Does giving women their own case notes to carry in pregnancy improve maternal care?

Improvements in antenatal care have included changes to traditional practices in order to improve women’s experiences of antenatal care and the clinical outcomes of maternity care. One such change has been giving women their own clinical case notes to carry throughout their pregnancy in order to enable women to participate in the decision making regarding their healthcare, and to improve the availability of the records when needed.

Key messages

- Women carrying their own case notes
  - may lead to an increase in assisted deliveries;
  - may lead to a slight increase in epidural analgesia;
  - may lead to little or no difference in miscarriages, stillbirths or neonatal deaths, breastfeeding initiation, or smoking cessation;
  - probably feel more in control and involved in decision making about their care, and want to carry their notes again in subsequent pregnancies;
  - may be slightly more satisfied with antenatal care; and
  - may lead to little or no difference in availability of complete antenatal records at the time of delivery or loss of case notes.

- These findings are based on a few small trials in high-income countries. Factors that should be considered in applying the findings of this review to low-income country settings include:
  - Access to and utilisation of antenatal care
  - Literacy rates of women and care providers

Who is this summary for?
People making decisions concerning improvements to antenatal and maternal care

This summary includes:
- Key findings from research based on a systematic review
- Considerations about the relevance of this research for low-income countries

Not included:
- Recommendations
- Additional evidence not included in the systematic review
- Detailed descriptions of interventions or their implementation

This summary is based on the following systematic review:

What is a systematic review?
A summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise the relevant research, and to collect and analyse data from the included studies.

SUPPORT was an international project to support the use of policy relevant reviews and trials to inform decisions about maternal and child health in low- and middle-income countries, funded by the European Commission (FP6) and the Canadian Institutes of Health Research.

Glossary of terms used in this report: www.supportsummaries.org/glossary-of-terms

Background references on this topic: See back page
Background

In seeking better ways to deliver antenatal care, giving women their own clinical case notes to carry during pregnancy has several potential benefits. It is perceived as empowering women and could facilitate greater participation in clinical care decisions. When women move from one facility to another, it could also ensure that the records are available and that all healthcare providers write in one record, potentially reducing clinical error and improving continuity of care. It has also been hypothesised that women who take responsibility for their own case notes will exhibit other improved health behaviours such as reduced smoking, improved breastfeeding and a reduced need for analgesia in labour. Although this is already practised in high, middle and low income settings, evidence of its effectiveness is not widely available.

This summary is based on a systematic review assessing the effects of giving women their own case notes to carry during pregnancy in studies conducted in high-income countries. An updated version of this review found one additional randomized trial, which did not change the conclusions of the review (See related literature). This summary has not yet been updated to incorporate the additional trial.
About the systematic review underlying this summary

**Review objective:** To evaluate the effects of women carrying their own case notes during pregnancy

<table>
<thead>
<tr>
<th>Types of</th>
<th>What the review authors searched for</th>
<th>What the review authors found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study designs &amp; Interventions</td>
<td>Randomized trials of interventions in which pregnant women were given their own case notes to carry during pregnancy</td>
<td>Three trials in which pregnant women were given their complete antenatal records to carry and control groups were given a co-op card (short summary card with no clinical progress information)</td>
</tr>
<tr>
<td>Participants</td>
<td>Pregnant women</td>
<td>Pregnant women recruited at their first antenatal booking visit</td>
</tr>
<tr>
<td>Settings</td>
<td>Antenatal care services</td>
<td>Antenatal care services within the public health sector in the UK (2) and Australia (1)</td>
</tr>
</tbody>
</table>
| Outcomes | Primary: maternal satisfaction and control, administrative efficiency  
Secondary: partner involvement, health related behaviours, clinical outcomes | Primary: maternal satisfaction and control (3), administrative efficiency information (2)  
Secondary: Breastfeeding initiation (1), smoking cessation (2), and clinical outcomes (1) |

**Date of most recent search:** March 2011

**Limitations:** This is a well-conducted systematic review with only minor limitations. An updated version of this review found one additional randomized trial, which did not change the conclusions of the review (See related literature). This summary has not yet been updated to incorporate the additional trial.

Summary of findings

Three trials in high-income countries assessed the effects of women carrying their own case notes compared to women carrying a co-op card (a short summary card with no clinical progress information).

1) Behavioural and clinical outcomes

None of the studies assessed partner involvement directly. Two studies assessed smoking cessation, one assessed breastfeeding initiation, and one assessed clinical outcomes (such as assisted deliveries, use of epidural analgesia, miscarriages, stillbirths, and neonatal deaths). Data for smoking cessation was not provided, and its effect was reported in the narrative of the review. The studies found that giving women their case notes to carry:

→ May lead to more assisted deliveries. The certainty of this evidence is low.
→ May lead to a slight increase in epidural analgesia usage. The certainty of this evidence is low.
→ May lead to little or no difference in smoking cessation or breastfeeding initiation. The certainty of this evidence is low.
→ May lead to little or no difference in rates of miscarriages, or stillborn and neonatal deaths. The certainty of this evidence is low.

About the certainty of the evidence (GRADE) *

- High: This research provides a very good indication of the likely effect. The likelihood that the effect will be substantially different† is low.
- Moderate: This research provides a good indication of the likely effect. The likelihood that the effect will be substantially different† is moderate.
- Low: This research provides some indication of the likely effect. However, the likelihood that it will be substantially different† is high.
- Very low: This research does not provide a reliable indication of the likely effect. The likelihood that the effect will be substantially different† is very high.

* This is sometimes referred to as ‘quality of evidence’ or ‘confidence in the estimate’.
† Substantially different = a large enough difference that it might affect a decision

See last page for more information.
## Behavioural and clinical outcomes

| People | Pregnant women |
| Settings | Antenatal services in the public health sector in UK and Australia |
| Intervention | Women carrying their own clinical case notes during pregnancy |
| Comparison | Women carrying abbreviated co-op cards with no clinical follow up information |

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Absolute effect*</th>
<th>With women carrying notes</th>
<th>Relative effect (95% CI)</th>
<th>Certainty of the evidence (GRADE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assisted delivery</strong></td>
<td></td>
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<tr>
<td>Without women carrying notes</td>
<td>16 per 100</td>
<td>29 per 100</td>
<td>RR 1.83 (1.08 to 3.12)</td>
<td>Low</td>
</tr>
<tr>
<td>With women carrying notes</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Difference:</strong> 13 more assisted deliveries per 100 pregnant women</td>
<td>(Margin of error: 1 to 33 more)</td>
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<tr>
<td><strong>Epidural analgesia</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Without women carrying notes</td>
<td>27 per 100</td>
<td>38 per 100</td>
<td>RR 1.43 (0.96 to 2.13)</td>
<td>Low</td>
</tr>
<tr>
<td>With women carrying notes</td>
<td></td>
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<tr>
<td><strong>Difference:</strong> 11 more epidural analgesia per 100 pregnant women</td>
<td>(Margin of error: 1 fewer to 30 more)</td>
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<tr>
<td><strong>Miscarriage</strong></td>
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<tr>
<td>Without women carrying notes</td>
<td>6 per 100</td>
<td>8 per 100</td>
<td>RR 1.19 (0.45 to 3.16)</td>
<td>Low</td>
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<tr>
<td>With women carrying notes</td>
<td></td>
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<td></td>
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<tr>
<td><strong>Difference:</strong> 2 more miscarriages per 100 pregnant women</td>
<td>(Margin of error: 3 fewer to 14 more)</td>
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<tr>
<td><strong>Stillborn or Neonatal death</strong></td>
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<tr>
<td>Without women carrying notes</td>
<td>2 per 100</td>
<td>2 per 100</td>
<td>RR 1.04 (0.15 to 7.24)</td>
<td>Low</td>
</tr>
<tr>
<td>With women carrying notes</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Difference:</strong> no stillborn or neonatal deaths per 100 pregnant women</td>
<td>(Margin of error: 2 fewer to 11 more)</td>
<td></td>
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<td></td>
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<tr>
<td><strong>Breastfeeding initiation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without women carrying notes</td>
<td>77 per 105 (77.1%)</td>
<td>79 per 98 (78.6%)</td>
<td>RR 1.02 (0.88 to 1.18)</td>
<td>Low</td>
</tr>
<tr>
<td>With women carrying notes</td>
<td></td>
<td></td>
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<tr>
<td><strong>Difference:</strong> 2 more breastfeeding initiations per 100 pregnant women</td>
<td>(Margin of error: 9 fewer to 14 more)</td>
<td></td>
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</tbody>
</table>

Margin of error = Confidence interval (95% CI)  
RR: Risk ratio  
GRADE: GRADE Working Group grades of evidence (see above and last page)

* The risk WITHOUT the intervention is based on pregnant women not carrying their clinical case notes. The corresponding risk WITH the intervention (and the 95% confidence interval for the difference) is based on the overall relative effect (and its 95% confidence interval).
2) Other outcomes

Two trials reported on women’s feeling in control and involvement in decision making, one reported on satisfaction with antenatal care received, and all three reported on the proportion of women who wanted to carry their own case notes in a subsequent pregnancy. Evidence from the trials showed that women carrying their own case notes:

- Probably feel more in control and involved in decision making about their care. The certainty of this evidence is moderate.
- May slightly improve women’s satisfaction with care. The certainty of this evidence is low.
- Would probably want to do so again in subsequent pregnancies. The certainty of this evidence is moderate.

Administrative efficiency was used by the review to describe the extent to which the intervention ensured that records were available. None of the trials reported on the availability of the records at the time of delivery. Two trials assessed whether the intervention impacted on loss of case notes and found that:

- Women carrying their own clinical case notes may result in little or no difference in loss of case notes. The certainty of this evidence is low.
Relevance of the review for low-income countries

<table>
<thead>
<tr>
<th>➤ Findings</th>
<th>➤ Interpretation*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>APPLICABILITY</strong></td>
<td></td>
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<tr>
<td>➤ The interventions were conducted in antenatal services of the public health sector in high-income countries</td>
<td>➤ The results could be applicable in low-income country settings with accessible antenatal services which are utilised by women. Case notes may take different formats such as summaries of maternal health record or antenatal records in different contexts.</td>
</tr>
<tr>
<td><strong>EQUITY</strong></td>
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<tr>
<td>➤ The included trials did not provide data regarding differential effects of the interventions for disadvantaged populations</td>
<td>➤ The intervention had an empowering effect on women in their feeling in control and involved in decision making regarding their care. This effect may be less in populations which do not have accessible antenatal care services, high adult illiteracy levels or where medical care and cultural norms do not support women’s involvement in decision making relating to their clinical care during pregnancy.</td>
</tr>
<tr>
<td><strong>ECONOMIC CONSIDERATIONS</strong></td>
<td></td>
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<tr>
<td>➤ The trials did not include any economic evaluations</td>
<td>➤ There may be some additional costs involved in providing records for women to carry, as well as potentially increased costs associated with more assisted deliveries. Future studies should include economic evaluations, and local costing would be important prior to implementation.</td>
</tr>
<tr>
<td><strong>MONITORING &amp; EVALUATION</strong></td>
<td></td>
</tr>
<tr>
<td>➤ Data on the effects of women-held antenatal records are limited and inconclusive, especially on outcomes such as partner involvement, behaviour change, record keeping, and clinical outcomes; and in low-income countries</td>
<td>➤ Randomized trials of the effects of women-held clinical case records in low-income countries are needed. Implementation of this intervention in maternity care should be monitored and evaluated, particularly for behaviour change and clinical outcomes.</td>
</tr>
</tbody>
</table>

*Judgements made by the authors of this summary, not necessarily those of the review authors, based on the findings of the review and consultation with researchers and policymakers in low-income countries. For additional details about how these judgements were made see: [www.supportsummaries.org/methods](http://www.supportsummaries.org/methods)
Additional information

Related literature
Updated version of this review: Brown HC, Smith HJ, Mori R, Noma H. Giving women their own case notes to carry during pregnancy. Cochrane Database of Systematic Reviews 2015, Issue 10. Art. No.: CD002856. DOI: 10.1002/14651858.CD002856.pub3.


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Conflict of interest
None declared. For details, see: www.supportsummaries.org/coi

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This review should be cited as

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The South African Medical Research Council aims to improve South Africa’s health and quality of life through promoting and conducting relevant and responsive health research. www.mrc.ac.za/

Cochrane South Africa, the only centre of the global, independent Cochrane network in Africa, aims to ensure that health care decision making within Africa is informed by high-quality, timely and relevant research evidence. www.mrc.ac.za/cochrane/cochrane.htm

About certainty of the evidence (GRADE)
The “certainty of the evidence” is an assessment of how good an indication the research provides of the likely effect; i.e. the likelihood that the effect will be substantially different from what the research found. By “substantially different” we mean a large enough difference that it might affect a decision. These judgements are made using the GRADE system, and are provided for each outcome. The judgements are based on the study design (randomised trials versus observational studies), factors that reduce the certainty (risk of bias, inconsistency, indirectness, imprecision, and publication bias) and factors that increase the certainty (a large effect, a dose response relationship, and plausible confounding). For each outcome, the certainty of the evidence is rated as high, moderate, low or very low using the definitions on page 3.

For more information about GRADE: www.supportsummaries.org/grade

SUPPORT collaborators:
The Cochrane Effective Practice and Organisation of Care Group (EPOC) is part of the Cochrane Collaboration. The Norwegian EPOC satellite supports the production of Cochrane reviews relevant to health systems in low- and middle-income countries. www.epocoslo.cochrane.org

The Evidence-Informed Policy Network (EVIPNet) is an initiative to promote the use of health research in policymaking in low- and middle-income countries. www.evipnet.org

The Alliance for Health Policy and Systems Research (HPSR) is an international collaboration that promotes the generation and use of health policy and systems research in low- and middle-income countries. www.who.int/alliance-hpsr

Norad, the Norwegian Agency for Development Cooperation, supports the Norwegian EPOC satellite and the production of SUPPORT Summaries. www.norad.no

The Effective Health Care Research Consortium is an international partnership that prepares Cochrane reviews relevant to low-income countries. www.evidence4health.org

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