

How much money should be spent on childbirth, and whose benefit is it?

Economic evaluation in midwifery

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Network of Midwifery Research

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Description

Rising costs as well as a lack of evidence based practice are obvious in the German health system. Therefore the legislative body requires health economic studies. Economic evaluations enable to link parameters of quality to costs. Economic evaluations in Germany comparing models in maternity care are unique. Results of international studies, conducted in other countries (e.g. Canada or Scotland), are only restricted transferable to the German health system. The purpose of this study is to compare midwife-led care with consultant-led care for healthy women ("low-risk"). Regarding maternal health in Germany, the c-section rate is increasing rapidly from 18% in 1995 to 31,6% in 2009 [1] and intervention rates are increasing (e.g. nearly 50 % of all vaginal births are accompanied by some kind of anaesthesia [1]). Apart from detrimental health effects for women and children, rising medical intervention rates cause increasing costs. In Germany, the majority of women (98%) give birth in a hospital. Results of international studies identify less medical interventions in midwife-led units as in consultant-led care units combined with a positive neonatal and maternal outcome and a great satisfaction with continuity of care by women [2,6].

Purposes

- ◆ Analysing efficiency, comparing midwife-led care with consultant-led care in Germany.
- ◆ Are there any differences between costs and quality of these two care options?
- ◆ Will midwife-led care units lower costs and keep the same quality of care as consultant-led care units?
- ◆ What are women's preferences and do they differ before and after birth?
- ◆ Are there differences in efficiency, comparing women's views, the perspective of insurance companies and perspective of health care providers?

Methods

Evaluating costs:

Costs were derived from activity-based-costing in labour room. Time registration was designed to analyze the involvement of professionals in process of labour.

Birth documentation was developed to register interventions and to evaluate the expenditures on material.

Evaluating benefits:

Women's anticipations and preferences are obtained with a closed-ended willingness-to-pay questionnaire [4,9] during pregnancy. It was asked how much money women would pay for their preferred care model. Thus, the individual benefit can be measured. The sum of individual benefits is defined as societal benefit for cost-benefit analyses. The willingness-to-pay as well as the savings are defined as benefit.

Eight weeks and six months postpartum women are asked once more about potentially changing willingness-to-pay.

Evaluating effectiveness:

Eight weeks and six months postpartum women are asked about their health-related quality of life using SF-36 [3] and EPDS to measure the physiological and psychological well-being of mothers. Outcome parameters such as intervention rates and the physical well-being of the newborn (e.g. APGAR) will be considered.

Evaluating utilities:

Health-related quality of life will be examined by EQ-5D [12] and SF-36 questionnaires. QALYs (quality-adjusted live years) will be formed.

Cooperation:

Prof. Wolfgang Greiner, University of Bielefeld, Faculty of Health Sciences

Dr. Hermann Pohlabein, BIPS, University of Bremen

Design

The cost-benefit analysis is attended by a cost-effectiveness analysis as well as a cost-utility analysis.

It is piggy-back designed to a prospective controlled multicenter study.

The study started in 2007 and will be finished in 2010.

Sample Size: > 1000 low-risk-women are recruited actually for the study.

Instruments:

Contingent Valuation: Closed-ended Willingness-to-pay questionnaire (WTP) is used in pregnancy (t1)

Workload assessment for obtaining staffs working-time (t2)

Documentation tool during birth (t2)

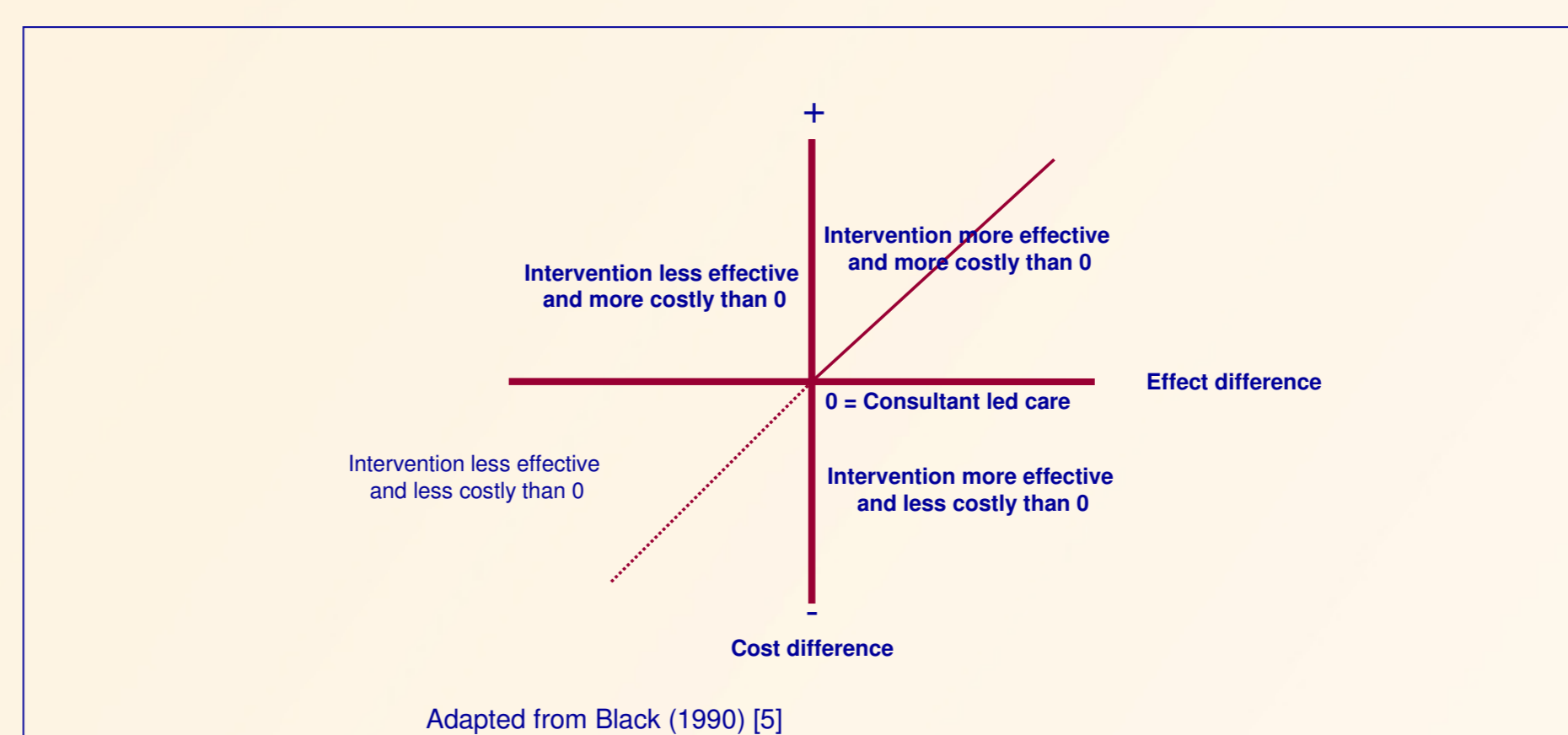
Posted Questionnaires eight weeks (t3) and six months (t4) after birth. Contents are: WTP, EQ-5D, SF-36 and the Edinburgh Postnatal Depression Scale (EPDS) et al.

Discussion

This is the first economic evaluation in Germany on the scope of maternity care models.

The implementation of midwife-led care units may decrease costs and medical intervention rates and may improve the satisfaction of women. Results of the study can be applied for the decision-making of allocating resources and may be helpful for health care insurance, health care providers and consumers.

The results may also support the diversity in maternity care and expand the knowledge about women's perceptions.



Literature

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