Reviewer's report

Title: Verifying causes of death in Thailand: rationale & methods for empirical investigation

Version: 1 Date: 4 December 2009

Reviewer: Mohsen Naghavi

Reviewer's report:

• Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

1- the most important problem is that: details of method is not clear and results are not related to the method that you explained; for instance:

1-1) Why after correction of causes there are more than 5% ill defined codes (Figure 4 and 5), what was your method exactly?
1-2) What is the meaning of ill defined codes (just “R” codes) and what about other ill defined code like X59?
1-3) What was the format your data source : ICD 10 detail or ICD10 Tabulation1?
1-4) If you corrected by ICD 10 detail what did you do with other ill defined codes like: X59 , Y10-Y34, Heart failure, cardiac arrest, C26, C57, C80, D00-D48 and all ICD codes that cannot be cause of death(they are cause of morbidity) but they coded as a cause of death in mortality data?
1-5) And if your correction was based on ICD10 Tabulation1 what did you do with these codes:1-046,1-047,1-057, 1-062,1-063, 1-068,1-082,1-083,1-103 many of ill defined codes are hidden in these compact codes?
1-6) Then based on these detail how do you compare VR with your results (Figure 4 and 5)?

2- Your 4th objective is “improve the quality of causes of death recorded at registration in Thailand” How this study can improve capacity of physicians and paramedical staff …. For diagnosis, classification and coding of underlying causes of death? May be this study could helps but its mechanism is not understandable.

3- In page 13 you mentioned about data collection process, but answer to these questions are very important:

3-1) Who was reviewer of medical records? With witch level of education? Do they know registered causes or not?
3-2) Who was interviewer for VA? Do they know registered causes?
You mentioned that you described these detail in separate articles, but you should explain some details here. This paper is not a comprehensive paper

4- In page 14 have been mentioned that you can find underlying causes from VR, but your explanations in page 5 is not compatible with this address.
5- In page 15: age, sex, and cause pattern in hospital mortality data is different with age, sex, and cause pattern in home mortality data, how you can show this different pattern is not significant for that adjustment between hospital VA and home VA?

6- Limitation of this study is important and you have to have this part

7- In page 9 you mentioned about “appropriate adjustment for biases for individual causes” this adjustment is not clear in your method

8- In figure 4 second causes of mortality for female is “Diabetes” and after correction from 2% increased to 8%, this fraction is not an usual fraction for all ages, if I want to check process of this estimation based on this paper and your methodology in this paper, I cannot, because your description about your method is not compatible with results that you present

• Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1- In page 16, last paragraph “figures 3 and 4” have to changes “figures 4 and 5”

**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