Reviewer's report

Title: A global approach to the management of EMR (Electronic Medical Records) of patients with HIV/AIDS in Sub-Saharan Africa: the experience of DREAM Software

Version: 2 Date: 14 May 2009

Reviewer: William Lober

Reviewer's report:

Overall, I think this is an interesting paper, describing interesting work, and particularly valuable in that it comes from a group based within Mozambique, rather than an externally funded NGO.

Both the use of the English language, and the precision of the ideas are somewhat problematic.

The background section does a good job of laying out problems in delivering HIV care both in sub-Saharan Africa, and beyond. See comment 3.3.

In summary I think that the project is fascinating and clearly should be described by a paper of this type, after further revision aimed at more clearly following guidelines for scientific writing, specifically around the content for each section of the paper.

Major Compulsory Revisions

The author must respond to these before a decision on publication can be reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

1.1 - the abstract is not as strong as the paper, and does not reflect its content. See comments 3.1 and 3.2. The abstract should be rewritten to be a summary of the paper.

1.2 - Breaking the digital divide - I am not sure from the reviewer's comments why they removed the term methods from this section, but in an informatics paper of this type I would like to see a technical description of the system. This would include the software platform, the level of effort to develop the system, and discussion around choices made for design and data modeling, a description of how users were involved in the design and any particular design or development methodologies used, and other technical issues.

1.3 - some of the software's features - in using this title for this section, the authors give the impression that they have randomly picked some of the features of the software to describe. It would be better to introduce this section with a list
of the features they will discuss and a rationale for choosing those particular features.

1.4 - Results - the results section sounds more like a discussion of the experience with DREAM software, and an assessment of the value of specific features based on that experience. This section should include more of an objective discussion of the experience in deploying the system in such a widespread program, including strategies to deploy the system, strategies for training, the number of deployments, replication of data to a central database in the face of possibly uneven network connectivity, or programmatic variation between countries in the delivery of HIV care and treatment.

Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

2.1 - Figures and tables - the figures and tables are excellent, but lack explanatory captions, and (other than Table 1, 2, and Figure 1) references in the text. It is important to address the context for the figures, particularly the architectural drawing, which would address part of my comment in 1.2

Discretionary Revisions

These are recommendations for improvement which the author can choose to ignore. For example clarifications, data that would be useful but not essential.

3.1 - Abstract/Method - does not summarize the methods used in the project, but instead describes the content of the methods section.

3.2 - Abstract/Results - does not summarize the results of the project, except in the most general way.

3.3 - Background - it would be useful to say a little more in the background to indicate in which countries DREAM is used, before the general description of HIV is a problem in sub-Saharan Africa. The introduction could state more clearly the relationship between the DREAM Programme and the DREAM software.

3.4 - Background - if there is any desire on the part of the editors to shorten the overall paper, the description of the DREAM Programme seems longer than necessary if the focus of the paper is on the software. Reading the author’s response to the previous reviewers comment, I understand that this section has been extended, but can only respond to the version I am reviewing. I feel that this is a discretionary revision and it may not make sense in the context of prior review and revision. However, the background comprises approximately half of the paper.

3.5 - comment on interoperability - the authors chose to expand the functionality of DREAM, rather than to build separate interoperable components to manage pharmacy and clinical data. That is an interesting choice, and the paper might
benefit from a discussion of the rationale for that approach, and of its success.

3.6 - comment on language - internationalized software can be difficult to write. The authors did not mention where dream has been implemented or in which languages this been implemented, let alone the strategy for internationalization, which might be interesting.

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

**Declaration of competing interests:**

I declare that I have no competing interests