Author’s response to reviews

Title: Barriers for introducing HIV testing among TB patients in Jogjakarta, Indonesia

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Author’s response to reviews: see over
Dear Editor,

We thank the reviewers for their comments. Please find below our point-by-point response and the corresponding revised manuscript, tables and figure attached.

Sincerely,
Yodi Mahendradhata

Point-by-point response to the reviewers’ comments

Reviewer 1: Soumya Swaminathan

Major Compulsory Revisions

This manuscript is a report of a qualitative study examining barriers for introduction of HIV testing among TB patients in Indonesia. The authors interviewed TB patients at 88 sites providing TB services - these patients had all expressed willingness to be followed in-depth. Basically the sample is a highly selective group and there is no mention of the denominators at each level (total TB patients, those referred to VCTC, those accepted VCTC and those who accepted the interviews).

This comment has been addressed by providing a schematic distribution of patient flow in Figure 1 which is introduced in Method, study design paragraph 3 as follow:

“Among 1269 patients offered unlinked anonymous testing and VCT service during the parallel survey, 764 accepted to be interviewed. Figure 1 presents the distribution of these consenting patients by the 4 patient categories”.

More information is required on the exact time period of the study, whether the nurses information to patients about VCTC was standardized and the numbers of patients in the study population and in the sampling frame.

The numbers of patient and sampling frame is now described in Figure 1 as mentioned above. We specified the time period of the study and the standardization of information about VCT in Method, study design paragraph 1 as follow:

“The study was conducted in parallel to a HIV prevalence survey among TB patients carried out between April and December 2006. The survey targeted TB patients attending all (88) public and private DOTS services in three out of five districts in the province. TB patients in participating health facilities were offered unlinked anonymous HIV testing for survey purpose and additionally free services of four hospital-based Voluntary Counselling and Testing (VCT) centres. Nurses provided patients with standardized information on HIV and VCT services aided by a brochure which was subsequently given to the patient.”

After recruitment, again there was a big drop-out especially in group 3 and group 2 was over-represented. The results of these interviews cannot be projected as barriers for HIV testing among all TB patients as the sample is not representative.

This comment is now addressed in the first paragraph 1 of the Discussion covering study limitations as follow:
“We have focused on contrasts between patients who expressed and did not express interest for VCT because only two patients who expressed interest but did not attend (group 3) could be interviewed and we interviewed more patients who did not express interest but accepted unlinked anonymous. On the other hand this means our findings can be interpreted in term of VCT uptake rather than interest.”

This can at best be described as a pilot study where the views of some selected patients and health care providers has been ascertained. This should ideally be followed by a larger study with a semi-structured questionnaire interviewing a larger sample of TB patients.

This issue has also been addressed in paragraph 1 of the discussion:

“This study is limited by qualitative research boundaries. Issues perceived by patients and providers were identified. Although trends emerge, the respective influence of each issue was not quantified. This could be documented through a quantitative survey building on our findings, which points out the key issues to be taken into account.”

In Results the patient characteristics are vaguely described - exact numbers are required.

Patients characteristics are now described quantitatively in a table (Table 1) introduced in Result, Paragraph 1 as follow:

“Table 1 presents the characteristics of the interviewed patients’ for the four categories.”

The authors state that the "majority" of respondents were not interested in VCT - this conclusion is not valid based on such small numbers and with a purposive sampling strategy.

We have rephrased the incriminated sentence in Result, Factors influencing patients’ interests in VCT, Paragraph 1 as follow:

“Many of our respondents (22) were not interested to attend VCT regardless of gender, age, education and marital status.”

No information is provided about what aspects were included in the interview and whether there was an interview guide.

This point is now elaborated in Method, study design, paragraph 3 as follow:

“Patients were interviewed on the basis of an in-depth interview guide on why they were interested or not interested in VCT and probed for factors that hinder or support VCT uptake, e.g. knowledge, attitudes, information given by health providers regarding VCT.”

Limitations of the study need to be addressed

A whole paragraph has been added (Discussion, Paragraph 1) covering Study limitations:
“This study is limited by qualitative research boundaries. Issues perceived by patients and providers were identified. Although trends emerge, the respective influence of each issue was not quantified. This could be documented through a quantitative survey building on our findings, which points out the key issues to be taken into account. We have focused on contrasts between patients who expressed and did not express interest for VCT because only two patients who expressed interest but did not attend could be interviewed (group 3) and because we interviewed more patients who did not express interest but accepted unlinked anonymous (group 2). This means our findings can be interpreted in terms of VCT uptake rather than interest. Although our findings are context bound, generalization can be considered to other provinces in Indonesia with similar socio-economic, HIV-TB epidemiology and health system characteristics. Some specific findings may hold in similar settings in other countries.”

Discretionary Revisions

The qualitative data has been provided as quotes from the patients and health care workers and then discussed under subheadings. It would have been useful to analyze the interviews for themes and present 2 tables with the major concepts/constructs identified.

We have addressed this comment by providing descriptions of the major constructs identified in two tables (Table 2 and Table 3). These tables are introduced in the text as follow:

Results, Factors influencing patients’ interests in VCT, Paragraph 4:

“Table 2 summarizes the relations between main patients’ perceptions and VCT interest. Many patients (16) did not report to perceive themselves at risk, or simply did not know enough to attribute risk (10):”

And, Results, Nurses’ perceptions, Paragraph 1:

“Table 3 depicts the distribution of main issues perceived by nurses across different type of health facilities. Most nurses considered their knowledge of HIV-TB insufficient: “

Data from the surveillance study if available will be useful to provide evidence that HIV screening in Indonesia is relevant and likely to be cost-effective.

Data from the parallel surveillance study was added in Method, Study design, paragraph 1 as follow:

Out of 1269 patients which were offered unlinked anonymous testing during the survey, 989 (77.9%) accepted. Out of these 989 patients, 133 (13.4%) expressed interest in VCT but only 52 (39.1%) subsequently attended VCT

Is ART available in Indonesia and at how many sites?

This information is now provided in Introduction, Paragraph 1, as follow:
“The number of reported AIDS cases has increased by 15 fold in the past ten years [2]. The rapid increase of new HIV infections in Indonesia makes the epidemic one of the fastest growing in Asia, even though the aggregate national prevalence is as low as 0.16% [3]. By the end of 2007, there were 296 Voluntary Counselling and Testing (VCT) clinics throughout Indonesia, plus 153 hospitals which provide free antiretroviral treatment [3].”

Several recent reports have addressed this issue in other populations, not all have been referenced by the authors (e.g. Thomas et al, IJTLD Dec 2007)

These references have been added in:

Discussion, Perceived benefit and risk:

“However, the most worrying HIV testing barrier is that people not perceive themselves at risk [29]. The main stated reason for refusal of HIV screening among TB patients in Tamilnadu, India was ‘no risk behaviour’ [30]. “

And in Discussion, Perceived barrier for utilizing VCT:

“Other studies have documented similar observations. Some Indonesian drug users refused testing because of the long wait and complicated procedures [20]. Accessibility of VCT centre has been shown to motivate TB patients in India to undergo testing for HIV [30]. Drug users in the US decided to test because the site was immediately available and they need not travel far [12]. “

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

**Reviewer 2:** Jay K Varma

**Reviewer’s report:**

HIV counseling and testing of TB patients is now a widely accepted recommendation among technical agencies and among global health policy makers, but remains problematic in some settings, particularly countries with a high burden of TB and relatively low burden of HIV. Indonesia is a particularly important setting, because it has one of the highest burdens of TB in the world and a concentrated HIV epidemic. As the authors note, collaboration between TB and HIV programs is still not optimal, and local data is needed to drive decision-making.

The major weakness of this manuscript is that it is based on a very small sample size. I think it is still worth publishing, because (a) it is from a country that has global importance in the fight against TB and, possibly, HIV, (b) it presents a sound qualitative analysis of an important public health problem in Indonesia, (c) it has policy implications for Indonesia.

**MAJOR COMPULSORY REVISIONS**

*Background*
As noted above, the main contribution of this manuscript is that it provides locally-relevant data from a country that is critical to the global TB epidemic and may become increasingly important in the global HIV control efforts. I think that the authors should frame the manuscript within that context, because the study does not report findings that would be of broad general interest to those outside of Indonesia.

These contextual elements have been specified in Introduction, Paragraph 1, as follow:

“Indonesia is critical to the global tuberculosis (TB) control efforts and increasingly important in the global HIV control efforts. The country ranks third in the world for TB burden [1]. The number of reported AIDS cases has increased by 15 fold in the past ten years [2]. The rapid increase of new HIV infections in Indonesia makes the epidemic one of the fastest growing in Asia, even though the aggregate national prevalence is as low as 0.16% [3].“

Discussion

The authors state: “However, our data suggests that stigmatization did not play much role on patients VCT interest. Most likely this is because HIV/AIDS in our setting is not yet a widespread disease with high visibility. Other factors outweigh stigmatization when it comes to interest in VCT.” I think there are other hypotheses as well to explain this. In fact, HIV stigma is often highest in those settings where HIV is uncommon and, therefore, highly feared. This is particularly true in other parts of Asia (e.g., Vietnam, China) where people have heard of HIV, but have inadequate knowledge and tremendous fear of HIV-infected patients. Even in settings with high stigma, however, HIV counseling and testing of TB patients has now been widely accepted when it has been implemented; most of this is from program experience and not published. This is likely because patients are willing to do what their physicians ask and because patients care about their health. Therefore, they are willing to have HIV testing if it is indicated. The authors should consider this possibility as well.

This alternative explanation has been added in Result, Stigmatization, Paragraph 1 as follow:

“Other factors outweigh stigmatization when it comes to interest in VCT, e.g. a clear indication of the risk for HIV infection, as effectively communicated by the care provider, coupled with patients’ concerns for their personal well-being.”

The authors state: “If the Ministry of Health intends to move forward with HIV testing among TB patients, provider’s and patient’s knowledge need to be improved beforehand.” I would suggest that “beforehand” could be replaced with “simultaneously.” There is a great need to expand HIV testing of TB patients. Most would agree that waiting to institute a policy until patient and provider knowledge reach a particular threshold is an insufficient response to the TB and HIV epidemics.

This suggestion has been included in the Conclusion as follow:

“If the Ministry of Health intends to move forward with linked confidential HIV testing among TB patients through VCT, provider’ and patient’s knowledge need to be improved simultaneously, the general healthcare system strengthened by providing the necessary
conditions for effective communication and patient-provider interaction and offering VCT at potential DOTS services that can provide results on the same day.”

Throughout the manuscript, the authors refer to “VCT” as the model for HIV counseling and testing. The current international policy recommendation is that TB programs should institute “provider-initiated testing and counseling” (PITC). Did the authors’ qualitative interviews ever probe how acceptance might vary depending on where the offer of HIV testing is made and who makes the offer (e.g., TB nurse / doctor vs. HIV counselor / nurse)? Given that transportation was a major concern, it would seem that PITC would be one obvious approach to solving this problem. The authors should include some discussion about whether a PITC-based model would work within Indonesia and how it might address or not address some of the barriers that they have identified.

We have now included PITC into Introduction, Paragraph 3 as follow:

“Additionally, there is an ethical debate surrounding HIV testing among TB patients, particularly with regard to the unlinked anonymous testing method, in view of the improved prospects for HIV/AIDS treatment [8]. This led to linked confidential testing through an ‘opt in’ approach, which has been offered in Voluntary Counselling and Testing (VCT) centres [9]. More recently, WHO encouraged the adoption of provider-initiated linked confidential testing and counselling (PITC) [10]. In contrast to VCT, PITC is based on an ‘opt out’ approach in which the clinician initiates counselling when an individual is seeking medical care with signs or symptoms compatible with HIV infection [9].”

And in the Conclusion as follow:

“The potential acceptability of the alternative PITC model would be worth to explore further. However, it would clearly require even more demanding pre-conditions and thus should be reserved for settings with more advanced HIV epidemic. In any case, efforts to understand and overcome specific local barriers must accompany efforts to introduce HIV testing among TB patients.”

**MINOR ESSENTIAL REVISIONS**

**Methods**

*The sentence about HIV prevalence reports the (wide) range in prevalence estimated for the general population. The primary point estimate should be reported with the range reported in parentheses.*

Point estimates were added as advised in Method, Study Context, Paragraph 2 as follow:

“It is much higher among high-risk groups, e.g. sex workers [4.6 (3.6-6.4)%]; injecting drug users [39.3 (29.0-52.7%)].”

**Results**

*Patient characteristics. Since the study involves so few patients, the numbers of persons with specific characteristics should be reported (e.g., X were male, Y*
were 20-40 years old, etc.)

Patient characteristics are now described in Table 1 and introduced it on Result, Paragraph 1 as follow:

“Table 1 presents the characteristics of the interviewed patients’ for the four categories.”

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

Reviewer 3: Gavin John G Churchyard

Summary

This manuscript describes barriers to introducing HIV testing into a TB programme in Indonesia identified through in-depth interviews with TB patients, specialist physicians and district disease control managers and focus groups discussion (FGD) with nurses providing DOTS services. The study found poor knowledge of HIV by nurses and patients, logistical barriers to accessing HIV testing, fear of a positive result, stigma and poor communication skills as barriers to accessing HIV testing.

Major compulsory revisions
None.

Minor essential revisions
• The term “burden” is used for logistical barriers to HIV testing. I suggest using the term “barriers” consistently.

The issue referred to here could indeed, from the health service point of view, be related to logistical barriers to HIV testing. However, from the patients’ perspective (which we are more concerned of at this point), it is viewed more in term of the burden for accessing HIV testing (which is a result of logistical barrier). Thus, we feel it is more correct to retain the term burden as how the patients perceived it.

• Methods: if the HIV prevalence among TB patients is know it should be provided in the paragraph describing HIV prevalence in different settings.

HIV prevalence has been added in Method, Study Design, Paragraph 1 as follow:

“Out of 1269 TB patients whom were offered unlinked anonymous testing during the survey, 989 (77.9%) accepted. HIV prevalence was 1.9% (95% CI 1.6-2.2%).”

• In the methods section it would be useful to describe briefly the VCT process. Are rapid HIV tests used? Explain why patients have to come back the next day for results.
The VCT process is now elaborated in Method, Study Context, Paragraph 2 as follow:

“The standard procedure in these VCT services, in accordance to WHO guideline for setting with HIV prevalence ≤ 10%, requires three HIV test (two rapid and one Enzyme Immunoassays test). Patients would have to return the next day to obtain all three test results.”

- I suggest providing more detail on how nurses were selected to participate in the FGDs and how many nurses were included in each FGD.

Details have been added in Method, Study design, Paragraph 4 as follow:

“We investigated nurses’ perceptions through four Focus-Group Discussions (FGDs) sampling the different health facility types: (1) urban health centres; (2) rural health centres; (3) private hospitals; and (4) public hospitals and chest clinics. Within each group, we purposively selected nurses who were most involved in the offering HIV testing among TB patients and represented facilities with variation of patients’ interest rate toward HIV testing. Each group consisted of eight to nine nurses.”

- Results: Greater detail should be provided on the demographics of the TB patients, e.g. median age and range, % (n/N) with secondary education etc.

We have now described quantitatively patient characteristics in Table 1 and introduced it on Result, Paragraph 1 as follow:

“Table 1 presents the characteristics of the interviewed patients’ for the four categories.”

- Discussion: It should be noted early on that Indonesia is a low HIV prevalence setting.

This is now stated in Introduction, Paragraph 1 as follow:

“The rapid increase of new HIV infections in Indonesia makes the epidemic one of the fastest growing in Asia, even though the aggregate national prevalence is as low as 0.16% [3].”

- The sentence on knowledge of HIV among the general population in the US and pregnant women in Hong Kong being predictive of HIV testing is unclear. I assume what is meant is that poor knowledge of HIV is associated with poor uptake of VCT.

The sentence has been revised accordingly in Discussion, Knowledge, as follow:

“Poor knowledge of HIV among the general population in the US and pregnant women in Hong Kong is associated with poor uptake of HIV testing [14,22].”

- I suggest adding to the conclusion that the logistical barriers to VCT can be overcome by offering HIV testing at DOTS sites using rapid HIV tests that can provide results on the same day.

This suggestion has been incorporated into the Conclusion as follow:
“If the Ministry of Health intends to move forward with linked confidential HIV testing among TB patients through VCT, provider’s and patient’s knowledge need to be improved simultaneously, and the general healthcare system strengthened by providing the necessary conditions for effective communication and patient-provider interaction and offer HIV testing at potential DOTS services that can provide results on the same day.”

Discretionary revisions

None

Level of interest: An article of importance in its field

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

Reviewer 4: Douglas Wilson

Comment:

This study evaluates barriers to HIV testing in TB patients in Jogjakarta province, Java. This is highly relevant as knowledge of HIV status is an essential component of HIV public health control programmes. The WHO’s DOTS programme has not succeeded in containing the TB epidemic in high HIV prevalence countries, and data from this study could inform prevention programmes.

However, the data presented consists largely of selected qualitative responses from participants of the in-depth interview. There is almost no quantitative data to put the important responses elicited in perspective.

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

Suggested revisions:

1/ Important data that would put the responses in context:
# Number of TB patients approached
# Number offered VCT
# Number and percentage who accepted
# Of those who accepted VCT the number who completed the in-depth interview
# Of those who completed the interview what percentage were HIV sero-positive, and what was the distribution of age, gender and social status?

The suggested revisions have been addressed by providing a schematic distribution of patient flow in Figure 1 which is introduced in Method, study design paragraph 3 as follow:

“Among 1269 patients offered unlinked anonymous testing and VCT service during the parallel survey, 764 accepted to be interviewed. Figure 1 presents the distribution of these consenting patients by the 4 patient categories.”
We have now described also quantitatively patient characteristics in Table 1 and introduced it on Result, Paragraph 1 as follow:

“Table 1 presents the characteristics of the interviewed patients’ for the four categories.”

2/ How were the individuals selected for the in-depth interview?

The selection process is now described in Method, Study design, Paragraph 2:

“We grouped the patients who accepted into four groups: (1) patients who refused unlinked anonymous testing and expressed no interest in VCT; (2) patients who accepted unlinked anonymous testing and expressed no interest in VCT; (3) patients who expressed interest, but did not attend VCT; and (4) patients who attended VCT. Among 1269 patients offered unlinked anonymous testing and VCT service during the parallel survey, 764 accepted to be interviewed. Figure 1 presents the distribution of these consenting patients by the 4 patient categories. We aimed to purposively sample eight patients within each group, keeping in mind the type of health facility attended and additionally age, gender, education and urban/rural residency.”

3/ Of those who responded to the in-depth interview:

# Were recurring themes identified, and in what percentage of participants?

We have now provided descriptions of the recurring themes identified in Table 2 and Table 3. and introduced them in text as follow:

Results, Factors influencing patients’ interests in VCT, Paragraph 4:

“Table 2 summarizes relations between main patients’ perceptions, fear and VCT interest. Many patients (16) did not report to perceive themselves at risk, or simply did not know enough to attribute risk (10):”

And, Results, Nurses’ perceptions, Paragraph 1:

“Table 3 depicts the distribution of main issues perceived by nurses across different type of health facilities. Most nurses considered their knowledge of HIV-TB insufficient: “

4/ The authors mention that the study was conducted as part of a larger HIV prevalence survey in TB patients - it would be helpful to first publish this study to put the present study in context.

The prevalence survey has by now been published:


And this publication is now cited in Method, Study design paragraph 1:

“Out of 1269 TB patients whom were offered unlinked anonymous testing during the survey, 989 (77.9%) accepted [17]. The HIV prevalence was 1.9% (95% CI 1.6-2.2%) [17]. Out of
these 989 patients, 133 (13.4%) expressed interest in VCT but only 52 (39.1%) subsequently attended VCT.”

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

None

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

None

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

**Quality of written English:** Acceptable