Reviewer’s report

Title: Measuring inequalities in the distribution of health workers: the case of Tanzania

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Reviewer: Neeru Gupta

Reviewer’s report:

This article addresses an issue of research and policy attention in Tanzania and, indeed, most other countries of the world: geographical imbalance of the health workforce. This topic is highly relevant to the Human Resources for Health journal. Overall, the manuscript is well structured. However, there is an important shortcoming that should be addressed prior to publication. In order to make the paper useful to an international audience, details are needed on the nature, coverage and quality of the data collection tool used to enumerate health workers (e.g. sample survey or census? national or mainland only? private sector coverage or only public? head counts or duty rosters?). As the authors mention in the first paragraph, there is generally a "lack of reliable disaggregate data at country level". How does the facility-based data collection approach in Tanzania contribute to strengthening the evidence base? The authors discuss the quality of the mortality data used in the analysis, but not the HRH data. Would it have been possible, for example, to tease data on health workers from the national population and housing census (by means of questions on occupation and/or place of work), to validate and supplement the MoH data. Minimally, some summary statistics of the health workforce situation as derived from this source are needed.

A few minor recommended revisions:

- Rather than referring to a "retiring" population with high health care needs, it might be more appropriate to use the term "ageing".

- The statement that indicators sensitive to the elderly population are less suitable in low income settings because they receive "only a low share of public health budgets" (page 4) should be revisited. It might be more appropriate to say, for example, they account for a lower share of the total population in high fertility settings.

- In the context section, more precise figures are needed than to say there are "around 48 000 health workers". In order to lend credibility to the data source used for the analysis, statistics from this source should be cited and validated (as per the discussion above).

- With regard to the statement "We are not aware of anyone claiming that the number of health workers per capita is a strong predictor of the HIV prevalence" (page 7), the authors should be aware of and consider the recent publication in the HRH journal, "Workforce analysis using data mining and linear regression to
understand HIV/AIDS prevalence patterns” (Human Resources for Health 2008, 6:2).

**What next?:** Accept after minor essential revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

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

**Statistical review:** Yes, and I have assessed the statistics in my report.