Reviewer’s report

Title: Non-communicable diseases: mapping research funding organizations, funding mechanisms and research practices in Italy and Germany.

Version: 0 Date: 12 May 2017

Reviewer: Meryl Darlington

Reviewer's report:

Thank-you for the opportunity to read this paper. I have the following comments and questions.

1. What is the rational for comparing Italy with Germany? The selection of countries for comparison should be justified.

2. At least 5 different methods are cited at different moments in the article (references 6, 7, 8, 10, 11) covering case-oriented approaches, comparative research design, inductive thematic analysis, constant comparative approach and mixed methodologies. But it is not clear exactly how these were implemented. For example, figure 1 is taken from Lor's framework in comparative librarianship methods, which may be an inspiration for health policy comparison but does seem like an add-on since the Lor's method was not directly used - or if it was, perhaps the figure could be explained.

Since overall this seems more like a description of the two countries than a head to head comparison so it is very unclear how these comparative approaches have been implemented.

In the limitations (page 13) it states that a specific framework has been used but it is not clear which specific framework is being referred to.
3. Figure 2 is a little redundant since it essentially repeats the previous sentences (lines 49 to 53 page 4) and does not seem to be more than text.

4. An inclusion criteria for the RFOs was stated as being a minimum of 0.5 K euros invested in research (lines 12 to 14 page 5). Please clarify - is this a threshold for all research activities (non-medical included), just medical research, only NCD research or a minimum by type of NCD?

5. The data collection methods describes how the survey results were processed with percentages, proportions, averages and standard deviations (line 30, page 6). However, very little quantitative data is given in the results and no averages and standard deviations are reported. Perhaps it is best not to mention them in the methods if they are not pertinent to the article.

6. In general percentages cannot be used for small n. If I have understood correctly, the final sample for the survey has only 26 RFOs for Italy and 4 for Germany. For Italy, it would be possible to use fractions e.g. "two-thirds" or "a half" to give an idea of the weight but it is bad practice to use percentages. In the German case, with n=4 supplying data, only absolute numbers should be reported.

7. When one interviewee gives an opinion (line 9 page 7) it is not possible to start the sentence with "in the view of KOLs".

8. Additional table 1 title should be "included" and not "excluded".
9. Some of the Italian RFOs in the additional table listed have very low research funding reported e.g. Fondazione Cassa di Risparmio di Cuneo - did these small RFOs reach the 0.5 K euros inclusion criteria?

10. It is very interesting to have an idea of the funding spent on R&D (lines 28 to 50 page 7) but these numbers include non-biomedical spending and thus the title of the section "Funding pattern towards NCD research" is a little misleading.

11. Figure 4 is interesting in that it is possible to see the relative centres of interest for the PRIN projects. However, given that the maximum annual investment is 14,000 euros, in the light of the billions spent on R&D, it is not quite important enough to include as a numbered figure. 2011 data seems to be missing from the graph.

12. It is stated that a proportion 15 % of the 5 per thousand entities have not made their data available (line 5, page 9) Please specify how many entities this is rather than just giving the percentage.

13. Figure 6 needs to have an "n" defined. Is the number of banks included the same for each year reported? Some analysis is required - e.g. is there a reason for the outlier in 2008 with diabetes funding sky rocketing?

14. The paragraph under the heading of "Network of research funding organizations" carries financial data for the German case, whereas for Italy they are in the "Funding patterns towards NCD research". For reasons of comparison and ease of reading, this could be streamlined.
15. The conclusion alludes to advantages and disadvantages of the national research landscapes (line 11, page 15) - please detail the relative advantages and disadvantages to clarify what they are. For example, as the study says, the 5 per thousand Italian system give tax breaks to donors. Is there anything like this in Germany? Does this encourage people to donate?

16. The abstract alludes to there being 4 times as many RFOs in Italy, yet the article states that there are 100s of small non-profit foundations in Germany (line 38 page 9) that were not asked to join the survey. Perhaps they do not reach the funding threshold of the study, but this could be clarified.

Level of interest
Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.