Reviewer's report

Title: Pattern and determinants of HIV research productivity in sub-Saharan Africa: bibliometric analysis of 1986 to 2005 PubMed papers

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Reviewer: Steve Glover

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General Comments

The paper is an interesting concept but there are some major questions to be addressed with the methodology and interpretation of the results. I would advise a major revision to address the specific questions that have arisen as a result of this review.

There are a large number of factors which affect the quality and quantity of research produced by a developing country in a particular field. The fact that a particular disease is prevalent within a country may not mean that the research output of that country will address that particular burden of disease, and research has shown that there is often little correlation between a country's burden of disease and what research is carried out within that country.

Major Compulsory Revisions

1. Number of papers per population is an irrelevant measure of research output and the authors would do better to concentrate on the number of papers in relation to GDP or % of GDP spent on health or research if these figures are available. WHO's WHOSIS database gives health related economic data. UNAIDS may also have some statistics of HIV/AIDS research spend by governments.

2. Methodology- PubMed is not a good database to source papers based on address information. MedLine/Pubmed generally provides authors affiliation information for the first author of a paper. Therefore is the lead researcher is from Belgium but the co-researchers are from Nigeria then the paper would be addressed to Belgium. A better database to accurately retrieve author information would be ISI’s Web of Knowledge which indexes all authors’ addresses. I would suggest retrieving records from PubMed and ISI Web of Knowledge to increase the accuracy of the data and not to focus on first author papers.

3. It would be more useful to include all the countries within the study in the tables and figures. The top 10 is really not much users to readers, reviewers, policy makers etc if they cannot see the data for each country. Create tables using small fonts and include all the countries.

Discretionary Revisions
4. The high relative number of papers produced from the Gambia is influenced by the output of the UK’s MRC (Medical Research Council’s) laboratories in Banjul. If the author is going to attribute the output of this type of institute then this should be stated within the results and conclusion and listed as a limitation of the study.

5. It would be useful for readers if the paper expanded the information presented on the background to the topic and what similar research has been done previously. Maybe a small review of the literature would be useful.

6. I had trouble retrieving the quoted number of articles in PubMed using address, dates, and subject terms. I tried this by searching on address information then combining HIV and AIDS keywords to focus the final set of articles. If the study was done in PubMed as the title suggests then it should be reproducible to within a close degree of accuracy. But I was retrieving much smaller numbers of papers?

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

'I declare that I have no competing interests'