THE UNIVERSITY of York

SOCIAL SCIENCE RESEARCH UNIT
UNIVERSITY OF LONDON

NHS CENTRE FOR REVIEWS & DISSEMINATION
UNIVERSITY OF YORK

MIDWIVES INFORMATION AND RESOURCE SERVICE

A Pilot Study of 'Informed Choice' Leaflets on Positions in Labour and Routine Ultrasound

CRD REPORT 7

A PILOT STUDY OF 'INFORMED CHOICE' LEAFLETS ON POSITIONS IN LABOUR AND ROUTINE ULTRASOUND

Social Science Research Unit
University of London Institute of Education
CRD Report 7
December 1996

ISBN 1 900640 03 1

This report can be ordered from: Publications Office, NHS Centre for Reviews and Dissemination, University of York, York YO1 5DD. Telephone 01904 433648; Facsimile: 01904 433661: email: crdpub@york.ac.uk
Price £7.50

The NHS Centre for Reviews and Dissemination is funded by the NHS Executive and the Health Departments of Scotland, Wales and Northern Ireland; a contribution to the Centre is also made by the University of York. The views expressed in this publication are those of the authors and not necessarily those of the NHS Executive or the Health Departments of Scotland, Wales or Northern Ireland.

Printed by York Publishing Services Ltd.

NHS CENTRE FOR REVIEWS AND DISSEMINATION

The NHS Centre for Reviews and Dissemination (CRD) is a facility commissioned by the NHS Research and Development Division. Its aim is to identify and review the results of good quality health research and to disseminate actively the findings to key decision makers in the NHS and to consumers of health care services. In this way health care professionals and managers can ensure their practice reflects the best available research evidence.

The reviews will cover

- the effectiveness of care for particular conditions;
- the effectiveness of health technologies; and
- evidence on efficient methods of organising and delivering particular types of health care.

Further Information

If you would like further information please contact:

General Enquiries:	01904 433634
Information Service	01904 433707
Publications:	01904 433648
Fax:	01904 433661
Email:	revdis@york.ac.uk

Publications

CRD Reports

1	Which Way Forward for the Care of Critically Ill Children? (1995)	£7.50
2	Relationship Between Volume and Quality of Health Care: A Review of the Literature (1995)	£5.00
3	Review of the Research on the Effectiveness of Health Service Interventions to Reduce Variations in Health (1995)	£12.50
4	Undertaking Systematic Reviews of Research on Effectiveness. CRD Guidelines for those Carrying Out or Commissioning Reviews (1996)	£7.50
5	Ethnicity and Health: Reviews of Literature and Guidance for Purchasers in the Areas of Cardiovascular Disease, Mental Health and Haemoglobinopathies (1996)	£12.50
6	Making Cost-Effectiveness Information Accessible: The NHS Economic Evaluation Database Project. CRD Guidance for Reporting Critical Summaries of Economic Evaluations (1996)	£7.50

Effectiveness Matters

Vol.1	(1)	Aspirin and Myocardial Infarction (1995)
	(2)	Helicobacter Pylori and Peptic Ulcer (1995)
Vol.2	(1)	Influenza Vaccination and Older People (1996)

ACKNOWLEDGEMENTS

This pilot study was carried out by Sandy Oliver, Lynda Rajan, Helen Turner and Ann Oakley at the Social Science Research Unit, University of London Institute of Education. This is a research centre which carries out a range of health and educational research with a focus on current policy and practice issues in service provision.

We are grateful for the major contribution of advice and support given by the steering group:

Tricia Anderson, Midwives Information and Resource Service
Vikki Entwistle, NHS Centre for Reviews and Dissemination
Jilly Rosser, Midwives Information and Resource Service
Trevor Sheldon, NHS Centre for Reviews and Dissemination
Ian Watt, NHS Centre for Reviews and Dissemination

Patricia Donnithorne, Librarian for the National Childbirth Trust was also very generous with her time.

In addition we would like to thank all the women who agreed to be interviewed and who filled in questionnaires. This work could not have been done without the support of midwives, ultrasonographers, linkworkers and other staff in each of the three hospitals.

TABLE OF CONTENTS

Page

1. BACKGROUND AND METHODS

Background and aims

The background to this pilot project is the growing enthusiasm for informed user choice and evidence-based practice in NHS maternity care. This is leading to various attempts to provide those who work in the maternity services with the kind of information that can advance both informed choice and more appropriate and 'scientific' forms of intervention.

The Midwives's Information and Resource Service (MIDIRS) and the NHS Centre for Reviews and Dissemination (CRD) have developed a set of 'Informed Choice' leaflets for pregnant women and for professionals which they wish to evaluate. These leaflets cover a variety of topics, and each leaflet for maternity service users is paired with one for health professionals. Each pair of leaflets draws on the same evidence. The role of the Social Science Research Unit (SSRU) has been to work with MIDIRS and CRD in designing, conducting and reporting a pilot of these. The pilot project may be followed by a larger multicentre study of the impact of the leaflets on maternity care practice.

The pilot was carried out by a research team at the SSRU over a six month period from January to June 1995 with the co-operation of women and health workers in three London hospitals. This report presents a summary of the main findings, inevitably drawing on only a proportion of the data collected. In addition to eliciting views on the leaflets and describing how they may be used by pregnant women and their midwives, the findings also throw light on the task of evaluating the introduction of informed choice leaflets into 'real life' settings.

The aims of the pilot project were:

1. To study methods and processes for disseminating the leaflets in 'real life' settings.

2. To assess the acceptability of the leaflets to pregnant women and health professionals.

3. To make recommendations for the design of the leaflets.

4. To develop appropriate methods for evaluating the impact of informed choice leaflets for pregnant women and health workers in both hospital and the community.

5. To identify appropriate outcome measures.

6. To develop instruments for assessing both processes and outcomes for use in a larger evaluation.

7. To assess the willingness of women to take part in a study of informed choice.

8. To report on other substantive findings arising in the pilot.

9. To make recommendations for the design of a larger evaluation.

Measuring 'informed choice' requires an assessment of how well the information needs of service users are met and to what extent service users are able to exercise choice. The process of enabling informed choice was investigated in the pilot project by asking three questions:

- Was sufficient information available in the leaflets?
- Were the leaflets accessible to all women?
- Was the information read and understood by all women?

Study design

Two pairs of leaflets were piloted, one pair on routine ultrasound in the first half of pregnancy and one pair on positions in labour. Three hospitals agreed to take part; they are represented in this report as hospitals A, B and C. The ultrasound leaflets were piloted at one hospital, and the positions in labour leaflets were piloted in all three. Data were collected from health workers and from pregnant and, for the positions in labour leaflet, newly delivered women. For the women, the study design took a before-and-after approach: that is, information was collected from samples of women before and after they were able to use the 'Informed Choice' leaflets.

The pilot had no set maternal age or gravida restrictions. Midwives were encouraged to offer the leaflets to all pregnant women, even those receiving care from obstetric consultants, although women already booked for a Caesarean section were not recruited to the positions in labour sample. Although the leaflets were only available in English in this pilot, the views of ethnic minority women were sought, working with linkworkers where necessary.

The study sought the views and experience of health workers, both in relation to the information contained in the professional leaflets and how this might be used to change

practice, and also in relation to the content and design of the women's leaflets. The pilot concentrated on midwives' responses, but the views of other health professionals, particularly ultrasonographers, also provided important and valuable data.

The NHS maternity service settings

Three hospitals took part in the pilot study:

Hospital A is situated in an affluent area, and provides a maternity service to local and other residents across the authority, as well as care purchased by other health authorities for women living outside the area. Maternity care is also provided in the community by four community teams located in clinics within the health authority area. Certain pockets of the population served by two community midwifery teams match a typical profile of inner city deprivation: high levels of material deprivation, high numbers of children under the age of five, lone parents and unemployment. Hospital based midwifery teams also provide some antenatal care in clinics beyond the health authority boundaries.

Hospital A has around 2,700 deliveries per year, with 59% first births. The normal delivery rate is 62%; the Caesarean section rate is 21% and the assisted delivery rate 17%.

Hospital B is in North London. There is a clustering of areas of deprivation round the hospital. Figures for 1994 show a total of 2,702 births (including hospital and community midwifery deliveries); 76% were normal deliveries, 17% were Caesareans and 7% assisted deliveries.

Hospital C and its community midwifery service provide a maternity service for an urban population of two boroughs in north London. The two boroughs have very different socio-economic profiles; borough M has an older, more affluent population, whilst borough N is more densely populated, with a higher percentage of ethnic minority populations (the highest of any local authority in England and Wales). Borough M has much higher levels of material deprivation than borough N.

Hospital C has around 3,500 deliveries per year; 46% of these are first births; 75% are normal deliveries, with 16% Caesarean sections, and 9% assisted deliveries. Most - 71% - of births are conducted by hospital midwives in hospital, with hospital doctors delivering 27%, and community midwives 2%.

The leaflets were piloted in both hospital and community settings. A total of 10 hospital and 7 community clinics were included in the pilot for the positions in labour leaflet, and 5 community clinics and 6 hospital clinics for the ultrasound leaflet. Hospital clinics included both consultants' clinics and those led by midwives or midwifery teams. Community clinics included those that took place in health centres, GP surgeries and at home. In addition, two parentcraft classes featured in the study.

Recruiting women

Women were offered the ultrasound leaflet and invited to help with the pilot by filling in a consent form and questionnaire when they met a midwife at their booking appointment at approximately 12-14 weeks of pregnancy. Other women were offered the positions in labour leaflet and invited to help with the pilot when they met their midwife at approximately 36 weeks of pregnancy. Recruitment was spread over a two week period for each leaflet. Data on those who were eligible but not invited, or who did not agree to participate were collected where possible.

Women were asked to fill in a second questionnaire either following their ultrasound scan at 18-20 weeks of pregnancy (or after 20 weeks of pregnancy if they did not have a scan), or for the positions in labour leaflet, at least ten days after they had given birth.

Research methods

The main methods and instruments for conducting the pilot and collecting data were as follows:

a) Dissemination packs for midwives which included the leaflets and research materials.

b) An introductory letter and consent form for women, which also served the function of collecting data before women had seen the leaflets.

c) Questionnaires for women after they had been able to use the leaflets.

d) Interviews with some women when they were first recruited and immediately after their ultrasound scan

e) A record form for midwives.

f) Questionnaires for midwives about both the professional and the women's leaflets.

g) Interviews with midwives.

There were also a number of subsidiary methods which are listed below.

a) Packaging the leaflets for midwives

The midwives who recruited women into the study were given 'dissemination packs' which included the leaflets for use in the clinics. The aims of this method were:

1. To develop an easy-to-use package that would include all the items needed for dissemination of the leaflets and recruitment of women into the pilot by midwives in either hospital or community settings.

2. To look at the process of getting such a package from the midwives' office out into the clinics for midwives to use.

Based on preliminary discussions with midwives, a total of 191 positions in labour packs and 74 ultrasound packs were prepared. Each pack contained at least 3 professionals' leaflets, 6 women's leaflets, 3 record forms for midwives, 6 introductory letters to pregnant women and 9 pre-paid envelopes for return of forms to SSRU. The number of items included in each pack was sufficient for between 1-3 midwives per community clinic, and 2-3 midwives per hospital clinic. In large antenatal clinics where there were up to 6 midwives on duty more packs were needed. Packs were dispersed to clinics either through the internal post system or by hand from the midwives' office.

b) The women's consent form

Eligible women were given a letter about the pilot study, and a form which requested their consent and asked a number of background questions about obstetric and socio-demographic details, existing levels of information about maternity care, and general emotional well-being. The consent form fulfilled the dual purpose of recording whether women wished to take part in the study or not, and collecting basic information from them before they had used the leaflets. Its aims were:

1. To seek women's informed consent to take part in the study.

4. To assess language and literacy needs, and compare these with the relevant information on the midwives' record forms.

Seventy-three women were interviewed when given the positions in labour leaflet. The interviews took place mainly in a quiet corner of the antenatal clinic's reception area. Fourteen women were interviewed on the ultrasound leaflet. Those women interviewed again after their scan talked with the researcher in the ultrasound reception area. The interviews varied in length from 2-20 minutes.

e) Midwives' record forms

Record forms were designed for the midwives who were recruiting women to the study to record details of women who agreed to take part. Midwives contributed to the design of the record form, and early drafts were modified at their request. The final format had instructions for midwives on how to recruit women into the study on one side, and questions about the characteristics of women recruited into the study on the reverse. The forms were intended both as an administrative tool and as a way of collecting essential background information, as the study did not have access to the women's medical notes. The record form was designed to enable a description of the total sample which includes those who refused the leaflet, those who took the leaflet but did not consent to take part in the study; and those not included for other reasons.

The aims and objectives of this method were:

1. To involve midwives in the design of a research tool in order to increase its acceptability and reliability in use by other midwives.

2. To develop a research tool that would act as a record of those who were given a leaflet and recruited into the pilot.

3. To use the record form as a means of identifying those who were not given a leaflet, and/or who were not recruited by midwives.

4. To gather information on women for whom English is not their primary language.

5. To gain a more precise figure of the numbers of women attending hospital and community clinics.

f) Midwives' questionnaires

Midwives who participated in giving out leaflets to women were sent a letter and postal questionnaire for return directly to the research team. The questionnaire asked about the process of giving out the leaflets, views about the women's leaflets, and also about those for professionals. A postal reminder was sent to non-responders. 'Lead' midwives were contacted either by phone or in person to help with non-responders.

The aims and objectives of this method were:

1. To collect quantitative and qualitative data from midwives who gave the leaflets to pregnant women and recruited them into the pilot on:

    - acceptability and use of the midwives' leaflets
    - acceptability and use of the women's leaflets
    - problems midwives or women might have with the leaflets
    - implications for changes in practice or service needs
    - suggestions of things to add or take out of the leaflets

2. To gather information about the realities and barriers to giving the leaflets to women

3. To assess midwives' willingness to take part in a study of informed choice leaflets.

g) Midwives' interviews

The researchers met 29 midwives when visiting clinics during the pilot of the positions in labour leaflet and all 14 midwives involved in the ultrasound leaflet pilot. This was an opportunity for brief informal interviews to elicit their views on the leaflets and their role in informed choice. Three midwives were interviewed at greater length at the end of the positions in labour leaflet pilot. This proved less useful because they could remember little of their interactions with individual women who were given leaflets.

Other methods

Aside from questionnaires and interviews with women and health professionals, a number of different methods were used to negotiate approval for the pilot and to ensure and observe dissemination of the leaflets. These were: a) consultation and negotiation; b) briefing and de-briefing; and c) observation.

a) Consultation and negotiation

The aims and objectives of this method were:

1. To introduce the aims and objectives of the pilot to senior clinical and managerial staff, heads of departments and midwives, and to gain their support for the study.

2. To obtain information on how maternity services are provided at each hospital.

3. To plan how best to disseminate the leaflets to midwives and women in a variety of real life settings.

4. To identify hospital and community clinics - times, dates, places, and midwives in charge - in which dissemination and recruitment would take place.

5. To identify and consult with other professional groups directly or indirectly involved with the pilot.

A total of six 1.5 hour meetings took place at the 3 hospital sites. These meetings were attended by heads of midwifery services, senior midwives, midwifery team representatives, representatives from MIDIRS and CRD, and the pilot team.

b) Briefing/de-briefing

Members of the research team attended as many settings as possible to overcome the problem that midwives had little or no time to familiarise themselves with the leaflets and research materials before the start of the project.

The aims and objectives of this method were:

1. To brief individuals or groups of midwives on:

    - the contents of the dissemination packs
    - their role as disseminators and recruiting agents
    - the researchers' roles

2. To gain information and feedback from midwives on problems, queries, impressions, and suggestions, as these occurred.

3. To enable the research team to respond quickly to problems.

Briefing usually occurred on site before the start of the clinic session with either individual midwives (community antenatal clinics are often single-handed midwife clinics) or in ones and twos, or occasionally in groups in the larger hospital antenatal clinics. Briefing had to fit in around the other duties the midwives had, so it also took place while examination rooms were made ready, blood trolleys were re-stocked, patient notes were sorted, and in between seeing women. Very often it took place whilst in transit from one clinic to another; in cars, over lunch, in lifts, etc.

c) Observation

Like briefing, observation was used to identify processes, interactions, or situations that might impede dissemination or use of the leaflets.

The aims and objectives of this method were:

1. To observe and record activity and processes in community and hospital antenatal clinics.

2. To observe the different settings in which dissemination takes place.

3. To observe and record interactions between individuals above and 'below the level of conscious awareness'.

4. To let observations inform and/or support other qualitative and quantitative findings.

The researchers observed and made notes on activities, interactions and processes as they occurred or soon after in a range of settings.

The sample

The target was to involve 30-40 women for the pilot of each leaflet at each hospital, giving a total sample of 120-160. With four pilots (one of the ultrasound leaflet and three of the positions in labour leaflet) and a before-and-after design, this meant a total of 60-80 questionnaires for the ultrasound leaflet and 180-240 for the positions in labour leaflet.

Table 1 gives information about the two samples of women recruited for the evaluation of the two leaflets, and about levels of midwife involvement in the study.

a) Positions in labour sample

A total of 131 women were invited to participate in the pilot of the positions in labour leaflet in the 3 hospitals, of whom 111 agreed. One of the 111 did not return her consent form. Three women refused; one of these wanted to keep the leaflet. The average age of the 110 who completed the consent form was 30 years (range 17-44 years). Most were multiparas living with partners. In terms of education and housing tenure, rather more than half were middle class.

b) The ultrasound sample

Because women appeared to be scanned routinely at all three hospitals, piloting at one site was considered adequate. A total of 41 women cared for by hospital A were invited to take part in the pilot, and 26 agreed (table 1). Their average age was 32 years, and all who gave information lived with partners. Like the positions in labour sample, a majority were middle class according to housing tenure and education.

There is no reason to believe that these samples of women are unrepresentative of those attending the 3 hospitals for pregnancy care. Compared to random samples of childbearing women, however, the samples may over-represent educated women and more advantaged ethnic minority women, because of the particular nature of the 3 hospital populations, and especially self-selection at hospital A.

c) Midwife involvement

Table 1 shows that a total of 37 midwives were involved in the distribution of leaflets and recruitment of women into the positions in labour sample; 15 at hospital A (5 in hospital based teams, 10 in community based teams); 5 at hospital B (3 in hospital and 2 in community clinics) and 11 at hospital C (5 in hospital and 6 in community teams).

The number of midwives at hospital A involved with the ultrasound leaflets was 14. Eight of these worked in hospital teams, and 6 in community teams. Some of the midwives worked with both pairs of leaflets.

Data analysis

The data collected from questionnaires were coded and analysed using a combination of dBASE III and SPSS PC for Windows, with simple statistical analysis (mainly the chi-square

test of significance). Significance levels are not shown on the tables. As the cells in some of these are very small, the findings need to be interpreted with caution. The measures of social class used were housing tenure and age of leaving full-time education. Most of the tables refer to the positions in labour leaflet, as the numbers for the ultrasound leaflet were too small to allow subgroup analysis: figures, where appropriate, are given in the text.

2 FINDINGS OF THE 'POSITIONS IN LABOUR' LEAFLET PILOT

Willingness to take part in a study of informed choice

The pilot was supported by the Directors of Midwifery at all 3 hospitals. Midwives supported the pilot through discussion at meetings, giving the leaflet to women at routine antenatal checks and asking those women if they would help.

A total of 31 midwives offered leaflets to 131 women. As noted earlier, three women refused the leaflet and/or the consent form. A further 22 women did not return the consent form. This gives a total of 110 women completing and returning the consent form - a response rate of 84%. When these women were sent postal questionnaires after they had given birth, 56 returned these; this is a response rate of 51%. Although one reminder was sent, time did not allow for a personal approach to non-responders. The low rate of Caesarean section amongst responders (4%) compared with the Caesarean rates at the participating hospitals (21%, 17% and 16% at hospitals A, B and C respectively) suggests that women who experienced instrumental deliveries may be reluctant to fill in a questionnaire about positions in labour. However, there were no significant differences in social class, parity, literacy in English, age and clinic setting between those who completed the post-delivery questionnaire and those who did not.

All questionnaires ended with a question asking how the respondent felt about filling in the form. Most women expressed their personal support for participating in the research and found the questionnaires easy to fill in (table 2). Some midwives and a few newly delivered women found their questionnaire either too long or too time consuming. Enthusiasm for the research seemed to differ between women who had given birth at different hospitals (table 3). Ninety three per cent of the respondents from hospital C, 88% of the respondents from hospital B and 56% from hospital A said that they were happy to fill the questionnaire in. The lower figure from hospital A probably reflected the fact that 31% of the women there said that the form was too long, whereas only 4% and 7% from hospitals B and C respectively thought this.

Disseminating the leaflet

Midwives were the sole disseminators of the leaflets, although some women attending a hospital clinic where midwives did not wear uniforms thought that they were given the leaflet by a consultant. Nearly two thirds of the women had previously met the midwife who gave them the leaflet (table 4), and most expected to meet her again (table 5). Ten of the thirteen midwives who returned their questionnaires (14 out of 31) said they found it quite or very easy to remember to give the leaflets to women.

Midwives chose how and when to give the leaflets to women. In hospital consultant clinics they usually approached women in reception before the examination or consultation took place, whereas in midwife-led hospital and community clinics women were given leaflets during their private consultation with the midwife. Most of the leaflets were given out in hospital clinics (table 6).

Although a disproportionate number of community clinics to hospital clinics were targeted in order to reach a wide variety of settings and people, more women were recruited in hospital clinics because there were more midwives on duty seeing many more women per session than in single-handed community clinics.

Midwives identified several barriers to giving out the leaflets. These were:

- language/communications problems
- time pressures and work loads
- open opposition from others (consultants, ultrasonographers)
- refusal by women

Some midwives did not know how to use the leaflets - who should get a leaflet, or at what stage in pregnancy. Some midwives suggested parentcraft classes as an alternative to giving leaflets to women in antenatal clinics. They thought this forum would offer more time for discussion.

There was some evidence that the presence of a researcher at some clinics influenced who was offered a leaflet. For example, one scenario in a community clinic was observed and recorded by the researcher:

> 'During the consultation the midwife does not look at or speak to the woman, only directing her gaze towards the linkworker. The midwife is clearly

uncomfortable; she constantly gets up and sits down, opens windows etc. Finally she comes over [to the researcher] and asks if the woman should have a leaflet.'

Midwives' views

First impressions

Midwives' first impressions of the positions in labour leaflets were gleaned at planning meetings. Comments made here were more favourable towards the leaflet for professionals than the leaflet for pregnant women:

'I like the list of references - that's really good'.

'It's lovely having the list'.

'The one for the staff will be more useful than the one for the women'.

Midwives preferred the graphics of the professionals' leaflet to the pictures of the women's leaflet, which they thought showed a lot of monitoring. They had clear opinions about which women might find the leaflets acceptable:

'They are all white in the photos'.

'These are all white, Caucasian middle class women'.

'We can't show these to Muslim or Arab women, because Arab women are supported by other women, not men, and they don't need it, they squat anyway'.

'It would be OK for Bosnian or Croatian refugees'

Midwives thought that Somali and Asian women would not relate to the women's leaflet. They suggested illustrations should have fewer value judgements, perhaps using cartoons, and should include women wearing scarves. They also thought the print should be larger.

After giving leaflets to women

In the postal questionnaire, midwives were asked about both the professional and the women's leaflets. Some additions to the professional leaflets were suggested: an explanation that 'rest in early first stage of labour is useful to help conserve energy for later', and pictures of positions and descriptions with the good and bad effects of each position in both first and second stage.

Two midwives thought the women's leaflet was confusing. One of these also thought it was complicated and worrying. Another said that it had too little information. Midwives also suggested additions to the women's leaflet: better explanations of the positions - not just acknowledgement of them; pictures showing kneeling and squatting positions; and pictures including a birthing pool or using a birthing stool or chair. One midwife pointed out an apparent contradiction: the leaflet suggests that 'women do not naturally choose to lie down to labour and give birth' but also that 'as labour progressed many preferred to recline'.

To discover whether the leaflets satisfied midwives' needs for information, they were asked whether they wanted to know more about positions in labour. Only one midwife wanted more information. She wanted to know more about the left lateral position in second stage which she said 'can be very effective with a bad fetal heart trace and in [her] experience a handful of women actually prefer to push this way'. Another midwife wanted to know more about the pilot study.

In order to judge how the leaflets related to midwives' other sources of information, they were asked where in the past they had found research information about the effectiveness and safety of positions for labour and delivery.

Of the 13 midwives who answered this question, 10 found research information from their colleagues, 9 from their basic training, 6 from professional journals, 6 from MIDIRS, 6 from conferences, 5 from books, 5 from *Effective Care in Pregnancy and Childbirth*, 2 from the Royal College of Midwives, 2 from unit meetings, 1 from unit bulletins, 1 from fellow midwives and 1 from the *Cochrane Pregnancy and Childbirth Database* (midwives could give more than one option).

Four midwives thought they had enough time to discuss research with their colleagues, but 8 said they did not have enough.

Responding to a closed question in their questionnaire, two problems were identified by midwives as possible barriers to the potential for change: that a doctor or midwife in the unit disagreed with the leaflet; and the lack of 'props' for labour. Props available in labour rooms for women to use included bean bags, pillows, a stool, a chair and a pool. Three midwives said that no props were available.

Other comments from midwives were:

> Hopefully this research will reveal the lack of "position" aides we have available on delivery suite and resources will be made available to buy new ones. Also it makes us question how confident we feel about delivery in different positions, especially in the light of active management policy.'

> 'I think the leaflet would be a useful aid in assisting midwives and fellow professionals in providing up-to-date research-based information, enabling women to have something to take home with them and peruse in the comfort of their own home so they can make informed choices and have something to refer to if questions arise, and bring up at subsequent visits.'

> 'Only English-speaking women could participate in the study and my client group is very varied.'

Women's views

First impressions

Some comments on the leaflets were recorded during interviews with women when they were first given the leaflets. Overall first impressions of the leaflet were positive; the women liked the idea of midwives giving information; they said they wanted this kind of information; they said the leaflets contained information they had not had before; they liked the presentation. Women also made constructive criticisms; not enough pictures; more or different positions; more second stage details.

Women related the leaflets to their own experiences, particularly their experience of delivery positions, pain relief, lack of choice, and lack of facilities. Several women said that the information was just what they needed. Getting 'something from the midwife' was particularly appreciated. For many women it was the first time they had seen this kind of information:

'To be honest I didn't know there was any other way of having a baby.'

Others knew more through reading books and magazines or attending parent craft classes:

'I heard about the different positions in parenthood classes but it's not a common thing to talk about and it was never backed up by someone in the hospital.'

Women commented on how the contents and structure of the leaflets were different from other information they receive:

'I like the way it sets out the advantages and disadvantages, it's easy to understand.'

It covers everything and gets you thinking about it.'

'Interesting pictures. Usually they show you lying flat on your back with your legs in the air.'

'The pictures give you an idea of the different positions you can try.'

'It's good to mention immediately what choices you have.'

Other common themes were:

'Most women find it comfortable to move around, it's so natural isn't it?'

'I must admit I'm not into all this. With my last baby I was on the bed, the midwife was terrific.'

Some women made the point that being informed did not always lead to choice:

'I went to natural childbirth classes and that was fine but when I came here I was stuck on a drip, so I stayed on the bed. I tried to move around but I was still on the bed.'

'Does that mean I can try some of these positions here?'

'How long will it take for hospitals to accept all this, we've had the vote long enough, it's about time we were allowed to choose how to have the baby.'

Confusion arose during a parentcraft discussion around the relationship between being upright and avoiding forceps or a Caesarean section. 'Being upright won't mean you have less chance of needing forceps or a Caesarean' is written below the sub-heading 'First stage'. 'Less chance of having forceps or a Caesarean' is listed as an advantage for the second stage of labour. The design of the leaflets brings these two statements closer to each other than it does to either of their subheadings, which allows the text to be misunderstood as contradictory.

The statement that 'babies stand a better chance of breathing well right after they're born' appeared too good to be true to one mother who asked for the evidence. No supporting statement could be found in the professionals' leaflet to satisfy her request. This does not appear to have been addressed in the second edition of these leaflets.

Women also gave constructive criticism:

'It's far too brief, it should have more on the different props you can use.'

'The pictures don't really cover that many positions, they've only got leaning forward, no squatting or anything like that.'

'They should use the word "more" instead of "a lot" of blood.'

After the birth

More systematic opinions of the leaflet were elicited through the post-birth postal questionnaire. Women were asked open and closed questions about the leaflets and their discussions about care. No women suggested removing any of the information from the leaflet. Three suggested more pictures or diagrams of positions in labour. Other suggestions were for more information about using furniture to help during labour at home, guidance on how to make a birth plan, reassurance that 'not being able to choose is OK' (because of monitoring, drips etc), including information about Caesarean sections, an expectation of labour being painful, and reassurance that 'your body tells you the best position to get into'.

Readability

Of the 56 women who returned the post-delivery questionnaires, the majority (63%) said they both wanted to read the leaflet and found it easy to read. Others said either that they wanted to read it (14%) or that it was easy to read (20%). One woman found it easy to read but did not want to read it. Two women found it hard to read. One who found it hard to read because the print was too small said that 'the pictures showed her what to expect'. The other woman who found it hard to read said that she loathed the pictures. Most women said they read the leaflet once or twice, although women at hospital B were more likely to say they read it more often (table 7).

The pictures

When asked what they thought about the pictures in the leaflet, 98% of the women replied: 23% liked all the pictures, 41% said that the pictures showed them what to expect, 13% said the pictures did not show them what to expect, 7% said the pictures reassured them, one woman said the pictures worried her, 20% said the pictures helped them understand the writing, 43% said the pictures gave them ideas of what to do, 25% said the pictures made the leaflets look attractive, and 13% said they would like more pictures.

Twenty women agreed with one positive statement about the pictures, 8 agreed with two positive statements and 13 agreed with three or more positive statements. Seven women agreed with one or more negative statements about the pictures and three were not sure or did not remember the pictures.

Numbers were too small to test for statistical significance, but women who left school earlier and those expecting their first baby were less likely to agree with the negative statements and more likely to agree with the positive ones.

How leaflets might make a difference

Knowledge of maternity care

An important background to interpreting women's reactions to informed choice leaflets is the extent of their pre-existing knowledge about relevant maternity care issues. When asked how much they felt they knew about their maternity care, 19% of women felt that they knew a lot, 65% thought they knew a fair amount and 11% thought they knew not much. After they had

given birth, 36% of women felt that during their pregnancy they knew a lot about their care, 52% thought they knew a fair amount and 9% thought they knew not much.

Before giving birth, 21% were very happy with how much they knew, 52% were quite happy, and 21% felt they needed to know more. After giving birth, 43% were very happy with how much they knew during pregnancy, 41% were quite happy and only 7% were not very happy. Sixteen women of the 56 felt they had needed more information. These responses suggest that women's needs for information are not currently met during pregnancy.

In an open question on the consent form for the positions in labour pilot, 74% of women did not specify any subjects about which they wanted to know more. The remaining women said they would like to know more about positions in labour (4), after the birth (4), alternative positions in labour (4), the birth (3), choices available (2), labour and afterwards (2), abbreviations on their notes (2), everything (2), midwives (1), ultrasound (1), pain relief and breathing (1), why labour begins (1), scans and fetal growth (1), after the birth and baby problems (1), pregnancy problems (1), Caesareans (1), how to write a birth plan (1) and drugs (1). Two women said they would like to know less and be more relaxed.

Getting information

To find out whether leaflets were an appealing medium for information, women were asked how they like to get their information. Nearly half the women said they like to get their information from books or leaflets. Books and leaflets were also the most popular source of information on positions in labour. There were differences between desired and actual sources of information. The top 3 sources from which women expected to obtain information were hospital doctors, books and leaflets, and hospital midwives; whereas, after the birth, women said they actually obtained information firstly from books and leaflets, then hospital midwives, and then hospital doctors, TV and videos.

Answering questions

When asked if the positions in labour leaflet answered their questions (table 8), 32% of women said it answered all their questions, 21% said it answered some, one woman said it answered none, 34% said they had no questions and 7% were unsure, could not remember or did not answer the question. Questions that the positions in labour leaflet were considered to answer were about the pros and cons of different positions (5), birth stools and episiotomies (1), if one could move around (1), the length of labour and effects (1), positions for home birth (1), what was easiest for delivery (1) and what equipment to take from home (1). Other

questions which the leaflet did not answer were how positions helped (1), how to make use of furniture at home (1), Caesarean sections (1), writing a birth plan (1), how to use a birth chair or stool (1), when to use different positions and the disadvantages (1). One woman said she wanted to know 'more than is known'.

Women were more likely to say that the positions in labour leaflet answered all their questions if they were cared for at hospital C rather than hospitals A or B; if they were seen at a hospital clinic rather than in the community; and if they left school below the age of 17 (table 8). Women were more likely to have no questions if they were cared for at hospital A, or if they left school at age 17 or later.

Attitudes towards the birth and shared decision-making

Whether women felt confident or worried about the birth was not associated with how much they felt they knew about their care and where they liked to get their information. However, there was a trend towards the more worried women being those who had not met before the person who gave them the leaflet, those who might like more information, and those few women who like to get their information from the radio or audio tapes (table 9). Those women who were least worried were those who liked to get their information from a hospital doctor.

Any information of the kind presented in the positions in labour leaflet is likely to be interpreted by women in the context of their general attitudes to decision-making in maternity care. Table 10 shows attitudes towards shared decision-making before being given the leaflet: less than one in five women at hospitals B and C feel that most decisions should by made by women themselves; this figure is one in three for A. Those women least independent in their decision making may be those who find communicating in English difficult. Table 11 shows that attitudes towards shared decision-making were similar after women had given birth.

How much involvement women felt they should have in decisions about their care did not seem to be associated with whether or not they had met before the midwife who gave them the leaflet, where they liked to get their information from or whether they felt happy with the amount of information they had. However, those women who felt they knew a lot or a fair amount were more likely to favour making decisions alone (table 12).

Talking about the leaflet

Two midwives thought they spent more time talking to women about positions in labour with those women who had the leaflet, two thought they spent less time talking to them and seven thought they spent the same amount of time talking to them.

None of the midwives could remember women asking them questions in response to the leaflet although they did remember communication with women about positions in labour in the past, either in parent craft classes, one-to-one or through birth plans.

Fifty six women answered the question 'Did you talk about the information in the [positions in labour] leaflet to any of these people?' [giving a list] Nineteen women said they spoke to no-one, although two of these wished they could have spoken to someone. Nine said they spoke to the midwife who gave them the leaflet. Some women also spoke to another midwife (3), a GP (1), an antenatal teacher (5), their partner (31), a relative or friend (7) and other women (2). Overall, 21 women said they found talking about the leaflet helpful (table 13).

More women spoke to their partners about the leaflet than to anyone else. Some women mentioned how their partners might relate to the leaflet and other messages about positions in labour:

> 'My husband wasn't really into all those classes. He felt very uncomfortable. He thought it wouldn't help, but it did'.
>
> 'This is the sort of thing I could give to my husband as well. He could massage me'.
>
> 'I think most of the fellas here [an antenatal class]... if there's pictures there for the partner, they tend to more just get it and look at the pictures, rather than... whereas when you're at home and you've got six weeks to read it in, and if there's something interesting you say "Oh, did you see it says so and so?" Women do tend to read more anyway'

Nine women talked about the leaflet to the midwife who gave them the leaflet. Six of these women had met this midwife before (table 14) and seven of them expected to meet her again (table 15).

Only two women were asked by the midwife who gave them the leaflet whether they had any questions about it; 7 were unsure, 30 said they were not asked and 15 said that they did not meet that midwife again. A total of 46 of the 56 women said that they found out all they wanted to know about positions in labour. Individual women who did not find out all they wanted to know said this was because some options were not covered, because they were unable to remember the details of the leaflet, because midwives ignored their questions or their answers were too brief, or because they always wanted to know more.

What happened in labour

Women were asked in their postnatal questionnaire what decisions were made in labour and by whom. A total of 86% of the 56 women returning the postal questionnaire delivered normally, 10% delivered with forceps or ventouse and 4% by Caesarean section; 54 of the women delivered in hospital and 2 delivered at home. Comparing these figures with those reported for the whole population for each hospital, there appears to be a low response rate from women whose babies were delivered instrumentally (table 16).

The different positions tried in labour included lying on their back (54% of women), lying on their side (46%), sitting propped up (73%), standing up (45%), on all fours (18%), kneeling (20%), squatting (11%), in a birth pool (9%) and in a bath (5%). One woman rested leaning forwards onto a bed and two others walked around. Seventy one per cent of women said that they had enough help getting into the positions that they wanted to, but 20% said that they did not. Getting into different positions was something they either managed by themselves (20%), with help from their partners (17%), help from their midwives (7%) or help from both their midwives and their partners (45%).

Most women had no difficulty getting into the positions they wanted (48%). Thirty per cent of women said they had wanted to try other positions but did not do so either because they were too tired, because nobody suggested another position, or for some other reason. Some women found it too difficult to even try to get into different positions (20%), some tried and failed (4%), some found it difficult but managed (7%), and some could not manage some positions because of fetal monitoring (28%) or pain relief (4%). One woman said that she had no encouragement from her midwife, and another wanted to use a birth stool, which was not available. Two women had difficulty walking.

Monitoring the fetal heart was a barrier to full choice of positions in labour. Here 37% of women said they had a monitor strapped to their abdomen most of the time and a further 16% had it occasionally. A total of 21% of women said that monitoring made it too difficult to

even try some positions, 7% tried and failed, 23% managed some positions with difficulty and 36% said they had no difficulty getting into positions because of monitoring.

However monitoring need not preclude a range of positions and it was achieved with women lying on their backs (52%), lying on their side (34%), sitting up (20%), sitting propped up (55%), standing up (5%), on all fours (5%), kneeling (4%) and in a birth pool (5%). Other women were monitored squatting, leaning forwards, resting on the bed or moving around. One woman said she was not monitored.

Pain relief did not often limit positions for labour, indeed a range of positions may have been used to help with the pain. Women used pillows or cushions (52%), a bean bag (11%), a chair (2 women), a stool (1 woman), a warm bath (14%), music tapes (23%), a birthing chair (1 woman) and a birthing pool (7%). Other coping strategies included relaxation (15%), breathing for labour (70%), support of two friends and a midwife (1 woman) and homoeopathy and flower essence (1 woman).

Half the women gave birth sitting propped up; 30% were lying on their backs. Three women were lying on their sides, 3 were sitting upright, and 2 others were kneeling or squatting.

Who chose positions in labour?

According to the women, the birth position was chosen by the woman herself (57%), the midwife (14%), or the doctor (5%). Seven women said it was a joint decision between themselves and their doctors, and three said they happened to be in that position at the time. Overall, 21% of women were not sure what position they would try for giving birth in future. Other women suggested a range of possibilities.

Did the leaflet make a difference?

The possible impact of the leaflets on behaviour was investigated in discussion about the leaflets, whether women made use of the leaflets, whether they thought the leaflet affected what they wanted to do in labour or what they actually did in labour and at the moment of birth, and whether they thought the leaflets affected how the staff behaved.

Nearly all the women read the leaflet (table 7) and a third made greater use of it (table 17) such as making notes on it, taking it with them into labour, using it to make a birth plan, or trying a new position on the basis of the information contained in it. More women recruited at hospital B reported making use of the leaflet than women from hospitals A or C. Women

were more likely to report using the leaflet if they had been given it in a hospital clinic, or if they were primiparous or middle class. They were also considerably more likely to use it if they had not met the midwife who gave it to them before, and did not expect to meet her again. Having previously met the midwife who gave out the leaflets was associated with women finding out all they wanted to know about positions in labour, talking about the leaflet to the midwife, and liking to get information from midwives either in hospital or community settings.

Most women said they found the leaflet very or quite helpful (table 18). The leaflet was considered most helpful by those women in hospital B and those who left school below the age of 17. It was considered least helpful by those women who only tried one position during labour. There was no apparent link between whether women thought the leaflet was helpful and how they felt they should be involved in decision making (table 19). Women at hospitals B and C were more likely than those at hospital A to say that the leaflet affected what they wanted to do in labour (table 20). Eleven women (23% of those who answered the question) thought that the leaflet affected what they had wanted to do in labour - 1 at hospital A, 6 at hospital B and 4 at hospital C. 31 said that it did not. Table 21 shows that most women thought the leaflet did not affect what they actually did in labour.

Women who said they did not use the leaflet were most likely to have used only one position during labour (table 22). However, there was no similar association between reported use of the leaflet and choice of position for the actual birth (table 23).

These data could not be compared with actual delivery positions derived from the case notes because hospitals do not routinely record these. Table 23 shows the birth positions reported by the women who completed the postnatal questionnaires. The percentages of women delivering on their backs go from 19% at hospital A to 42% at hospital B. Women delivering in this position are more likely to be primiparous and working class. Table 22 gives data on use of the leaflet by pain relief methods and positions used.

Midwives seemed more optimistic than women about the potential for these leaflets to influence discussion between women and their carers. Eleven of the 14 midwives who returned their questionnaire thought the leaflet would help women talk to midwives and doctors about their care. Only 5% of women said the leaflet helped them talk about their care with midwives and 3% of women said the leaflet helped them talk about their care to doctors. However, 13% of the women said it helped them talk about their care with their partner and one woman said it helped her talk about her care with her sister. Nine of the 14 midwives

thought the leaflet would help women make informed choices about positions in labour and 24% of the women said it helped them personally.

Comments from women written on their postal questionnaire give some insight into the barriers that may exist for changing behaviour during labour:

> 'I read about positions and went to NCT classes before having my first baby and was totally disillusioned when I went to hospital to have him. [I] was on a drip and told I therefore had to have constant fetal heart monitoring, so movement was very limited. [My] second pregnancy was twins and therefore again I had to have constant monitoring. This time because the second twin was born by section [I was] again told I would be constantly monitored. Although the midwife was very helpful and I could have tried different positions if I wanted to.'

> 'During labour it would be helpful if midwives suggested trying different positions - in that situation I found it was the last thing that came to mind! Basically you are busy just dealing with severe pain, you don't think of anything else. I certainly didn't.'

> 'The leaflet was very informative, but as I explained, I was in a great deal of pain, and completely forgot about different positions. Perhaps the midwife or doctor should have suggested different positions.'

> 'I don't like pain of any description and my labour was induced 12 days past EDD. So I chose to have as much epidural as possible. I also made the choice to be induced at that juncture. This did restrict my options for labour and delivery positions. However, the labour was very short (only 3 hours), all the medical staff were informative, supportive and very caring. The delivery was easy and normal (10 minutes and a second degree tear now well stitched). [I need] more information about positions for feeding.'

No midwife thought that the positions in labour leaflet affected care or provision offered in their unit, but some thought that it might in future. Comments about the potential for changes were:

> 'It may encourage discussion among the midwives about present practice. The leaflets will help the midwives to be more confident in encouraging women to make a choice.'

'[It may change] the choice offered and freedom [of women in labour]. May be able to get extra bean bags, pool, birthing stool if demand was there.'

'The unit offers choice. Positions in labour etc are discussed at antenatal classes offered at the unit. May need to be given to health visitors who run classes too,
and NCT to enable more women to read the leaflets.'

'Better availability of props. More midwives suggesting use of alternative positions.'

'We would need more staff and better accommodation for our clients!'

'It would reduce the time in clinic, assisting us to answer questions when time is short.'

'They should be more available for antenatal classes and antenatal wards.'

'Enable clients to be more aware of choices and midwives to encourage these.'

'If at all, it will give midwives who felt unsure more confidence to offer alternatives, and ditto for women to ask for what they want.'

3. FINDINGS OF THE ROUTINE ULTRASOUND LEAFLET PILOT

Willingness to take part in a study of informed choice

A pilot of the informed choice leaflet on routine ultrasound in the first half of pregnancy was originally supported by the Director of Midwifery at hospital C. However difficulties were soon apparent when the researchers met the ultrasonographers. Before the ultrasonographers had seen the leaflets they had already discussed amongst themselves the possibility of not supporting the work.

The first comment in a meeting with ultrasonographers on being shown the leaflets was to doubt the credibility of the authors:

> 'Who's it written by - just midwives?'

The second comment was:

> 'Oh God, I'm not telling them that.'[1 in 200 babies who were aborted as a result of a scan were in fact normal]

Objections to the leaflets were expressed in a meeting with the researchers, and in letters from the ultrasound superintendent to the Director of Midwifery and from a consultant obstetrician and gynaecologist to the ultrasound superintendent. These comments focused on issues of credibility of the evidence reported in the leaflet, safety, accuracy of scanning, a perceived bias in the leaflet, women's anxiety, and the impact informed choice might have on hospital organisation.

One ultrasonographer queried in a meeting the credibility of the information in the leaflet thus:

> 'Just looking at the references... I think maybe .. what's happening with this leaflet the authors have chosen to take what they want, their view on it, and it's not necessarily the correct interpretation of the trials.'

Other comments concerned the issue of left and right-handedness ('it was probably a PhD thesis') and the accuracy of ultrasound:

> 'Why do you have to say that you miss so many? Why can't you say ultrasound picks up 80%?'

> 'It's badly worded, it implies we're missing 1 in 5 cases.'

Such comments may reveal defensive reactions by ultrasonographers, who are concerned that their skills are being criticised rather than about the limitations of the techniques being described:

> 'The whole thrust of the leaflet is extremely negative. This is particularly relevant in the "defects" section where two statements are made; "scans can miss about one in five cases where the baby has a problem" and "a recent survey showed that 1 in 200 babies who were aborted as a result of a scan were in fact normal". Surely it is important for the women to be given figures relating to their local hospital? Information would be available from the Congenital Malformation Register.' (letter from ultrasound radiographer).

> 'It's quite negative in the way it's put - we don't get everything, we miss one in five cases. That sounds really high.'

Safety was also raised:

> 'I think ... definitely there has to be a safety element in the leaflet, because there is so much bad press in the media.'

> 'Low power levels - we are putting this into practice every day, it's not mentioned here.'

There was a general feeling that the leaflet was biased:

> 'I think my first impression is that it is quite a negative start to the leaflet; should you have one/ and is it useful?'

> 'If I wasn't in this profession and [was] reading this leaflet and knowing not much about scans I could still see that this was a biased leaflet. It leads you

towards thinking that you don't want scans, but maybe if this leaflet was produced with less bias, less negative, you would be getting more of an informed choice, whereas I don't think this is informed choice.'

'Then again it should say what measures we take to ensure [it's safe]... but it shouldn't be biased like it says about nerve damage.'

'The contents of the leaflet appear to be biased rather than providing a balanced view. This is shown in the safety section which is ended by "it seems certain that scans can't cause any severe defects but doctors can't rule out the possibility that they could cause some kind of very slight nerve damage". That's going to be on every woman's mind. "Is my baby going to have nerve damage or not?" and they'll be questioning us and we'll have to be trying to reassure them and how do we reassure them?' (letter from ultrasound superintendent)

'It will make them more anxious first of all about missing something, and secondly...if they were anxious before, "my God, I might have done my baby some harm by having a scan as well".'

There were also concerns about the possible impact of the leaflet on hospital organisation:

'Finally, on the back page they ask for patients' feedback on whether if they decided not to have a scan, there would be any reason why they could not change their minds later on. This would cause organisational chaos and should not be encouraged. We do occasionally have a few patients particularly Plymouth Brethren who do not want to have a scan carried out and they are never put under any pressure in my clinic to have this done, but they always have the option of having this done later if they wish.' (obstetrician in a letter)

'Because a little thing, e.g. twins, if you don't detect it early, if we find twins [and] we haven't booked extra time for twins it knocks the whole day back because we spend twice as long looking at twins.'

In discussions and letters there was no clear distinction between the impact of ultrasound on the management of pregnancy and the impact on health:

'No benefit from early detection of multiple pregnancies...I don't think this is right. I don't think it was written by an ultrasonographer'.

'The other thing about twins is... clinically they need to know a lot earlier because they are managed differently, `cause they are such a high risk.'

'It [the leaflet] might deter people from having a scan to see if it is twins... and then goodness knows what would happen.'

'Incorrect information [in the leaflet included the statement that]..."There are no known health advantages to the babies or their mothers in early knowledge of a multiple pregnancy." In fact growth in a multiple pregnancy is most accurately assessed by a serial scan for which an early scan is mandatory.' (letter from ultrasound superintendent)

'They also quote there is no known health advantages (sic) to the babies or their mothers in knowing about twins and I would dispute this as this allows us to give higher doses of Folic Acid for better placental development and also increases surveillance and monitoring for the rest of the pregnancy.' (letter from consultant obstetrician).

For all these various reasons, the ultrasonographers withdrew their support in a formal letter to the Director of Midwifery, and the pilot could not continue at hospital C.

Ultrasonographers at hospital A were also concerned about some of the wording of the leaflet and the anxiety it might cause some women. However, ultimately they decided to allow the pilot to continue on the understanding that only 30-40 women would be involved, that extra support for those women would be available if necessary and that the questionnaire would address women's anxiety.

Although 70 packs of leaflets and questionnaires for evaluating the ultrasound leaflet were prepared, a disappointingly low number of women entered the study. Midwives recorded inviting 41 women to participate in the evaluation. Of these 26 returned the consent form, a response rate of 63% compared with a response rate of 85% in the positions in labour pilot. This may reflect women having a greater interest in information about positions in labour than ultrasound. Details of five women recruited were not recorded by the midwives so there was no opportunity to send them a postal questionnaire.

Most women who returned the questionnaire expressed their support for participating in the research and found the forms easy to fill in. No one said they wished they had not agreed to take part or that it took too much of their time (table 2).

Only 4 midwives out of the 14 who gave the ultrasound leaflet to women returned their questionnaire in time for analysis. The delay in finding ultrasonographers willing to support the pilot of the ultrasound leaflets left no time for reminders to be sent before the end of the study. However midwives views on the leaflets were elicited during interviews and planning meetings.

Disseminating the leaflet

A total of 13 women were given the leaflet in a hospital clinic, 7 in a community clinic and 4 in their own home.

Midwives offered the ultrasound leaflet to women during their booking visits. Twenty four of the 26 women had not met the midwife they saw before, but 20 expected to meet her again at some or most antenatal checks.

Each booking appointment was one hour long. A high proportion of women who made appointments for booking did not attend. This is usually assumed to be because they have miscarried or chosen to book for maternity care elsewhere. Up to 4 women were recruited per clinic session. The four midwives who returned their questionnaire said they found it quite easy or very easy to remember to give the leaflets out. One midwife recommended posting the leaflet to the woman with her appointment letter for her booking visit.

Midwives' views

First impressions

Planning meetings for the pilot were the venues for midwives' first opportunity to see the leaflets. Contrary to the opposition of the ultrasonographers, one midwife said:

> 'I still feel it is very pro scanning. It doesn't raise enough questions'.

As with the positions in labour leaflet, some midwives suggested it would not be appropriate for all women:

'It's mainly white middle class women - birth partners are not always men.'

'Too many words'. [about the leaflet for women].

They pointed out that for some women ultrasound is not routine:

> 'Women don't always want scans at clinic' [where an obstetrician introduced scans as an option some years ago].

They also suggested the leaflet should discuss the possibility of finding out the sex of the baby and discuss policies about giving this information to parents.

Other comments included:

'It's too glossy - it reminds me of baby milk products'.

'It needs better graphics'.

'It needs to be succinct'.

'We need leaflets at two levels - something simpler [than this leaflet for women] is desperately needed'.

'What about picking up kidney conditions which need to be treated actively at birth and followed up for a year afterwards?'

'It's a volatile subject - it will need updating regularly'.

After giving the leaflets to women

Two of the 4 midwives returning the questionnaire found the leaflet for professionals very helpful. The other two found it quite helpful. They all thought it explained clearly the choices available, helped them support women making their own choices, helped them give impartial advice about ultrasound, helped them give women better care, summarised clearly the research evidence and helped them base their care on research. They found nothing in the leaflet unhelpful.

They all thought the leaflet for women would be very helpful, would give women information, help them talk about their care to midwives or doctors and help them get better care. Three midwives thought the women's leaflet clearly summarised the research findings; 1 disagreed. Three thought it would help women decide whether or not to have a scan; 1 disagreed. They did not know of any women having a problem with the leaflet.
Three of the midwives thought the leaflet would help women ask questions about ultrasound, although in fact none of them were asked questions by women. They thought women would take their questions to midwives, radiographers or general practitioners. All 4 thought that the leaflet for professionals would help them answer women's questions. One midwife said she spent less time than usual talking to a woman about ultrasound when she gave her the leaflet. The other three said they spent the same amount of time as usual.

The midwives did not think that the leaflets affected the care offered in their unit, although one said it helped with giving information and reduced the time required for this.

Considering possible change in future they wrote:

> 'Ultrasound is one of the areas in pregnancy which is still a bit 'fuzzy' regarding research. I think most people are so delighted at the thought of a scan that very few stop and think about possible problems. Increasing women's choice is yet another area of care that can only be an improvement, despite what our obstetric colleagues may think.'

> 'Over time they might help to create a climate where ultrasound is seen as a possible option, rather than an automatic right (after all we've got away from being asked all the time about a second scan).'

> 'Women may decide not to have routine testing.'

Women's views

First reactions to the leaflets were recorded at interviews with women when they had only just been given the leaflet. Many women said they were shocked by some of the contents of the leaflet:

> 'Oh what a terrible statistic - 1 in 200 who were aborted.'

> 'Oh dreadful - 1 in 200 babies.'

'It's got stuff that I haven't read anywhere else before, like the 1 in 200 babies and the risk factors.'

Two woman did not know scans were optional:

'I thought it was normal practice, I didn't know you had a choice.'

'Everyone has a scan, right?'

One woman was worried that it might put people off having a scan, or frighten them:

'Would this make a younger woman more frightened?'

However, the benefits of having all the information offered in the leaflet were recognised:

'It tells you the good and bad things.'

'It's giving you the information, the good bits and bad bits in black and white, it's what you need to know.'

In the postal questionnaire no woman suggested anything should be added or removed from the leaflet.

Readability

Of the 13 women who returned the postal questionnaire, 6 wanted to read the leaflet, and 5 of these found it easy to read. Another 5 said they found it easy to read but did not want to read it. One woman said it was hard to read. One woman said she had only read it after having her scan so that she could answer the postal questionnaire.

Three women looked at the leaflet briefly, 4 read it once, 5 read it twice and 1 read it more often. No one said it was confusing or complicated.

The pictures

Three women liked all the pictures. Three found them reassuring. Seven women said that the picture showed them what to expect, but one said it did not. Two thought they made the

leaflet look attractive. One said the pictures helped her understand the writing and 1 said they gave her ideas of what to do.

Knowledge and ultrasound

Women had heard about scans from different sources. Six named midwives, 2 GPs, 1 a hospital doctor, 3 ultrasonographers, 7 relatives or friends, 4 TV, radio or magazines and 5 books.

Of the 26 women who returned the consent form, 3 said they knew a lot about ultrasound scans, 13 knew a fair amount, 7 knew not very much and 2 knew nothing. Two were very happy with the amount they knew, and 12 were quite happy. Ten said they needed more information. What they wanted to know more about included 'more information' or 'everything' (4 women), the benefits (1), the risks (5), how the technology works (1), the accuracy and the timing of the scan (1) and whether it was possible to have more scans privately. One woman would like to have had more explanation from the ultrasonographer at the time of the scan (table 24).

As with the positions in labour pilot, women's need for information about ultrasound seems not to be met at present.

Answering questions

In the postal questionnaire, 5 women said the leaflet answered all their questions about ultrasound, 3 said it answered only some and 1 that it did not answer any. Two women said they did not have any questions. The questions women thought the leaflet answered were about the risks and benefits of ultrasound and what one has to do at the scan. Individual women said that the ultrasound leaflet did not tell them whether ultrasound can detect Down's Syndrome, whether it is safe, whether there are side effects or long term effects and what research is being done.

Knowing about maternity care

In the postal questionnaire, 2 women said they knew a lot about their maternity care, 10 knew a fair amount and 1 knew not much. Two were very happy with the amount of information they had, and 10 were quite happy. One woman said she needed more information and 1 that she had needed more information on booking.

Anxieties

On their consent form 18 women felt confident or very confident and 4 were worried about the birth or not sure. One woman said she would feel confident once the scan result was known. One felt confident generally, but was worried about the risk of Down's Syndrome because of her age. One woman was confident about her own health but worried about the baby, and 1 was scared of the birth (table 24).

Two women were worried by the leaflet. They wanted to know whether the scan was safe for the baby and whether it would hurt the baby.

Three women said the leaflet made them feel happier about having a scan. Seven said it made no difference. One woman said it made her feel less happy and one was worried.

Attitudes to decision-making

Of the 26 women who returned their consent form, 6 thought that most decisions should be made by the woman herself and 20 thought that most decisions should be shared between the woman and her midwife.

Of the 13 women who returned a postal questionnaire, 1 said that most decisions should be made by the woman herself. Ten said the decisions should be shared between the woman and the staff. One agreed with both these statements. One woman said that decisions should be shared between her, her husband and the midwife.

All the midwives who filled in the questionnaire said that most decisions should be made by women.

Talking about the leaflet

Six women said they discussed whether or not to have a scan with someone else. These people included the midwife who gave her the leaflet (1 woman), another midwife (2), her partner (2) or a relative or friend (2) (table 13). No one said that talking was helpful, but two were unsure whether it was helpful or not. No one remembered being asked about the leaflet by the midwife who had given her the leaflet. Five women said that they did not meet that midwife again before their routine scan was due.

Before the pilot, the ultrasonographers were very concerned that the leaflet would make women very anxious and they expected to be approached by women asking their opinion. They were surprised to have so little feedback from women.

> 'I haven't had any midwives coming round and saying "Oh, this woman has asked me a lot about safety of ultrasound, can you come and help me?" I haven't had anyone come round at all, which is very surprising after the issues we raised. In fact I think it raised more anxiety in me than it appeared to have done with the women'.

Ultrasonographers are used to women asking questions:

> 'They ask a lot, in fact we've had more anxiety raised by those documentaries on tele...'
>
> '... and in the paper'.

However, at first the ultrasonographers were reluctant to raise the subject of the leaflet:

> 'If they didn't bring it up, I assumed they didn't really want to talk about it. We talk about the scan to them and they raise concerns during the scan if they are interested'.
>
> 'It just raises their anxiety levels if you start talking about it before they do - their anxiety levels go sky high"

On the other hand they noted that some women were dismissive of concerns about safety:

> 'I don't mind you know... I've had a scan before and I was dying to see the baby' (reported by an ultrasonographer).

Did the leaflet make a difference?

All the women who returned the questionnaire had a scan. Nothing is known about the decision of those women who did not return the questionnaire. Those women who replied said that they had a scan because all pregnant women have a scan at this hospital (5), because they had an amniocentesis (2), to confirm their pregnancy (3), to see if they were expecting

twins (5), because they wanted a scan (6), because their partner wanted a them to have a scan (2), because the baby might have a problem (7), because a doctor or midwife advised having a scan (1), because a previous baby was small for dates (1) or to find out the sex of the baby (2). (Women could tick more than one of these options on the questionnaire.)

Nine women were scanned by an ultrasonographer, one by a midwife and a doctor, one by an ultrasonographer and the midwife. Eleven women said they could see the screen easily, 1 said that she could see the screen, but with difficulty. One woman had 2 scans and found it easy to see the screen on one occasion and difficult on another. Twelve women said that the picture of the baby was explained clearly to them. One woman said that it had been explained but that it was difficult to understand. Seven women said that they asked questions at the time of their scan, and 5 did not. They wanted to know if everything was OK, what could be seen, why the baby was not moving, whether the head down position was normal, their gestation, the position of the placenta, how the ultrasonographer was trained and whether she was an ex-midwife. Seven said that their questions were answered and 5 that they were not. From their discussion at the time of the scan, women found out their gestation and that their baby was 'normal'. One woman discovered that she was carrying twins.

Two women said that the leaflet helped them decide to have a scan. Nine said that it did not. Nine said that they would advise a friend to have a scan. One said she would not. The women's answers to an open question explained some of their reasons:

> 'It is quite a moving experience to actually see the baby, and as a reassurance that it looks OK.'
>
> 'Because I believe it an accurate telling of how old the baby is and that all the major functions of the body are OK.'
>
> 'Because it gives you peace of mind to some extent that everything is normal and to see the baby.'
>
> 'Reassurance, chance to see baby, start bonding.'
>
> 'To detect any abnormalities in the baby.'
>
> '... reassuring (not necessary) and may avoid future problems.'

'It would depend on who the person was and what her feelings were. Everything was normal for me and I knew what I would or wouldn't do if there was any kind of problem. I think it is important to realise what the consequences of having a scan might be.'

'I think it helps assuage any worries she may have, and a relief to see the baby.'

'Because I found it exciting to see the baby.'

'It's good to know the baby is all right.'

No woman thought the leaflet gave her a greater share in the decision as to whether or not to have a scan. Eight women said it made no difference. One said it gave her a smaller share. One was glad to have extra information and one said it gave her more to think about. One woman thought that having the leaflet affected how the staff cared for her, but 8 did not.

4. OTHER SUBSTANTIVE FINDINGS FROM THE PILOT

Two main additional findings from the pilot of both leaflets were the health needs of ethnic minority women, and lack of communication between different professional groups.

Needs of non-English speaking women

One of the aims underlying the production and dissemination of informed choice leaflets to childbearing women is to ensure equality of access to the information. This means assessing whether the messages, intelligibility, design, layout and language of the leaflets are acceptable and appropriate for all ethnic groups.

In the pilot, statistics on ethnic group were collected using a modified version of the census question 'What is your ethnic group'? where respondents tick a category that they feel best describes their ethnic group. The findings indicate that 28% of the positions in labour pilot respondents are from ethnic minority populations, with a larger representation in the B and C hospital samples than in hospital A.

The ethnicity question asked does not identify either ability to speak English or literacy in any language. Midwives were asked to identify the main language of all eligible women. They were also asked to record whether or not women could read or write in that language. Only 9 women (8%) spoke little or no English. Their first languages were Danish (1), Gujerati (3), Bengali (1), Japanese (1), Spanish (1), Filipino (1), Arabic (1). Only 1 of these, a Gujerati-speaking woman, was known to be illiterate. Another Gujerati speaking woman's literacy status was unknown. One white woman and 1 mixed race woman (both English speaking) were also thought to have literacy problems.

Of the group of 9 non-English speaking women, 5 did not consent to take part in the study. There were thus only 4 women with little or no English from whom we were able to collect some data. Two of these were interviewed with the help of a translator; a Bangladeshi woman came to the clinic with an interpreter from the Council for Racial Equality, and a Nicaraguan woman came to the clinic with her English speaking partner; a three way conversation was held in both cases. The remaining two women took their consent forms home with them, and it is assumed that they were helped by English speaking relatives or friends.

The information on language and literacy must be viewed with some caution. It was apparent that midwives often transferred the information - 'language spoken' and 'read and write' - directly from the inside cover of hospital notes onto the study record forms without actually ascertaining for themselves the women's language and literacy skills. In addition, some midwives clearly had not understood that one purpose of the question was to establish whether the respondent could read and write in her own language, not just in English. There were also white women with literacy problems.

There was only one occasion when a researcher was present and a midwife refused to recruit or hand out an informed choice leaflet to a Gujerati speaking Indian woman with no spoken English. She did so because she considered that 'informed choice' could not be achieved by handing a leaflet to someone who could not understand the text. This opposes the views of linkworkers who claimed that many non-English speaking women can get help with English text from their relatives or friends or at their place of worship. However, it is also clear from the responses of midwives to the question on their questionnaire 'Please describe the instances in which you decided not to give out a leaflet', that on many more occasions - when researchers were not present - leaflets were not handed out to non-English speaking women. This led to an under-representation of non-English speaking women in the sample, and an over-estimation of understood and spoken English among those who were recruited.

Offering informed choice to women who speak little or no English needs extra time for discussion and, for some women, an interpreter. Community clinics may offer more time for women and midwives to talk to each other but linkworkers are found more often in hospital clinics which tended to be busier and less conducive to long conversations. If the leaflets are translated into other languages their potential will be limited unless these barriers to personal communication can be addressed at the same time.

Linkworkers who offer an interpreting service at hospital B predicted additional barriers to informed choice for non-English speaking women. The experience of maternity services for these women might be their first encounter with technology such as ultrasound. The concept of choice within health care may also be unfamiliar:

> 'I've never had to ask a patient would you like to have a scan... you tell the patient you have to have this, have that...'

Non-English speaking women are likely to be less well-informed because they are unable to make use of widely available reading material or television programmes. Linkworkers at hospital B provide them only with information given directly by their health carers.

Despite these barriers, the linkworkers were optimistic about non-English speaking women making use of translated versions on 'Informed Choice' leaflets, although they did think acceptance would be slow.

Antenatal classes for non-English speaking women are poorly attended, possibly because the women do not think the information is relevant to them:

> 'They don't think it is important because they are not on their own. They have moral support from their family... help from all directions'

When the researcher asked:

> 'And the support and the information that they are getting from their family, is there any conflict between that and what they are told in hospital?'

The answer from the linkworker was:

> 'Always'.

Communication between different professional groups

Conducting the pilot was a process which involved interaction between a number of different professional groups. A major feature of this was tensions between the professions. Introductory meetings within each hospitals were called for midwives by the Director of Midwifery. Neither linkworkers nor ultrasonographers were invited to participate in the early development of the pilot and the obstetricians were not involved at all. The leaflets were mentioned at a meeting of two Maternity Service Liaison Committees but no record appeared in the minutes of one of these committees. This low key approach kept the pilot a midwifery project, rather than encouraging multidisciplinary support.

In the 3 study hospitals, ultrasonographers and midwives do not routinely meet to discuss issues of mutual interest. Although midwives supported the ultrasound pilot, those in hospital C were not surprised that the ultrasonographers refused to pilot the leaflet. One midwife said she had wondered what the obstetricians would think of the leaflet, but had then thought 'Oh no, don't show them'. Another midwife said she had been severely reprimanded by a consultant for giving women an informed choice about whether or not to have an ultrasound scan.

One important underlying issue here is the extent to which staff in all three hospitals were involved in other research which competed for time and other available resources regarding staff involvement in this project. For instance, the timing of this project coincided with a study of epidurals at hospital C and testing new telephone communication systems at hospital A.

5. WHAT METHODS ARE APPROPRIATE FOR EVALUATING THE IMPACT OF INFORMED CHOICE LEAFLETS?

The substantive findings from the pilot evaluation about the acceptability and usefulness of the leaflets are discussed above. This section of the report considers the advantages and disadvantages of the methods used in the pilot evaluation.

Consultation and negotiation

Endorsement of the pilot for both the positions in labour and the ultrasound leaflets was given by the heads of midwifery departments in all 3 maternity units. It was a difficult and time-consuming task arranging meetings where senior midwifery clinical staff, managers and heads of departments could all meet together with the researchers to discuss the pilot. Most midwives could not attend the meetings because of clinic duties; some midwifery teams/departments sent representatives. Meetings were essential for presenting information about the pilot, such as the aims, objectives and timetable. While a detailed description of how maternity services are provided by each unit is not always readily available, the meetings were useful for providing an overview of service provision.

As the 3 settings covered a range of hospital and community antenatal care, it was possible to arrange a mix of hospital and community settings in which the leaflets could be disseminated. However, it was not possible to meet every midwife likely to have some involvement with the pilot before the dissemination and recruitment phase began.

Because ultrasonographers and linkworkers were not invited to the midwives' meetings, taped meetings with these professional groups were held separately. Contact with the linkworker service was initiated by the linkworkers themselves.

Consultation is vital for endorsement and acceptance of a project into a department. It is a useful way of giving and receiving information. Limitations of the method are the time and resources needed to arrange meetings with individuals and representatives, whose presence is necessary for democratic consultation and approval.

Briefing/de-briefing

Midwives who had not been present during the consultative and negotiation phase were less likely to be aware of the aims, objectives and timetable of the pilot. The system of midwives representing others in their team and reporting back to them did not take place in all cases, or insufficient information was passed on. Some midwives were completely unaware that the pilot was to be carried out in their clinic, and they lacked any information about their roles as disseminators and recruiting agents.

Briefing midwives on how to use the dissemination packs took time. It was often the first time midwives had seen the leaflets. The recruitment instrument - the 'midwives' record form', complete with instructions for use, also took time to read and absorb. Midwives who had been present either in person or who had been briefed by their representative still required briefing at the start of the disseminating and recruiting process. The pilot was less successful in clinics where midwives were not given enough support, either because researchers were not available, or because communication between colleagues was lacking. Dissemination and recruitment was better if midwives were well briefed. There were practical difficulties where dissemination and recruitment had continued into the next session or the following week without an efficient handover of responsibility. These clinics had the lowest return of midwife record forms and the highest number of dissemination packs unaccounted for.

In a number of hospital and community clinics, certain midwives had taken on (or been given) the responsibility of disseminating the leaflets and running the pilot. These were often the same midwives who had attended the consultation meetings. Recruitment and dissemination worked very well in these clinics, and they became a very useful resource for other information throughout the pilot. It is estimated that these 'lead' midwives put in as much as 20 hours each making sure the pilot ran smoothly. This time investment needs to be acknowledged and allowed for in planning. A number of midwives commented that they were very busy, and some thought the pilot an added burden or felt they were suffering 'research burn-out'.

Overall, briefing ensured that the pilot took place. De-briefing was an excellent way of going over the clinic session, talking about any difficulties midwives had with disseminating or recruiting, and for them to use the leaflets as a talking point for other related issues. De-briefing was also useful for confirming attendances at that clinic and others later on that week, and for diverting researchers to other clinics as appropriate. Limitations of this method are that it is labour-intensive and time-consuming.

Midwives' packs

The dissemination of leaflets and research materials packs proved to be a useful pilot method for identifying problems that community midwives in particular have with collecting, transporting and storing dissemination materials. The distribution method worked well within hospital settings where midwives were in regular contact with the office or near the collection points. The method worked less well in some of the community clinics where there was less daily contact with hospital administration. In some of these clinics, storage was a problem. Not all midwives found the packs easy to use. Some midwives did not read and/or understand and/or comply with all the recruitment instructions.

Some midwives had not seen any of the leaflets before they were asked to disseminate these in clinics. Making the packs highlighted how difficult it is to design and write instructions for research methods sufficiently clearly without the benefit of personal contact with all those involved. Some midwives telephoned the researchers for clarification.

Because dissemination and recruitment occurred simultaneously, and within a tight time schedule, the packs contained too many items. This placed extra pressure on the midwives, some of whom saw the correct use of the recruitment items as the primary goal rather than giving the leaflets to women in their care. The time and money costs of making up and delivering the packs were substantial.

Midwives' record forms

Following midwives' suggestions, the original design of these forms was altered to enable them to use hospital address labels to save time writing out name and addresses. Each form had instructions on how to complete it printed on the back, but this often appeared to be overlooked. A general problem was that in a busy clinic, this was not a priority, and the form was sometimes completed in a fairly haphazard manner. Some forms were only returned to the researchers after considerable 'chasing', and a few never arrived at all.

Data on parity were entered in several different ways, some incomprehensible even to other midwives, and frequently conflicting with the data given by the women themselves on the consent form. Midwives preferred to record the estimated date of delivery rather than gestation, to avoid any unnecessary miscalculation.

As noted earlier, the question on ethnicity, intended to discover whether the woman had sufficient command of English to be able to understand the leaflet and complete

questionnaires, asked what language was spoken and whether the woman could read or write in that language. It omitted to ask if she could read and write in English as well as her own language. It was also impossible to tell if an English-speaking woman was in fact illiterate in English, or if a non-English speaking woman was literate in her own language. It is clear that midwives under-reported on the record form instances when recruitment did not take place because of communication problems.

Women's consent forms

The consent forms for women achieved a good response rate. There was only one question that had a low response rate: where women were asked to write in, 'What if anything would you like to know more about?' Only 25% replied. The responses women gave to questions about their ethnic group and how many children they had were more complete than those recorded on the midwives' forms. Ninety six per cent of respondents found the consent form easy to fill in, and/or were happy to take part in the research. The fact that it was midwives who recruited women into the pilot, with a researcher to assist in most cases, probably increased the overall response rate. This might be difficult to achieve in a larger study.

Midwives' questionnaires

There were no specific problems with any questions on the midwives' questionnaires, but the poor response rate, frequent omission of open-ended questions, and several complaints about time available to fill in questionnaires, together with the demands of concurrent research projects suggest that a different approach might be more suitable to obtain midwives' views. There was some evidence that the midwives would have appreciated shorter questionnaires. The main difficulty was not lack of commitment on the part of the midwives but lack of time: one midwife commented that this was the fourth questionnaire she had completed that week. Similarly, the time schedule for the pilot did not include sufficient time for reminding midwives who were late returning their questionnaires.

Some of the questions addressed to midwives' were similar to questions in the women's questionnaires so that comparisons could be made between midwives' and those of the women in their care. This revealed differences in opinion about the potential for the leaflets to encourage discussion between women and their carers and the leaflets' potential for enabling informed choice.

Women's questionnaires

These questionnaires may have benefited from being printed in booklet form (several women had obviously turned over two pages at once, thereby omitting crucial information). One woman felt that 'the time spent on the study outweighs the significance of the leaflet'. Another commented on the difficulty of recalling the leaflet in sufficient detail to answer the questions.

There was some indication of low response rates to questions that required a written answer e.g. questions in which women were asked for their suggestions of things to add/ take out of the leaflets. This might be a time factor problem; time is required to think about the question and answer it. Alternatively, it might be a literacy problem. Some women (10/56) who said they were glad to take part in the pilot evaluation, and the questionnaire was easy to fill in, also said it was too long or took too much of their time.

Measuring knowledge and understanding is difficult. The questionnaires addressed women's perception of their knowledge and understanding and their satisfaction with information provision, but there was no direct testing of how much either women or midwives knew about the subject content of the leaflets or service users' rights in the area of decision-making.

Questions about how choices were made focused on attitudes to shared decision-making. Investigating these issues in greater depth would require a distinction to be made between decisions made co-operatively between pregnant women and their carers and decisions made when there is disagreement between women and their carers. In the context of informed choice disagreement may arise from different interpretations of research findings or differences in judging the importance of particular outcomes of care.

Specific questions about choices were based on either positions used during labour or whether or not a woman had a routine ultrasound scan, and who made the decisions. Women were not asked whether they had any regrets about their decisions, but questions about what they might do in future or how they might advise a friend were surrogate measures for satisfaction with their decision. These are all areas that it would be important to address in future research.

a) The ultrasound questionnaire

The open-ended questions on the ultrasound questionnaire did not elicit many responses. The main exception was the question 'What did the person who did the ultrasound tell you about you and your baby?' Every woman answered this in detail.

The fact that members of the research team attended the scan appointments was important in guaranteeing a high response rate to the questionnaires. A limitation was that the questionnaires had to be completed in the corridor outside the scan department in full view of ultrasonographers.

b) the positions in labour questionnaire

The question 'How helpful did you find the leaflet?' to which 68% of the women said that it was 'quite helpful', may have been too general to elicit useful replies. It might also have constrained their responses to the following question, 'What, if anything, did you find helpful about the leaflet?'

The majority of women (84%) did not answer the question on whether the leaflet disagreed with prior information. This cannot distinguish between the possibility that women did not experience any disagreements and the possibility that the question assumes too much awareness or knowledge of the issues. The question on whether the leaflet made women feel more or less in control did not work well. Seventy five per cent of the women replied 'not sure' or did not answer the question. The question, 'Who chose this position (for giving birth)?' should have allowed for the option 'just happened to be in that position'.

Other problems women had in answering the questionnaire highlighted the difficulties they had had remembering leaflets. For example two women could not remember the pictures. This problem may have arisen because in this small study only one cohort of women was approached to ask both their views of the leaflets and to discover what impact the leaflet might have. There was a relatively low response rate from ethnic minority populations. The consent form worked better than the postal questionnaire as it was completed in a face-to face situation. The time schedule of the pilot evaluation did not allow enough time to follow non-responders up.

Interviews

The interviews provided useful information on literacy and language needs. Data collected during the interviews are the only data available for approximately 50% of the sample, because of noncompletion of the questionnaires.

An open ended interview allows respondents to talk freely around a topic, setting their own agenda, generating concepts, using their own words. The data can be used to inform the content and design of a more structured questionnaire. However, this method requires an experienced interviewer.

Observations

Observation put interaction and processes into context, identifying areas and issues not otherwise available to scrutiny. It also informed the development of research tools. However, people sometimes behave differently if they feel they are 'under observation'. Combining 'task' methods such as briefing/debriefing and interviewing women, with observations, takes the pressure off; behaviours and interactions become more natural.

6. RECOMMENDATIONS FOR THE DESIGN AND USE OF THE LEAFLETS

A number of different recommendations for the design and use of the leaflets emerge from this pilot evaluation. The main ones are that:

1. Greater use should be made of pictures and diagrams for clearer messages about positions in labour.

2. If midwives are to be the disseminators of the leaflets, enough time needs to be allowed for them to become familiar with the content and purpose of the leaflets before they give them to women.

3. Other useful strategies here might be holding study days to introduce the leaflets, and/or creating an 'Introduction and guidelines for use' letter.

4. Approval and support for the leaflets needs to be secured from all the groups of health workers involved; ideally the leaflets should be fully integrated into the system (like, for example, 'Bounty' packs which are the vehicle for advertisers to reach pregnant women and are designed to hold women's maternity notes).

5 Leaflets should be introduced to health workers by colleagues from their own professions.

5. Negotiations should be undertaken at the beginning, alongside consultation, with all stakeholders present or at least aware of what is happening.

6. Discrepancies between the views of different stakeholders are likely, and need to be addressed.

If the leaflets are to be introduced as part of a further study:

7. 'Lead' midwives could be recruited as research midwives, with a responsibility to run a dissemination programme in the clinic and report back on it using standardised tools. The extra training and time required could be recognised as a certificate training and research day.

8. Clear lines of communication and demarcation of roles and responsibilities are essential if the consultative process is to reach all those likely to be involved, directly or indirectly.

7 RECOMMENDATIONS FOR THE DESIGN OF THE MAIN EVALUATION

This pilot evaluation has uncovered some fundamental barriers both to the process of informed choice in maternity care and to a necessary element in informed choice, the dissemination of evidence-based information. It has also sketched an important context for the attempt to move both users and health professionals towards more evidence-based care: the structures and organisational factors which shape people's experiences and the possibilities for change.

The most significant findings of the pilot concern the nature of the challenge posed to professionals by informed choice leaflets for childbearing women, the impact of these leaflets on women themselves, and the complex set of factors affecting what kind of impact introducing the leaflets may have on relationships and practice.

A professional challenge

It was difficult to pilot the ultrasound leaflet at all. Support for a pilot given before the leaflet had been read by key stakeholders, particularly ultrasonographers, was withdrawn once they had become familiar with the extent and nature of the evidence contained in the leaflet. It is clear from their responses that many issues are involved; the threat to non-evidence based practice posed by the systematising and dissemination of evidence; concern that women themselves will be upset to find out how little scientific medicine knows, and the thin relationship between knowledge and practice; opposition to moving the power base for decision-making from professionals to users; the argument that the social and psychological functions of a technology such as routine ultrasound offer more than 'simply' problem diagnosis and treatment, and that these covert functions need to be respected.

By comparison, the positions in labour leaflet seemed relatively uncontentious. Different sets of issues arose from the dissemination, use and assessment of the two leaflets. This highlights the important point that there is no such simple thing as informed choice in maternity care - there are many processes and forms of it. Similarly, the question of what constitutes informed choice for different stakeholders, and the impact of this on relationships and practice, is likely to be different for different areas of care.

The impact on women

There is very little evidence from the results of the pilot of either the positions in labour leaflets or the routine ultrasound leaflets changing maternity care practice in any significant way. Of course, this may be because the numbers involved were small and the study was short term. It is one of the issues that deserves exploration in a much larger study. Nonetheless, it is perhaps a striking finding that the greatest criticism of the leaflet about ultrasound was from ultrasonographers and their opposition was not matched by concerns expressed by midwives or pregnant women. Although some women regarded the information in the leaflet as new and/or disturbing, more commented on the importance of ultrasound in allowing them to see their babies and to feel reassured that they were all right. These positive affects appeared to overshadow any of the less benign information in the leaflet.

The information in the positions in labour leaflet did not tap into the same order of concerns. Here the problem was more clearly that, whatever the leaflet said, women who wanted to try different positions experienced resistance in the system. As data on delivery position is not routinely collected, it is of some interest that a third of the women in the pilot evaluation delivered on their backs. This figure was 42% in hospital B, more than twice that in hospital A. Obstetric and other procedures differ between hospitals, reflecting different client populations as well as different hospital policies. Hospital A was also the hospital that allowed the pilot of the ultrasound leaflet, partly on the grounds that the hospital did not have a policy of routine scans (although the midwives' task of making a scan appointment appeared to be a routine element of the booking visit and none of the women in the pilot sample declined a scan). These between-hospital differences are clear in many of our data tables, and are an important factor to consider when designing a larger and more ambitious evaluation.

Another significant factor shaping the impact of the leaflet on women was the extent to which they were receiving continuity of care. The informed choice leaflets were used more by women who lacked continuity of care. This factor was more important than their levels of knowledge and desire for more information. In general, working class women used the leaflets more. Having said that, it was also clear that women who felt they did have some sort of relationship with their care-givers were able to use the leaflets in this context; there was more talking about the leaflets with midwives when the women had met the midwife who gave them the leaflets before, and some evidence that women who felt that maternity care decisions were mainly up to them found the leaflets helpful in discussing their care with midwives.

We feel that it is important that these and other issues should be explored in a larger multi centre study using the basic design of a randomised controlled trial. Two possible designs would be:

1. A three arm study comparing the leaflets alone and a no-treatment control group with a third arm in which the leaflets are introduced together with a support programme for both midwives and women.

2. A trial in which the two strategies of disseminating information to professionals and to users are compared to reveal more about the process of disseminating research evidence; this would have a no-treatment control group, a group receiving the professional leaflets, and a group receiving the leaflets for women.

A number of major outcomes should be targeted in these trials, including:

1. The impact of the leaflets on *behavioural* outcomes for women and professionals (e.g. delivery position, ultrasound scans).

2. The impact of the leaflets on *knowledge* about the relevant issues for both users and professionals.

3. The impact of the leaflets on *beliefs* about decision-making in maternity care - whether this should be shared (what 'shared' means), whether women should be able to make their own choices, in what situations health professionals should be able to determine what happens.

4. The impact of the leaflets on women's and professionals' *experiences* of the processes of receiving or giving maternity care. Does the dissemination of informed choice improve or worsen these experiences? Is there more or less discussion? How does such discussion make people feel? How do women feel about their decisions? What would they do next time?

5. The impact of the leaflets on *maternity care policy*. Knowledge, attitudes, behaviours and experiences may all be affected, but there may be little connection between these impacts and the process of laying down policies about what ought to happen in different maternity care settings. For example, the positions in labour leaflet may improve knowledge, change attitudes, and foster shared decision-making, but changing the use of positions for delivery may be far more difficult.

6. The impact of the leaflets on *relationships between different professional groups*. It may be that one effect of information and choice is to give greater prominence to midwives as traditional supporters of, and listeners to, women, than to other professionals involved in maternity care.

It is critically important than any such trial should collect data on processes as well as outcomes. For example, any measurement of how well leaflets inform women directly must be matched by considering whether leaflets inform women indirectly through encouraging discussion between women and other people. A further recommendation for a larger evaluation is that access to women's medical notes should be negotiated. Not having such access was a problem in the pilot study (for example, in terms of checking that babies had been delivered safely, and to establish what did happen in labour from a medical viewpoint). As the midwives who took part in the pilot were so clearly suffering from work overload, attempts need to be made in any main evaluation to ensure that they have adequate support and recognition for their work. We found that the role of researchers was very important here. Greater thought also needs to be given to the design of any dissemination packs for midwives' use in a larger study and suitable advice needs to be sought on their design.

We also recommend three further studies which would not be RCTs:

1. A qualitative study of just how different groups of users and professionals define and operationalise 'informed choice'. The data collected in the pilot has shown how complex some of the issues here are, and we need to know more about the context of attitudes and expectations into which interventions such as informed choice leaflets are introduced.

2. A much larger survey of responses to the leaflets from both users and professionals. The pilot study tried to elicit impressions of the leaflet independently of attempting to evaluate its impact, but this is difficult. While the findings of the pilot on questions such as readability and appropriateness are suggestive, data need to be collected from broader and more representative samples, particularly for 'contentious' leaflets such as ultrasound. For example, although there was little evidence in the pilot of undue anxiety being created in women by some of the information in the ultrasound leaflet, if this proved to be more common it would be an issue that needed some consideration with a wider dissemination of the leaflets (for example, by setting up a brief counselling service).

3. More work exploring the appropriateness and acceptability of the leaflets and the general issue of informed choice with particular subgroups of women. For example, class emerged as a significant differentiator in some of our findings; this needs further research. Parity also made a difference; this may be related to age as well as experience of pregnancy and childbirth, with younger and older women responding differently. There are obvious issues to take forward in relation to women from ethnic minority groups. If the materials developed for the pilot are used, there need to be improvements to the questions on the midwives' record form so that these include asking about the woman's primary language; whether she can read and write in English; whether she can read and write in her primary language; and whether she needs an interpreter. Special efforts need to be made to get information from women who have instrumental deliveries.

It is likely that any of these pieces of further research would highlight some of the deficiencies in the way maternity care works that have been revealed in this pilot; for example, the lack of information on labouring and delivery positions, continuity of care, and opportunities for discussion. Some of these deficiencies could be explored and remedied through clinical audit and by changes in recording systems.

Table 1. Positions in labour and ultrasound pilot studies: numbers and characteristics of women and midwives involved

	Positions in labour	Ultrasound
Women		
No. invited	131	41
No.recruited	111	26
Consent form information provided	110	26
Interviewed	73	14
Questionnaires completed	56	13
Average age - yrs	30	32
% multips	61%	50%
% with partners	89%	100%
% owner-occupiers	53%	62%
% leaving education at 17 or more	66%	85%
% from ethnic minorities	10%	27%
Midwives		
No. involved	37	14
Record forms completed	128	37
Questionnaires completed	14	5
Interviewed	31	14

Table 2. Willingness to participate in the pilot studies

	Positions in labour pilot			Ultrasound pilot		
	women's consent form	**women's postal quest.**	**midwives quest.**	**women's consent form**	**women's postal quest.**	**midwives quest.**
Expressed their personal support for participating in the research	87	39	9	23	10	4
Considered research uninteresting or irrelevant	1	1	1	0	0	0
Found questionnaire:						
easy to fill in	62	29	3	11	3	0
hard to fill in	1	1	0	0	1	0
too long or time consuming	0	4	6	0	0	0
Willing to be contacted by researchers again	-	19	-	-	5	-
Number completing questionnaire	110	56	13	26	13	4

Table 3. Women's feelings about participating in the positions in labour pilot, after they had given birth

		Supportive	Not supportive	Form too long	Form too hard to fill in	Total
Hospital A		56%	1%	31%	6%	[16]
Hospital B		88%	4%	4%	4%	[25]
Hospital C		93%	-	7%	0	[15]
Hospital clinic		81%	6%	6%	-	[32]
Community clinic		76%	-	24%	-	[21]
Parentcraft class		100%	-	-	-	[2]
Home booking		100%	-	-	-	[1]
Multiparous		82%	3%	12%	3%	[34]
Primiparous		76%	5%	14%	5%	[21]
Age left education <17		94%	-	6%	-	[18]
Age left education 17+		73%	5%	16%	5%	[37]
Tenure:	buying own home	76%	6%	12%	6%	[33]
	renting	86%	-	14%	-	[21]
Reads and writes English, is white		81%	4%	9%	4%	[47]
Reads and writes English, is black/mixed-race		100%	-	-	-	[4]
Doesn't read or write English		60%	40%	-	-	[5]

Table 4. Had the woman met the person who gave her the positions in labour leaflet before?

		Met before	Not met before	Total
Hospital A		52% [15]	48% [14]	[29]
Hospital B		69% [29]	31% [13]	[42]
Hospital C		68% [21]	32% [10]	[31]
Hospital clinic*		59% [33]	41% [23]	[56]
Community clinic*		71% [30]	29% [12]	[42]
Multiparous		69% [42]	31% [19]	[61]
Primiparous		54% [21]	46% [18]	[39]
Completed education <17		72% [26]	28% [10]	[36]
Continued education 17+		59% [38]	41% [26]	[64]
Tenure:	buying own home	59% [27]	41% [19]	[46]
	renting	68% [38]	32% [18]	[56]

* These exclude other sources (eg parentcraft classes)

Table 5. How often did the woman expect to meet again the person who gave her the positions in labour leaflet?

		Every/most AN checks	Some AN checks	Never again /not sure	Total
Hospital A		10% [3]	67% [20]	23% [7]	[30]
Hospital B		31% [13]	36% [15]	33% [14]	[42]
Hospital C		42% [13]	35% [11]	23% [7]	[31]
Hospital clinic		25% [14]	38% [21]	38% [21]	[56]
Community clinic		35% [15]	56% [24]	9% [4]	[43]
Multiparous		34% [21]	44% [27]	21% [13]	[61]
Primiparous		15% [6]	48% [19]	38% [15]	[40]
Completed education <17		31% [11]	53% [19]	17% [6]	[36]
Continued education 17+		28% [18]	40% [26]	32% [21]	[65]
Tenure:	buying own home	23% [11]	49% [23]	28% [13]	[47]
	renting	32% [18]	41% [23]	27% [15]	[56]

Table 6. Where was the woman given the positions in labour leaflet?

		Hospital AN clinic	Community AN clinic	GP surgery	Other	Total
Hospital A		40%	53%	-	7%	[30]
Hospital B		65%	15%	9%	11%	[46]
Hospital C		53%	21%	21%	6%	[34]
Multiparous		60%	23%	11%	6%	[65]
Primiparous		48%	36%	7%	10%	[42]
Completed education <17		50%	33%	8%	8%	[36]
Continued education 17+		59%	25%	12%	4%	[69]
Tenure:	buying own home	60%	26%	11%	4%	[57]
	renting	52%	30%	10%	8%	[50]

Table 7. How often women read the positions in labour leaflet

		Once or twice	More often	Total
Hospital A		100%	0%	[16]
Hospital B		83%	17%	[24]
Hospital C		93%	7%	[14]
Hospital clinic		87%	13%	[31]
Community clinic		95%	5%	[20]
Parent craft class		100%	0%	[2]
Multiparous		91%	9%	[32]
Primiparous		91%	9%	[21]
Completed education <17		89%	11%	[18]
Continued education 17+		91%	9%	[36]
Tenure:	buying own home	91%	9%	[33]
	renting	90%	10%	[21]

Table 8. Did the leaflet answer the woman's questions?

	Answered all	Answered some/none	Had no questions	Not sure	Total
Hospital A	7%	27%	53%	13%	[16]
Hospital B	38%	25%	33%	4%	[24]
Hospital C	57%	21%	21%	0%	[15]
Hospital clinic	45%	19%	32%	3%	[31]
Community clinic	15%	35%	40%	10%	[20]
Parent craft class	0%	0%	100%	0%	[2]
Multiparous	34%	34%	28%	3%	[32]
Primiparous	30%	10%	50%	10%	[20]
Completed education <17	61%	11%	22%	6%	[18]
Continued education 17+	18%	32%	44%	6%	[34]
Tenure - buying own home	31%	31%	31%	6%	[32]
- renting	35%	15%	45%	5%	[20]
Normal delivery	39%	24%	30%	7%	[46]
Caesarean delivery	0%	0%	100%	0%	[2]
Forceps/ventouse	0%	0%	100%	0%	[6]
No. of positions tried					
= 1	40%	20%	40%	0%	[10]
= 2-3	42%	32%	16%	11%	[19]
= 4-7	25%	21%	50%	4%	[24]

Table 9. How women feel about the birth

	Confident	Worried	Total
Contact with person who gave leaflet:			
Met before	66%	34%	[61]
Not met before	55%	45%	[42]
How often did woman expect to see this person?			
Every/most AN checks	50%	50%	[14]
Some AN checks	73%	27%	[45]
Never again/not sure	57%	43%	[30]
How much did woman know about her maternity care?			
A lot/a fair amount	61%	39%	[88]
Nothing/not much/not sure	60%	40%	[15]
How did woman feel about amount of information given?			
Happy	64%	36%	[77]
Not sure/would like more	54%	46%	[26]
Woman likes to get information from:			
Hospital midwife	58%	42%	[62]
Community midwife	60%	40%	[53]
GP	65%	35%	[34]
Hospital doctor	93%	7%	[14]
Partner	54%	45%	[24]
Relative, friend	58%	42%	[45]
Antenatal classes	60%	40%	[42]
Books, leaflets	61%	39%	[77]
TV, videos	42%	58%	[11]
Magazines	59%	41%	[37]
Radio, tapes	-	100%	[5]

Table 10. Women's feelings of involvement in decision-making before being able to use the positions in labour leaflet

	Most decisions by woman herself	Most decisions by woman and staff	Most decisions by staff alone	Not sure	Total
Hospital A	30%	67%	3%	-	30]
Hospital B	17%	78%	-	4%	[45]
Hospital C	16%	81%	-	3%	[32]
Hospital clinic	22%	75%	-	2%	[59]
Community clinic	18%	74%	2%	5%	[43]
Parent craft class	20%	80%	-	-	[5]
Multiparous	21%	78%	2%	-	[63]
Primiparous	19%	74%	-	7%	[42]
Completed education <17	22%	75%	3%	-	[36]
Continued education 17+	20%	75%	-	4%	[69]
Tenure - buying own home	18%	81%	-	2%	[57]
- renting	24%	70%	2%	4%	[50]
No communication problems	20%	77%	0	3%	[91]
Communication problems	9%	81%	9%	0	[11]

These figures are based on data from 110 women who returned their consent form.

Table 11. How women felt about being involved in decision-making after being able to use the positions in labour leaflet

		Most decisions by woman herself	Most decisions by woman+staff	Most decisions by staff alone	Total
Hospital A		19% [3]	75% [12]	6% [1]	[16]
Hospital B		39% [7]	72% [18]	-	[25]
Hospital C		7% [1]	93% [13]	-	[14]
Hospital clinic		23% [7]	74% [23]	3% [1]	[31]
Community clinic		17% [4]	83% [20]	-	[24]
Multiparous		9% [3]	88% [29]	3% [1]	[33]
Primiparous		33% [7]	67% [14]	-	[21]
Completed education <17		13% [4]	87% [27]	-	[31]
Completed education 17+		17% [6]	81% [29]	3% [1]	[36]
Tenure:	buying own home	15% [5]	82% [27]	3% [1]	[33]
	renting	24% [5]	76% [16]	-	[21]
No problem with English		22% [11]	76% [38]	2% [1]	[50]
Problem with English		20% [1]	80% [4]		[5]

Table 12. Involvement in decision-making

Contact with person who gave leaflet	Decisions made by herself	Decisions made with staff	Decisions made by staff	Total
Met before	20%	80%	-	[64]
Not met before	15%	83%	3%	[40]
How often did woman expect to see this person?				
Every/most AN checks	17%	83%	-	[29]
Some AN checks	24%	73%	2%	[45]
Never again	33%	67%	-	[6]
Not sure	17%	83%	-	[24]
How much did woman know about her maternity care?				
A lot / a fair amount	23%	77%	-	[90]
Nothing/not much/not sure	7%	87%	7%	[14]
How did woman feel about amount of information given?				
Happy	21%	78%	1%	[77]
Not sure/would like more	22%	78%	-	[27]
Woman likes to get information from:				
Hospital midwife	20%	80%	-	[64]
Community midwife	20%	78%	2%	[55]
GP	20%	80%	-	[35]
Hospital doctor	21%	78%	1%	[104]
Partner	18%	81%	-	[22]
Relative, friend	23%	77%	-	[44]
Antenatal classes	19%	81%	-	[42]
Books, leaflets	22%	78%	-	[77]
Magazines	10%	90%	-	[39]
TV, videos	5%	95%	-	[20]
Radio, tapes	-	100%	-	[5]

Table 13.What women said about talking about the leaflets

	Did you talk about the information in the positions of labour leaflet to:		Did you talk about the information in the ultrasound leaflet to:
No one	34%	[19]	
Midwife who gave you the leaflet	16%	[9]	[1]
Another midwife	5%	[3]	[2]
GP	2%	[1]	
Antenatal teacher	9%	[5]	
Partner	55%	[31]	[2]
Relative or friend	13%	[7]	[2]
Other women	4%	[2]	
Found talking about the leaflet helpful	78%	[21]	
Found talking about the leaflet unhelpful	22%	[6]	
Unsure			[2]
Asked by the midwife who gave her the leaflet if she had any questions	4%	[2]	[0]
Not asked by midwife who gave her the leaflet if she had any questions	56%	[30]	
Not sure whether that midwife asked her if she had any questions	13%	[7]	
Did not meet that midwife again	28%	[15]	[5]
Found out all she wanted to know about positions in labour	82%	[46]	
Did not find out all she wanted to know about positions in labour	18%	[10]	

NB % figures are calculated from the number of women who answered the relevant questions

Table 14. Had the pregnant woman met before the midwife who gave her the positions in labour leaflet and was this linked with whether she was able to discuss the leaflet and find out what she wanted to know?

	They had met before	They had not met before	Total
Found out all she wanted to know about positions in labour	62% [28]	8% [17]	[45]
Wasn't able to find out all she wanted to know	25% [1]	75% [3]	[4]
Talked about leaflet to midwife who gave her the leaflet	67% [6]	33% [3]	[9]
Likes to get information from hospital midwives	59% [38]	41% [26]	[64]
Likes to get information from community midwives	66% [37]	34% [19]	[56]

Table 15. When did the woman expect to meet again the person who gave her the positions in labour leaflet and was this linked with whether she was able to discuss the leaflet and find out what she wanted to know?

	Every/most AN checks	Some AN checks	Never again/ not sure	Total
	[29]	[46]	[32]	[107]
Found out all she wanted to know about positions in labour	29% [13]	40% [18]	31% [14]	[45]
Wasn't able to find out all she wanted to know	-	50% [2]	50% [2]	[4]
Talked about leaflet to midwife who gave her the leaflet	44% [4]	33% [3]	22% [2]	[9]
Likes to get information from hospital midwives	30% [19]	36% [23]	34% [22]	[64]
Likes to get information from community midwives	25% [14]	54% [30]	21% [12]	[56]

Table 16. How women in the pilot of the positions in labour leaflets gave birth, compared with the total population of omen giving birth at each hospital

	Normal delivery	Assisted delivery	Ceasarean delivery	Total
Hospital A	62%	17%	21%	2700
Hospital B	76%	7%	17%	2702
Hospital C	75%	9%	16%	3500
Pilot	86%	10%	4%	56

Table 17. Did women use the positions in labour leaflet?

	Used leaflet		Didn't use leaflet		Total
Hospital A	31%	[5]	69%	[11]	[16]
Hospital B	45%	[9]	55%	[11]	[20]
Hospital C	31%	[4]	69%	[9]	[13]
Hospital clinic	41%	[11]	59%	[16]	[27]
Community clinic	33%	[7]	67%	[13]	[20]
Multiparous	34%	[10]	66%	[19]	[29]
Primiparous	40%	[8]	60%	[12]	[20]
Completed education <17	31%	[5]	69%	[11]	[16]
Completed education 17+	40%	[13]	60%	[20]	[33]
Tenure: buying own home	40%	[12]	60%	[18]	[30]
renting	32%	[6]	68%	[13]	[19]
Met MW before	25%	[7]	75%	[21]	[28]
Not met MW before	52%	[11]	48%	[10]	[21]
Will meet again:					
Every/most AN checks	33%	[4]	67%	[8]	[12]
Some AN checks	32%	[7]	68%	[15]	[22]
Never meet again/not sure	47%	[7]	53%	[8]	[15]
Knew a lot/fair amount about her maternity care	36%	[16]	64%	[28]	[44]
Didn't know much/knew nothing about maternity care	40%	[2]	60%	[3]	[5]

Table 18. How helpful women found the positions in labour leaflet

	Very helpful	Quite helpful	Not helpful	Not sure	Total
Hospital A	6%	69%	19%	6%	[16]
Hospital B	17%	67%	13%	4%	[24]
Hospital C	7%	79%	14%	0%	[14]
Hospital clinic	13%	71%	16%	0%	[31]
Community clinic	5%	75%	15%	5%	[20]
Parentcraft class	50%	0%	50%	0%	[2]
Multiparous	6%	76%	18%	0%	[33]
Primiparous	19%	62%	10%	10%	[21]
Completed education <17	28%	61%	11%	0%	[18]
Continued education 17+	3%	75%	17%	6%	[36]
Tenure: buying own home	6%	70%	21%	3%	[33]
renting	19%	71%	5%	5%	[21]
Normal delivery	13%	65%	17%	4%	[46]
Caesarean delivery	0%	100%	0%	0%	[2]
Forceps/ventouse	0%	100%	0%	0%	[6]
No. of positions tried					
= 1	10%	40%	40%	10%	[10]
= 2-3	18%	82%	0%	0%	[17]
= 4-7	8%	80%	12%	0%	[25]

Table 19. Women's feelings about the leaflet by involvement in decisions about maternity care

Feelings about the leaflet	Decisions should be made by me	Decisions should be shared with staff	Total
Leaflet was very helpful	17%	83%	[6]
Leaflet was quite helpful	11%	89%	[38]
Leaflet was not helpful	14%	86%	[7]
Explains clearly the choices available	8%	92%	[36]
Helped me talk about care with Mws	20%	80%	[5]
Helped me talk about care with doctors	-	100%	[3]
Helped me talk about care with partner	8%	92%	[12]
Helped me talk about care with other/s	-	100%	[2]
Helped me make informed choices	13%	87%	[24]
Nothing helpful about leaflet	-	100%	[2]
Woman had met MW before receiving leaflet	9%	91%	[32]
Woman had not met MW before	14%	86%	[21]

Table 20. How the leaflet affected the experience of labour: Did it affect what women wanted to do?

		Yes, affected		No, didn't affect		Total
Hospital A		7%	[1]	93	[13]	[14]
Hospital B		27%	[6]	73%	[16]	[22]
Hospital C		29%	[4]	71%	[10]	[14]
Hospital clinic		21%	[6]	79%	[23]	[29]
Community clinic		26%	[5]	74%	[14]	[19]
Multiparous		22%	[7]	78%	[22]	[29]
Primiparous		31%	[4]	69%	[13]	[17]
Completed education <17		24%	[4]	76%	[13]	[17]
Completed education 17+		22%	[7]	78%	[25]	[32]
Tenure:	buying own home	26%	[8]	74%	[23]	[31]
	renting	17%	[3]	83%	[15]	[18]
No problem with English		24%	[11]	76%	[34]	[45]
Problem with English		-	-	100%	[3]	[3]
Make decisions by self		18%	[2]	82%	[9]	[11]
Make decisions with staff		24%	[9]	76%	[28]	[37]
Staff make decisions		-	-	100%	[1]	[1]

These figures are based on 50 women who gave information about how they thought the leaflet affected their experience of labour. Where the figures do not add up to 50, demographic data are missing for some respondents.

Table 21. Did women think the leaflet affected what they actually did in labour?

		Yes, affected		No, didn't affect		Total
Hospital A		14%	[2]	86%	[12]	[14]
Hospital B		9%	[2]	91%	[20]	[22]
Hospital C		7%	[2]	93%	[13]	[15]
Hospital clinic		3%	[1]	97%	[28]	[29]
Community clinic		25%	[5]	83%	[15]	[20]
Multiparous		4%	[3]	96%	[29]	[32]
Primiparous		17%	[3]	83%	[15]	[18]
Completed education <17		11%	[1]	89%	[16]	[17]
Completed education 17+		15%	[5]	85%	[28]	[33]
Tenure:	buying own home	13%	[4]	87%	[28]	[32]
	renting	11%	[2]	89%	[16]	[18]
No problem with English		10%	[5]	90%	[43]	[48]
Problem with English		33%	[1]	67%	[2]	[3]
Make decisions by self		33%	[2]	67%	[4]	[6]
Make decisions with staff		22%	[9]	78%	[33]	[41]
Staff make decisions		-	-	100%	[3]	[3]

These figures are based on 51 women who gave information about how they thought the leaflet affected their experience of labour. Where the figures do not add up to 51, demographic data are missing for some respondents.

Table 22. Whether women remembered or used the leaflet and how they coped in labour

Pain relief method:	Used leaflet	Remembered it	Didn't use it	Total
Massage	13% [1]	37% [3]	50% [4]	[8]
Pethidine	18% [2]	18% [2]	64% [7]	[11]
Entonox	23% [8]	17% [6]	60% [21]	[35]
Epidural/spinal block	22% [4]	17% [3]	61% [11]	[18]
No pain relief	67% [2]	-	33% [1]	[3]
Control over pain relief	33% [6]	6% [1]	61% [11]	[18]
No control over pain relief	19% [5]	19% [5]	62% [16]	[26]
One position only used	- -	14% [1]	86% [6]	[7]
2-3 positions used	37% [7]	11% [2]	53% [10]	[19]
4-7 positions used	17% [4]	17% [4]	65% [15]	[23]
Gave birth lying on back	31% [5]	13% [2]	56% [9]	[16]
Gave birth in other position	28% [9]	9% [3]	63% [20]	[32]

Table 23. Position of woman at moment of giving birth

		Lying on her back		All other positions		Total
Hospital A		19%	[3]	81%	[13]	[16]
Hospital B		42%	[10]	58%	[14]	[24]
Hospital C		27%	[4]	73%	[11]	[15]
Multiparous		27%	[9]	73%	[24]	[33]
Primiparous		38%	[8]	62%	[13]	[21]
Completed education <17		29%	[5]	71%	[12]	[17]
Completed education 17+		32%	[12]	68%	[25]	[37]
Tenure:	buying own home	29%	[10]	71%	[24]	[34]
	renting	35%	[7]	65%	[13]	[20]
No problem with English		28%	[14]	72%	[36]	[50]
Problem with English		60%	[3]	40%	[2]	[5]
Normal delivery		23%	[11]	77%	[37]	[48]
Instrumental delivery		83%	[5]	17%	[1]	[6]

These figures are based on 55 women who gave information about their position at the moment of giving birth. Where the numbers do not add up to 55 this is because data on parity, education or tenure are missing.

Table 24. How women given the ultrasound leaflet felt about their pregnancy and the information they had about their care

	When given leaflet	After scan [n=13]
Thought she knew a lot about her maternity care	3	2
Thought she knew a fair amount about her maternity care	13	10
Thought she did not know much about her maternity care	7	1
Nothing	2	
Not answered		1
Very happy with the amount of information she had	2	2
Quite happy with the amount of information she had	12	10
Needed more information	10	
Needed more information at booking visit	1	
Felt confident/very confident/not worried	18	10
Worried or not sure	4	2
Very worried		1
Expected to feel confident once the result of the scan is known	1	
Generally confident, but worried about Down's Syndrome	1	
Confident about own health, but worried about the baby	1	
Scared of the birth	1	
Leaflet made her feel happier about the scan		3
Leaflet made no difference		7
Leaflet made her feel less happy		1
Leaflet worried her		1
Only read the leaflet to answer the questionnaire		1

These figures are based on 26 women who returned the consent form and 13 women who returned the questionnaire after having an ultrasound scan.