Reviewer’s report

Title: Measuring and modelling occupancy time in NHS continuing healthcare

Version: 1 Date: 27 October 2010

Reviewer: Jenny Gallagher

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Overall
This is an important research project using operational research modelling to examine lengths of stay in various types of placement and across different categories of patients, and demonstrating its implications for the healthcare system. This paper needs to be revised but with further work it should make a helpful contribution to the published literature.

A. Major essential revisions

1. Is the question posed by the authors well defined?
   a. The aim should be stated more clearly in the abstract and main text. Is it that the research team have set out to use and test a model for predicting length of stay by type of patient and type of placement that was initially created for local authorities on NHS care placements? This needs to be clearer on first reading, particularly as many researchers will not understand the distinction between local authorities/boroughs and PCTs.
   b. There needs to be clarity over whether the analysis relates to both the pattern of placement as well as the time of placement?

2. Are the methods appropriate and well described?
   c. Greater clarity of methods is required – especially for an international audience who will not be familiar with the Health and Social Care system. Furthermore, there needs to be clarity over which elements relate to England and which, if any, to the UK policy. The approach developed with local authority data appears to being tested with NHS data - this should be presented more succinctly.

3. Are the data sound?
   d. They appear to be sound.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   e. Generally yes. It may be prudent to acknowledge all the PCTs as well as the London Procurement Programme and check if they want a named acknowledgement in the paper.
   f. The Figures are small and hard to read. They require additional labelling to stand alone.
5. Are the discussion and conclusions well balanced and adequately supported by the data?

g. Discussions should explore the implications for the use of this model in the current context of healthcare, i.e. in challenging financial circumstances.

h. This should clearly explore how the findings relate to the literature and then move on to explore their relevance to the emerging new systems. The contribution of this important research in supporting health organisations in forward planning needs to be stated more clearly and discussed, particularly in the current context of the national spending review.

i. Also, the research is conducted in London which is rather different to the rest of the country with a smaller older population and ethnic diversity, with some ethnic groups who have a strong family support network, being less represented in the care home population. These differences should be discussed and their implications for the model.

j. Penultimate paragraph - There are references to documents such as ‘National Frameworks’ which are not explained and references. Presumably this relates to the NSF for Older People?

k. The authors should make it clear if this research is equivalent to the the length of stay component of ‘FLoSC’ and if so, how do the results differ. Is this model user-friendly for organisations to use personally or is it still under development – this is not clear. There should be recommendations for further research and future action.

6. Are limitations of the work clearly stated?

l. Partially – this section of the discussion could be addressed further, particularly data quality issues and the impact of missing/deleted records which could represent other more complex ‘challenges’ in the system.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

m. Generally yes, although references to the ‘National Framework’ could be referenced and explained to provide greater clarity in the paper

n. There is little emphasis on past literature. There may be little published in this field, this fact needs to be stated clearly, the earlier publication by the authors should be more helpfully outlined, and if helpful greater use made of policy literature.

8. Do the title and abstract accurately convey what has been found?

o. Yes, although the reviewers should reflect on whether it is the state (short/medium/long-term) as well as time of placement that is being researched.

p. Conclusion in the abstract – this is rather long. The reference to testing in local authorities would be less confusing, and perhaps more helpful in the discussion rather than here, keeping the reference to further work more generic at this point.
9. Is the writing acceptable?

q. Overall, this is an interesting and important research paper. However, the writing is a little too UK- and English-specific. Furthermore, there is sometimes confusion about whether it is the UK or English system under investigation, and I would suggest it is generally the latter. The paper should be revised to make it suitable for an international audience with some clarity over what primary care trusts are, for example.

r. Literature review: The literature review was thinly supported by references – it could and should be enriched. Terms such as ‘continuing care demand issue’ need to be explained more carefully. Also health policy is changing and the background should be explained using in more generic terms which will not ‘date’ (perhaps with the current ‘labels’ in brackets). The final sentence talks about Section 4 of the paper – it is not clear what this relates to.

s. Results Paragraph two, line 3, it would be helpful to be clear if these categories are mutually exclusive or whether the medium length of stay includes short-term and whether long-term includes both medium and long-term.

t. Results: Figure 1 – quality of text not clear or fully described

u. All figures and tables should be stand alone and therefore require more careful labelling

v. List of abbreviations – very helpful in this paper – ensure all present.

B. Minor revisions

a. Overall: There are a few typos and inconsistencies in the paper.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**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'