**Author's response to reviews**

**Title:** Evaluating the efficacy of tuberculosis Advocacy, Communication and Social Mobilization (ACSM) activities in Pakistan: A cross-sectional study

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**Author's response to reviews:** see over
Reviewer's report

Title: Evaluating the efficacy of tuberculosis Advocacy, Communication and Social Mobilisation (ACSM) activities in Pakistan: A cross-sectional study

Version: 2 Date: 21 April 2013
Reviewer: Balaji Naik

Congratulations on the work done by the team on this neglected area of ACSM in TB control.

Following are few comments for your consideration.

Background –
- As the TB programmes are looking towards “Universal Access”, you can do away with the 70-85 targets which are not given much importance now.

Thank you for this valuable feedback. We have amended the statement to reflect these changes.

“As such, ACSM activities are an important and necessary step in achieving universal access to high quality care for those suffering with TB [4]”


- The program was conducted in 57 districts across 4 provinces. It would help if you briefly describe the total number of provinces and districts in Pakistan and the locations of these selected 57 districts and how they are spread out geographically (map would be great).

Thank you for this feedback. We have amended the manuscript to include a list of the provinces from where data was collected. To save room, we included this in-text.

“Using systematic random sampling, 43 urban and 74 rural union councils were selected from across five provinces: Punjab, Azad Jammu and Kashmir, Khyber Pakhtunkhwa, Sindh, and Balochistan”.

Methods –
- Who conducted the actual survey on ground?
- Briefly describe the human resource used to administer the questionnaire,

To address these issues, we have added a paragraph about how the questionnaire was administered on the ground.

“Administration of the survey instrument was undertaken by a total of 112 enumerators under the guidance of 16 supervisors. All fieldworkers underwent extensive training which included a background briefing on the project and its objectives as well as information about the range of ACSM activities undertaken during the preceding programing period. Time was also allocated to ‘workshop’ the survey instrument in order to identify potentially ambiguous wording and to ensure that all item skips were clearly understood and that the fieldworkers understood the protocols for employing and recording item probes. All instructions were recorded in an easy to
follow fieldworker guide. Finally, mock interviews and in-field pilot testing were undertaken prior to the actual fieldwork.”

roughly how much time (average) did the interviewer spend with each respondent. It would help for readers and researchers who would like to emulate similar research in their settings.
Whilst we know that the average time need to administer the survey during field testing was 20-25 minutes, the actual length of time each enumerator spent with each respondent was not entered into the dataset. As such, we cannot provide this information.
Discussion

- Any information on the views of policy makers, journalists etc who were sensitized can be added.
The focus on this paper was purely on the empirical data set and evaluates “the public-facing ACSM activities (i.e., the mass media and community-based campaigns” (see p. 5). The detailed views of policy makers and opinion leaders is an important issue that will be best addressed in a detailed paper presenting the results of a thematic analysis of the stakeholder and key beneficiary interviews.

Level of interest: An article of importance in its field
Quality of written English: Acceptable
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
MINOR ESSENTIAL REVISIONS
1. Under 'Knowledge and attitudes related to ACSM campaign awareness' in the 'Discussion' section (3rd para, line 6, pg 11) - add word "providers" after "... and could be provided at home by health workers or other community DOT".

For example, Aware Media & Community were more likely than either Aware Media or Unaware Media & Community to know that TB treatment was available in their community and could be provided at home by health workers or other community DOT providers.

2. Same section (5th para, line 4, pg 12), the sentence "For example, does exposure to a mass media message combined with participation in a community activity have a greater impact on knowledge, attitudes, and behaviors than exposure that is limited to one channel alone?" - suggest removal of the word "a" before "greater". Else, change plurality of "attitudes" and "behaviors" to "attitude" and "behavior".

Again, we appreciate the feedback. The statement has now been amended to read:

For example, does the combination of exposure to a mass media message and participation in a community activity have greater impact on knowledge, attitudes, and behaviors than exposure that is limited to one channel alone?"

DISCRETIONARY REVISIONS
1. Under 'Abstract' (pg 2; 'Results') - suggest deletion or replacement of word "Typically" before "Unaware(subscript - Media&Community)". While this may be typical, it sounds judgmental to use it here.

In general, Unaware Media & Community cases had poorer understanding of TB and its treatment" thus reflecting that the underpinning statistics upon which this statement is made are averages.

2. Under 'Abstract' (pg 2; 'Results') - suggest deletion or replacement of words "Not surprisingly" before "awareness of ACSM...". Same reason as (1.).

The words “not surprisingly” have been removed.

3. Under 'Abstract', key words may include "ACSM".

Thank you for picking up this omission. The term “Advocacy, Communication and Social Mobilization (ACSM) activities” has been included in the key words.

4. Under 'Preferred media channels for TB communication' in the 'Discussion' section (1st para, line 5, pg 13) - suggest change of word "future" before "research is needed..." to "further" or "additional".
We have changed this statement to read
“Given the need for accurate diagnosis and ongoing monitoring of patient health, further research is needed to explore factors that may contribute to this low preference rate.”

5. Under 'Conclusions' (line 3, pg 14) - suggest hyphenation of "ACSM aware" to "ACSM-aware".
This change has been made.

Level of interest: An article of importance in its field
Quality of written English: Acceptable
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests:
I declare that I have no competing interests

REVIEWER THREE
Reviewer's report
Title: Evaluating the efficacy of tuberculosis Advocacy, Communication and Social Mobilisation (ACSM) activities in Pakistan: A cross-sectional study
Version: 2 Date: 16 June 2013
Reviewer: Rajaram S S Potty
Reviewer's report:
A short statistical review of a manuscript that has been submitted for peer review to BMC Public Health titled Evaluating the efficacy of tuberculosis Advocacy, Communication and Social Mobilisation (ACSM) activities in Pakistan: A cross-sectional study by Tahir Turk and colleagues.

Major Compulsory Revisions
Methods
1. The rationale for assigning some of the households as “male” and “female” households should be discussed. Also, it is not clear why the authors have selected males and females from half of the households. Because of this sample design the sample may not be a representative sample of the whole population.

The objective of this survey evaluation was to ensure that an equal number of males (N=1200) and females (N=1200) were sampled so as to address concerns that women in Pakistani culture may be under-represented in survey-based research. In order to ensure that these quotas were met, it was necessary that equal numbers of males and females were interviewed and that they be selected randomly from the available pool of surveyed households. As such, half of the households within each cluster were randomly assigned to be a female interview and the other half were randomly assigned to be a male interview. This process removed the potential for the interviewers to introduce selection bias into the design by deciding which person to interview in each household.
As noted in the manuscript, the designation of a household as either a male or female interview was not done arbitrarily. It was based on a random allocation of households within each cluster. Next, to further increase the representativeness of the sample, within each notional cluster, every fifth household was targeted until a total of 28 households were surveyed from that cluster. In cases where the respondent category was not available within the selected household, the adjacent household was visited. To identify the survey respondent within each targeted household, all eligible persons, regardless of gender, were listed. Then, depending on whether the household had been pre-selected as a ‘female’ or ‘male’ household interview, one individual from the list of household members was selected to take the survey instrument using a Kish grid table.


Results

2. Authors used ANOVA to compare knowledge and attitudes towards TB control across three groups of people according to exposure to advocacy, communication and social mobilization activities in Pakistan. The dependent variable used in the manuscript is measured in Likert scale (ordinal), generally ANOVA is not useful in such situations. It is suggested that other statistical technique such as ordinal logistic regression or multinomial logistic regression may be considered for the analysis.

This is an interesting point and one that has been canvassed extensively in the literature. As noted by Norman (2010), Likert-type scales, such as the ones used to assess knowledge and attitudes, can be appropriately examined using ANOVA and other parametric statistics because these analyses are robust to violations of non-linearity.


3. Table 3 suggests that ACSM awareness varied according to demographic characteristics. So, there is a need to control for these variables while evaluating the effect of ACSM awareness on the knowledge and attitude towards TB control. It is not sure whether the authors controlled for the demographic variables in the analysis while examining the effect of ACSM awareness on the knowledge and attitude towards TB control.

Thank you for this valuable feedback. The results have been re-run using location, gender, and literacy as covariates. The manuscript has been amended to reflect this. (see Table 2 and pp. 8-9).

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