Reviewer's report

Title: Recent patterns in chronic disease mortality in remote living Indigenous Australians

Version: 1 Date: 7 January 2010

Reviewer: Nicholas H de Klerk

Reviewer's report:

This is an interesting and important paper that needs some tidying up before being suitable for publication.

Major essential:

1. Justification is needed for only using data to 2005, when data up to 2008 are currently available (and up to 2007 since Nov 2008) – especially given the last para of Background. Further, Methods para 1 says data to 2006 were provided and the last para confusingly mentions “the entire 6-year period”?

2. The rationale for using multiple cause coding isn’t clearly explained in the context of this paper’s aims – since changes across areas and over time are being examined, it’s not clear why underlying causes alone wouldn’t be as useful.

3. The meaning of Indigenous death “coverage” needs to be more clearly explained – some people may assume this means that the deaths are not recorded, rather than the Indigenous status of the deceased being unrecorded or mis-recorded.

4. There seems to be some misunderstanding of how SMRs are calculated (Methods in Abstract, Methods last para, and Table 2 footnote), i.e. by applying age-(and usually sex-and period-)specific death rates from the standard population to the same groupings in the studied population. How time and sex were allowed for, and why just 2001 rates were used needs to be explained.

5. For the directly standardised rates (Table 1), the age-groupings used, how sex was incorporated, and whether standardisation was done before, or after, grouping the years needs to be stated. Similarly, in the negative binomial regression, it needs to be made clear whether individual year deaths (and populations) were used, and how (or if) age and sex were allowed for.

Minor essential:

1. Some mention should be made in Discussion about the repeated cautions from ABS about using Indigenous death data in assessing trends, especially given variations in quality of Indigenous status recording.

2. ‘reports’ is repeated in lines 1-2 of the Abstract.
Discretionary:

1. The aims in the Abstract could be better expressed.

2. Ref 11 is 10 years old and refers to 15-20 year old data, but is described as ‘recent’.

3. Given that the ARIA scoring is not explained, it may be best to omit the score ranges as these might be interpreted as distances.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests