Reviewer's report

**Title:** Awareness and Management of Chronic Disease, Insurance Status, and Health Professional Shortage Areas in the REasons for Geographic and Racial Differences in Stroke (REGARDS): A Cross-Sectional Study

**Version:** 6 **Date:** 27 January 2012

**Reviewer:** Kiarri Kershaw

**Reviewer's report:**

**Major Compulsory Revisions**

1. Why did you decide to answer your research question by stratifying the data by insurance status instead assessing a HPSA*insurance status interaction for each outcome? Did you test for interactions before stratifying the data? The way the results are presented, it's unclear whether insurance status as an independent variable is associated with awareness, treatment, and control. It seems like it would have been more informative to start by evaluating whether HPSA and insurance status are associated with these outcomes in the entire study population, and then if there are HPSA*insurance status interactions, presenting them the way you did in the Figure for hypertension.

2. It would be helpful to know, either in Table 1 or in the text, the prevalence of awareness, treatment, and control for each outcome by insurance and HPSA. You give overall prevalences in the text, but they don't seem as informative given that you stratified all your results by insurance status.

**Minor Essential Revisions**

3. The Allen NB citation you mention in the Discussion should be added to the end of the first paragraph in the Background section to make it clear that at least one other study has assessed whether HPSAs are associated with awareness and management of these chronic diseases.

4. In the Methods section you should indication how many times blood pressure was measured.

5. In the Methods section you should cite the reference for your designated hyperlipidemia cutpoint of 130 mg/dl

6. In the footnotes for Table 2 you should include what variables the Adjusted models are adjusted for.

7. In the third paragraph, sentence starting with "However,..." you provide a potential explanation for your seemingly paradoxical findings. Is there any literature you can cite to support this statement?

**Discretionary Revisions**
8. In the Methods section of the abstract it is unclear what "complete" means. This is something that is not defined until the Methods section of the actual paper. I think you should write complete HPSA instead.

9. The first paragraph in the background section is too long. I think it would be better to start a new paragraph when you describe the criteria for HPSAs. Also the sentence starting with "Secondly, ..." is hard to follow. It might be best to break it into two sentences.

10. Why do you think hyperlipidemia awareness was so much lower than hypertension or diabetes awareness? I think it would be nice if you could briefly include some possible explanation in the Discussion.

11. In the third paragraph of the Discussion where you compare your results to the Allen NB results, it seems worth mentioning that you only found a difference in awareness of hyperlipidemia among the uninsured. So your results were at least partially consistent with their findings.

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

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