Author's response to reviews

Title: Enhanced reporting of deaths among Aboriginal and Torres Strait Islander peoples using linked administrative health datasets

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Author's response to reviews: see over
Dear Dr Pullenayegum

Re: Response to reviewers’ comments on paper entitled “Enhanced reporting of deaths among Aboriginal and Torres Strait Islander peoples using linked administrative health datasets”

Thank you for providing the reviewers comments for the above paper. Please find our responses attached.

If you require any further information, please do not hesitate to contact me by email at ltayl@doh.health.nsw.gov.au.

Yours sincerely

Lee Taylor
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Response to reviewers’ comments on paper entitled “Enhanced reporting of deaths among Aboriginal and Torres Strait Islander peoples using linked administrative health datasets”

Response to Reviewer: Paul A Peters

1. From research in Canada, it was found that the Aboriginal population was less likely to be ascertained during record linkage; and are less likely to respond to the Census itself (Wilkins et al.). Other research also suggests a potential bias to not reporting an Aboriginal identity. As such, this could potentially effect the benchmark by which reporting is compared. I don't know if this is the case as well with the Australian data given the different methods of linkage, but perhaps this is an additional limitation.

Response:
We agree with the reviewers comment. The previous paragraph 9 of the discussion has been moved to current paragraph 8, so that the discussion of the likely over-estimation by the ‘at least one report’ approach is followed by a discussion of the likely under-estimation of the algorithm. An additional sentence has been added at the end of the paragraph acknowledging that enhancement with the algorithm is likely to represent an under-estimate of the true number of deaths.

2. Calculation of SMR - I think a bit more description of the indirect standardisation method should be given, such as making clear which population was used as an index and which as a standard.

Response:
The last paragraph of the methods has been expanded to describe the indirect standardisation method in more detail.

Response to Reviewer: Stephen Guthridge

1. The first is that the discussion is limited to the applicability in NSW. The paper would benefit from wider discussion on the relevance of this approach to other Australian states, in which Indigenous status in deaths data is either more or less complete than in NSW.

Response:
There is information indicating that reporting of Aboriginal and Torres Strait Islander peoples on administrative data collections and ABS death data varies across Australian States. For this paper we would prefer to keep the discussion generic as under-reporting of Indigenous peoples on administrative data collections on death registration data and administrative health data collections has been observed in New Zealand and Canada as well as Australia.

The wording of the discussion has been modified slightly where we wish to generalise the applicability of the results. ‘Aboriginal and Torres Strait Islander’ has been changed to ‘indigenous’ in: paragraph 7, sentences 1, 4 and 6; paragraph 9, sentences 1 and 3; paragraph 10, sentence 4; paragraph 11, sentences 1,2 and 3; paragraph 12, sentence 2; paragraph 13; and the conclusion.

In paragraph 4 of the discussion, the paper notes that “The pattern of increased enhancement for older people and non-remote regions observed in this study was also observed by Briffa et al”, and we have inserted the phrase “in Western Australia using the ‘at least one report’ approach” at the end of the sentence. There are no other published studies that are informative for this discussion.

2. A second addition, or perhaps a correction to the text, is the impact of enhancement on the number of deaths in younger age groups. In paragraph 2 of Results, the authors report that “apart from those less than one year of age, there is little increase in the number of reported deaths among Aboriginal and Torres Strait Islander children and young people”. However in Table 1 the increase is reported as between 0 (age 5 to 9) and 100% (age 10-14), with many age groups up to 60-64 having increases of 25-30% using the algorithm and greater for “at
least 1 report”. These changes are not inconsequential. Importantly, any differential increase, if it exists, associated with age will directly impact and perhaps bias life expectancy estimates. A differential enhancement of deaths in the elderly over the young will have an even greater effect on the estimation of Median Age At Death. How much of the improvement in MAAD reported in Table 2 for example is a consequence of this (possible) differential enhancement? The authors need to review their interpretation of these results. If there is a potential bias in the enhancement method then the significance should be acknowledged in the discussion.

Response:

The second paragraph of the results has been modified to describe the effect of enhancement on the numbers and proportions of deaths, so that the effect on numbers and proportions is described separately.

We agree that the observed increase in enhanced reporting of deaths among with Aboriginal and Torres Strait Islander peoples with increasing age will affect estimates of life expectancy. The methods used for calculation of life expectancy for Aboriginal and Torres Strait Islander peoples in Australia have been the subject of discussion, and at times vigorous debate, for many years. A summary of the existing literature and methodological issues has been published by the Australian Institute of Health and Welfare [1]. It would be difficult to address the complexity of the issues involved as part of this paper. From discussions with our reference group of community representatives it seems likely that the enhancement process, rather than being a source of bias, results in a correction of an existing relative under-reporting of deaths among older Aboriginal and Torres Strait Islander peoples as there is a perception that older Aboriginal and Torres Strait Islander people are less likely to self-identify compared to younger people. However, we have no empirical evidence for this. We have inserted a new paragraph 3 into the Discussion that acknowledges the likely effect of enhancement on life expectancy estimates and indicating that, as part of further research, the age distribution on the enhanced dataset could be validated against a sample of records from a dataset that is known to have reliable reporting of Aboriginal and Torres Strait Islander peoples, such as records from Aboriginal community controlled health services.

Reference