Author's response to reviews

Title: Home and community care services: a major opportunity for preventive health care?

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Author's response to reviews: see over
Dear Ms Pafitis,

Re: MS: 7140301983439151
Home and community care services: a major opportunity for preventive health care?

Thank you for considering the above article for publication in the BMC Geriatrics. Please extend our thanks to the referees for their thoughtful comments.

We have addressed the Referees’ comments (in italics) in detail below and made appropriate changes in the manuscript (highlighted using track changes, as requested).

Referee 1

Page 6, duplication of “HACC MDS data for the period 1 July 2003 to 30 June 2008 were available for our study.”

This has been corrected.

Also on Page 6, the HACC MDS data is described as capturing only 85% of clients, what is the source of the shortfall, and is this an additional source of non-response bias in addition to the major point, see below.

Some smaller providers of HACC services do not contribute to the HACC MDS dataset. A sentence to this effect has been added to the Methods section (page 6, paragraph 2):

“This is because some smaller HACC providers do not contribute to the HACC MDS.”

Additionally, we have added a sentence describing the potential impact of the incomplete capture of clients in the HACC MDS to the discussion (page 14, paragraph 1):

“Misclassification relating to the incomplete coverage of the HACC MDS is also likely to bias findings towards the null. “

The major concern I have relates to the non-response bias in the survey data in the 45 and Up Study… At a minimum some effort would need to be made to match the demographic characteristics of the 45 and up study sample to the census population; ideally the survey would estimate characteristics of non-responders and compare
them to responders... In all likelihood the sampled population probably is under-
representative of the sickest portion of the population, but it doesn’t automatically
follow that all the tested characteristics themselves will result in conservative
estimates. I suspect the truth is probably more complicated, and that the relationship
of some characteristics could even be over-stated. However, the direction of the
findings do fall in line with what would be expected in the general population, but the
point estimates of relative risks are problematic to me.

The referee has raised valid points regarding the generalisability of our findings. We
have considerably expanded our discussion of this issue, and made reference to a
recently published study that has explored in detail the generalisability of relative risk
estimates from the 45 and Up Study. We have now included information about how
the demographic and other characteristics of 45 and Up Study participants compare
with respondents to the NSW Population Health Survey. We maintain, however, that
any biases resulting from non-response would generally cause underestimation of the
associations between health risk factors, health conditions and HACC use. The
revised text is as follows (page 14, paragraph 1):

“It is possible that HACC clients in the 45 and Up Study were not representative of
the broader HACC client population. In keeping with other similar large-scale
population-based cohort studies, its response rate was 18% [15]. A comparative
analysis found that the prevalence of many factors in the 45 and Up Study, including
country of birth, educational attainment, fruit consumption, body-mass-index and
falls, was similar to the NSW Population Health Survey (PHS), a population-based
survey which has a response rate of around 60%. However, 45 and Up participants
tended to have higher incomes, and had lower prevalence of smoking, high
psychological distress, hypertension, diabetes and asthma [27]. This suggests that 45
and Up Study participants are in general “healthier” than the overall population.

However, importantly, we have reported relative measures of effect (RRs) calculated
from internal comparisons within the 45 and Study, which will be valid provided there
is sufficient heterogeneity within the predictor variables [28]. Moreover, empirical
data demonstrate that RRs for a wide range of exposure-outcome relationships in the
45 and Up Study are very similar to those calculated using ‘representative’ PHS data
[27]. Any bias resulting from an absence from the 45 and Up Study of the sickest,
most dependent, HACC clients would generally cause underestimation of the
associations between health risk factors, health conditions and HACC use.

Misclassification relating to the incomplete coverage of the HACC MDS is also likely
to bias findings towards the null.”

... more details on the 45 and up study, including the recruitment and response rate,
should be in the methods section.

The paper already makes reference to a published paper that describes in detail the
methods used for the 45 and Up Study, and includes information about the sampling
frame and recruitment methods. We have now added a sentence about response rate to
the Methods section (page 6, paragraph 1):

“The response rate was 18% [15].”
Referee 2

The sentence: 'HACC MDS data for the period 1 July 2003 to 30 June 2008 were available for our study' is repeated

This has been corrected (see response to Referee 1).

There is some repetition in the discussion of points already made in the Results section. Editing these would make the article more succinct and readable.

We have not made any specific edits in response to this suggestion. We would note that Referees 1 and 3 have suggested expansion of some sections of the discussion.

Referee 3

1. On page 6, paragraph 2 there is a duplicated sentence that should be deleted (sentence begins with “HACC MDS data for the period 1 July 2003…”).

2. On page 6, paragraph 2 it may be useful to explain why there is only 75% of coverage of HACC service providers in the HACC MDS.

These two comments have been addressed in our response to Referee 1.

3. In the background section, the authors claim that while there has been some emphasis in prevention, particularly in falls, lifestyle modification is not a major current focus of HACC service provision. However, there have been some recent policy changes in Australia, particularly at the State level, that recognises the role that HACC can play in health promotion. The ‘active service model’ in Victoria is “based on the premise that clients have the potential to make gains in their wellbeing and that the HACC service system can improve its capacity to support this” (http://www.health.vic.gov.au/hacc/projects/asm_project.htm, Victorian Department of Human Services website accessed 16th February 2010). The research is therefore timely to support these directions, but perhaps there should be some acknowledgment that policy-makers are coming to recognise the health promotion role the program can play.

We thank the Referee for this suggestion. We have now included the reference that they have given, and revised the relevant part of the background (page 4, paragraph 1):

“Lifestyle modification is not a major current focus of HACC service provision, but policymakers are beginning to recognise the health promotion role that the program can play. New service models emphasise the role of the HACC program in supporting gains in health and wellbeing [3].”

4. On page 8, the authors show that educational attainment is not linked with HACC service use. The conclusion (page 14) could therefore be reworded to more clearly state which socio-demographic factors are linked to HACC use.
We have revised the relevant sentence in line with this comment (page 15, paragraph 2):

“Our innovative linkage of the 45 and Up Study with HACC program data has shown that socio-demographic vulnerability (in particular, low income and not having a partner) and health needs are strong predictors of HACC service use.”

5. The findings that HACC use increases with remoteness and that people of Indigenous origin are more likely than others to be HACC clients are very significant (Page 9, paragraphs 2 and 3). The prevailing view has been that geographic remoteness and Indigenous background are barriers to accessing HACC.

We thank the Referee for this comment. The discussion already includes commentary regarding the possible reasons for these findings (page 11, paragraph 3).

6. The program implications of the U-shaped association with HACC service use and body weight (page 12) could be given more prominence in the conclusion given that nutrition and meals provision is a current major focus of HACC.

We have revised the relevant sentence in the conclusion in line with this comment (page 15, paragraph 2):

“Further, modifiable lifestyle risk factors, and health conditions that are amenable to primary and secondary prevention (including underweight, obesity and falls), occur at a much higher rate among HACC clients than other individuals.”

7. Given the significance of the findings I suggest that the question mark be removed from the title. This positions the paper more strongly at the outset by sounding less tentative.

We have adopted this suggestion.

Referee 4

1. p.4 paragraph 2 - square brackets missing from reference 1

This has been corrected.

2. p.6 paragraph 2 - The sentence "HACC MDS data for the period 1 July 2003 to 30 June 2008 were available for our study" is repeated twice.

This has been addressed in our response to Referee 1.

3. p.11 paragraph 3 - square brackets missing from reference 21

This has been corrected.

1. Whilst the tables are clear and easy to read the graphs on the right hand side
supporting Figures 1-4 need to be labelled or could even be removed as they do not necessarily add anything to the findings in this study.

We believe that the forest plots provide a useful visual representation of the patterns in the data. We have added a label “Adjusted relative risk with 95% CI” above the plots.

If you have any queries regarding the manuscript please do not hesitate to contact me at l.jorm@uws.edu.au or +61 439 891 491 if you require anything further.

Thank you for considering this revised version of our manuscript.

Yours sincerely,

Louisa Jorm