Strengthening the Methodologic Rigor of Cost-Effectiveness Studies in Global Surgery

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Efforts to improve surgical care globally have been hampered by the misperception that such care is too expensive. In the 1990s and early 2000s, several studies began to change this misperception by showing that several specific procedures (e.g., cataract surgery), as well as most surgical care at first-level hospitals, were eminently cost-effective and affordable in almost all locations, even in the poorest countries [1–3]. These early studies were important in advocacy to promote increased attention to surgical care globally.

The foundation created by these earlier studies and a recognition of their impact have led to an increased number of cost-effectiveness studies in global surgery. This is definitely an important development. However, some of these studies have been of variable methodologic quality. This has led to confusion, with at times widely differing results, diminishing the utility of these studies for advocacy.

In order to strengthen the methodologic rigor of cost-effectiveness studies in global surgery, Shrime et al. [4] have published “Cost-effectiveness in global surgery: pearls, pitfalls, and a checklist.” In this article, the authors briefly review the field of cost-effectiveness studies in global surgery, indicating some of the problems that have arisen. They then provide guidance for future studies on how to measure cost (including adjusting for different currencies and different time periods), how to assess effectiveness (including use of disability weights), if and when to use discounting, and use of probability estimation.

World Journal of Surgery calls upon authors who undertake cost-effectiveness research in global surgery (and especially those who plan to submit their work to WJS) to review the methodologic points brought out by Shrime et al. when they develop, conduct, and write up their studies. *World Journal of Surgery* also will now require completion of the checklist contained in Shrime et al.’s article at the time of submission of cost-effectiveness studies. If the authors feel another, existing, checklist is more suitable for their particular study, they may use that checklist. In all cases of cost-effectiveness studies, the checklist used should be stated in the cover letter and the completed checklist should be attached.

We hope that the increased attention to methodologic rigor in cost-effectiveness studies will strengthen this component of global surgery and thus provide a more solid foundation for related advocacy.

References

1. Gosselin RA, Thind A, Bellardinelli A (2006) Cost/DALY averted in a small hospital in Sierra Leone: what is the relative contribution of different services? *World J Surg* 30:505–511. doi:[10.1007/s00268-005-0609-5](https://doi.org/10.1007/s00268-005-0609-5)
2. Marseille E (1996) Cost-effectiveness of cataract surgery in a public health eye care programme in Nepal. *Bull World Health Organ* 74:319–324
3. McCord C, Chowdhury Q (2003) A cost effective small hospital in Bangladesh: what it can mean for emergency obstetric care. *Int J Gynaecol Obstet* 81:83–92
4. Shrime MG, Alkire BC, Grimes C, Chao TE, Poenaru D, Verguet S (2017) Cost-effectiveness in global surgery: pearls, pitfalls, and a checklist. *World J Surg*. doi:[10.1007/s00268-017-3875-0](https://doi.org/10.1007/s00268-017-3875-0)

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