Reviewer's report

Title: The effect of health care system reform on cataract surgery and intraocular lens selection in Chongqing, China

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Reviewer: Ian E Murdoch

Reviewer's report:

The authors address an important and relevant topic concerning uptake and methods of cataract surgery. They present a historical comparison study using consecutive records from 8 hospitals in Chongqing, China. Unfortunately, their methodology and presentation are inadequate in its present form.

1. The summary needs completely rewriting once the paper has been revised.
2. The methods are very inadequately described. The multi-stage cluster sampling is not detailed at all and corrections for cluster sampling are not considered. There are clear inconsistencies in the text eg 'These cases included in this study show sufficient representativeness' in methods vs 'rural under-representation' mentioned in discussion.
3. The limitations of the methodology are given but a passing mention in the discussion section...not enough!
4. The authors leap to a cause and effect conclusion with no measured consideration of other possible reasons. It may well not be medical insurance alone or even at all that is the cause of the observed findings. The other reasons need consideration and exploration within the limits of whatever data is available. It is not my job to delineate all of this but some examples might be:
   a) If prices of surgery were fixed for the entire period (as implied in the methods) inflation would result in a relative reduction of cost for surgery over the period making it more affordable.
   b) Acceptance of surgery could easily increase for other reasons such as improved surgical outcomes
5. I find the insurance statements very confusing to sort out. If medical insurance for the rural populations was introduced in 2003 and only in 2007 for urban populations why were one third of the urban population receiving insurance in 2003? I think this means there are other forms of insurance but the whole thing needs to be made much more clear. Perhaps there is misclassification of rural and urban?

Overall the whole data and paper needs a major reassessment.

Level of interest: An article of importance in its field

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

**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