Reviewer’s report

Title: Leading causes of death in Zambians, 2010: Results from Zambia's World Health Organization-standard methodology for Sample Vital Registration with Verbal Autopsy

Version: 2 Date: 31 March 2011

Reviewer: Frank Baiden

Reviewer’s report:

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

The study is a potentially useful paper that can provide assurance that SAVVY is feasible and [importantly] can be a valid alternative to vital registration, which is in deplorable state in many low-income countries.

However to enable readers to meaningfully assess the validity of SAVVY in routine settings in Zambia and other countries, some more convincing information needs to be presented in the paper. It would not be a useful paper if feasibility is addressed in the absence of validity in the setting.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?

Evidence needs to be provided to show that the results of SAVVY approximate well estimates from demographic and health surveys and populations censuses (or best available data in Zambia). In the discussion section, the authors provide this comparison only at the level of all-cause mortality. This is not convincing enough and more comparison needs to be presented, particularly on key indicators as

• Infant mortality (rate) and the major causes
• Under-five mortality (rate) and the major causes
• Maternal mortality (rate) and the major causes

How does the pattern of overall causes of death compare with best available data in those provinces in Zambia, and in the country as a whole? The comparison with studies in Ethiopia (references 15), Kenya (22) and at Global (21) level are rather remote and provides little assurance of the validity of SAVVY. If the argument the authors present were to be accepted as it is, then country-level SAVVY may not be necessary after all. We could just just take figures from other countries!! In any case why these countries; Ethiopia & Kenya? What about Angola, Botswana, Zimbabwe and Malawi which are closer?

3. Are the discussion and conclusions well balanced and adequately supported by the data?

Aspects of the discussion (paragraphs 7 & 8 under discussion) depart rather too far from the core intent of the paper: RE: Issue of scale-up of provision of HAART & treatment of HIV/AIDS??
How much did implementing SAAVY in four of the nine provinces cost? And how does it compare with the cost of restoring vital registration system in Zambia as a whole.

4. Are the data sound and well controlled?
Yes

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

6. Do the title and abstract accurately convey what has been found?
Yes

7. Is the writing acceptable?
The authors should take a second look at the use of the “decedent”. It is unusual in the literature on this topic.

Examples (RESULTS)
“People who were married/living with a partner were represented equally in decedents and the baseline census”
“But decedents were three-to-six times as likely to have been never-married.....”

Some of the phrases and sentences are very difficult to follow meaningfully and need to be revised

Examples
[RESULTS] “People who were married/living with a partner were represented equally in decedents and the baseline census”
[RESULTS] “Adult men died of injury significantly more than adult women...”
[DISCUSSION] “However, these efficiencies may not be worth possible reductions in data quality....”

**Level of interest:** An article of importance in its field

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

**Statistical review:** No, the manuscript does not need to be seen by a statistician.