

## Peer Review File

Article information: <http://dx.doi.org/10.21037/jhmhp-20-63>

**Reviewer A:** Given the focus on equity, I would encourage the authors to expand on key factors that can influence utilization. For instance, financial access to health services could explain differences in utilization; similarly, morbidity and health seeking behaviors of different groups (wealth quintiles) could be presented to understand differences in needs. There are other published papers, looking at equity in utilization, that are controlling for needs. This is something you may want to consider.

**Comment 1:** I would also suggest explaining more what private facilities entail. Is it a diverse group of facilities, from low to high end? How expensive are they (and therefore how likely would the poor be seeking care from those facilities)?

**Reply 2:** The following text added:

Private health facilities comprise various categories from doctors' offices to complex hospitals. However, ability to pay decides on who will receive the services from the private sector, anecdotes suggest that those not financially privileged incur catastrophic health spending when accessing services. The NHA also suggest that approximately 14 percent of the population has been pushed into poverty due to out of pocket spending at the point of service.

**Comment 2:** Finally, the paper shows the tremendous progress made by Afghanistan to increase access to public health services and the resulting positive impact on health outcome. As results presented in the paper show that utilization of health services in the public sector is rather equitable, I would recommend discussing why this is not enough (e.g. quality issue, waiting time...). Theoretically, it should not be a problem if the richest use more private facilities (if the difference is more in terms of comfort, convenience, etc.) if the poorest can use quality public health services, according to their needs and without risk of impoverishment.

**Reply 2:** We agree that equitable health service delivery by the public sector hospitals is something that we aim to achieve; however, the current utilization pattern is rather equal (or slightly in favor of the poor) which does not seem to be equitable which is the aim of public health financing and provision. Also added (Since majority of out of pocket payment made in 2017 is on medicine and diagnostics, maintaining sufficient stock of medicine in public health facilities is paramount in improving equity.)

**Reviewer B:** Thank you for the opportunity to review the manuscript. A very well thought out piece with important evidence on equity in health care.

**Comment 1:** Main comment: The methods and results are very well presented. There is need to strengthen the discussion section: i) Bring out arguments why marriage status leads to a statistically significant difference in use utilization of out-patient care. ii) Health care utilization among people with no education was higher than people with some education, a somewhat unusual finding. iii) discuss all factors associated with in-patient care utilization (age, male, marriage urban etc). At present the discussion section covers a few select issues only.

**Reply 1:** Contrary to our expectation, those with no education used more healthcare as compared wo those with some education. This might be due to the fact that majority in the sample has no education. Also important to note that there might be little difference in level of education between these two categories. Other important factor in healthcare utilization by those with no education can be those with no education be relatively poor as well. Therefore, chances are they become ill more often and use services at a higher frequency. Public and private outpatient and inpatient care utilization follows a “U” shape pattern. That is the utilization is higher among the age group of 1-10, which might be due to the still higher prevalence of infectious disease among children, followed with lower utilization among the age group of 11-20, and continuous increase of utilization as people get older. The last is consistent with the patter of healthcare utilization elsewhere in the world as with the increase in age as we grow old we are more likely to develop chronic diseases as a result of which our healthcare need increases.

**Comment 2:** In the discussion section and in the conclusion, please discuss why despite health care is provided free of charge, wealth status plays a factor in utilization of care. In the recommendation, it is important to discuss demand-side interventions to address socio-cultural barriers.

**Reply 2:** In the text added that in public health facilities specially in hospitals there is frequent shortage of medicine and diagnostic materials; therefore, things are not free as such and people has to incur out of pocket spending. Elaborated in the text.

Added: Also important is to make all efforts to address demand side factors such as socio-cultural barriers to obtaining services when planning expansions.

**Comment 3:** Sentences 95-100: Please indicate that you carried out secondary analysis on the ALCS data set. What was the sample size used for the analysis, did they use the whole dataset used.

**Reply 3:** Since this is a secondary data analysis, the sample size is that of ALCS data set which is indicated as 21,000 households and 150,000 persons.

**Comment 4:** Sentences 104 -111: While household consumption can be used for wealth indexing, I would like to understand if there was any weighting in done in calculating the wealth index. I presume the data on consumption was collected at a household level and not at per capita consumption. Given that the whole analysis looks at the individuals, there was need of using an equivalence scale so that the wealth index can be used at an individual level.

**Reply 4:** It is clearly addressed in the measurement of wealth status under the methodology. As indicated necessary adjustment is made.

**Comment 5:** Measurement of Utilization of Health Care Services: The assumption here is someone who did not make any outpatient/inpatient visit was due to lack of access not due to need to access i.e. people who persevered themselves healthy and not in need of visiting the hospitals would also fall under the 0 category (despite their wealth status and all other socioeconomic attributes).

There maybe need to find a sub-sample of people who had not felt well (i.e. a group that were supposed to utilize health services e.g. amongst women these that were pregnant women in the last year prior the survey). Did the survey assess health status and need to seek health services? If so, those who reported having some illness may be the subcategory needed for the analysis since healthy people may not find the need to use health care services.

**Reply 5:** in the study people were asked whether he or she got sick over a period of time prior to the survey and whether they have access healthcare. We assume the healthy should remain out of this.

**Comment 6:** Sentences 133-145: You may need to take into consideration total number of years spent in education and recategorize as those who spent less years in formal schools may be part of the no education. This may also help explain results on education.

**Reply 6:** less years in formal education is already categorized as those with some education. The only problem is with the traditional education in religious schools which usually remains unreported depending on how you prepare questions

wordings.

**Comment 7:** Table 1 on demographic characteristic is missing disaggregation by sex. Is that not captured in the dataset?

**Reply 7:** The data set allows disaggregation by sex. In the sample 51.21% was male and 48.79% was female.

**Comment 8:** Education and Use of Outpatient Care: You may want to relook controlling for the inter-relatedness between education and wealth.

**Reply 8:** Our initial analysis does not show any interconnectedness between education and wealth status. However, the result seems strange, in the countries like Afghanistan where majority work in the informal sector and the private businesses does not require you to have certain level of education this may be taken at no surprise.