Author's response to reviews

Title: Under-ascertainment of Aboriginality in records of cardiovascular disease in hospital morbidity and mortality data in Western Australia: a record linkage study

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Author's response to reviews:

4th November 2010

Editor-in-Chief
Dr Melissa Norton
BMC Medical Research Methodology
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Dear Dr Melissa Norton

Re: MS ID#: 1711420764418153
MS TITLE (new) Under-ascertainment of Aboriginality in records of cardiovascular disease in hospital morbidity and mortality data in Western Australia: a record linkage study

Thank you for the opportunity to revise and resubmit our manuscript. We thank both reviewers for their considered comments. Additionally, as directed in your feedback we have sought the assistance of a medical editor to improve the readability of the manuscript. Editorial track changes appear throughout the entire manuscript.

Please find an itemised response to the reviewer’s major and minor comments on the following pages. We trust that you find the updated manuscript addresses these matters and consider it worthy of publication.

Sincerely,
Tom Briffa (on behalf of all authors)

Response to reviewer’s comments
Reviewer’s specific recommendations for change are listed numerically; each item has been addressed below and any specific changes made in the revised manuscript are also shown here in italics:

Referee 1 comments on 27 September 2010 by Raj Bhopal

Minor essential revisions
1. I don’t think tables 1 and 2 are formatted correctly.
Response on pages 21-22, full page: Agreed and we are unable to explain why the formatting of Tables 1 and 2 changed, however they are now correctly formatted.

2. The authors should state how this work advances that in their reference 11, (which I have not read).
Response on page 13; 1st paragraph line 7: Agreed and have inserted the word “small self-selected” before cohort to qualify how our work advances that of reference 11.

Discretionary revisions
1. The authors are writing for an international audience, whose interests are unlikely to be aboriginal health. The paper would be both strengthened and made more interesting by placing it in the context of ethnic coding/monitoring, and quality of data in health surveillance.
Response on page 5, 1st paragraph, line 1: Agreed and we have inserted a generic sentence opening the Background giving context to our focus on Aboriginal health.

2. I think the interpretation may be worth a re-think. Given the constraints and limitations of ethnic coding these results indicate high levels of accuracy and remarkable completeness of fields. Table 3 tells an important story that needs more emphasis – the estimates are amazingly accurate in remote areas.
Response on page 26, 1st line: We have kept emphasis on our primary finding of continued under-identification. Whilst Table 3 does tell an important story, the finding is not new as raised in the Discussion on p12, 2nd paragraph, line 9.

3. The current standard recommended method of assessing ethnicity – self-report – allows for changing one’s mind. Presumably many people are of mixed heritage. Using ‘ever’ aboriginal does not seem in these circumstances, the key result. I would give more credence to the extra people identified using the
majority method.

Response on page 26, 1st line: Agreed; as evidenced by the opening paragraph in the Discussion on p11, last paragraph. However, in Table 3, our preference is to retain the likely broadest range of under-identification. Note, a minority opinion exists in Australia that even ‘ever-identified’ as Aboriginal underestimates the real numbers.

4. Estimates of the effects of adjustment for mismeasured on death disease rates would add to the paper.

Response: Agreed, but have not included here as it is the primary analysis of the broader study on disparity in health outcomes between Aboriginal and non-Aboriginal Western Australians.

Referee 2 comments on 20 October 2010 by Aiman El-Saed

Major Compulsory Revisions

1. This is the worst part of the manuscript, they difficult to follow and labels are not aligned with the correct row data (Table 1 & 2)

Response on pages 21-22, full page: Agreed and in addition to our response to a similar comment by Reviewer 1 have amended the labels to improve their readability.

2. Table 1: how come the number of death using ever (N=60) is less than index admission (N=83).

Response: As progressively more people are identified as Aboriginal going from majority to ever, so will less deaths be deemed as Aboriginal alone. Therefore the numbers are correct.

3. Table 1: you should have 2 rows each showing the actual number added from morbidity and death data not to report total including added in one row and added only on the second row (i.e. be consistent either added or totals)

Response: We have retained the cumulative progression of cases identified as Aboriginal across the columns in Table 1 as it makes intuitive sense. However, we believe its readability and understanding are improved having amended the column labels and deleted the percentages that we in brackets.

4. Table 2: the last column is not appropriate as mentioned in the results before.

Response: Agreed and again are at a loss to explain how the table became corrupted. We believe its reformatting now covers the issue raised.

5. Table 3: actual number of added persons and percentage not percentage only should be reported.

Response: Agreed, and have amended Table 3 accordingly.
6. Table 3: Appropriate statistical test (Chi-square) should be run to evaluate the significant differences of underreporting between groups of age, SEIFA, ARIA...etc. It would be also better to report 2 under-reporting, one using death data and the other using admission data

Response: Agreed and Chi-square analysis is now included for Table 3. The text and chi-square testing” has been inserted on P 9, 2nd paragraph, line 1. Further, additional cases of Aboriginal identification from deaths alone inflate ‘ever-identified’ in morbidity history by 60. To create a separate column of under-reporting using death data and stratified by gender, age, SEIFA, ARIA is not appropriate.