Reviewer’s report

Title: Strengthening and measuring research impact in global health: lessons from applying the FAIT framework

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Reviewer: Robyn Newson

Reviewer's report:

This paper deals with two understudied areas in the literature - research impact assessment in LMICs and economic impact assessment - aggregating research benefits to provide a monetized estimate of the impact across populations. The authors describe the application of FAIT as a method for assessing impact in two LMIC- based health research projects, with the intention of assessing its applicability, strengths/limitations and making recommendations for further use. While well written overall, the paper could be improved by addressing the following points.

1) The authors found that the sections of FAIT designed to identify research benefits (domains of benefit and case study) yielded important insights and new knowledge on study impacts. They concluded these aspects of FAIT were feasible and useful to implement retrospectively. However, this part of the assessment process is not novel. The authors do not describe how FAIT differs from other similar frameworks identifying different categories of benefit. Other methods may have yielded the same results if applied to the projects in question. The advantages of FAIT compared to other models and impact assessment tools is not clear and should be clarified. The reader is not left with a clear view about why FAIT should be used.

2) The authors suggest that FAIT would yield greater benefits if applied prospectively. The paper would benefit from a more concrete explanation of how prospective application of the FAIT framework would yield greater benefits, in reference to the case studies provided, rather than the discussion about program logic models and links to examples in the additional file.

3) The examples the authors use to test the application of the FAIT framework are both implementation research projects where benefits can be modelled in terms of health gains/avoided morbidity. The authors state the framework can be applied to a range of research methods including qualitative studies, but it is not clear what an assessment of the cost-benefits of a qualitative study would look like e.g. where the aim of the study was to change perceptions or understanding of an issue amongst decision-makers for example. It would be useful for a range of research types to be included to support the
claim that FAIT is useful and can be applied in LMIC contexts or for this limitation to be acknowledged by the authors.

4) While including an analysis of economic impact is novel, the social return on investment section of the Impact Scorecard is confusing in the context of the retrospective impact assessment applied in this case. The social return on investment section reports 'potential' economic benefits rather than the actual return on investment that had been achieved at the time of assessment. This was different from the rest of the scorecard, where only benefits that had already occurred were reported. This inconsistency made the paper somewhat disjointed and confusing to read. It makes sense to estimate the value of the research interventions to inform a business case for implementation more widely, as the authors have stated on p12. However, the purpose of this analysis in the context of a retrospectively assessing the impact of these projects was not clear and could be better explained. Is this section of the scorecard designed to be used as an advocacy tool to encourage translation? Is it designed to show how return on investment could be calculated if the research was adopted widely? How is this section utilised where a prospective assessment is completed?

5) The authors discuss many challenges associated with data gaps to complete cost-benefit analyses in LMICs. In one of the examples provided the cost-benefit section of FAIT could not be completed. Yet the authors conclude that the FAIT can be applied to research projects in LMICs. This conclusion needs more clarification than is currently provided. Further application of FAIT would require system level change in LMICs.

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