Reviewer's report

Title: The development of a public optometry system in Mozambique: a Cost Benefit Analysis

Version: 1 Date: 1 May 2014

Reviewer: Kevin Frick

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Major Compulsory Changes

(1) Not really a single human capital technique. So, I would not refer to it as “the human capital technique.” I would refer to using a human capital approach to valuing sight.

(2) Talking about the productivity as if it will emerge with certainty is a bit strong. For individuals whose refractive error is corrected to become economically productive there needs to be an economic ecosystem with economic opportunity or entrepreneurial opportunity for all so that we can assume that the person will get a new job and will not simply be taking an employment opportunity away from someone else.

(3) There are a variety of opinions in the literature about the use of PPP adjustments. At this point, if the PPP adjustment is used then the authors should refer to international dollars rather than US dollars. However, I would recommend leaving the PPP adjustment alone and just using US dollars. A recent news report suggesting that the Chinese economy is “bigger” than the US economy when adjusting for PPP makes the difficulty of interpreting PPP very clear. Given the international purchases for equipment, this would be another reason to stick with non-PPP adjusted US dollars.

(5) The assumption of optometrists providing 15 corrections per day should probably state that it is 15 corrections of individuals who are potentially economically productive rather than 15 who are economically productive. Two things to consider. First, the age group is not defined? Second, while the authors are careful to adjust their figures to account or less than 100% labor force participation and more than 0% unemployment, there is still no guarantee that someone whose URE is corrected would instantly become economically productive.

(6) Four years is a long time to assume that spectacles will remain effective. Is there any data to support this spectacle useful lifetime? Does this account for loss and breakage? What about damaged but not broken? Diminishing effectiveness is assumed but what if the trajectory is incorrect?

(7) Are we going to assume that people who are new to spectacles will wear them every day? This is implied? Are there data to support?
(8) If we don’t have good data on the useful spectacle lifetime or the proportion of
days used, perhaps the authors could do a sensitivity (what if?) analysis to check
on combinations of useful spectacle lifetime and proportion of days of use to yield
a positive net benefit.

Minor Compulsory Changes
(1) Why do management costs drop to 1/3 of the per annum rate after the first six
years? And how does the phrase “to generously reflect on-going support from the
partners” fit in?

(2) The Vision Centre costs include setup, human resources, and overhead.
What about upkeep?

Discretionary Changes
(1) It would be useful to see the undiscounted benefits at some point just to have
a point of reference for assessing whether the impact of the 3% discount rate is
as expected.

(2) The net benefit amount is more useful than the benefit cost ratio. The other
interesting calculation would be an internal rate of return.

(3) Perhaps I missed it but it would also be useful if the authors could report the
number of years to reach a positive overall net benefit.

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 have worked with members of this group.