Author’s response to reviews

Title: Access to Eye Health Services among Indigenous Australians: an Area Level Analysis

Authors:

Margaret Kelaher (mkelaher@unimelb.edu.au)
Angeline Ferdinand (afer@unimelb.edu.au)
Hugh Taylor (mkelaher@unimelb.edu.au)

Version: 3 Date: 25 March 2012

Author’s response to reviews: see over
We would like to thank the editors and the reviewers for their useful comments. The paper is much improved following their suggestions. A point by point description of the changes is listed below.

Referee 1:

Limitations of ecological assessments (as regards the risk of ecological fallacy) should have been addressed in the Discussion.

*This has been addressed (page 11).*

I may be getting old and neurasthenic; I found disgusting that you stated that Australia is a developed country and compared some health statistics between Australian areas and WHO guidelines for Africa. *We agree that it is disgusting that the care provided to Indigenous people in Australia is worse than might be expected in a developing country and if this is the reviewer’s point we agree. We made this comparison to highlight this point. We also compare data from the different areas to the Australian national average for additional context. This has been made clearer in the text (page 7).*

Please inform how remoteness and the socioeconomic indices for areas have been assessed. *Additional explanation has been added (page 7).*

Please clarify for the international reader the codes that you have indicated throughout the text: AIWH, ACT, AN-DRG, C16A, C16B, 10900, 10918, and so on. *The acronyms and codes used have been clarified (pages 5-7).*

Referee 2:

WHO guidelines may not be known to every reader and should be briefly described (targets, etc.). *The guidelines have been described (page 7).*

The authors mention that self-reported barriers to eye healthcare were assessed in the NIEHS, but are not further described in the report. Please add some information as to what the most important barriers were and how this relates to the results presented. *Discussion around the NIEHS data has been added (page 11).*

Generally, the fact that the proportion of indigenous population in any region could be seen as a proxy for remoteness and or low socio-economic status is only mentioned briefly. How was this (collinearity?) addressed in the analyses? Are there other studies which have looked at this in more detail which allow the authors to not assume that this is a confounder? Additionally, it merits further discussion.

*The analyses were run adjusting for age, remoteness and area socioeconomic advantage, disadvantage and occupational and educational status. This is stated in the analysis section (page 7).*
The categories “low medium” and “high medium” are a little bit confusing. Can these be changed or are there particular reasons the authors have chosen these?

The distribution of the data required division into 4 groups while this is unusual the labels are quite clear if a little clumsy.

Abstract: Results, last sentence: 3% of what?
This has been clarified.

A few typos need correction throughout the manuscript.
These have been corrected.

Referee 3:
1. My concern is the use of word “access” throughout the paper. It seems that the presented data imply to utilization not access. By presented data we can see inequity of eye care utilization not access to it and this is right for title of paper and other part of paper. The only presented information which can imply to access is the distribution of ophthalmologist and optometrists by areas in Australia.
The terms access and utilisation have been changed to be consistent with the recommendations of the reviewer (page 11-12)...

2. The paper shows inequity of eye care utilization by region in Australia and it is indirect evidence regarding the inequity of eye care utilization among Indigenous and non-Indigenous Australians. This should be acknowledged in discussion considering its limitation in cross level inference. I mean this is evidence in aggregate level and does not guarantee the same meaning in the individual level.
This has been addressed (page 11).

3. The conclusion of abstract needs to be more relevant to presented data. The conclusion is general and while the statements are probably right but are not directly based on the presented data. No information has been presented to decide if the disparity in utilization is because of the lack of access or lack of awareness people or it is because of a behavioral barrier. Based on which data do the authors conclude community education might reduce reluctance to seek help? The same problem can be seen in the conclusion statements at the end of discussion.
National Indigenous Eye Health Survey was the source of information about community education. This has been made clearer in the text (page 11).

4. The authors should be a bit more careful about only mentioning things in the discussion that follow from their results. For example they mention in discussion “Broadening the range of health professionals able to obtain reimbursement through Medicare is a key strategy of the reform of the Australian health system [19]. Optometrists were one of the first groups of health professionals other than doctors to be able to access Medicare. These data suggest that this strategy may have reduced the gap in access to services, although it certainly has not closed it.” This might be likely to be true, but nothing in the study demonstrates it.
The study demonstrates very clearly that inequities still exist despite the participation of optometrists in Medicare.

5. The result section of abstract needs to be more precise and numerical findings should be presented.

Numerical findings have been added to the abstract

6. I am not sure if analyses of Eye Health Practitioners are sound enough. Is not a spatial analysis needed to show if there is some sort of clustering to show the disparity between areas. The figure 1 and 2 are not enough informative to show what the authors mean. That is, how can an observer find out the concentrated areas are not the same areas with more people there? The problem of figure 2 is more serious to show what the authors see in it.

The analyses were run adjusting for age, remoteness and area socioeconomic advantage, disadvantage and occupational and educational status. This is stated in the analysis section (page 7). Clustering was also taken into account. The figures show rates of providers by population which enables observers to compare directly between areas with different population sizes.

7. Figure 3 can be deleted because it does no add more to table 1.

It has been deleted.

Minor comments

These have all been addressed.

Referee 4:
The advantages and disadvantages of this ecological study should be addressed in the discussion.

This has been added (page 11).

The paper suffers from a lack of detail and description that makes it confusing and hard to properly evaluate. For example, “the number of practitioners is estimated based on the number of office”. How? By what formula? Who is covered by Medicare data in Australia and who is not? Why was the only year of complete data 2007-2008? Define all acronyms (WA, SEIFA). What is the statistical subdivision? How was remoteness measured? Where does socioeconomic data come from? Clarify the paragraph on the calculation of the national average of cataract surgery, etc.

Amended (pages 5-7).

Your conclusion from Table 3 does not take the age of the populations into account. The cataract surgery rate will be lower in those areas with younger age distributions. Do areas with high rates of Indigenous people have lower age distributions? If so, you must take age into account. In fact, there should be a descriptive table on the level of Indigenous categories (age, gender, SES, etc).
The analyses were run adjusting for age, remoteness and area socioeconomic advantage, disadvantage and occupational and educational status. This is stated in the analysis section (page 7).

The discussion only cites 3 references. More effort is needed to place this work into the context of other research. The limitations of the work need to be addressed in the discussion.

There is very little data on utilisation and access to eye services among Indigenous people and we have reviewed these data. Limitations have been added to page 11.

Trachoma is mentioned in the conclusion although trachoma was not addressed in this paper. This has been removed

It said in the paper that “data from NIEHS on barriers to health service use were analysed to assist in interpreting health service differentials” but I don’t see where you refer to this in the rest of the paper.

This has been clarified (page 11).