Author's response to reviews

Title: Lifestyle, chronic diseases and self-rated health among Malaysian adults: The National Health and Morbidity Survey (NHMS), 2011

Authors:

Ying Ying Chan (chan.yy@moh.gov.my)
Chien Huey Teh (chienhuey@imr.gov.my)
Kuang Kuay Lim (limkk@moh.gov.my)
Kuang Hock Lim (limkh@moh.gov.my)
Pei Sien Yeo (yeops@moh.gov.my)
Chee Cheong Kee (kee@imr.gov.my)
Mohd Azahadi Omar (drazahadi@moh.gov.my)
Noor Ani Ahmad (drnoorani@moh.gov.my)

Version: 3
Date: 12 June 2015

Author's response to reviews: see over
Dear Editor,

**RE: MS: 8386281415371946**

**Title:** Lifestyle, chronic diseases and self-rated health among Malaysian adults: The National Health and Morbidity Survey (NHMS), 2011

**Authors:** Ying Ying Chan, Chien Huey Teh, Kuang Kuay Lim, Kuang Hock Lim, Pei Sien Yeo, Chee Cheong Kee, Mohd Azahadi Omar and Noor Ani Ahmad

Please find attached a revised version of the manuscript and a point-by-point response to the reviewers’ comments (below). We are pleased that the reviewers agree that the manuscript will be an important contribution to the literature in this area.

We are very grateful to the reviewers for their positive comments and helpful suggestions. We hope that the revised version of our manuscript is now acceptable for publication in the *BMC Public Health*. We certify that this manuscript is original, has not been published previously, and is not under consideration by another journal.

Thank you for reconsidering our manuscript.

Respectfully yours,

Ying Ying Chan (Corresponding author)

Institute for Public Health
Ministry of Health Malaysia
Jalan Bangsar, 50590 Kuala Lumpur
Malaysia.

Tel: +603-2297 9444
Fax: +603-2282 3114
Email: chan.yy@moh.gov.my
sasorizachan@yahoo.com
Reviewer's report
Title: Lifestyle, chronic diseases and self-rated health among Malaysian adults: The National Health and Morbidity Survey (NHMS), 2011
Version: 2 Date: 17 March 2015
Reviewer: Gustavo Zarini

Reviewer's report:
- Major Compulsory Revisions

1. Critical - Authors need to explain the rationale behind the classification of self-rated health. Why they included those participants who answered “moderate” in the poor SRH category? Please see article by Subramanian et al., 2010. If poor SRH category include only those who answered “not good” or “very bad” the prevalence of poor SRH will be 1.9% instead of 20.1% and probably no significant findings with lifestyle and chronic diseases will be find among the Malaysian population.


Based on literature, there has been no universal standard cut-off point for poor health, and also no standard justification to address where “moderate” health status should be placed. The cut-off point for poor SRH category varies across different studies. We decided to include “moderate” in the poor SRH category after taking into consideration the following aspects:

i) there were similar studies published from other Asian countries (i.e. Singapore, Thailand, China) which included “moderate” in the poor SRH category (Ref 12, 15, and 56);
ii) there were relatively few respondents answered that they had “not good” or “very bad” health status (1.8 and 0.1%, respectively);
iii) a broader measure of poor health from “moderate” to “very bad” provides a more stable and reliable interpretation across wide age intervals in our data.

- Minor Essential Revisions

2. Methods - Study design and data collection

Paragraph (2) – How was the missing data for socio-demographic profile, lifestyle and self-reported medically-diagnosed chronic diseases handled?

We performed complete data analysis and any variables with missing values were excluded from the analysis. With a sufficiently large sample size in our study, the amount of missing data is considered relatively small and ignorable.
3. Discussion
Paragraph (7) – The following statements need references. “A possible explanation is that diabetes mellitus may be perceived as a less serious disease compared to other chronic conditions. Diabetic individuals can usually live a totally normal life if they received proper medical care and their blood glucose levels were under control.”

The above statements are authors’ opinions on how public may perceive diabetes in our local context of community generally. We have not found any literature to support these statements. However, as pointed out by Reviewer 2 that also persons with hypertension or hyperlipidemia can live a totally normal life if they receive proper medical care, we have come to an agreement to remove these statements in our revised manuscript. Also, we have added another point raised by Reviewer 2, that is persons with diabetes may also suffering from hypertension and hypercholesterolemia at the same time, and this may be the reason for the non-significance (Refer page 13, lines 18-21).

- Minor issues not for publication

4. References
Add period at the end of references (7, 46, and 54)

References 7, 46, and 54 were rearranged in the revised manuscript and had become references 10, 50, and 58 respectively. References were corrected accordingly.

REVIEWER 2

Reviewer's report
Title: Lifestyle, chronic diseases and self-rated health among Malaysian adults: The National Health and Morbidity Survey (NHMS), 2011
Version: 2 Date: 19 May 2015
Reviewer: Kathryn Hoffmann

Reviewer's report:
An interesting and comprehensive manuscript about lifestyle, chronic diseases and self-rated health among Malaysian adults, thereby filling the gap of existing knowledge about self-rated health among the general population in Malaysia. However, the submitted paper needs revision before publication.
Minor revisions:
1. Background: the authors did not explain that also the social determinants of health like infrastructure, housing, political situation, availability of clean water, availability and affordability of healthy food etc. has a strong association with SRH. Please, add this.

   We agree with the reviewer and we have added this point in the Background section of our revised manuscript (Refer page 3, lines 9-12).

2. Methods: Study design: Who performed the face-to-face interviews? What was their education/profession?

   The face-to-face interviews were performed by trained interviewers who had completed a diploma level or a higher educational level in any academic discipline. The interviewers were extensively trained and had their mock interviews prior to actual data collection. The interviewing process was closely monitored by field supervisors comprised of health care personnels (Refer page 5, lines 6-9).

3. Methods: Statistical analyses: page 8, line 10: Why did you choose a p-value of 0.25 to retain variables? Please explain. And did you check if the variables retained were possible confounder for the others? Maybe it would be a good idea to move lines 20-23 page 9 to this particular method section.

   Our decision to use a p-value as high as 0.25 for initial variable selection is based on the work by Mickey and Greenland (1989) on logistic regression. The authors revealed that use of a p-value less than 0.05 may fail to identify variables known to be important. Lines 20-23 page 9 were moved to this particular method section for a better understanding of the selection of potential confounders into the final model in our study (Refer page 8, lines 18-21).


4. Results: page 9, line 23 - end of result section: it is not necessary to repeat numbers and value stated already in the tables in the text.

   The numbers and values stated in the text were removed in the Results section of our revised manuscript (Refer page 10, lines 4-13).
5. Discussion: page 11, lines 9-11: is there a reference to proof that the traditional perception of Malaysian is that being heavier is healthier?

The traditional perception of being heavier (overweight/obesity) is healthier, and being underweight is less healthy still exists in many developing countries. Though this concept may be less prevalent in Western Societies today, it is common among many Asian countries. We have found a reference to support this statement (Ref 38) (Refer page 11, lines 15-16).

6. Discussion: page 13, line 16: Also persons with hypertension or hyperlipidaemia can live a totally normal life if they receive proper medical care. Why do you highlight diabetes? Moreover, persons with diabetes mainly have at the same time hypertension and hyperlipidaemia; maybe this could be another reason for the non-significance.

We agree with the reviewer and we have removed the following statements “A possible explanation is that diabetes mellitus may be perceived as a less serious disease compared to other chronic conditions. Diabetic individuals can usually live a totally normal life if they received proper medical care and their blood glucose levels were under control” in our revised manuscript. As suggested by the reviewer, we have added the point that persons with diabetes may also suffering from hypertension and hypercholesterolemia at the same time, and this may attenuate the real effect of diabetes on SRH, resulting in the non-significance (Refer page 13, lines 18-21). However, the actual reason for this could not be ruled out from this study and deserves further investigation in the future.

7. Discussion: Limitations: Why do you think your data are representative? Is there a national statistic reference (e.g. regarding sex, age,…) that proofs your assumptions?

Our data are nationally representative because the sampling was conducted by expert using the scientific method based on the latest country population census and the lowest prevalence of all variables investigated in the survey. Respondents were selected proportionately to population size by strata (urban/rural) and the number of recruited respondents was comparative to the 2010 Population Census by strata and gender (Source: Department of Statistic, 2011). In addition, post-stratification weights and non-response were adjusted to ensure the representativeness of the sample.

(Source: Department of Statistic, Malaysia. Labour Force Survey Report. Putrajaya: Department of Statistic, Malaysia; 2011.)
8. Discussion: Limitations: another limitation could be the social desirability of certain answer categories in front of the interviewer.

We agree with the reviewer’s comment and we have addressed this limitation in our revised manuscript (Refer page 14, lines 17-18).