Author's response to reviews

Title: Smoking and Health-Related Quality of Life in English General Population: Implications for Economic Evaluations

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Author's response to reviews: see over
RESPONSE TO REVIEWERS’ COMMENTS

MANY THANKS FOR BOTH REVIEWERS. THEIR COMMENTS ARE NOW ADEQUATELY ADDRESSED- DETAILS BELOW (IN CAPS)

THE CHANGES ARE HIGHLIGHTED IN **YELLOW** IN THE MANUSCRIPT.

**Reviewer 1**

Abstract – In the conclusion the authors refer to the ‘frequency of smoking’ but it would be more accurate to refer to ‘the number of cigarettes smoked’ as this is what was measured.

REVISED. [...]**DETERMINED BY THE NUMBER OF CIGARETTES SMOKED**]

Discussion – In the 6th paragraph the last sentence a bit misleading. The value of the QALYs gained is £20-30million but this is not what is saved as the cost of generating the gains is not taken into account. The statement would benefit from some reworking.

THE SENTENCE IS NOW REVISED TO CLARIFY THIS POINT. [...]**£20-30 MILLION (MINUS THE COSTS OF NRT PROVISION) IN ONE YEAR.**

The title of Table 3 should make it clear that the ‘utility’ values are ‘adjusted utility’ values.

DONE. WE CHANGED THE TITLE TO [**CHANGES IN ADJUSTED ‘UTILITY’ VALUES (BY AGE AND GENDER) AS THE RESULT OF SMOKING PROFILE, AS PREDICTED BY THE OLS MODEL**]

Discretionary revisions

Background – In the 1st paragraph the points about the costs of smoking would be stronger (ie. more illuminating) if they were illustrated using data for the same country and the same year of estimation. It is difficult to get the sense of scale between costs to the health sector and costs to wider society when the first is reported for NHS in 2005/6 and the latter is reported for Germany in 2003.

THIS COMPARISON IS MEANT TO PROVIDE THE IMPORTANCE OF NON-HEALTH CARE COSTS DUE TO SMOKING NOT ONLY IN THE UK BUT ELSEWHERE AS WELL. SO THIS IS RETAINED IN THE TEXT. ONE SENTENCE ADDED NOW: **IF THE SAME PROPORTION WERE TRUE IN THE UK CONTEXT, THE TOTAL COSTS ATTRIBUTABLE TO SMOKING IN THE UK WOULD BE MORE THAN £14.6 BILLION (2005/6).**

Modelling EQ-5D tariff data – In the 4th paragraph the authors describe the variable they used as a measure of social capital. Was there an a-priori reason for using this particular measure? It would be helpful if they could include a rationale as to why it, as opposed to any other measure of social capital, was used.

THE HEALTH SURVEY FOR ENGLAND PROVIDES LIMITED NUMBER OF VARIABLES ON SOCIAL CAPITAL AND THIS PARTICULAR MEASURE WAS INTUITIVE ENOUGH TO BE CONSIDERED TO PROXY SOCIAL CAPITAL. THE INTENTION OF THE PAPER WAS TO USE THIS AS A CONTROL VARIABLE AND NOT CONDUCT COMPLEX ANALYSIS ON WHICH VARIABLES CAN BEST PROXY SOCIAL CAPITAL. FUTURE STUDY COULD
LOOK AT THAT. AN EXPLANATION TO THIS EFFECT HAS BEEN PROVIDED IN THE
TEXT NOW. [...] (INTUITIVELY CONSIDERED AS A SIMPLE PROXY FOR SOCIAL
CAPITAL)]

Results – 2nd paragraph. Although the analysis does not include the category ‘current
smokers’ it would be helpful if the authors reported the % of smokers who are current
smokers in the summary statistics.

ADDED. [...]AND ABOUT 22% WERE CURRENT SMOKERS.]

Discussion – In the penultimate sentence of the 5th paragraph the authors should consider
changing “Likewise, making heavy smokers quit…” to “Likewise, supporting heavy smokers
to quit…. “

CHANGED. [Likewise, supporting heavy-smokers to quit…]

Discussion – In the last paragraph the authors briefly discuss the finding that being a heavy
smoker is associated with an 86% increased likelihood of reporting some/severe problems in
anxiety/depression. There is a body of literature on the association of these symptoms with
nicotine and with nicotine withdrawal. The authors could usefully refer to this literature – see
for example the following paper: Chronologically overlapping occurrences of nicotine-
induced anxiety- and depression-related behavioural symptoms: effects of anxiolytic and
cannabinoid drugs, Tamaki Hayase, BMC Neuroscience 2007, 8:76doi:10.1186/1471-2202-8-
76 (http://www.biomedcentral.com/1471-2202/8/76)

THANKS FOR SUGGESTING THIS. ADDED.

The authors could usefully refer to the economic models commissioned by NICE for its
public health guidance on prevention and cessation strategies for tobacco control.

THANKS FOR SUGGESTING THIS. ADDED.

The paper should be checked by the authors for grammatical errors, for instance the articles
‘the’ and ‘a’ are sometimes missing or used when unnecessary and the wording of some of
the sentences could be improved.

REVISED

Reviewer 2

On the bottom of page 4, the authors refer to changes in smoking since the publication of the
'smoking kills' report. Please, for the benefit of the non-british readership—who may not
know when that publication came out—note the date of the publication.

INCLUDED. [...]IN 1998]

On page 8, the authors refer to tariff data for the first time. Yet, on page 13, they define what
tariff data are. Please move the definition of tariff data to the first appearance of the term.

IT IS DEFINED ON PAGE 7 AS A “SINGLE VALUE (TARIFF) FOR EACH HEALTH STATE
CAN BE OBTAINED USING A STANDARDIZED FORMULA” ALREADY. WE ALSO ADDED
A FEW WORDS TO EXPLAIN IT ON PAGE 8 NOW. […] OR SINGLE VALUE/MEAN
SCORE…

On page 13, please prove an interpretation of the meaning/relative value of the differences in HRQoL observed.

MEANING ADDED ON PAGE 13. [A DIFFERENCE IN THOSE VALUES INDICATES THE
MAGNITUDE OF DECLINE IN HRQoL IN SMOKERS COMPARED WITH NEVER-
SMOKERS.]

In the discussion section, on page 20, the authors' discussion of the relationship between smoking and Depression presumes that smoking causes depression. It is entirely plausible—if not more likely—that depression 'causes' smoking. In fact, the conclusion that 'making smokers quit may lead to a massive reduction in mental health symptoms' seems misleading, at best. I think a more reasonable take on this relationship would be that if smokers successfully quit, it will be very important to monitor their mental health status, in order to assure successful abstinence. Or even, that mental health issues may need to be addressed prior to, or in concert with, smoking cessation.

THIS HAS NOW BEEN CLARIFIED/REVISED. [HOWEVER, IN ORDER TO ASSURE
SUSTAINED ABSTINENCE, IT MAY BE NECESSARY TO ADDRESS/MONITOR MENTAL
HEALTH OF THOSE WHO ATTEMPT TO QUIT RIGHT AT THE TIME OF THE
INTERVENTION AND BEYOND.]

Finally—this is a bit nit-picky, but I think it's important: Please do not frame discussion in terms of 'making' smokers quit. 'Encouraging, supporting or facilitating cessation or quitting would be much more palatable.

THANKS FOR THIS. REVISED ACCORDINGLY. [SUPPORTING HEAVY-SMOKERS TO
QUIT BY VARIOUS SUPPORT MECHANISMS] PAGE 19 [ENCOURAGING HEAVY-
SMOKERS QUIT BY VARIOUS SUPPORT MECHANISMS] PAGE 21 [SUPPORTING
SMOKERS] PAGE 22

Editor

Further Requirements:

1. Data availability: Please document within the Methods section of your manuscript if the data you have used is openly available. If it is not openly available, please document the name of the ethics committee which approved its use.

ADDED. THE FIRST SENTENCE OF THE METHODS SECTION NOW STATES WHERE
THE DATA IS AVAILABLE FROM. [WE USED THE 2006 ROUND OF HEALTH SURVEY
FOR ENGLAND (HSE), AVAILABLE FOR DOWNLOAD FROM THE UK DATA ARCHIVE
(WWW.DATA-ARCHIVE.AC.UK).]
2. Competing interests: If there are none to declare, please write 'The authors declare that they have no competing interests'. Please check the instructions for authors on the journal website for a full list of questions to consider when writing your competing interests statement.

ADDED. COMPETING INTERESTS [THE AUTHORS DECLARE THAT THEY HAVE NO COMPETING INTERESTS.]

3. Please remove the visible vertical lines in the tables.

Tables: Please ensure that the order in which your tables are cited is the same as the order in which they are provided. Every table must be cited in the text, using Arabic numerals. Please do not use ranges when listing tables. Tables must not be subdivided, or contain tables within tables. Please note that we are unable to display VERTICAL LINES or text within tables, no display merged cells: please re-layout your table without these elements. Tables should be formatted using the Table tool in your word processor. Please ensure the table title is above the table and the legend is below the table. For more information, see the instructions for authors on the journal website.

CHANGED. ADDITIONAL FILES 1-3 ARE ALSO ENCLOSED AS EXCEL FILES AS STATED IN THE AUTHORS GUIDELINES.