Reviewer’s report

Title: Sampling and coverage issues of telephone surveys used for collecting health information in Australia: results from a face-to-face survey from 1999 to 2008

Version: 2 Date: 8 April 2010

Reviewer: Jeanette Ziegenfuss

Reviewer’s report:

The authors have successfully addressed many of my initial concerns. The paper is much clearer. However, there are yet some issues that should be addressed before the paper is ready for publication. These are listed below. Generally, I think that the paper addresses important issues using a rich data source with some more work I think that it has the potential to be a contribution.

Major Compulsory Revisions

1. This paper presents how two factors impact landline telephone surveys in Australia; the presence of mobile only individuals and the lack of a full enumeration of telephone numbers in a telephone directory. Mobile only individuals are not covered in the sample frame available from an RDD sample and unlisted (silent) numbers are not covered in the telephone directory. Both frames miss those with no telephone (mobile or landline), but it is acknowledged that the small amount leads to relatively little bias. It took me a few reads to be able to put the objective in these simple statements. I think that the paper would still benefit from clarifying its objective and the argument throughout.

2. Along these same lines as comment 1, Table 2, shows the extent of non-coverage (due to mobile only individuals) in an RDD frame while Table 3, shows the extent of coverage (listed numbers in telephone directory) in the directory frame. Why not, present the inverse in Table 3 so that it is parallel to Table 2: “Proportion of people living in households where mobile phone or landline telephone is not listed…”

3. Considering those that are mobile only and those that are unlisted, there will be some overlap; as you state that only 7.3% of mobile users are listed in the directory. Please comment on the extent to which your findings across frames are due to this large overlap. Can you estimate approximately how large the overlap is?

4. In the fifth paragraph of the discussion you state that, “this study has highlighted the need to acquire a representative sample frame… for household telephone (landline) surveys…” While I think this is one option, I think that you need to at least mention other possibilities, from post-survey adjustments to mixed mode approaches to using other modes entirely.
Minor Essential Revisions

Some grammatical suggestions are included here, but the paper should be edited throughout.

1. Restate objective in abstract per comment 1 above.
2. Define EWP at first mention in the abstract.
3. Include a statement about directory frame in the conclusion of the abstract.
4. Background, paragraph 1, last sentence: “have provided greater standardization of administration…” compared to what?
5. Background paragraph 2: you state that unlisted numbers remain an important concern. Please state for whom they remain a concern.
6. Background paragraph 2: you state that RDD methods in Australia use… The methods don’t use the EWP, rather the methodologists do.
7. Background, paragraph 3, last statement: The mention of VoIP, while potentially important seems out of place. How does this impact your findings, if at all?
8. Data analysis: Table 1 and data years 1999 and 2004 are not referenced.
9. Results, paragraph 3: The point of this paragraph is not clear. What are “increased trends”? “decreased trends”?
10. Discussion, first statement: Isn’t this just one survey conducted at multiple time points rather than multiple surveys?
11. Discussion, paragraph 3: “Another issue found in this study…” Clarify that this is referencing the study reference [24], not your study.

Discretionary Revisions

1. It is interesting that those with a mobile phone opt in to the directory for a fee whereas those with a landline phone opt out for a fee. It may be useful to comment on this in the discussion of who is listed in the directory and how it impacts bias.
2. A further discussion of the Australian laws applicable to calling mobile numbers may be useful for much of the readership.
3. Results, last paragraph: As Reviewer 2 aptly pointed out in her initial review, you in fact have evidence that future intention does not equal future behavior. I would suggest omitting this or at least pointing out this discrepancy and adjusting your estimates downward based on reported vs. observed behavior.
4. Along the same lines, as 3 above, I find it odd that you report the percent “very likely” in the results but utilize the percent “very” or “somewhat likely” in the discussion.

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