Reviewer's report

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

Version: 2 Date: 5 December 2011

Reviewer: Ellen Freeman

Reviewer's report:

The authors are to be commended for working to better understand and remedy inequalities in eye health. However, I have some concerns about the manuscript.

Major Compulsory Revisions

This ecological study is investigating the relationship between the percentage of Indigenous people in Australia and the use of eye health services. Ecological studies can be very useful for exploring hypotheses but they can suffer from the problem of ecological fallacy (i.e. perhaps all the Indigenous people in areas with high proportions of Indigenous had adequate eye health services). Although this is unlikely, an ecological study is a less direct examination of this question than a study in which Indigenous people are directly asked about their use of eye health services and compared to a group of non-Indigenous (i.e. a study such as the National Indigenous Eye Health Survey). The advantages and disadvantages of this ecological study should be addressed in the discussion.

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.

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 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.

Trachoma is mentioned in the conclusion although trachoma was not addressed in this paper.
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.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

No competing interests.