Reviewer's report

Title: Correlating pharmaceutical data with a national health survey as a proxy for estimating rural population health

Version: 1 Date: 13 February 2010

Reviewer: Andy Stergachis

Reviewer's report:

Major Compulsory Revisions:

1. The results section is a mixture of background, methods, results, and discussion and should be revisited so the results section is limited to presentation of results.

2. As noted by another reviewer, the medicines for heart disease and cerebrovascular disease in particular are also used for other indications. This should be addressed and further emphasized at the very least as a limitation. Was the selection of the medicines subject to a medical or pharmacist review?

3. I question the value of including all of the figures.

4. What additional validation studies do the authors recommend?

Minor Essential Revisions:

1. Clarify if this was exploratory or if there were a priori levels of correlation that the authors were seeking.

2. Indicate what percentage of adults receive 3-month supplies of chronic medications then do a sensitivity analysis on its effect on results.

3. The title indicates the study is about rural population health, yet it seems that the study encompasses all U.S. settings. The title should be adjusted accordingly.

4. There are a few misspellings in the manuscript.

5. A better description of the IMS Health, Inc., datasets should be included.

Discretionary Revisions:

1. What is the cost of using the IMS Health, Inc., datasets? This may be of interest should others wish to use this approach.

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

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests.