Author's response to reviews

Title: A cross-sectional, observational study examining associations of health, physical activity and weight status with motorised travel and transport carbon dioxide emissions

Authors:
Anna Goodman (anna.goodman@lshtm.ac.uk)
Christian Brand (christian.brand@ouce.ox.ac.uk)
David Ogilvie (David.Ogilvie@mrc-epid.cam.ac.uk)

Version: 3 Date: 20 July 2012

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

Re: Goodman, Brand & Ogilvie: Associations of health, physical activity and weight status with motorised travel and transport carbon dioxide emissions

Thank you for giving us this further opportunity to revise our manuscript. As outlined below, we have made nearly all the changes suggested. We provide an explanation for our reluctance to make the one change not yet incorporated into the revised version of the manuscript, but are happy to accept further editorial guidance on this point.

Yours Faithfully

Anna Goodman

CHANGES NOT MADE

We suggest that you include the 'appendix table' from the cover letter as an 'additional file'.

- We are not keen to do this because we believe it will confuse readers more than it helps them. The ‘appendix table’ was provided in response to the comment from reviewer 2 “The authors recognize that “the direction of causality (if any) behind many of the observed associations is unclear” (page 18). But did the authors compare different models with each other? Or did the authors only test the model depicted in Figure 1 without considering any other alternative model? “. As we sought to explain in our response, reversing the direction of arrows in Figure 1 and so comparing different models would not help us address this issue of causality, because in cross-sectional data one cannot determine statistically the direction of causal effect (if any) underlying an observed association. For example, if A and B are associated one cannot establish statistically whether an association between A and B reflects A causing B or B causing A. We now make this point in the text of our manuscript, stating “Note that although Figure 1 assumes that motorised travel, active travel and car engine size are consequences of our health/activity variables (i.e. mediators of the association between health and CO2 emissions), the cross-sectional nature of our data means we cannot examine statistically the extent to which they may instead be causes”.

- Besides adding this sentence to the text, we provided the appendix in order to ‘reassure’ Reviewer 2 that the ‘reversed’ model really was statistically identical, in case this point was still unclear to them. For a general readership, however, we believe that pointing them towards a supplement showing this example may do more harm than good. Specifically, we are concerned that it will confuse some into thinking that we are seeking to say something that goes beyond the fundamental and (we believe) widely understood point that ‘in cross-sectional data one cannot determine the direction of causality statistically’. We have therefore not included the appendix table in the additional material, but are happy to take further editorial guidance on this point.
CHANGES MADE
- The title has been rearranged to read “Associations of health, physical activity and weight status with motorised travel and transport carbon dioxide emissions: a cross-sectional, observational study”
- Throughout the MS, the header Health, physical activity, weight and transport CO2 has been removed.
- The entire manuscript has been double spaced
- The superscripts after author names have been made numerical
- All text has been left justified
- The email addresses have been removed and placed under the heading Email addresses as author’s initials:email address
- The running title and the information about the corresponding author have been removed and we have inserted the phrase *Corresponding author and placed an * after the author’s superscript number.
- Only the first letter of headings is now capitalized.
- In the Abstract we have removed the colons after the headings and moved the text below the headings.
- We have removed the numbering of the sections, subsections, etc. as well as the text indicating where to insert tables and figures.
- In the Abbreviations section, we have changed the heading to read List of abbreviations and listed as abbreviation:term separating the pairs with semi-colons in sentence format.
- We have changed our statement of competing interests to read ‘The authors declare that they have no competing interests’
- In the References section, the references have all been formatted as number, period, space (not tab) and reference. Additionally, we have written out all authors names listed up to 30 names before using et al. and removed all issue numbers.
- For the tables, all horizontal lines are now visible.