Author’s response to reviews

**Title:** The cost-effectiveness of incentive-based active case finding for tuberculosis (TB) control in the private sector Karachi, Pakistan

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**Author’s response to reviews:**

August 2, 2019

Anete Trajman

BMC Health Services Research

RE: BHSR-D-18-02238R2. The cost-effectiveness of incentive-based active case finding for tuberculosis (TB) control in the private sector Karachi, Pakistan

Dear Anete Trajman,

Thank you very much for giving us another opportunity to resubmit our manuscript titled

“The cost-effectiveness of incentive-based active case finding for tuberculosis (TB) control in the private sector Karachi, Pakistan” to be considered for publication in your journal.
We found the comments raised by the reviewers to be useful and insightful. In accordance with the reviewers’ recommendations, we have revised the manuscript as requested. Additionally, we have responded to reviewer’s comments below in a point-by-point format.

I hope we have been able to respond to all the questions and comments that were raised to the satisfaction of the reviewers. Please let me know if there are any other questions.

Sincerely,

Hamidah Hussain

Editor Comments:

Thank you for revising once more your manuscript with minor issues pointed out by the two reviewers. When submitting, make sure that you change the abstract in the website so that it corresponds to your revised version of the abstract (this was not done in the latest version).

The discussion on private sector ensuring one strategy (ACF with incentives) and public sector ensuring PCF is now clear but for the sake of transparency, please highlight the non-generalizability of your methods and findings for countries where both strategies should be undertaken by the same sector, simultaneously.

Response: Thank you for your comments. The abstract have been updated in the submission.

We have added the following sentence to the discussion in Discussion section where limitations are discussed.

“Our findings may not be non-generalizable to countries where ACF and PCF strategies are undertaken by the same sector simultaneously”.

Reviewer 2: Kátia Marie Simões e Senna

1) The table: Ingredient Costing included as a supplementary table is not required.

Response: This is acknowledged. However, we would request to keep the ingredient costing table as a supplementary table. It is more useful for readers not only to see a statement about the source of the data, but also how the calculations were made.
2) My question was about the source of these items named "primary data" in the Table 1. From where they were extracted.

Response: People screened, tested positive, started on treatment and their outcome probabilities were all collected as part of the study. Each patient was uniquely identified and data were collected for the patient throughout the care cascade. We have changed “primary data” and referenced the supplementary table 1

Reviewer 3: Tom Wingfield:

Overall, the study design, methods, analysis, and write-up are sound and I would like to see this important article published. I only have two points for clarification prior to publication please:

1) I tend to agree with reviewer 1's issue with the "parallel" ACF vs PCF Markov model and analysis. I understand why the authors have opted for this method and think they have done their best to respond to the reviewer's comments and update the analysis. My only concern is with how the parameters for "no case finding" arm were derived. I note the two references from Lancet ID and PLOs One (refs 17 and 34) which are used in this instance. Please can the authors clarify:

a) How was the "no case finding" comparator calculated? By this, I mean is this an estimate of those cases passively found in both the private and the public sector (e.g. all cases in the study district) or just the private OR public sector?

Response: Yes it is the patients passively found in the public sector. We have amended the sentence under Cost effectiveness on page 12 as below.

We treat both public and private systems as independent interventions, and consequently compared both strategies to a common baseline of “no case finding” (patients found passively in the public sector)

b) The authors note that there was no cross over of patients in their study. This seems remarkable given the numbers of patients who routinely seek diagnosis and care across both public and private sectors during their patient journey, especially in the south Asian context. Is this correct and, if so, how was this verified?

Response: As part of the study each patient was enrolled into the electronic data capture system with a unique identifier and demographic information such as name, age, gender, address were collected. If a patient crossed over between the two arms – the electronic data capture system red flagged duplicate entry into the system. This triggered the program team to follow up with the patient and ascertain if the patient was doctor shopping or there were other reasons for the
seeking care elsewhere. If the patient decided to cross over the patient was excluded from the analysis.