Reviewer's report

Title: Economic valuation of informal care on cerebrovascular accident survivors

Version: 7 Date: 19 February 2013

Reviewer: Nikki McCaffrey

Reviewer's report:

General comments
This study is a useful contribution to the field of research on the costs of informal care for CVA survivors in Spain and addresses an important and relevant issue, the ‘hidden’ costs of informal care. The paper could benefit in the following ways: greater clarity is needed on how the research adds value (where is the gap in the literature); further detail is required on how the survey sample was selected and what services/ tasks are provided under ‘state-provided home care’; the conclusion needs separating into a discussion and conclusion section; further explanation is required to justify the conclusion that the reported costs of formal care for dependant people are ‘a far cry’ from the cost of informal care; more discussion is needed on the generalisability of the study findings; and a comparison with international estimates would be informative.

1. Major compulsory revisions
1.1. How does the research address a gap in the literature?
Background, Paragraph 5, sentence 1 - the objective of the study is clear and succinct. However, although other studies valuing the costs of informal care for CVA survivors are cited it is not clear how this study addresses a gap in the literature. Is this study the first to evaluate informal care costs for CVA survivors in Spain? Is this the first study to examine the relationship between degree of dependency of the care recipient and the total hours of informal care in Spain? How does this study add to the body of knowledge in this research space?

1.2. Survey sample
Methods, Paragraph 2 – A sample of 96,075 households complete the survey rather than the entire population of Spain? If so, please provide details of how the sample is selected to aid evaluation of how representative the sample is of the Spanish population.

1.3. What services/ tasks are provided under ‘state-provided home care’
The valuation methods, Paragraph 2, sentence 2 – rates of ‘state-provided home care’ are used to estimate substitution costs. Please provide details about what services/ tasks ‘state-provided home care’ includes to aid interpretation of the results and translation to other settings. This paragraph is repetitious and would benefit from further editing.

1.4. Conclusions, general
Please separate the conclusion into two separate sections, discussion and conclusion.

1.5. Conclusions about the costs of informal care
Conclusions, Paragraph 2, sentence 4 – the authors state the reported costs of formal care for dependant people (in Spain?) are ‘a far cry’ from the cost of informal care yet the estimates in the manuscript overlap the estimates of formal care. Further explanation is required to justify this conclusion.

1.6. Limitations
Conclusions, Paragraph 3, general - whilst some limitations of the study are discussed generalisability of the findings (or lack of?) to other countries should be included. Furthermore, an elevation factor is used to extrapolate the sample data to the entire population. It would be helpful if the limitations and uncertainty associated with the elevation factor were discussed to assist evaluation of the robustness of the informal caregiver cost estimate.

1.7. International comparison
Conclusions, Paragraph 3 - how do the informal care costs in Spain compare with other international estimations?

2. Minor Essential Revisions
2.1. General comments - the terms ‘stroke’ and ‘CVA’ are applied in the manuscript. For non-clinical readers, how are the two related? Are they the same thing? Which is the current term? Suggest use one term only throughout the manuscript to avoid any confusion.

2.2. General comments - there are numerous instances where cerebrovascular accident is spelt in full despite definition of the abbreviation CVA in the background section, paragraph one.

2.3. Title - I suggest the title is updated to clarify that the analysis is conducted in a Spanish population, e.g. ‘Economic valuation of informal care for cerebrovascular accident survivors in Spain’.

2.4. Abstract, Background, general - the links between the background sentences need strengthening. Currently, it is difficult to see how informal care costs link with the need for more social services.

2.5. Abstract, Background, sentence 2 - ‘survivors of CVAs in Spain’. This population description needs updating to either CVA survivors with loss of autonomy (dependency) or CVA survivors with some type of disability to be consistent with the defined population elsewhere in the manuscript. Furthermore, this more explicitly defines the study population.

2.6. Abstract, Methods, sentence 1 - should ‘who provide care’ be ‘who provide informal care’?

2.7. Abstract, Methods, sentence 2 - suggest the type of statistical analysis used should be stated here.
2.8. Abstract, Results, sentence 1 - clarify 329,500 is an estimate based on an extrapolation.

2.9. Abstract, Results, sentence 3 - clarify how many scenarios were explored, e.g. ‘…depending on which of the three scenarios were chosen’.

2.10. Background, general - overall, the background section is well-structured. However, paragraph 4 flows more naturally from paragraph 2. Is paragraph 3 perhaps redundant? If not, a stronger link is needed between paragraphs 2 and 3.

2.11. Background, sentence 2 - 2004 WHO estimations of CVAs are cited. Are there more recent data available?

2.12. Methods, Paragraph 1, sentence 1 – it would be helpful if an example was provided of how the 2008 Survey was adapted from the 1999 Survey.

2.13. Methods, Paragraph 3 - a definition of informal care is provided but is unclear. This is important information given the diverse definitions of informal care reported in the literature. The current definition suggests that an informal caregiver is a person who is not a professional social worker but has a family/social bond with the care recipient. Therefore, a paid friend/family member could be an informal caregiver by this definition. Is an informal caregiver someone who is unpaid? If so, this should be explicitly stated.

2.14. Methods, Paragraph 3, sentence 1 - the manuscript states, ‘Informal Care is defined…’ Where? In the Survey? In this study?

The valuation methods, general comments - the valuation methods are clearly described.

2.15. The valuation methods, Paragraph 1, sentence 3 - I’m unsure what the authors are trying to communicate in this sentence and how this fits with the other information provided. Perhaps this sentence should be reworded for clarification.

2.16. The valuation methods, Paragraph 3 – describe the methodology first and then suggest why the estimates are likely conservative.

2.17. The valuation methods, Paragraph 3, sentence 5 - how many cases were excluded?

2.18. Results, Paragraph 1, sentence 1 – 1,975 CVA survivors were identified from the 96,075 households?

2.19. Results, Paragraph 1, sentence 4 - please clarify whether 208,864 primary caregivers is the extrapolated estimate.

2.20. Results, Paragraph 3 – please provide the total N.

2.21. Results, Paragraph 4, sentence 1– the sentence states that the greatest proportion of the load is borne by primary caregivers. As opposed to what/who else? Please clarify.

2.22. Table 2, table heading – please report the total N.
3. Discretionary revisions
3.1. Methods, Paragraph 3 - which characteristics of the caregivers and living situation are collected?
3.2. Results, Paragraph 1 – how do the caregiver characteristics compare with caregivers of other diseases? Internationally? This information would add interest to the manuscript, although is not essential.

4. Minor issues not for publication
4.1. Background, Paragraph 1, sentence 1 - no need to abbreviate DALYs as this term isn’t used again in the manuscript.
4.2. Methods, Paragraph 2 – suggest rearrange the paragraph so that sentence 3 (regarding the sample size) comes before sentence 2 (period of data collection).
4.3. The valuation methods, Paragraph 3, sentence 7 – the maximum number of hours of informal care per day was set at 16 hours, not the average.
4.4. Statistical analysis, sentence 1 – this is a long sentence. Perhaps break the sentence down to aid readability.
4.5. Results, Paragraph 1, sentence 3 – typo ‘ACV’ should be ‘CVA’
4.6. Results, Paragraph 3, sentence 2 – a colon needs inserting after ‘heavy burdens’. The list is rather long. The sentence would benefit from shortening by creating two lists of related items. Similarly, I would suggest finishing sentence 3, paragraph 3 after ‘…go on holiday’ as the subsequent items do not directly relate to free time.
4.7. Table 1, table heading – typo ‘caregirvers’
4.8. References, general – journal titles are abbreviated in some references but provided in full for others, e.g. no. 20 ‘Health Econ’, whereas no. 21 ‘Health Economics’. Be consistent; either provide all journal titles abbreviated or write them out in full.
4.9. References, no 19 – capitalisation for ‘december’
4.10. References, no 27 – provide the year of publication

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests.