Reviewer's report

Title: Estimating the Contribution of Disparities within Developing Countries to Global Inequalities in Under-Five Mortality

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Title: Estimation of the Contribution of Disparities within Developing Countries to Global Inequalities in Under-Five Mortality

Summary:

Using data from Demographic and Health Surveys (DHSs), conducted between 1995 and 2010 in 67 developing countries, the authors aimed to examine how much of the under-five mortality gap between developed and developing countries could be attributed to within-country disparities in developing nations. The finding suggested that disparities in under-five mortality within developing countries account for roughly half of the global gap between developed and developing countries. Although the paper is straightforward and easy to follow, some revisions and clarification are required to improve the manuscript.

Major Compulsory Revisions

1- Although the authors cited some relevant studies in the “Introduction” section of the paper, they did not provide a comprehensive review of the available studies on inequalities in under-five mortality within and between developing and developed countries.

2- The contribution of the paper to the current literature needs to be highlighted clearly. I mean is this a first attempt to measure the contribution of inequalities within developing countries to global disparities in under-five mortality? If so, it should be said in the introduction section of the manuscript.

3- For clarity, the “Method” section can be divided into two (data and statistical analysis) or three (data, measures and statistical analysis) subsections.

4- In the “Method” section, it is not clear how the authors dealt with sampling weight provided in each DHS when they pooled 67 surveys. In other words, since the authors pooled DHSs, I was wondering if they applied the de-normalization of standard weights approach (as per the DHS Sampling and Household Listing Manual) in order to calculate an appropriate weight for each observation in the analysis.

5- Although the authors mentioned that they used the World Bank’s World Development Indicators to obtain under-five mortality rates for developed countries, it is not clear how many countries are classified as developed
countries in the World Bank’s WDI.

6- The “Discussion” section is very short. The authors need to highlight the results of their study with other relevant work.

7- The main limitation of the study is that countries were surveyed in different years. Nevertheless, there is no discussion on the possible effect of this limitation on the study findings.

Additional Comments:

1. Is the question posed by the authors new and well defined? Yes, the authors examined an interesting question in the paper.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work? Although, the methods used in the paper are well described, it should be helpful if the authors provide more information as to whether the authors used the DHS suggested procedure when they pooled surveys for the analysis.

3. Is the data sound and well controlled? NA

4. Does the manuscript adhere to the relevant standards for reporting and data deposition? For clarity, the “Method” section can be divided into or three subsections.

5. Are the discussion and conclusions well balanced and adequately supported by the data? The “Discussion” section needs to be expanded.

6. Are limitations of the work clearly stated? The main limitation of the study is that the DHSs were surveyed in different points of time. However, there is no discussion on this limitation in the “Discussion” section.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? The authors need to provide a comprehensive review of the current literature.

8. Do the title and abstract accurately convey what has been found? The abstract is well written and informative.

9. Is the writing acceptable? Yes.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests: 
I declare that I have no competing interests.