Reviewer's report

Title: Cross sectional study of Performance Indicators for English PCTs: Testing Construct Validity and Identifying Explanatory Variables

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Reviewer: robert gibberd

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General

This paper addresses an issue that is of interest as the role of league tables and star classifications have become prevalent. Evaluation of the methods used is important and this paper attempts to look at the validity of indicators for Primary Care Trusts, PCT, in the UK. The results are not unexpected for those who are aware of the shortcomings of overall ratings, but are worth publishing. Some suggestions to the authors are given below.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. The UK terminology may not be familiar to an international audience, and although the abbreviations are given in a table, the use of the PCT abbreviation in the title and abstract is not usual.
2. In the second paragraph, the issue of composite measures is discussed, and the problem of weightings used is raised. A more important problem is that when multiple indices are available, the variance of the indices within a unit is important. This could be mentioned, as the within variance of indicators is greater than the between variance: that is, a unit has better and poorer performance indicators, reflecting that quality is not consistent across the whole PCT. This then leads to the suggestion 6 below.
3. The section on data collection refers to Table 1, but for international audiences, it might be useful to include some text on the methods used to obtain these data by the different organisations.
4. The Figures 2 and 3 suggest a linear association between the variables, but the more extreme points drive this. Fitting a Lowess curve may be useful, or noting whether there is also a relationship between the PCTs where most of the data lie may be of interest.

Discretionary Revisions (which the author can choose to ignore)

5. The paper focuses on the validity of these methods. It may also be important to focus on the utility of star systems, as was done for the UK League tables for hospitals [1]. In what way would these indicators help a PCT to improve their performance, when the results are indicators that do not identify the important areas that could be improved in the PCT system?
6. Six measures are used and the correlations between them reported. But the within variance of the indicators is not given. Since the correlations are weak, it is likely that the data would show the following. Start by giving a score of +1 when the indicator is better than average and −1 when below. Zero if average. Look at the distribution of the scores and see how many have scores of −6 to +6. Is
this consistent with random variation or is there evidence of a bimodal split, with more high and low scores than expected. When I have used this approach on hospitals, the results show that hospitals have equal numbers of poorer and better indicators, reflecting that a good obstetric department does not imply a good paediatric department.


Which journal?: Appropriate or potentially appropriate for BMC Medicine: an article of importance in its field

What next?: Accept for publication in BMC Medicine after minor essential revisions

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests