Reviewer’s report

Title: Estimating cause-specific mortality in Madagascar: an evaluation of death notification data from the capital city

Version: 0 Date: 07 Apr 2019

Reviewer: John Hart

Reviewer's report:

This paper assesses the quality of the death notification system in Antananarivo. The paper is well presented and highlights that such systems could be used more widely in other cities in Madagascar and potentially cities in other African countries. The paper is topical as countries strive to attain better CRVS data and identify new techniques and systems to improve notification. The data provide interesting comparisons to GBD, not least the difference in the apparent rate of the epidemiological transition compared to GBD models for the country as a whole.

The paper compares city register data to GBD 2016. The authors state that the the GBD Study had access to death counts from the same registers, from 1984 to 1995, and that this is not therefore equivalent to validating independent data series. The understanding is that there were few other data sources available to the GBD Study in those years and GBD output was modelled predominantly on the city registers. The sentence starting in line 141 states that the register data are more likely to be consistent with GBD in those earlier years than when they are compared to later GBD models for the whole country. This appears to understate the importance of GBD being modelled on the registers and how this influences the output, particularly in figure 4, and subsequent discussion of these interesting data. This should be clarified or emphasised and the lack of independent comparison data (which may indeed not be available) stated as a limitation of the study.

Typing correction in line 169 should read: medical personnel

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:

Acceptable
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