Reviewer's report

**Title:** Cost Analysis of the Dutch Obstetric System: Home birth compared to short-stay hospital birth - a prospective non-randomised controlled study

**Version:** 1  **Date:** 14 July 2009

**Reviewer:** Miranda Mugford

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This paper reports a cost analysis based on two groups of women, who were having their first birth, and were clinically at low risk, ie not requiring secondary obstetric care during pregnancy. If they agreed to take part in the study, they were offered a choice to give birth at home or in a gp/midwife delivery provision in hospital (‘short stay hospital setting’. Women completed questionnaires at recruitment and then before and after the birth. They were also asked to complete cost diaries weekly during the study. Data were also extracted from clinical records. Costs per woman were constructed from these data with NL specific unit costs.

The analysis compares the ‘societal costs’ for the two groups, based on initial intended place of delivery and on actual place of delivery. The main finding is that there is no significant difference in costs of the two groups, but that higher costs are incurred where women gave birth in obstetric secondary/tertiary level care.

On the whole this is an original and useful addition to the fairly limited international literature on costs of birth, but there are a few corrections to be made. I would like to see more justification for many statements made.

**Major compulsory revisions**

Although there are more home births in NL than other EU countries and USA, this is still not a general study of costs of obstetric care. This needs to be a bit clearer.

More background on how women finance their maternity care in NL would be helpful (to understand incentives for choices).

There were some relevant studies in the UK in the 1970s which are comparable to this report, as the home birth rate in UK was then similar to current NL rates, although perinatal mortality and some technologies in low risk pregnancy were different then. I realise that the literature is unlikely to be available to the authors via standard online search methods, and they might be in the Henderson and Petrou review, but I attach some references I have. The judgement that international comparisons 'cannot be transferred' to the NL situation is a bit sweeping, and clearer reasons should be given.
The authors claim that this study is from the societal viewpoint, and include some data on informal help at home, but do not include data on productivity loss. They do discuss this, but it is a very partial view of ‘societal costs’.

It is good to see the unit costs reported, but it is also recommended (eg BMJ guidelines on economic studies from 1996) that quantity of resource use be presented in economic studies, as it helps readers to judge transferability to their own settings.

Response rates were quite low for complete data – and so missing data replacement method is used. The authors need to convince me better how the mean value replacement method affects the uncertainty around the final estimates.

I don’t understand the term ‘real mean costs’ – this needs clarifying.

Discussion

The costs of diagnostic tests are stated to be ‘not taken into account’. Would it not be more accurate to state that these tests are part of the hospital resource and are in fact included in the calculation of unit costs of visits? The point is that the difference in use of tests between women in the study is not reflected in the costs as estimated here.

Minor essential revisions

There are some small corrections to language that need to be made before publication. I have not listed these as have not got page or line numbers in the downloaded text.

Given that this journal is international, reference to ‘foreign countries’ feels a bit odd to me.

Discretionary revisions

This is a cost comparison study, and makes no comparison with outcome data. It would be interesting to readers to know why women were not asked to complete health utility or other benefit/preference measurement instruments for themselves and their child. It is clear that for this study serious adverse outcomes would be rare and the study was not designed to assess this.

A diagram, like a flow chart, of the clinical pathways followed by the two groups of women would be helpful.

References


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

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

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests