Reviewer's report

Title: The changing environment of telephone surveys: are telephone surveys viable for collecting information on health

Version: 1 Date: 28 October 2009

Reviewer: Jeanette Ziegenfuss

Reviewer's report:

Thank you for the opportunity to review “The changing environment of telephone surveys: Are telephone surveys viable for collecting information on health.” Generally, I think that this is an important topic and that the authors are right to add to the literature how cell phone use is impacting survey research in Australia. That said, I think that the manuscript overstates its objectives. For the level of analysis presented here, I think that this would more appropriately be a data note, rather than a conclusive piece on the general usefulness of telephone surveys. If this paper were the latter, I would expect to see much more sophisticated analysis with evaluations of work that others have done to attempt to mitigate potential errors introduced with the changing nature of telephone samples. Would these work in Australia? Why or why not? There is a rich and growing body of work that could be more adequately referenced.

The paper should be edited for grammatical issues throughout.

Specific comments follow:

1. Title: The title overstates the scope of this work. Level of geography should be incorporated. Further, please specify which type of telephone surveys you are referencing? Landline? Listed? All telephones?

2. Abstract:
   a. Objective: You state that the objective is to “determine and describe” potential bias and impact. This is not successfully executed in this manuscript. I think a more accurate objective would be to describe the population by phone status and directory listing status.
   b. Method: Include survey mode, sample size, and response rate.
   c. Results: Do not match objective as written
   d. Conclusion: If you conclude that mobile only are different, should also include this evidence in the results section.

3. Background:
   a. Throughout you use “telephone survey” to mean different things. See comment 1, above. Please be more specific and consistent throughout.
   b. You start this section with a question. I think what you really mean to be asking is if they can reliably be used?
c. The last statement of the first paragraph’s reference of “implications .. on health policy” seems somewhat off topic.

d. There is a rich body of work on households that are mobile-mostly that could be referenced.

e. Would be helpful to more fully develop how White Pages are integral or not. Are there other sources of a sample frame?

4. Methods: Where in the survey were the phone questions located?

5. Results: Table 2 provides estimates of mobile only populations over time. It would have been good to see comparisons to landline only and dual populations over time.

6. Discussion:
   a. You state that “one could argue that bias is minimal…” How? Cite evidence from your results and elsewhere.
   b. In the second paragraph you cite “increases” in health conditions. It is unclear exactly what this means.
   c. You introduce the concept of efficiency, which was not evaluated in the paper.
   d. Again, the focus on the White Pages needs further justification. What other possibilities are there that may include these unlisted numbers thus mitigating this additional bias?
   e. The response rates were less than 100 percent. Please discuss what potential bias this could have introduced with respect to telephones (mobile and landline) and other characteristics of interest. What other potential limitations are there to this work?
   f. I like the call for further research!

7. Tables: Could be simplified by reporting percents only (with total n at top of column).

**Level of interest:** An article of limited interest

**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.