Reviewer's report

Title: Dissatisfaction with the Laboratory Services in conducting HIV related testing among Public and Private Medical Personnel in Tanzania

Version: 2 Date: 12 March 2008

Reviewer: Wilson Pace

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Second Review – 3-08

This manuscript reports on health care personnel satisfaction with laboratory services in Tanzania. The manuscript presents the data primarily related to public and private laboratory status but the authors state in their reply that the intent was to create a baseline information set at the national level. This creates confusion throughout the paper and this reviewer believes the authors need to step back and determine the primary intent of the project and then refocus the paper with that intent.

While a number of the previous concerns have been addressed in the response letter, most of these issues are not included in the re-write of the body of the manuscript. The purpose of the comments and requests for revisions is to make it apparent to others who may read this manuscript what the answer to the reviewer questions are, not to satisfy the reviewer prior to publication.

Major Revisions

Overview-

This paper focuses the analysis on the differences in satisfaction between public and private labs in Tanzania- but the authors noted in their letter of response that that initial intent of the project was to understand health professional satisfaction at the national level. The sample size and sampling strategy appear more appropriate for this intent than for a sub-analysis based on lab status. To this end the authors should re-examine the main focus of this manuscript and focus on what the entire dataset can tell us prior to undertaking any secondary analyses. For instance, do nurses differ in their overall level of satisfaction and individual item satisfaction than the other groups? It appears that there are items that may be relevant only to subsets of interviewees and this would make more sense through an initial global analysis of the data. Without better clarification at this level the paper remains very difficult to follow.

1. The relationship of each group of medical personnel to the lab needs to be clarified. It would seem that nurses and physicians are consumers of lab services and that lab personnel are providers of lab services and thus their views and even ability to answer specific questions would be different. This needs to be better clarified in the manuscript. Again- this may be easier to understand if the
initial analysis was undertaken as the entire data set level divided by user groups instead of by lab type.

2. A baseline survey proceeded interviews at participating facilities. How was this survey administered? Please include in the manuscript the response rate to this survey. The baseline survey included 24 labs and the in depth surveys include 21 labs- how were the 21 chosen from the 24?

3. No information on the response rates for the interview process is included thus it is not possible to evaluate the representativeness of the responders. The manuscript has not been revised to reflect this information and while the response from the authors indicates a 100% response rate the analytical numbers don’t track with this reply. A 100% response rate at 12 interviews per lab would result in 252 interviews. There are 235 reported in the Methods section. Furthermore, the highest number of responses analyzed for any given question in Table 1 is 196. The authors need to describe in the manuscript how the sample size dropped from 252 to 235 (of particular note was one of the three groups more likely to have missing enrollment?) Next, of the 235 respondents why are only 196 used for any given analysis and is it always the same 196 individuals? The final question on table 1 reports only 192 respondents, is this a subset of the 196 or an overlapping set of individuals with some of the 39 respondents not used in the above analysis included in this analysis. Again, all this might be much clearer if the analysis started at the full dataset level instead of the sub analysis level by lab type. Furthermore, there is the acknowledgement of missing data- which could be at the item level or the person level, but this is not well addressed. This reviewer recommends that the authors review the Consort criteria for reporting study enrollment and try to create a flow diagram something along these lines.

4. The next level of data collection involves interviews with apparently up to 13 individuals in 21 labs. The exact number of expected interviews at this lab level is not mentioned. It would most labs either sends out or receives samples from other labs and some do both. If the exact role did not exist in a given lab but the function occurred anyway the rationale for not interviewing someone dealing with the issues should be included.

5. The issues discussed in 5, 6, 7, 8 and 9 below were included in the initial review and do not appear to have been addressed within the manuscript revisions.

This reviewer is very confused on the roles of the individuals interviewed. This may be because of not being familiar with how lab services are provided in Tanzania- but this confusion is likely to be present for others around the world. From the text it appears that three different types of “health care personnel” were interviewed- nurses, physicians and laboratory personnel. These appear to be very disparate roles and why their results should be grouped for analysis is not clear. Presumably, nurses and physicians are ordering lab tests for patients and receiving lab results. Lab personnel are handling these orders, dealing with completing tests, sending specimens to reference labs or receiving specimens
from other labs and then reporting results back to clinicians. These are very
different functions and various groups have control of very different aspects of
this chain of events. Thus, grouping their responses across similar questions is
not intuitively logical. For instance, how is the question about timely results
interpreted by nurses and physicians (who ordered the test) compared to lab
personnel who conduct the test? If patients have to travel to the lab to have
specimens collected (which appears to be the case at least some of the time
from a companion manuscript) then do the nurses and clinicians account for a
potential lag in when a patient presents for the lab test? It would seem the lab
personnel would only be dealing with the delay from when they receive or collect
a specimen to when they report the results. These are very different perspectives
and grouping them under a single response needs to be justified.

6. Likewise for the response to “clear, complete results” is confusing. Presumably
if the lab personnel thought their results were not clear and complete they would
change the way results are reported.

7. Finally, the beliefs around whether a test result is “correct or accurate” are also
very different from a clinician’s perspective than lab personnel. Presumably lab
personnel run controls and various tests to assess the accuracy and reliability of
test results, which are more likely to be affected by specimen handling than by
test performance. Clinical personnel question results when they don’t make
clinical sense – which is very different than true validity and reliability.

8. The intent of the response options in Table 2 are not clear and who actually
has the ability to deal with poorly handled specimens and therefore dissatisfied
customers is not at all clear. For instance, does availability of equipment mean
within the sending lab or within the receiving lab for either table? This is not clear
at all. What was intended to be collected from the question “result generated
from referral laboratories” in Table 2 is not clear to this reviewer compared to
“Clear result report” in the same table.

9. Table 3 identifies “poorly identified specimen” as a concern among a large
number of receiving labs. But, it is not clear from the manuscript if this is a
problem with the ordering physician/office not providing the necessary
information or is this a problem at the sending lab level. This data is impossible
to use for QI activities or considerations with out greater detail.

10. The results indicate there are differences in dissatisfaction levels in selected
areas between private and public laboratories for health care personnel
(presumably these differences are driven by nurse and physician dissatisfaction
but that is not possible to tell.) If the results were first analyzed overall by group
this issue may be clarified.

The concept that work of this kind can be used to drive quality improvement
activities is generically accurate, but as reported in this manuscript it is difficult to
understand how any of the groups involved could use the data to undertake an
improvement process.
What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Quality of written English: Not suitable for publication unless extensively edited

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