Review for BMC Ophthalmology
“Community ophthalmology in rural Nepal: a cost-effectiveness study.”
Kandel et al.
Date: July 14, 2009

Summary
The authors have conducted a study of the cost-effectiveness of a change in methods for recruitment of patients for their cataract service. This is an excellent concept for a paper, however, there needs to be considerable clarification of the research question and some changes to the methods to improve the precision of estimate. More importantly, we are concerned that the accounting system of the provider of care may not provide the necessary data to conduct these analyses.

Major Issues
In conducting an economic evaluation (and that is what this is...) the investigator must begin by stating clearly the perspective of the analysis. The way in which the costs and benefits are estimated are determined by this perspective. Although not stated, it seems apparent that the perspective in these analyses was that of the provider of care (i.e., BGH). That being the case, the costs (and revenues) that were involved in the ophthalmology camp program must be fully inventoried from that perspective.

The next issue is what is the actual research question? Are we concerned with the impact of reducing the number of camps nearby? Or reducing the number of people from these camps who receive free cataract surgery? Certainly, the latter was the result of the policy change, but it certainly was not the change made. The policy change was to close the nearby camps...and thus not only reducing the number of surgeries performed, but also the volume of other services (i.e., simple vision correction, provision of glasses, etc.) along with the costs and benefit (revenue) of those services.

This being the case, the loss of these revenues (and reduction) in costs must be considered along with the reduced cost of obtaining cataract patients. This brings us to the second point. It is somewhat confusing to determine the proper data to be presented. Ideally, the cost-benefit analysis to be conducted is the net profit of the hospital from the baseline year to the intervention year. If that is higher in the
current year from previous year, you can make the argument that the new program resulted in reduced costs that increased hospital profit. But before doing this, we must determine what services are truly impacted by camps. For instance, perhaps administrative departments would not be affected by the camps, therefore changes here would not be considered to be incremental costs, and they should be removed from the calculation. But the authors basically tell us that the hospital does not have a cost-accounting system that allows such segmentation of costs and revenue. If that is the case, it must be considered whether this effort is even feasible (and unbiased). An example of the problems this creates is seen in Table 5. Here the authors provide revenue estimates all in round figures. Are we to believe that optical shop sales during the period were in fact exactly 1.4 million rupees? And that is this is a rounded figure, that estimates of less than 90,000 rupees are irrelevant? This hardly seems to be likely. More likely these estimates represent someone’s “best guess” of the revenues generated by these services, along with the profit margins. This being the case, we are deeply concerned about the feasibility of this effort.

Minor Issues

The authors make reference to using “incremental” versus “economic” costs. I am not sure what this means. Incremental costs in the context might refer to the costs that are specific to the camp operation, but there is not discussion in the article about how these were determined. I am not sure what “economic” costs refer to.

In Table 1, the authors detail here the ages of the people receiving cataract surgery. It seems clear to this observer that the new sample is considerably younger than the old one. This is not acknowledged in the body of the article---quite the contrary, the authors’ claim that the new sample is similar to the old one. What seems to have happened is that older people from nearby who cannot afford the surgery (or needed the free transportation to get to the hospital) choose not to receive it. The authors should conduct a statistical test to evaluate the significance of this change in distribution. If it does exist, they should acknowledge it, and discuss its importance in the community.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'