarification. The main output and additional outputs were used as stated by the authors to categorise the projects into various types. Why was service delivery function treated differently from the rest? For example, why some projects with multiple outputs were classified as “mixed type” while when there were mixed outputs and involved service delivery these were not classified as mixed type but as SD plus something else? The classification criteria in Table 1 require some explanation; you need to reference a source and/or explain you came up with this particular list of content for each health system building block.

Response; In the actual process of analyzing the main output, we found that there were types to be able to categorize as a block of service delivery (SD) only, and blocks of SD plus one of the other outputs, e.g., SD plus workforce. This finding means that the block of SD is different from other blocks, or the SD is a final product from other blocks. Thus, we added the below sentence in the “Analysis of the JICA project” section in the methods.

As the SD was a substantially final product to the other blocks, the SD was treated differently from the other blocks in the analysis.

The mixed type is a category which includes more than three blocks. Table 1 was developed based on the WHO classification extracted from the reference No.11, so we inserted the reference number after the term “Figure 1” in the text.

Comment; 11. Methods/Results: It appears that the authors treat the governance function (also presented in Table 4 separately) differently from the rest. Why is that? Also need to define what the authors mean by “health field”. It needs to be justified and elaborated how the correspondence analysis contributes to addressing the stated aims of this study.

Response; We added the following sentences underlined to answer the above.
In our study, since governance was regarded as an overarching component to manage other blocks and generate quality health service, it was considered to be an independent block.

Second, to examine the health fields (specific health issues or programs) to which the JICA projects contributed, we identified the main target field of the projects based on the primary purpose of the PDMs and the project titles.

Third, we tested for associations between project types and health fields using a standardized method for correspondence analysis of categorical data (SPSS statistics version 21, IBM Japan, Tokyo, Japan). By displaying the rows (types) and columns (health fields) in a two-way contingency table, correspondence analysis presents a geometrical association, indicating the extent to which a health field is likely related to a type.

Comment; 12. Discussion and Conclusion: these sections need to be written in a reflective and critical way instead of being merely descriptive. In the discussion for example there could have been some discussion of how the findings from this study compare to other similar studies if such studies exist or analyses of health system strengthening efforts by other international donors. Have the authors noticed any change over the years or per year?

Response; We did not analyze any change of the JICA assistance between 2005 and 2009. Therefore, we did not notice change of trend of the JICA projects at all.

Comment; Minor Essential Revisions
1. Abbreviations should not be used in the title (i.e. JICA, WHO).

Response; We changed the title in the below not including the abbreviations.

Contribution of the Japan International Cooperation Agency health-related projects to health system strengthening

Comment; 2. By providing more information about the diversity of the projects analysed would have made the paper more interesting and useful to read (which
countries were there involved? What appears to be the main focus of JICA's work? An outline or summary of the size and purpose of the different projects etc)

Response; We added information regarding the period and targeted country of the projects analyzed, shown in Table 2. However, we did not analyze the size and purpose of the JICA projects in this study. These theses should be examined in the further study.

Comment; Discretionary Revisions
The title can be simplified; one possibility might be to remove the ending 'using the WHO framework six building blocks'

Response; We simplified the title as the above excluding the ending 'using the WHO framework six building blocks'. The revised title is “Contribution of the Japan International Cooperation Agency health-related projects to health system strengthening”.

Thank you very much.