Title: Organizational characteristics of HIV/syphilis testing services for men who have sex with men in South China: A social entrepreneurship analysis and implications for creating sustainable service models

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Author's response to reviews: see over
Dear BMC Public Health editors,

Thank you for the helpful comments from the two reviewers that we have used to strengthen this research manuscript. Find attached a tracked changes version, a clean version, and a detailed list of responses to reviewer comments.

Sincerely,

Joseph Tucker on behalf of the authors

Reviewer Comments from Kwame Owusu-Edusei

First, the title is very deceptive. There is nothing in the article that qualifies it to be termed “financial analyses” - there are no numbers/figures representing pecuniary costs and benefits. Second, these analyses focused on HIV and syphilis. Thus, it is not clear why the title used STD. Authors should be specific and use “syphilis” in all applicable places.

Regarding the first point, we agree that the title would be clearer without financial analysis. The title and text of the manuscript has been revised to remove “financial analysis.” At the same time, we are examining financial characteristics as they relate to organizational capacities. Regarding the second point, we also agree that this analysis focused on STDs that have rapid tests available which is currently syphilis and HIV. This point has been clarified in the introduction and throughout the manuscript.

The article is not well organized. Case in point, there was no information on the WTP component in the methods – there was nothing that said “we asked how much participants were willing to pay for x, y or z.” Yet, there are whole paragraphs talking about this in the results section.

We have removed all of the quantitative data from this manuscript, including the willingness to participate data. This streamlines the article and focuses the results on three sections: 1) organizational characteristics of HIV/syphilis test delivery models; 2) financial characteristics of HIV/syphilis test delivery models; and 3) pilot programs to generate revenue for sustainability.

What is the dependent variable for the results found in Table 6? What was the purpose of presenting Table 6? In fact, Table 6 is not even mentioned in the text at all.

Table six is part of the quantitative data that has been removed for greater clarity.

Tables 3 and 4 need some information to make them clearer as stand-alones. What are the codes in the parentheses for - A_01, etc.? What do they mean?

We agree with the reviewer that Tables 3 and 4 need more descriptive titles and footnotes. Both titles have been revised along with the addition of clarifying footnotes. The participant code was retained within the table, but this provides little additional information and has been removed.
Minor comments
Authors should mention the cities where their data came from in the abstract. Again, the methods section in the abstract needs some more information on the methods.

We agree the abstract methods are weak and have expanded this section of the abstract accordingly. We have included the names of the cities – Guangzhou and Hong Kong.

Reviewer: Mary J Rotheram-Borus

1. The topic of this article is exciting and the aims would have led me to want to accept this article and ask for a revision. It is presented so badly that it is not clear if it is possible to make this article live up to its aims. At the very least, the qualitative section needs to be cut off and an attempt has to be made to have a project on that data. While the 1200 person sample of MSM sounds nice, there is no information on the recruitment, the aims, nor are there any data on the social entrepreneurial model that is the focus of this article. This sample is not relevant to the current article or the stated aims of the article.

We agree the combination of qualitative and quantitative data was too far-reaching and have removed the quantitative section in accordance with the reviewer’s suggestion. The qualitative part of the article is focused on three sections that have been renamed as follows: 1) organizational characteristics of HIV/syphilis test delivery models; 2) financial characteristics of HIV/syphilis test delivery models; and 3) pilot programs to generate revenue for sustainability.

2. It is beyond time for social entrepreneurship to be applied to public health problems. There is another major initiative that has acquired significant press in India: the Sonaguchi Project, which was the basis for the Gates-funded Avahan project. The authors do not mention this nor any other social entrepreneurship project for HIV-related topics. It is necessary to include at least mention of previous efforts.

We agree with the reviewer that prior examples of social entrepreneurship for sexual health provide important context. The introduction describes Mechai Viravaidya’s Population Development Association which is a classic social entrepreneurship model. We agree that some parts of Sonagachi employed social marketing (e.g., Piot et al., STI, 2010, PMID 20167732) and have added this example to the introduction section.

3. MSM in China are highly stigmatized. Stigma is so high that many MSM marry, never share their sexual orientation with their family, and would avoid all services that are MSM identified. This article fails to mention the context of MSM in China. This is necessary to understand any qualitative study that aims to examine the potential applicability of a novel idea.

We agree that MSM are highly stigmatized and this directly influences the delivery of HIV/syphilis test services. A large portion of MSM marry, have a child, and do not disclose their sexual orientation to friends, family, or physicians. Two sentences supported by two references have been added to the MSM context section for further detail.

4. There are many unnecessary tables and the concept is never clearly defined nor justified in any way. There is a vague reference to a lack of government funding for HIV/STD testing. This cannot be a vague reference, if the authors aim to support their model. However, this point is not relevant to the exploration of a social entrepreneurial model. CBO are not a typical strategy for any topical area
in China – this is not specific to MSM. If anything, the high risk of HIV has gotten
the government to support CBO for MSM, while there are few other topic areas in
which there are any CBO. Again, for a qualitative study, all context is missing.

We agree that there were several unnecessary tables and have deleted Table 2, Table 5,
Table 6, and Supplementary Figure 1. We agree with the reviewer that the Chinese
government has allocated substantial resources towards HIV test promotion, including
resources for nongovernmental organizations. However, this kind of relationship whereby
CBOs receive money from the local CDC for each individual tested for HIV (and also for
each HIV case identified) creates a culture of dependency. We agree with the reviewer that
context is essential have added more context in the introduction and discussion about the
funding streams for CBOs in China.

5. There is never any rationale provided for the model of sexual health. Table 1
provides no additional information beyond the name of the core value. Table 2 is
unclear and, again, unclear how or why it is included. Table 3 destroys the
argument of the article. This table provides an analysis of each site from which
participants were recruited. This describes the advantages and disadvantages of
each site. This makes it clear that each site is idiosyncratic and unlikely to be
generalizable. Table 4 starts to address the topic of the article. However, the
content and the usefulness of the presentation are doubtful. This is the core of
any article which could come from these data.

The rationale for considering SESH approaches are outlined in the introduction and a longer
article (Tucker et al., PLoS Medicine, PMID 22815654) referenced in the introduction. The
rationale is that SESH approaches could make CBO services less reliant on external support
and more responsive to the communities they serve (Tucker et al., PLoS Medicine, PMID
22815654). Table 1 provides the name of the core value and some key questions that could
be used to assess each core value. These central concepts anchor SESH and are important
to articulate, especially given that the model is new. Table 2 has been deleted and Tables 3
and 4 have been revised for greater clarity. Table 3 is important because there is substantial
heterogeneity in the landscape of providing HIV/syphilis testing services. We would not want
the reader to think that social entrepreneurship models could serve as a replacement for all
current existing testing efforts, nor are they a panacea for expanding HIV testing to fully
reach needed levels. Rather, social entrepreneurship represent one realm of testing models
that could provide self-sustaining HIV and syphilis testing to a significant portion of China’s
MSM who might not otherwise attend more traditional testing sites. Social entrepreneurship
models are subject to the advantages and disadvantages of the local context and Table 3
highlights this important point. We have added a sentence in the discussion to highlight this
point as well.

6. Table 5 is out of order and does not suggest how this relates to the goal of the
article. The sole use of the quantitative sample appears to be to show that MSM
in China are at high risk for HIV. This is already well known. Figure 1 and the
price points that MSM report they are willing to send are the focus of this article
and the data that people would want to see.

We agree the manuscript is stronger without the quantitative part and have deleted Table 5
accordingly. The supplementary Figure 1 has also been removed.

7. If the authors focus on the central point in the abstract – whether MSM in
China will pay for HIV/STD services and CBO can generate a business that may
sustain their organizations, they are likely to be able to present the information in
a brief summary with one table and about 1500 words.
We agree that the capacity for local CBOs to generate a social entrepreneurship model is critical to the manuscript. We have used this as a focus for the revised manuscript, including all of the qualitative data that supports this point. There are several problems with the quantitative data that have been pointed out by both reviewers and so the quantitative data has been removed.

8. It is clear that the article is not acceptable and questionable whether there is any information which could live up to the promise in the abstract or the aims of the project.

We agree that the manuscript needed to be reframed for greater clarity. We have added greater context, removed all the quantitative data, and expanded the discussion section.