Author's response to reviews

Title: The personal and national costs of mental health conditions: impacts on income, taxes, government support payments due to lost labour force participation

Authors:
Deborah J Schofield (deborah.schofield@ctc.usyd.edu.au)
Rupendra N Shrestha (rupendra.shrestha@ctc.usyd.edu.au)
Richard Percival (richard.percival@natsem.canberra.edu.au)
Megan E Passey (megan.passey@ncahs.health.nsw.gov.au)
Emily J Callander (emily.callander@ctc.usyd.edu.au)
Simon J Kelly (simon@kellyresearch.com.au)

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Author's response to reviews: see over
Dear Professor Alam,

Re: “MS: 1765008352493987 - The personal and national costs of mental health conditions: impacts on income, taxes, government support payments due to lost labour force participation”

Thank you for your correspondence dated 16 February 2011, which provided reviewers comments for our manuscript. We have revised the manuscript based upon the comments from the two reviewers and also the editor’s request. We have highlighted the changes in the manuscript in yellow, and below are details as to how each comment was addressed.

Best regards,

Deborah Schofield
REVIEWER 1

Reviewer's report:
This is an interesting paper that is well written. The paper examines the indirect costs of depression and other mental illnesses in Australia for individuals aged 45-65. The focus on the cost to the state in terms of lost taxation, increased payments, and decreased GDP represent an important contribution to the literature.

The writing is reasonably clear and the methods appear adequate to answer the question.

Major Compulsory Revisions:
1. Given that the conclusions are based on the outputs from a model and not based on observations of longitudinally followed patients, it is important to highlight some of the assumptions made to create the data. In the paper there is no limitations sections and one needs to be added to address the assumptions, which have the potential to threaten the validity of the results.

   The limitation of the paper being based upon the cross-sectional data from the 2003 Survey of Disability, Ageing and Carers (SDAC), rather than longitudinal data has now been added to the discussion, page 12-13.

2. The Survey of Disability, Ageing and Carers data contained only 43 individuals with depression and 54 with other mental illnesses this data was weighted up to ~60,000 individuals. This seems like an important limitation that needs to be discussed.

   This limitation has been added to the discussion, page 12.

3. To what degree is there double counting of costs? Are the lost wages based on pre-tax dollars and therefore include the lost taxation dollars? Are the wages already counted in the lost GDP.

   The income variable used in this study related to total income, and included income from all sources, including employment income, transfer income, and income from other sources such as rental properties. It was net income (before tax). This information has been added to the methods section, page 8. The total lost income shown in Table 3 is indicative of the cost to individuals from foregone income from all sources, whereas the lost taxation is what would be lost to governments from lost employment income taxation. Wages are not specifically included in the GDP formula.

4. There are assumptions made with the synthetic matching process – how might these affect the outcomes.

   It is assumed that the synthetic matching between the 2003 SDAC and STINMOD was accurate. This assumption has been tested and it was found that the variables the two datasets were matched on were matched within 5% accuracy, with the exception of age which was matched with 6% accuracy. These details have now been added to the methods section, page 7.

Discretionary Revisions:
5. Please give the rationale for separating the results into depression and the very broad category of disparate disorders called: "other mental health disorder."

   This has been added to the methods section, page 7.

Minor Revisions
6. Middle of the 3rd line down on page 4, there is an extra space in front of the comma.

   This has been corrected.

7. On page 10, the 4th line from the top, there is the text “-).” in the middle of the line.

   This has been corrected.
Reviewer’s report:
This was a well-written paper. I have only a few comments.

Major compulsory
First, it would be helpful if the authors provided more information about the model used. For example, has there been work examining the fit of the model, how well it predicts, etc.?

    Further information about the accuracy of Health&WealthMOD has been provided in the methods section, page 7.

Minor essential
Second, could a reference be provided regarding the validity of the ICD coding?

    A reference for ICD coding has been added, page 7.

Minor essential
Third, could the authors discuss the extent to which the losses are related to inadequate treatment versus ineffective treatment. That is, they indicate that there is a significant proportion who do not receive treatment. But would accessing treatment solve the problem?

    Discussion has been added about the adequacy of mental health care in Australia – specifically on the shortage of mental health professionals and the limited Medicare cover for mental health patients (page 14).
EDITORIAL REQUESTS:
Authors' contributions - Please include an Authors' contributions section before the Acknowledgements and Reference list.

This has been added.