Reviewer’s report

Title: The effect of a community health worker intervention on public satisfaction: evidence from an unregistered outcome in a cluster-randomized controlled trial in Dar es Salaam, Tanzania

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Reviewer: Onyema Ajuebor

Overview’s report:

Overview: The aim of the paper as reflected in the background conflicts with the method of approach and the result therefore is not be sufficient to draw the conclusion that CHW programmes in themselves can lead to public satisfaction with the health system. Secondly and assuming that all bias is overlooked, a more appropriate conclusion will shift the emphasis to maternal health services provided by CHWs rather than CHWs in general themselves.

Abstract and general comments: Randomised controlled trials are designed to answer specific primary and secondary outcome measures. There is no reference to public satisfaction among the documented outcomes measures in the original registry file (NCT01932138). This paper is a post-trial survey that attempts to answer a different research question from the original trial itself and therefore is misleading if published as a trial in itself. The original trial (see reference above) had 190,530 participants compared to the 2,329 women who participated in the survey.

The paper needs to be clearer on whether it is examining public satisfaction based on the services provided by the selected CHWs or pre-existing CHWs contracted by the public health systems (It is mentioned somewhere in the paper that a CHW structure already existed).

The insinuation that people who are "not using care" do not do so because they are "most likely to be dissatisfied" with the current health system is simplistic. For example, could it be that some may already appreciate the public services but are unable to access it due to financial, ignorance/lack of knowledge reasons? In general, the tendency is for individuals to expect better from learned or experienced professionals than from other health workers less so trained (CHWs in this case) to provide the same service. As such, the level of satisfaction attributed to CHW interventions may be amplified due to this factor. For example what is the current measure of public satisfaction in services provided by higher level cadres? More is likely to be expected from them for the same type of service.

Methodology: The paper reports the percentage increase in public satisfaction but does not mention anywhere that a baseline measure of public satisfaction was obtained. The y-axis of figure 2 reports percentage changes but also goes without a label.

It is a generalization to assume that outreach services on maternal and child health and targeted predominantly or exclusively at women will provide a complete assessment that could equate to general satisfaction with the wider health systems.
The study outcome is itself very heavily biased by the fact that CHWs were the ones extracting and recording the survey data even if they were sent to unfamiliar locations. An analogy for example can be to send police officers to provide security interventions and then ask the same recipients about their level of satisfaction with public security. The tendency will be for participants to report favourable outcomes to the collectors. The data collectors (CHWs as in the case of this study) could also bias participants towards reporting favourably in their interests especially if the outcomes would portray them in a better light.

Result: In table 2: Suggest adding the term "satisfaction with community health workers services" and possibly, "satisfaction with public health system services". Depending on the study aim, providing this specificity will help clarify exactly what you are trying to compare. Satisfaction with health systems services in general or satisfaction with public providers of health services whether CHWs or higher level health workers?

Discussion: It is difficult to see the critical link between "improved levels of satisfaction" and public health systems other than the CHW visits/interventions which many previous studies have already established. The "multiple pathways" as described for public health system satisfaction currently indicate elements that CHWs have traditionally discharged e.g. patient education as part of their routine activities.

Conclusion: A stronger argument that concretely ties the link of CHW interventions to improved public satisfaction needs to be put forward in the context of a study design that can answer the research question.

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