Reviewer's report

Title: Lipid-lowering pharmacotherapy and socioeconomic status: Atherosclerosis Risk in Communities (ARIC) surveillance study

Version: 2 Date: 1 March 2013

Reviewer: David Shoham

Reviewer's report:

Overall this is a refreshingly short report. However, there are almost no details of the model, and the methods and study population need to be better described.

Major Compulsory Revisions

1. The population needs to be better described. What are the population characteristics? How many MI cases come from each site?

2. Four communities comprise ARIC and they differ markedly by racial composition (one site is predominantly African-American, while a second site has smaller population of African-Americans; the third and fourth communities have few African-Americans, and are also relatively wealthier). Thus, it would be very difficult or impossible to tease apart neighborhood income from race. Yet the statement is made that there was no effect modification by race.

3. The ARIC surveillance survey is ongoing since 1987 (as noted on p.4). Why did the authors only look at 1999-2002?

4. Please report a table showing the results of the Poisson model. How much do race, gender, and income contribute to the results? As is, only the association with neighborhood income are reported.

5. The authors report an odds ratio of low vs. high neighborhood income. How was neighborhood income classified in this way? By tertiles? Were they site-specific? Is there overlap between tertiles by site or race? Why were three categories chosen—why not another definition such as “poverty area”?

6. Was the appropriateness of the Poisson distribution examined? Often data are overdispersed (variance>expected value).

7. The conclusion does not seem to follow from the relatively small PR and confidence interval (including the null value, albeit just barely).

Minor Essential Revisions

1. The authors use the term “odds ratios” but I associate ORs with logistic, not Poisson, regression. On top of this, the figure reports “PR” as the measure of association, and the methods describe prevalence ratios as well. Please clarify.
**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**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.