Author’s response to reviews

Title: Establishing a Health Information Workforce: Innovation for Low and Middle Income Countries

Authors:

Jenny H Ledikwe (jledikwe@gmail.com)
Letitia L Reason (lreason@u.washington.edu)
Sarah M Burnett (sburnett@accordiaglobalhealthfoundation.org)
Lesego Busang (lesego@achap.org)
Stephane Bodika (bodikaS@bw.cdc.gov)
Refeletswe Lebelonyane (rlebelonyane@gov.bw)
Steven Ludick (sludick@gov.bw)
Ellah Matschediso (ellah.matschediso@mopipi.ub.bw)
Shreshth Mawandia (smawandia@itech-tanzania.org)
Mpho Melesi (MMmelesi@gov.bw)
Baraedi Sento (baraedi.sento@itech.org.bw)
Baz Semo (bazsemo@u.washington.edu)

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Author’s response to reviews: see over
19 June 2013

Dear HRH Editor,

We are pleased to submit a revised version of our manuscript originally entitled: “Establishing a Monitoring and Evaluation Health Workforce: Innovation for Low and Middle Income Countries”, for consideration as a research article in HRH. As per the review feedback, the title has been slightly altered and is now entitled: “Establishing a Health Information Workforce: Innovation for Low and Middle Income Countries”. The manuscript number is MS: 4086657819631979.

We greatly appreciate the thoughtful and constructive feedback provided by the reviewers. All comments from the reviewers have been addressed in the revised version of the manuscript. A point-by-point response to the reviewers’ comments can be found on the following pages of this document.

Thank you for your consideration of this manuscript. We look forward to hearing from you.

Sincerely,

Jenny H. Ledikwe, PhD
Director of Monitoring and Evaluation and Research
I-TECH Botswana

Corresponding author: Jenny Ledikwe, Ledikwe@UW.edu, +267 71432098
Minor Essential Revisions

1. In the discussion part, there is still need to give more light not only on the limitations of the data obtained but also on the methods used. For example, the method Pre and Post test scores, its biggest limitation is the validity of any inferences made could be rather low. Because if a statistically significant difference in scores is detected, it would be not certain that the skills gained actually caused that difference. The score given by the respondents may not truly reflect the state of their understanding.

   **Response:** The review raises a valid point. Text was added to the discussion section highlighting that the skill measures were based on a self-reported assessment and may not be a true reflection of their actual skill level. Specifically the following text was added: “The data related to M&E Officers’ skill level were based on self-reported measures and may not have reflected their actual skill level.”

2. In addition, the study doesn’t say anything if the pretest and posttest are different or not. If the pretest and posttest are different, the learning gain may be due to the change in the nature of the measuring instrument. Also to appreciate the impact of the training, it is better to mention if extraneous variables (variables other than participation in the courses) were controlled or minimized. Another aspect is the interval between the pretest and posttest which seems to be quite long (one year), so an external event may affect the responses of the posttest.

   **Response:** In the second paragraph of the methods section, text was added clarifying that the same instrument was administered for both the pretest and the posttest. Therefore changes in the tool would not have influence results. The text was changed to the following: “The same assessment tool was re-administered after 12 months…”

   Text was added to the discussion section to further clarify that there was a 12-month period of time between the baseline and follow-up skills assessment. Additionally, text was added to clarify those analyses were not adjusted for other factors. Specifically, the following text was added “There was a 12 month period of time between the initial skills assessment and the follow-up assessment. Factors other than the training and mentoring activities, such as self-efficacy or self-directed learning experiences, may have contributed to the improved skill levels reported; but these were not assessed nor used to adjust the analyses.”

3. The study used also a self-administered survey to provide information on the experiences of the respondents. The survey included open-ended questions which focused on achievements. Here also noting has been said about the limitations of such method and the data obtained. Because, there is more potential for respondents to misunderstand open-ended questions and they may answer questions without really understanding them and the researcher will never know it. In addition, they are less likely to provide detailed and thoughtful responses to open-ended questions.

   **Response:** The reviewer raises two valid points: 1) self-administered methods of data collection do not necessarily provide an opportunity for participants to seek clarity on survey items which are unclear or confusing and 2) other data collection methods may have provided an opportunity for more detailed responses.
For point 1, text was added to the methods section to clarify that the survey was a written survey administered in-person while the district M&E Officers were attending a workshop and there was an opportunity for the participants to ask questions or seek clarity. Specifically, the following text was added: ‘The survey was administered in-person to the participants while they were attending a workshop. The instructions were read to participants as a group and they were provided with an opportunity to ask questions or seek clarity if they felt they needed assistance.

To address point 2, text was added to the discussion section suggesting that interviews or surveys be included as part of future assessment. Specifically, the following was added: “Future assessment should include Interviews or focus group discussions to provide more detailed information related to the achievements of the cadre.”

4. In the discussion section, it is important to qualify certain statements that relate to cause and effect derived from some descriptive analysis data. For example, when the authors state that «One of the key lessons learned was the importance of ensuring job satisfaction, which influences staff retention.” It would be interesting to support this by strong evidence or to corroborate this with other study results obtained elsewhere.

Response: Text was added to the discussion section to qualify the cause and effect statement related to job satisfaction and staff retention by referring to the data from the study. Additionally text and references were added to corroborate this concept with findings from other studies. The revised text now reads as follows: “One of the key lessons learned was the importance of ensuring job satisfaction. Twelve percent of the district M&E Officer posts was vacated during the first year, with low job satisfaction as the main factor. This is in-line with findings from a recent literature review of studies in Africa investigating the shifting of tasks from physicians to nurses which found that job satisfaction was closely related to staff retention and important for sustainability (24).”

The following reference was added to support this statement: Iwu EN, Holzemer WL: Task shifting of HIV management from doctors to nurses in Africa: Clinical outcomes and evidence on nurse self-efficacy and job satisfaction. AIDS Care 2013

We carefully reviewed the remaining text in the discussion section. The text related to country ownership, which may have implied cause and effect, were modified accordingly based on comment 6 from reviewer 3.

5. Regarding the "conclusion" section, this conclusion can be drafted without seeing this paper. So, it is appropriate to review the conclusion to reflect the study. It seems to give just a rationale rather than a true conclusion of the results obtained from the study. Some elements of this conclusion may well be fitted in the introduction or in the discussion rather than as a conclusion. The conclusion should focus first on the main findings and/or key messages arising from the findings.

Response: The authors agree that much of the text in the conclusion section was general and was moved to the discussion section.

As suggested by the review, the conclusion was revised to reiterate the main findings and key messages from the study. Specifically, the revised conclusion now state the following: “The development of a cadre of district M&E Officers has contributed positively to the health information system in Botswana through the initiation of a variety of activities to strengthen data management, quality, reporting, and utilization for evidence-based planning. In context where a pool of trained
M&E personnel are not available, university graduates can be recruited to participate in intensive on-the-job training and mentoring programs a successful approach for strengthen health information systems.”

Level of interest: An article of importance in its field

Response: The authors appreciate the assessment that this is an article of importance in its field.

Referee 2: Reviewer: Amani Siyam

Discretionary Revisions: None

Response: The authors appreciate the review and are please that the reviewer did not feel revisions were warranted.

Level of interest: An article of importance in its field

Response: Again, the authors are encouraged that the reviewer found this to be an article of importance in its field.

Referee 3: Reviewer: Dykki Settle

Reviewer's report: I have no Major Compulsory or Minor Essential revisions.

Discretionary Revisions:
1. Summary - Overall this document is substantive, well written, and effectively communicates its key messages. The mixed methodology provides a well-rounded approach that clearly conveys the complexity and value of its topic. The presence of a strong health information workforce is critical to increasing country understanding, ownership and effective implementation of health systems strengthening and service delivery improvement interventions. My only concern is the timeliness of this piece - coming up for publication nearly four years after the end of the activity according to the training dates given in Table 2. All of my comments pertain to this delay in publication and subsequent developments since that time.

Response: The authors appreciated the positive feedback. While there has been a delay in publishing this work, this paper is it still highly relevant and important to the field. In subsequent comments the review highlights that publications such as this in the literature are not common; this work helps to fill an important gap. We also strongly feel that the key messages from this work are still very critical and will be of substantive utility. The outcomes, achievements, and challenges from this initiative are certainly relevant today. Each of the reviewers indicated that the work is ‘an article of importance in its field’.

2. Title-a - Please consider whether this should paper should emphasize the innovative nature of this work. At the time the work began in 2007, it was quite innovative, representing a practice that was only just emerging along with stronger national health information systems. Six years later, a non-clinical health information
The workforce is growing substantially in many countries in sub-Saharan Africa actively strengthening their health information systems. Elements of the training and mentorship remain innovative and strong recommendations, however, as capacity-building of these competencies remains insufficient in many countries, and may warrant the title.

Response: The innovative nature of the work does refer to the on-the-job training and mentoring of university graduates without training or experience in M&E to create a new cadre to support the health information systems, not the use of nonclinical staff to support health information systems. As the reviewer concurs that the training and mentoring aspects of the work were innovative, the authors feel the title is warranted and was not modified.

3. Terminology - Also, referring to the workforce as a Monitoring & Evaluation Workforce, while accurate, does not reflect common usage at this time – one more commonly hears 'health information workforce', 'health statistics' or even 'biostatistics' - M&E is more commonly applied to program, project or research activities, not to the roles described in the paper. This is a generalization, however, not universal, please revise or ignore at your discretion.

Response: This is an excellent point. While the general field has been referred to and is still referred to as M&E in Botswana; other terminology is more common internationally. The authors have modified the terminology to ‘health information’ when making general statements about the field; but have retained the term “district M&E Officer” when referring specifically to the cadre. Their roles are will described in terms of where they fit into the overall health information system in the country.

4. p.3 - "Health information systems are critical for decision making, however, analyses of human resource requirements within the health sector rarely acknowledge the need for staff with monitoring and evaluation (M&E) skills" - This statement was accurate in 2005 when the source this was derived was written, but it is much less true today after 9-10 years of PEPFAR investment in health information systems. Human capacity is now an essential part of any HIS strengthening activity, and HRH needs assessments are reflecting this emerging, if under-recognized cadre.

Response: The authors concur and feel the introduction is strong and compelling without this sentence. It has been deleted.

5. pp 7-8 "While multiple studies have shown that task shifting can be an effective strategy for strengthening the provision of health services, this is the first report in the literature documenting the shift of M&E responsibilities from clinicians to a non-clinical professional cadre as an approach to improve health information systems." This statement cannot be verified without a full literature review - a task beyond the scope of this review. While this reviewer has not seen an article on the topic, it is difficult to imagine that this is the first in the literature. It is now common and expected practice for non-clinicians to take on M&E responsibilities at the district level in SSA countries. If a confirming literature review has been conducted recently, please ignore (and congratulations! – this article is now even more important) - otherwise, please consider revision.

Response: Similar to the reviewer, we are unaware of similar articles in the literature. While we feel we have done a through literature review utilizing pubmed; but we have not conducted a rigorous systematic literature review. Since we have not conducted a systematic literature review,
we are concurring with the reviewer and have revised this sentence. It now reads as follows: “While multiple studies have shown that task shifting can be an effective strategy for strengthening the provision of health services,[1, 2, 23] there is less documentation in the literature related to the shift of M&E responsibilities from clinicians to a non-clinical professional cadre as an approach to improve health information systems.”

6. p.8 “This exemplifies the importance of country ownership, which is being recommended internationally as an approach to donor assistance” - this bears more emphasis as an important and innovative approach at the time - the source recommending the approach is from 2012 - 5 years later.

Response: The authors appreciate that the reviewer has acknowledged the importance and the innovative nature of this work. We have modified the relevant text in the discussion section to indicate that the recommendations related to country ownership were subsequent to the development and implementation of this project. Specifically, the text was modified to read as follows: “This exemplifies the importance of country ownership. Subsequent to the development and implementation of this project, country ownership has been recommended internationally as an important approach to donor assistance.”

Level of interest: An article of importance in its field
Response: The authors appreciate the assessment that this is an article of importance in its field.

Additional material submitted by the reviewers:

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Referee 1:
Response: These were the same comments as those listed by reviewer 1.