Reviewer's report

Title: Patterns of mortality in public and private hospitals of Addis Ababa, Ethiopia

Version: 1 Date: 10 August 2012

Reviewer: Andre Kengne

Reviewer's report:

- Major Compulsory Revisions

In this study, Misganaw and colleagues have collected mortality data for the period 2002-2010 registered in 43 public and private health facilities in Addis Ababa. They found that, of the over 47,000 death recorded, 59% infectious diseases, maternal and perinatal conditions, while 31% were due to chronic diseases and 12% to injuries. They rightly conclude that their data support an underlying double burden of communicable and non-communicable diseases in the country, and make recommendations for improvement.

This work represent a very huge undertaken, and definitely provide very useful information both for internal use and for comparison with other countries in the region and beyond. I have the following recommendations for improvement:

Major compulsory revisions

1. Causes of death vary by age and likely across public and private health facility. It will improve the presentation if this structure was used throughout the entire result section (i.e. always presenting the age-specific data by public and private facilities, before presenting the overall summary).

2. The data presented in the study was collected over a period of 8 years or so and is sufficiently large. It will be helpful to assess the time-trend in the data presented. That’s is the authors should consider slicing the data for instance into 4 time period of 2 years each for instance and see if the pattern remain the same over time. It is of note that the data collection spans across the period of improved access to HAART in Africa, and time-trend may reveal effect if any on mortality in this country.

3. This study, just like any investigation has got some limitations. The authors touch in this briefly in the first paragraph of the discussion. But a dedicated and elaborated section on the strengths of limitations of the study is needed. For instance if verbal autopsy has been used alongside doctor-diagnosed cause of death, the possible implication has to be discussed.

4. Methods: Paragraph 1: Reference 14 relates to a paper only submitted. It should be removed and more description of the study setting provided.

5. Methods: Data collection procedures: In such a study using patient’ files and registries, one would think that the investigators extracted causes of deaths as provided in the patients fileregistries, and therefore had no access to the causes
of death certification process. If so, the statement relating to whom and how physicians reached the cause of death would be inappropriate and should be removed. If the conducted VA studies for all deceased as indicated in the Ethical clearance section, then this should be clearly stated as so. In the even that VA was conducted only for part of the deaths, then sensitivity analyses should be conducted excluding those deaths, to confirm that results are still similar, or report any change.

6. Methods: Data management and analysis: Please indicate the variables adjusted for in regression analyses. Odd ratio is the effect size, not a measure of the strength of associations. The reference to OR as a measure of strength should be removed.

7. Ethical clearance: It would be important to indicate the protocol used for verbal autopsy as to confirm the appropriateness in capturing all the causes of death of interest in the current study. Similarly, it will be important to describe how verbal autopsy based causes of death were adjudicated.

- Minor Essential Revisions

1. Abstract: The two last sentences of the result are just repetition and should be removed

2. Introduction: Paragraph 1: the whole explanation of the ‘epidemiological transition’ concept could be removed

3. Introduction: Paragraph 2: the authors should consider a more recent alternative to reference [8]

4. Introduction: Paragraph 2: the last sentence does not capture the full spectrum of actions needed to reduced mortality in the context of double-burden of diseases, which should cover both ‘control’ and ‘prevention’ of diseases

5. Results: Table 2: 2 decimal point for the OR and 95%CI should be enough; 1 should be used as odd ration for the referent category and N/A (not applicable) used to replace ref. in the significance column.

- Discretionary Revisions

NONE

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