Reviewer’s report

Title: Mortality associated with alternative primary health care policies: a nationwide microsimulation modelling study in Brazil

Version: 0 Date: 08 Oct 2018

Reviewer: Pamela Coxson

Reviewer’s report:

This is a municipal level microsimulation model projection of the potential mortality impact of anticipated reductions in primary health care coverage in Brazil. The analysis is timely and the methods are appropriate. My suggestions are as follows:

1) In the Methods, it is stated that ACSC mortality rates were predicted based on "known" associations with changes in ESF coverage. The associations are probably more appropriately described as "previously estimated" or "observed".

2) Include (BFP) after the first mention of the Bolsa Familia Program.

3) Include a table that lists parameters varied in the Monte Carlo simulations, along with their distributional characteristics.

4) Include 0 (or 1 for ratios) on the vertical axis of plots except in cases where the scale makes it impossible to observe the important features of the results (then use vertical axis break notation). The left plot of Figure 3 (ESF coverage) should 0-100 on the vertical scale. Vertical axis labels would also help.

5) Figure 2's three plots should be presented in one plot (vertical scale 0-40) to give some perspective about the contribution of the impact from each disease category. The rate ranges are well separated, so there isn't any confusion. Even though the rates of nutritional deficiency and infectious disease mortalities are substantially lower than CVD, using the same scale emphasizes the greater relative impact of ESF on these categories (absolute increase in CVD deaths is just 2-3 times that of the other 2 categories).

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Not applicable
Are the conclusions drawn adequately supported by the data shown?  
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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