Reviewer's report

Title: Mortality in an Aboriginal Medical Service (Redfern) cohort

Version: 1 Date: 30 April 2012

Reviewer: Jane Freemantle

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General Review:

This paper highlights an area of importance in epidemiological studies regarding Australia’s Aboriginal and Torres Strait Islander people, namely the lack of complete and accurate data available for all Australian Aboriginal and Torres Strait Islander people. The lack of sound national data, compromises the ability to truly measure whether we are indeed closing the gap on Aboriginal and Torres Strait Islander disadvantage. The paper clearly identifies the focus of the research, and seeks to estimate mortality and Life Expectancy (LE) using a large cohort of Aboriginal people accessing services from Australia’s oldest Aboriginal Medical Service. The data represent clients attending the Redfern AMS between 1870 and 2009 – representing a large cohort of 24,035 clients, definitely identifying as Aboriginal – Pacific islanders and Maori were excluded. The authors report that 94% of participants in the study were from NSW with 75% living in metropolitan areas.

The methodology was appropriate and methods were sound. The description of the data was clear and consistent with the tables and figures provided. Probabilistic linkage was used to link the clients details with deaths recoded in the National Death Index. A weighting algorithm was used to address difficulties in linkage of statutory and administrative population data that included alias, inconsistent dates of birth etc. Ninety percent of the sample were able to be linked using a series of iterations and extensive clerical review. The statistical methods for analysis and calculation of denominators appears appropriate and were well described.

The results were consistent with the research question and were supported by the data provided. The authors reported a significant decrease in the age-standardized mortality rate among males and females – the former being statistically significant. The authors also observed an increase in LE for both populations, the increases were not statically significant. Were the authors referring to the (non-Aboriginal) Australian population …..not significantly different from corresponding LE trends in male and female populations overall.

The discussion was clear and comprehensive. The authors referred the data reported in this paper to a number of existing population studies focused on estimates of mortality and LE in other jurisdictions – predominately NT (noting the role of reduction in Infant mortality) and WA (noting a slower reduction in mortality among Aboriginal males compared with their non-Aboriginal peers).
where the data describing Indigenous populations have been shown to be of superior quality and completeness, and a general inconsistency in time trend mortality and LE of these papers with the outcomes observed among the Redfern AMS population. Importantly, the discussion included critical comparisons of these data with those observed as a result of the different LE methods employed by particularly the ABS over the years.

The conclusion confirms the importance of this study as being the ‘first empirical study of mortality in a substantial sample of Aboriginal people in NSW).

- Minor Essential Revisions

Add ‘Rate’ to the existing ‘per 1000’ in all graphs and where the authors refer to age, put years (plural) in all graphs. Year singular refers to the calendar year

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I have no competing interests’