Reviewer's report

Title: Burden of disease in Thailand: changes in health gap between 1999 and 2004

Version: 2 Date: 23 October 2010

Reviewer: Aminur Rahman

Reviewer's report:

1. Is the question posed by the authors well defined?

DALY is a useful calculation to measure burden of disease (BOD) which helps to set health priority of country and also facilitates comparison of burden of disease across different countries. Thailand has a reasonable data collection system and had been successful in producing national level BOD. However, a crucial limitation is a considerable proportion of miss-classification of causes of death (COD) in vital registration. Therefore Verbal Autopsy was used to verify the COD reported by vital registration. Moreover, incidence and prevalence of illnesses are not routinely collected and accurately reported, however, which were later improved. The alternative methods of assessing mortality and morbidity in a country like Thailand are quite reasonable and this could be model for other LMICs.

2. Are the methods appropriate and well described?

Yes, the methods utilized for calculating DALY was appropriate.

3. Are the data sound?

Unlike low-income countries death registry system in Thailand is much better, however, similar to other LMICs mortality data has limitation of correct diagnosis of cause of death. To adjust the limitation the authors utilized verbal autopsy methods to validate the cause of deaths which were derived from death registry. This is a feasible option for the LMICs.

In LMICs morbidity estimation is very difficult due to lack adequate data. However, the authors of the study utilized various data sources and validated and adjusted with some standards. As there is no other options for estimating morbidity in LMICs this modified method should be accepted.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

The manuscript adheres to the relevant standards for reporting and data evidence.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
In the discussion session the authors arguments on double burden of disease in Thailand is convincing. The manuscript has conclusion in the Abstract section but does not contain any section labeled as “Conclusion” in the main text. However, the lesson learned section provides some conclusive remarks. To improve the manuscript the conclusion section needs to be added.

6. Are limitations of the work clearly stated?
Yes, the authors clearly stated the limitations of the study.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
Yes, authors acknowledged relevant work in the manuscript.

8. Do the title and abstract accurately convey what has been found?
Yes, the title and abstract almost accurately convey what has been found in the main text.

9. Is the writing acceptable?
Yes, the writing is acceptable with minor essential revisions, as suggested as well as editing the English language. The paper provides new knowledge especially for the LMICs for estimating burden of diseases.

- Minor Essential Revisions
1. In the last paragraph of the “Introduction” authors stated the objective. “This study assesses the changes in national level BOD between 1999 and 2004 in Thailand with the application of the 1999 VA to adjust COD in 1999 and 2004”. But the authors did not mention why they assessed the changes. Therefore the sentence seems incomplete. To my understanding this has been done to set priority for health system. Clarifying this will be helpful for the readers.

2. In the last paragraph of the “Introduction” the authors used the phrase “………..BOD between 1999 and 2004” this is to some extent confusing, As readers may understand that this from 1999 to 2004. The authors in fact assessed the BOD in 1999 and 2004 and then compared. Therefore the sentence needs rephrasing.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

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