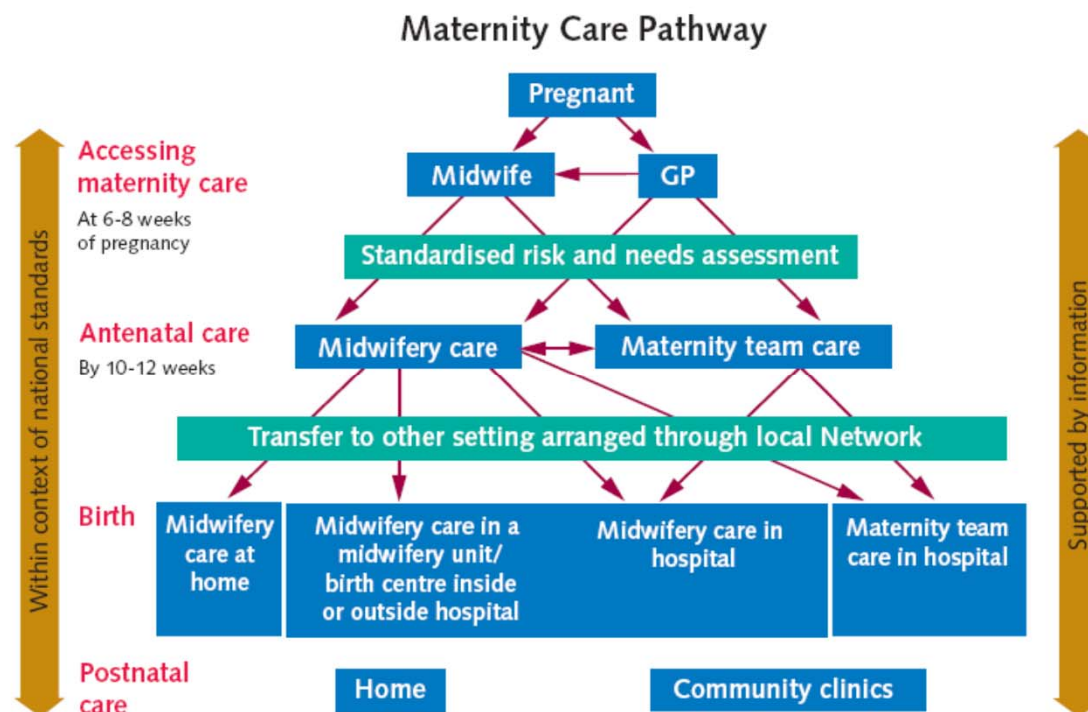


**National Women's Annual clinical report
21-08-15**

How can the UK inform the growth of primary birthing units in New Zealand?

**Professor Jane Sandall
King's College, London**

Maternity Policy



Maternity Matters:

Choice, access and continuity of care in a safe service



NHS
National Institute for Health and Clinical Excellence

Issue date: September 2007

Intrapartum care

Care of healthy women and their babies during childbirth

NICE clinical guideline 55
Developed by the National Collaborating Centre for Women's and Children's Health

'Every woman should be able to choose the most appropriate place and professional to attend her during childbirth based on her wishes and cultural preferences and any medical and obstetric needs she and her baby may have'

'...options for midwife-led care will include midwife-led units in the community or on a hospital site' and that care was to be provided in a '...framework which enables easy and early transfer of women and babies who unexpectedly require specialist care'

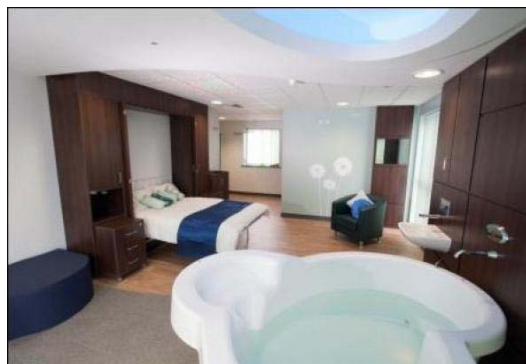
Department of Health
(2004) National Service Framework for Children, Young People and Maternity Services: Maternity Standard 11.
London



Where did women give birth in England ?

Freestanding Midwife Unit (59)

Geographically separate from Obstetric Unit



Obstetric Unit (177)



Alongside Midwife Unit (53)

co-located on same site as obstetric unit



In 2012, 670,627 births,
21,249 midwives FTE and 1,570 consultants and 2,635 registrars, plus Drs in training

Home



NHS Maternity Statistics, England: 2010-11

NICE criteria

- Medical conditions
- Previous obstetric complications
- Current obstetric complications
- Fetal indications
- Previous gynae history
- Individual assessment

What was known before

- A lack of accurate quantification of the risk of adverse outcomes associated with births planned in different settings
- Interpreting available evidence has been difficult because ***actual place of birth*** has often been used to make inferences about ***planned place of birth***
- Birthplace in England
- Aim
- To provide high quality evidence about processes, outcomes and costs associated with different settings for birth in the NHS in England

Component studies

- Mapping survey of NHS Providers in England
- Prospective cohort study
- Cost-effectiveness study
- Case studies

Primary objective

- to compare intrapartum and early neonatal mortality and morbidity
- by planned place of birth at the start of care in labour
- in women judged to be at ‘low risk’ of complications according to current national clinical guidelines

National prospective study of planned place of birth

Objective

Compared the safety of births planned in four settings at the start of face to face care in labour for 'low risk' women

Design

- Prospective cohort study

Sample

- England: all NHS trusts providing intrapartum care at home, all freestanding midwifery units, all alongside midwifery units, and a stratified random sample of obstetric units

Participants (64,538 'low risk' women in total)

- Women with a singleton, term (≥ 37 weeks gestation), and received antenatal care. Planned caesarean sections, caesarean sections and unplanned home births before the onset of labour were excluded

Comparison groups

- Planned place of birth at the start of care in labour for low risk women at home, freestanding midwifery units, alongside midwifery units, and obstetric units

Analyses adjusted for maternal age, ethnicity, understanding of English, marital/partner status, Body Mass Index (BMI), area deprivation, parity and gestation

**Are there differences
between planned birth
settings in outcomes for the
baby?**

Adverse perinatal outcomes

- 250 primary outcome events
 - 13% intrapartum stillbirth or early neonatal death (n=32)
 - 46% neonatal encephalopathy
 - 30% meconium aspiration
 - 12% shoulder injuries
- 4.3 adverse perinatal outcome events per 1000 births
- Nulliparous women: 5.3 events per 1000 births
- Multiparous women: 3.1 events per 1000 births

Adverse perinatal outcome by planned place of birth – All women

	Adverse outcomes per 1000 births		Adjusted odds ratio	
	n/1000	(95% CI)	Odds ratio	(95% CI)
All 'low risk' women	4.3	(3.3-5.5)		
Obstetric unit	4.4	(3.2-5.9)	1	-
Home	4.2	(3.2-5.4)	1.16	(0.76-1.77)
Freestanding Midwife unit	3.5	(2.5-4.9)	0.92	(0.58-1.46)
Alongside midwife unit	3.6	(2.6-4.9)	0.92	(0.60-1.39)

Perinatal outcome by parity

	Adverse outcomes per 1000 births		Adjusted odds ratio	
	n/1000	(95 CI)	Odds ratio	(95 CI)
Nulliparous women	5.3	(4.0-7.0)		
Obstetric unit	5.3	(3.9-7.3)	1	-
Home	9.3	(6.5-13.1)	1.75	(1.07-2.86)
Freestanding midwife unit	4.5	(2.8-7.1)	0.91	(0.52-1.60)
Alongside midwife unit	4.7	(3.1-7.2)	0.96	(0.58-1.61)
Total (27,669)				
Multiparous women	3.1	(2.2-4.5)		
Obstetric unit	3.3	(2.2-5.0)	1	-
Home	2.3	(1.6-3.2)	0.72	(0.41-1.27)
Freestanding midwife unit	2.7	(1.6-4.6)	0.91	(0.46-1.80)
Alongside midwife unit	2.4	(1.4-4.3)	0.81	(0.40-1.62)
Total (34,367)				

Perinatal outcome for babies of 'low risk' women by planned place of birth

- For 'low risk women', the incidence of adverse perinatal outcomes is low in all birth settings
 - **4.3 adverse perinatal outcome events per 1000 births**
- For multiparous 'low' risk women there are no differences in adverse perinatal outcomes between settings
- The risk of an adverse perinatal outcome appears to be higher for nulliparous women who plan to give birth at home (9.3 primary outcome events per 1000 births vs. 5.3 per 1000 births in an obstetric unit)

How does planned birth in different settings affect intrapartum interventions and other maternal outcomes?

Secondary maternal outcomes

- Mode of birth
- Maternal morbidity and mortality
- Interventions during labour and birth
 - Forceps delivery
 - Intrapartum caesarean section
 - ‘Normal birth’*

* Normal birth is defined as birth without any of the following interventions: induction of labour, epidural or spinal analgesia, general anaesthetic, forceps or ventouse, caesarean section or episiotomy

Maternal outcomes by planned place of birth, percentages of women

	Home	Obstetric Unit	Alongside midwife unit	Freestanding midwife unit
Intrapartum CS	2.8	11.1	4.4	3.5
Forceps	2.1	6.8	4.7	2.9
Syntocinon	5.4	23.5	10.3	7.1
Normal birth	87.9	57.6	76.0	83.3
Immersion in water	33.3	9.1	30.2	45.7

How often are women who plan birth in non-obstetric settings transferred during labour or immediately after the birth?

Transfers during labour or immediately after birth by parity

	Percentage transferred		
	Home	Freestanding midwife unit	Alongside midwife unit
All women	21.0	22.0	26.0
Nulliparous women	45.0	36.3	40.2
Multiparous women	12.0	9.4	12.5

Most common reasons for transfer (%)

Reason	Home	Freestanding midwife unit	Alongside midwife unit
Failure to progress in 1 st stage	4.5	4.8	5.1
Failure to progress in 2nd stage	2.3	3.3	4.1
Fetal distress	1.5	2.3	2.9
Epidural request	1.1	1.4	3.5
Meconium staining	2.6	2.7	3.2
Retained placenta	1.5	1.6	1.2
Repair of perineal trauma	2.3	1.6	2.2

Women's experiences of transfer

Concerns around transfer distance meant that many women did not feel they had any realistic choice of place of birth.

Travel distance to OUs was a concern for women living in more rural areas.

- Some women were prepared for the unpredictability of childbirth, others were not expecting transfer.
- Some women found transfer worrying, disempowering or disappointing.
- Careful explanation of events by professionals had a positive effect on women & partners' experiences of escalation and transfer.
- Some women described difficulty in being listened to by staff when they raised concerns about complications they had noticed themselves.
- Not being listened to resulted in frustration, self-blame or anger.
- Good relationships with health professionals facilitated women to express concerns, and staff to respond.

Rowe et al. *BMC Pregnancy and Childbirth* 2012, 12:129.

Rance S, et al. *Quality and Safety in Health Care* 2013;0:1–8.

Birthplace in England Study Conclusion

- For 'low risk women', the incidence of adverse perinatal outcomes is low in all birth settings at 4.3 adverse perinatal outcome events per 1000 births.
- For multiparous 'low' risk women there are no differences in adverse perinatal outcomes between settings.
- The risk of an adverse perinatal outcome appears to be higher for nulliparous women who plan to give birth at home (9.3 primary outcome events per 1000 births vs. 5.3 per 1000 births in an OU). No differences for those planning birth in FMU or AMU.
- All women planning birth in a freestanding or alongside midwifery unit, and multiparous women planning birth at home experience fewer interventions than those planning birth in an obstetric unit, with no impact on perinatal outcomes.

BMJ

BMJ 2011;343:d7400 doi: 10.1136/bmj.d7400 (Published 24 November 2011)

Page 1 of 13

RESEARCH

Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study

OPEN ACCESS

Birthplace in England Collaborative Group

Abstract

Objective To compare perinatal outcomes, maternal outcomes, and interventions in labour by planned place of birth at the start of care in labour for women with low risk pregnancies.

Design Prospective cohort study.

Setting England: all NHS trusts providing intrapartum care at home, all freestanding midwifery units, all alongside midwifery units (midwife led units on a hospital site with an obstetric unit), and a stratified random sample of obstetric units.

Participants 64 538 eligible women with a singleton, term (≥37 weeks gestation), and "booked" pregnancy who gave birth between April 2008 and April 2010. Planned caesarean sections and caesarean sections before the onset of labour and unplanned home births were excluded.

Main outcome measure A composite primary outcome of perinatal mortality and intrapartum related neonatal morbidities (stillbirth after start of care in labour, early neonatal death, neonatal encephalopathy, meconium aspiration syndrome, brachial plexus injury, fractured humerus, or fractured clavicle) was used to compare outcomes by planned place of birth at the start of care in labour (at home, freestanding midwifery units, alongside midwifery units, and obstetric units).

Results There were 250 primary outcome events and an overall weighted incidence of 4.3 per 1000 births (95% CI 3.3 to 5.5). Overall, there were no significant differences in the adjusted odds of the primary outcome for any of the non-obstetric unit settings compared with obstetric units. For nulliparous women, the odds of the primary outcome were higher for planned home births (adjusted odds ratio 1.75, 95% CI 1.07 to 2.88) but not for either midwifery unit setting. For multiparous women, there were no significant differences in the incidence of the primary outcome by planned place of birth. Interventions during labour were substantially lower in all non-obstetric unit settings. Transfers from non-obstetric unit settings were more frequent for nulliparous women (36% to 45%) than for multiparous women (9% to 13%).

Conclusions The results support a policy of offering healthy women with low risk pregnancies a choice of birth setting. Women planning birth

in a midwifery unit and multiparous women planning birth at home experience fewer interventions than those planning birth in an obstetric unit with no impact on perinatal outcomes. For multiparous women, planned home births also have fewer interventions but have poorer perinatal outcomes.

Introduction

The relative benefits and risks of birth in different settings have been widely debated in recent years.¹⁻⁷ A problem when trying to evaluate the effect of birth setting on perinatal outcomes has been the use of actual place of birth rather than planned place of birth to define comparison groups. Available evidence summarised in the National Institute for Health and Clinical Excellence (NICE) guideline on intrapartum care indicates that, although there is a higher likelihood of a vaginal birth with less intervention for healthy women who plan to give birth at home or in a midwifery unit compared with an obstetric unit, there is a lack of good quality evidence comparing the risk of rare but serious adverse outcomes by birth setting.^{8,9}

The primary objective of this study was to compare intrapartum and early neonatal mortality and specific neonatal morbidities for births planned at home, in freestanding midwifery units, and in "alongside midwifery units" (midwife led units on a hospital site with an obstetric unit) with births planned in obstetric units, for babies of women judged to be at low risk of complications before the onset of labour.

In England almost all maternity care is provided by the National Health Service (NHS) and is free at the point of care. Births outside an obstetric unit are relatively uncommon. Of women giving birth in 2007, around 8% gave birth outside an obstetric unit—2.8% at home, around 3% in alongside midwifery units, and just under 2% in freestanding midwifery units.¹

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Appendices supplied by the author: 1: Study protocol. 2: Outcome variables requiring clinical review and coding. 3: Data collection forms. 4: Categorisation of potential confounders. 5: Sensitivity analysis, trusts/units with a response rate of at least 85%. 6: Sensitivity analysis, propensity score analysis. 7: Summary of missing data. 8: Supplementary results tables. 9: Birthplace in England Collaborative Group (see <http://www.bmj.com/content/343/bmj.d7400/relatedwebextra>)

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Birthplace
In England Research Programme

Issues that Birthplace is not able to address

- Variation between trusts; regions; different models of service provision for home birth services, FMUs and AMUs
- Health economics are limited to intrapartum care and the post-partum period
- We do not know why planned home birth for women having their first baby appears to be more risky

Implications for practice

- Guidance to women on planned place of birth should be updated with more accurate information about maternal and perinatal outcomes and transfer rates. **NICE guidance updated 2014.**
- Expansion of midwife-unit provision.
- **Most births (87 per cent in 2012) take place in obstetric units, with 11 per cent in midwife-led units and 2.4 per cent at home (National Audit Office 2013).**
- **The number of obstetric units in England has fallen slightly from 180 in 2007 to 177 in 2010.**
- **152 midwifery-led units in June 2013, an increase from 87 in April 2007. 79 per cent of women are within a 30-minute drive of both an obstetric unit and a midwifery-led unit, compared with 59 per cent in 2007.**
- **In 2007, the annual number of deliveries in a midwife-led birthing unit ranged from 8 to 548; for an alongside midwifery-led unit, it ranged from 93 to 2,860; and for deliveries in obstetric units, it ranged from 914 to 6,781.**

Birth place decisions

Information for women and partners
on planning where to give birth



Planned place of birth: outcomes for babies of healthy women at low risk of complications

Birth is generally very safe for women at low risk of complications and their babies. These diagrams show outcomes for babies when birth is planned in different settings. In each case, the green circles represent a baby born healthy, and the blue circles represent a baby with a poor outcome, meaning that the baby was injured, seriously ill or died during or just after birth. These outcomes are very rare amongst healthy women who are at low risk of complications, but they can happen in any birth setting. For women expecting their first baby, a poor outcome, whilst still uncommon, is more likely for planned home births.

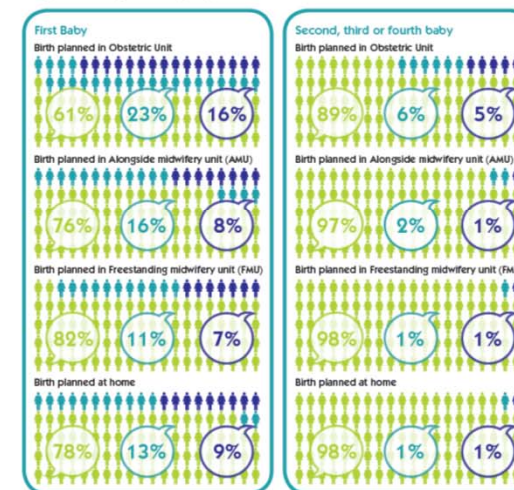


Assisted birth and emergency caesarean section

Ventouse or 'vacuum', and forceps, are sometimes used in the second stage of labour, to help deliver the baby more quickly if there is concern about the wellbeing of the baby or the woman. These interventions may be called 'instrumental' or 'assisted' births, and are only undertaken if there is good reason to think that a quicker birth would be beneficial, and that a caesarean birth may be avoided. Assisted births are associated with complications for women and babies, and recovery may be slower following birth. Overall, about half of assisted births are ventouse/vacuum births, and half are births with forceps. Like caesarean births, assisted births are more common amongst women having their first baby, compared to

women having their second or subsequent baby. In some cases, the use of instruments is not successful, and then a caesarean is performed.

The diagrams below show how many women who were at low risk of complications had an assisted birth (ventouse or forceps) or an emergency caesarean in different birth settings. In these diagrams, women who have a caesarean birth are shown by a dark blue figure. Light blue figures represent women who have births assisted by ventouse/vacuum or forceps. Green figures represent women who had a straightforward vaginal birth.



Kirstie Coxon, King's College,
London [http://www.pdcap.cz/Texty/PDF/Birth_](http://www.pdcap.cz/Texty/PDF/Birth_place_decision_support.pdf)
place_decision_support.pdf

London Maternity Strategic Clinical Network

Maternity services in London: Key facts

London
Strategic Clinical Networks

7.8 million
people live
in London

600,000
of London's children
live in poverty

132,564
live births in London
in 2012

1/4
of births in England
and Wales are born
to mothers outside
the UK

NEWHAM
has the highest
proportion of births
to non-UK women
(77%)

Across London there
are **25** trusts providing
maternity care on

33 sites;

2 stand-alone
birth centres
and

16 co-located birth
centres

1.84
children born
per woman
in London on
average

Among local
authorities,

**Barking
and
Dagenham**
had the highest **2.58**

Camden
had the lowest **1.35**

Among
regions in
England,
London had the

LOWEST
birth rate for women age
under 18 and
HIGHEST
birth rate for women age
over 45 years

CARDIOVASCULAR	↓
MENTAL HEALTH, DEMENTIA & NEUROSCIENCE	↓
OTHERS	↓

Overarching aim: To reduce variation in outcomes and experience of care for women and their babies in London

Co-Clinical Directors: Professor Donald Peebles, Professor of Foetal Medicine, University College London; Donna Ockenden, formerly Chief Midwife and Care Group Director, South London Healthcare Trust

KEY CONTACTS

- SCN Lead: Tracy Parr
- Quality Improvement Lead: Caroline Moren
- Senior Project Manager: Sarah Dunsdon

Increasing the number of women who receive continuity of midwife care: *A best practice toolkit*

Aim

To increase the number of women accessing continuity of midwife care in London.

This toolkit has been produced as part of the London Maternity Strategic Clinical Network's strategy to identify areas of good practice for implementation across all maternity units in the capital, ensuring equally good outcomes for all pregnant women and their babies.

This toolkit presents the evidence that continuity of midwife care improves maternal and infant outcomes, improves maternal experience of care and uses resources more effectively.

It also reinforces Department of Health policy and the NHS Mandate that "every woman has a named midwife who is responsible for ensuring she has personalised, one-to-one care throughout pregnancy, childbirth and during the postnatal period, including additional support for those who have a maternal health concern".

Current National Institute for Health and Care Excellence (NICE) antenatal² and postnatal quality care standards both state women should have a named midwife.

In the postnatal period, this person is referred to as a named healthcare professional³. This should be available to all women including those of social complexity⁴.

The toolkit is intended to cover all pregnant and childbearing women in all maternity units across London.

Background and rationale

A woman who receives care from a known midwife is more likely to:

- » Have a vaginal birth.
- » Have fewer interventions during birth.
- » Have a more positive experience of labour and birth.
- » Successfully breastfeed her baby.
- » Cost the health system less.

A woman who receives care from a known midwife is less likely to:

- » Experience preterm birth.
- » Lose their baby before 24 weeks' gestation.

This applies to low and mixed risk populations of women⁵.

Other studies have found that women who carry social complexity and find services hard to access in particular value continuity⁶ and increased advocacy and care co-ordination⁷. Women also experienced increased agency and control, and more empathic care⁸.

Comments from mothers

The below comments are direct quotes, received from the Family and Friends Test at Guy's and St Thomas' NHS Foundation Trust.

"Fantastic midwife team. Have had an appointment to meet all the midwives but also having an assigned midwife to do home visits is so appreciated. Given me a lot of confidence as this is my first pregnancy and continuous contact during past weeks is excellent."

"Like flexibility of home visits and comfortable by consistency of midwife so don't have to repeat medical history/situation which makes visits more efficient."

"The care I have received from the valley team midwives has been excellent. Completely different to the care I received three years ago with my first. I feel very well looked after and feel as though they really got to know me and my baby as always saw the same person. All women should have this level of maternity care."

There appears to be a cost-saving effect for midwife-led continuity of care as compared to other care models, in which the estimated mean cost saving for each maternity episode is £12.38.

However, the level of implementation of continuity of midwife care and the number of women who have a named midwife who cares for them throughout their pregnancy and birth is unknown. In the last national survey of 23,000 women's experiences of maternity care in England in 2013, 34 per cent of women saw the same midwife every time during pregnancy, and 27 per cent during the postnatal period.



London
Strategic Clinical Networks

Increasing the number of births at home and in midwifery led units: *A best practice toolkit*

Aim

To increase the number of eligible women accessing midwifery led settings in London (midwifery led units and home births).

This toolkit has been produced as part of the London Maternity Strategic Clinical Network's strategy to identify areas of good practice for implementation across all maternity units in the capital, ensuring equally good outcomes for all pregnant women and their babies.

This toolkit presents the evidence that midwifery led settings improve maternal outcomes, increases maternal satisfaction and uses resources more effectively. It also reinforces Department of Health policy and national guidance that pregnant women should be offered a wide range of choice of maternity services including choice of where to give birth and information to support the choices available. This should be available to all women including those of social complexity.

The toolkit is intended to cover healthy women with uncomplicated pregnancies entering labour at low risk of developing intrapartum complications¹ ('eligible women').

Background and rationale

The evidence shows that midwife-led settings lead to better outcomes for women at low risk of developing intrapartum complications. The Birthplace in England study was a large cohort study that compared outcomes for births in different settings. The study found that for women at low risk of complications in birth, birth is as safe for babies in freestanding midwifery units (FMUs) or alongside midwifery units (AMUs) as it is in obstetric units, but with a lower rate of intervention and a decreased use of pain relief. It has also been demonstrated that planning to give birth outside an obstetric unit is more cost-effective than planning to give birth in an obstetric unit¹.

Yet, despite all of the evidence associated with midwifery led settings, the proportion of women birthing in midwifery led units has only shown a small increase in recent years. This is in spite of the number of services providing Birth Centre facilities increasing from 16 to 23 in London.



London
Strategic Clinical Networks

Approximately 45 per cent of women at the end of pregnancy are eligible to access midwifery led settings^{3,4}, however, the average midwifery led birth rate stands at 15 per cent in London. It ranges from between 1.4 per cent in a unit without a midwifery led unit to 23.9 per cent where there is both an alongside and an associated freestanding midwifery led unit.

The home birth rate has also continued to decline on a year by year basis⁵.

A recent maternity services survey of all women's perception of choice in London, found that less than half of women considered that they were offered a choice of giving birth in an alongside or freestanding midwifery unit, whilst only a quarter of women perceived that they were offered a choice of giving birth at home⁶.

A further report has also highlighted that women from lower socio-economic groups in the UK report a poorer experience of care during pregnancy, have a higher likelihood of hospital admission, transfer during labour and unplanned caesarean delivery⁷.

Increasing midwifery led birth rates and ensuring all women are made aware of this choice at booking has been identified as a priority for maternity services and the Strategic Clinical Network.

London wide definitions

There is variation in how birth place settings are defined. To be able to compare outcome data standardised definitions should be adopted by all units.

Place of birth settings

- » **Alongside midwifery unit (AMU)** - An NHS clinical location offering care to women with straightforward pregnancies during labour and birth in which midwives take primary professional responsibility for care. During labour and birth diagnostic and treatment medical services, including obstetric, neonatal and anaesthetic care are available, should they be needed, in the same building, or in a separate building on the same site. Transfer will normally be by trolley, bed or wheelchair⁸.
- » **Freestanding midwifery unit (FMU)** - An NHS clinical location offering care to women with straightforward pregnancies during labour and birth in which midwives take primary professional responsibility for care.

Case study findings

Organisation and delivery of care

Variations existed at provider level in support given to out-of-hospital births, and functioned best when embedded into system, supported by all staff, and not just seen as a midwifery concern.

Strong midwifery and obstetric leadership and a culture of mutually supportive professional teamwork essential.

Deployment and resourcing of community midwifery was variable.

Many women did not feel they had any realistic choice of place of birth due to travel and transfer distance.

Access to good quality information often differed across social groups.

Women's concerns about safety were not always listened to by staff.

Being heard and receiving timely support were aided by continuity of carer and/or presence of a birth partner or relative.

C McCourt, J Rayment, S Rance, J Sandall (2012) [Organisational strategies and midwives' readiness to provide care for out of hospital births: An analysis from the Birthplace organisational case studies](#), Midwifery, Oct;28(5):636-45.

Midwife Led Units

Why do we need to know more about AMU and what do we need to know?



Alongside Units: What do we need to find out?

- What are optimum staffing models and organization of care.
 - What is the impact of competing philosophical, political, and administrative pressures on the operation of home-like settings.
 - What are the effects of home-like settings on birth outcomes. ✓
 - What is the impact of transfer on women, care providers, and decision-making processes regarding the need for intervention. ✓
 - What are women's preferences for traditional labour ward care compared to birth centre care.
-
- Hodnett ED, Downe S, Walsh D, Weston J. Alternative versus conventional institutional settings for birth. *Cochrane Database of Systematic Reviews* 2010, Issue 9.
 - C McCourt, J Rayment, S Rance, J Sandall (2012) Organisational strategies and midwives' readiness to provide care for out of hospital births: An analysis from the Birthplace organisational case studies, *Midwifery*, Oct;28(5):636-45.

Key themes

Improvements needed

- Unequal access to information about midwife-led care
- Admission, problems gaining access early labour
- Transfer out to higher level care felt too slow
- Women needed to be assured of support with coping with pain and easy transfer for epidural

Strengths

- Opt-out approach reduced inequality in information access
- Excellent support once service is known about, and access gained
- Women felt safe, especially when accompanied by partners
- Calm and relaxing environment in which women feel valued and cared for
- Care during labour was person-centred
- Staff able to listen, and acknowledge women's concerns and needs

Discussion

Aspects of the AMU environment, model and philosophy of care were highly valued by all women and partners.

Some areas of improvement (Access, early labour, transfer)

We still can't tell from this study whether environment or care are most important. Can changing the décor in an OU be sufficient?

Some indications that the AMU was beginning to shift OU practices in the two services with the newer units.

Most women still give birth in an obstetric unit, and the intervention rates for low risk women planning to give birth in obstetric units was significantly higher in the Birthplace study. There is an important need for research on the impact of obstetric units offering similar features, where possible on women's experience and childbirth processes and outcomes.

46% women eligible to give birth outside an OU, currently 8% in total, how to scale up?

Ongoing activities

- Reduce variation in out of hours cover, training, experience and professional support for midwives and transport arrangements for home birth provision.
- Need to address higher intervention rates in obstetric units and low rates of normal birth.
- Audit and review of intra-partum transfers and management.
- Maternity services review
- In 2012 45% of women at end of pregnancy eligible to plan birth in a midwife led unit or home (Sandall et al 2013)
- Update of RCOG/RCM standards

Implications for further research

- What are the aspects of clinical care and service delivery associated with poorer intrapartum outcomes and what are the potentially modifiable?
- How can the frequency of interventions be reduced for low risk women planning birth in obstetric units?
- To what extent do socially disadvantaged women have reduced access to choice of birth setting, and what strategies might improve equity?
- How can the experience of intrapartum transfer be better managed and the experience improved for women and partners?
- How to improve ongoing assessment of complications and early detection and referral in late pregnancy and early labour.
- Do models of care (team and caseload midwifery) that provide continuity across settings improve quality and safety of care?

RESEARCH

Cost effectiveness of alternative planned places of birth in woman at low risk of complications: evidence from the Birthplace in England national prospective cohort study

OPEN ACCESS

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Abstract

Objective: To estimate the cost effectiveness of alternative planned places of birth.

Design: Economic evaluation with individual level data from the Birthplace national prospective cohort study.

Setting: 142 of 147 trusts providing home birth services, 53 of 56 freestanding midwifery units, 43 of 51 alongside midwifery units, and a random sample of 36 of 180 obstetric units, stratified by unit size and geographical region, in England, over varying periods of time within the study period 1 April 2008 to 30 April 2010.

Participants: 64 536 women at low risk of complications before the onset of labour.

Interventions: Planned birth in four alternative settings: at home, in

home generated the greatest mean net benefit with a 100% probability of being the optimal setting across all thresholds of cost effectiveness when perinatal outcomes were considered. There was, however, an increased incidence of adverse perinatal outcome associated with planned birth at home in nulliparous low risk women, resulting in the probability of being the most cost effective unit at a cost effectiveness threshold of £20 000 declining to 5.8%. With regards to maternal outcomes in nulliparous and multiparous women, planned birth at home generated the greatest mean net benefit with a 100% probability of being the optimal setting across all thresholds of cost effectiveness.

Conclusions: For multiparous women at low risk of complications, planned birth at home was the most cost effective option. For nulliparous low risk women, planned birth at home is still likely to be the most cost effective option but is associated with an increase in adverse perinatal

RESEARCH

Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study

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Birthplace in England Collaborative Group

Abstract

Objective: To compare perinatal outcomes, maternal outcomes, and interventions in labour by planned place of birth at the start of care in labour for women with low risk pregnancies.

Design: Prospective cohort study.

Setting: England. All NHS trusts providing intrapartum care at home, all freestanding midwifery units, all alongside midwifery units, and all obstetric units in a hospital site with an obstetric unit, and a stratified random sample of obstetric units.

Participants: 64 536 eligible women with a singleton, term (37-42 weeks gestation), and 'low-risk' pregnancy who gave birth between April 2008 and April 2010. Planned caesarean deliveries and caesarean sections before the onset of labour and unplanned home births were excluded.

Main outcome measures: A composite primary outcome of perinatal mortality and intrapartum related neonatal morbidity (stillborn after start of care in labour, early neonatal death, neonatal encephalopathy, meconium aspiration syndrome, transitional placenta injury, fractured humerus, or fractured clavicle) was used to compare outcomes by planned place of birth at the start of care in labour: at home, freestanding midwifery unit, alongside midwifery unit, and obstetric units.

Results: There were 20 primary outcome events and an overall weighted incidence of 4.2 per 1000 births (95% CI 2.2 to 6.2). Overall, there were no significant differences in the adjusted rate of the primary outcome for any of the non-obstetric unit settings compared with obstetric units. For nulliparous women, the odds of the primary outcome were higher for planned home births (adjusted odds ratio 1.75, 95% CI 1.27 to 2.43) but not for other midwifery unit settings. For multiparous women, there were no significant differences in the adjusted rate of the primary outcome for planned place of birth. Interventions during labour were significantly lower at non-obstetric unit settings. Transfers from non-obstetric unit settings were more frequent for nulliparous women (30% to 45%) than for multiparous women (9% to 15%).

Conclusions: The results support a policy of offering healthy women with low risk pregnancies a choice of birth setting. Women planning birth

in a midwifery unit and multiparous women planning birth at home experience fewer interventions than those planning birth in an obstetric unit with no impact on perinatal outcomes. For nulliparous women, planned home births also have been associated with more perinatal outcomes.

Introduction

The relative benefits and risks of birth in different settings have been widely debated in recent years.¹⁻⁵ A problem when trying to evaluate the effect of birth setting on perinatal outcomes has been the use of actual place of birth rather than planned place of birth to define comparison groups. Available evidence, summarised in the National Institute for Health and Clinical Excellence (NICE) guideline on intrapartum care, indicates that, although there is a higher likelihood of a vaginal birth with less intervention for healthy women who plan to give birth at home or in a midwifery unit compared with an obstetric unit, there is a lack of good quality evidence comparing the risk of rare but serious adverse outcomes by birth setting.

The primary objective of this study was to compare intrapartum and early neonatal mortality and specific neonatal morbidity for births planned at home, in freestanding midwifery units, or in 'alongside midwifery units' (midwifery led units in a hospital site with an obstetric unit) with births planned in obstetric units, for babies of women judged to be at low risk of complications before the onset of labour.

In England almost all maternity care is provided by the National Health Service (NHS) and is free at the point of care. Births outside an obstetric unit are relatively uncommon. Of women giving birth in 2007, around 8% gave birth outside an obstetric unit—2.4% at home, around 5% in alongside midwifery units, and just under 2% in freestanding midwifery units.

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Additional material: See online for supplementary material. 1. Description of the study. 2. Outcome variables regarding clinical care and setting. 3. Descriptive data. 4. Comparison of perinatal outcomes. 5. Sensitivity analysis, stratified by a response rate of at least 80%. 6. Sensitivity analysis, propensity score. 7. Summary of findings table. 8. Supplementary results tables. 9. Birthplace in England Collaborative Group. See <http://www.bmjbup.com/content/345/e20202/SupplementaryMaterial>.

Original research

Local guidelines for the transfer of women from midwifery unit to obstetric unit during labour in England: a systematic appraisal of their quality

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Accepted 11 May 2010

ABSTRACT

Background: A proportion of women planning to give birth in a midwifery unit will experience complications during labour that necessitate transfer to an obstetric unit. Local guidelines for the transfer of women in labour have the potential to impact on quality of care and the safety of the transfer process.

Objective: To systematically appraise the quality of local NHS guidelines on the transfer of women from midwifery unit to obstetric unit during labour.

Methods: Guidelines were identified from all 52 NHS hospital trusts in England with midwifery units. The Appraisal of Guidelines for Research and Evaluation Instrument was used to evaluate the quality of the guidelines received.

Results: Relevant guidelines were received from 34 (65%) trusts. No guidelines scored on the 'editorial independence' domain. The mean score on 'scope and purpose' (56.2%), 'consistency with the aims, clinical questions and target patient population of the guideline', was higher than for other domains: 'clarity and presentation' (language and format) 45.2%, 'stakeholder involvement' (representation of users' views) 15.3%, 'rigour of development' (process used to develop guideline) 15.0%, 'applicability' (organisational, behavioural and cost implications of applying guideline) 7.1%. Only three guidelines were recommended for use in clinical practice.

Conclusions: We believe this to be the first systematic appraisal of the quality of local NHS guidelines. Overall

obstetric unit. Available data indicate wide variation in estimates of intrapartum transfer rates, both within types of MU and between freestanding and alongside MUs.⁶

Local clinical guidelines for the transfer of women in labour are a possible factor in variation in transfer rates and have the potential to impact on quality of care and the safety of the transfer process. Guidelines have been defined as 'systematically developed statements to assist practitioner and patient decisions about appropriate healthcare for specific clinical circumstances' with the specific purpose to 'make explicit recommendations with a definite intent to influence what clinicians do'.^{4,5} Recently published national guidelines for the care of healthy women and babies during childbirth in England and Wales cover indications for intrapartum transfer, but do not give comprehensive guidance on the process of transfer, including, for example, decision-making and communication.⁶ A recent report on the minimum standards for the organisation and delivery of care in labour recommended that, 'There should be written multidisciplinary evidence-based clinical guidelines, which are accessible and reviewed every three years at each high setting... [and that these] should include... management of transfer of mother and/or baby to obstetric unit.' (p. 14).⁷

The proliferation of clinical guidelines over recent years has been accompanied by a growing recogni-

Rowe et al. *BMJ: Pregnancy and Childbirth* 2012; 12:129<http://www.bmjbup.com/content/12/1/129>

RESEARCH ARTICLE

Open Access

Women's experience of transfer from midwifery unit to hospital obstetric unit during labour: a qualitative interview study

Rachel E Rowe¹, Jennifer J Kuitczak¹, Louise Locks² and Ray Fitzpatrick³

Abstract

Background: Midwifery units offer care to women with straightforward pregnancies, but unforeseen complications can arise during labour or soon after birth, necessitating transfer to a hospital obstetric unit. In England, 21% of women planning birth in freestanding midwifery units are transferred, in alongside units, the transfer rate is 26%. There is little high quality contemporary evidence on women's experience of transfer.

Methods: We carried out a qualitative interview study, using semi-structured interviews, with women who had been transferred from a midwifery unit (freestanding or alongside) in England up to 12 months prior to interview. Maximum variation sampling was used: interviews with 10 women took place between March 2009 and March 2010. Thematic analysis using constant comparison and exploration of deviant cases was carried out.

Results: Most women hoped for or expected a natural birth and did not expect to be transferred. Transfer was disappointing for many; sensitive and supportive care and preparation for the need for transfer helped women adjust to their changing circumstances. A small number of women, often in the context of prolonged labour, described transfer as a relief. For women transferred from freestanding units, the ambulance journey was a 'limbo' period. Women wondered, worried or were fearful about what was to come and could be passive participants who felt like they were being 'transported' rather than cared for. For many this was a direct contrast with the care they experienced in the midwifery unit. After transfer, most women appreciated the opportunity to talk about their experience to make sense of what happened and help them plan for future pregnancies, but did not necessarily seek this out if it was not offered.

Conclusions: Transfer affects a significant minority of women planning birth in midwifery units and is therefore a concern for women and midwives. Transfer is not expected by women, but sensitive care and preparation can help women adjust to changing circumstances. Particular sensitivity around decision-making may be required by midwives caring for women during prolonged labour. Some apparently straightforward changes to practice have the potential to make an important difference to women's experience of ambulance transfer.

Keywords: Midwifery units, birth careers, intrapartum care, Transfer, Qualitative research

Background

Evidence from the Birthplace in England prospective cohort study supports offering healthy women with low risk pregnancies a choice about where to have their baby [1]. Depending upon where the woman lives, this choice may include planning birth in a midwifery unit. Midwifery

units provide midwife-led care for women who are at low risk of complications at the start of labour and may be located on the same site as an obstetric unit (alongside) at a separate location (freestanding) either in a hospital without obstetric services or in a building separate from any hospital [2]. With the number of midwifery units increasing since 2007 [3] the number of women giving birth in England who do so in a midwifery unit [1]. With the number of midwifery units increasing since 2007 [3] we might expect that figure to increase.

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ARTICLE IN PRESS

Midwifery • 2012; 28: 129-139

Contents lists available at [SciVerse ScienceDirect](http://www.elsevier.com/locate/midwifery)

Midwifery

journal homepage: www.elsevier.com/locate/midwifery

Organisational strategies and midwives' readiness to provide care for out of hospital births: An analysis from the Birthplace organisational case studies

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ARTICLE INFO

Article history:
 Received 2 February 2012
 Received in revised form
 4 July 2012
 Accepted 8 July 2012

Keywords:
 Birthplace
 Organisational
 Case study
 Midwifery services

ABSTRACT

Objective: The objective of the Birthplace in England Case Studies was to explore the organisational and professional issues that may impact on the quality and safety of labour and birth care in different birth settings: Home, Freestanding Midwifery Unit, Alongside Midwifery Unit or Obstetric Unit. This analysis examines the factors affecting the readiness of maternity services to provide women with choice of out of hospital birth, using the findings from the Birthplace in England Case Studies.

Design: Organisational ethnographic case studies, including interviews with professionals, lay stakeholders, women and partners, observations of service processes and documents review. Setting: A maximum variation sample of four maternity services in terms of configuration, region and population characteristics. All were selected from the Birthplace cohort study sample as services working 'best' or 'better' performing in the Health Care Commission survey of maternity services (HCC 2008).

Participants: professionals and stakeholders (n=40), women (N=1) plus 30 observations and 200 service documents.

Findings: Each service experienced challenges in providing an integrated service to support choice of place of birth. Disruption of maternity services was a particular concern. Community midwives and managers expressed lack of confidence in availability to cover home births care in particular, with the emergency and 'out of hours' model of care. Community midwives and managers' interviews indicated that many lacked home birth experience and confidence. There is midwifery units expressed higher levels of support and confidence.

Key conclusions and implications for practice: Maternity services need to consider and develop models for provision of a more integrated model of staffing across hospital and community boundaries.

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BMJ Quality & Safety Online First, published on 19 February 2012 as 10.1136/bmj-2012-001299

Women's safety alerts in maternity care: is speaking up enough?

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ABSTRACT

Objective: Contributions to safety include speaking up about what perceptions of being at risk. Previous studies have found that domestic violence from staff discouraged patients from speaking up. A Case Quality Commission investigation of a maternity service where serious incidents occurred found evidence that women had routinely been ignored and left alone in labour. Women using antenatal services indicated to raise concerns that they felt staff might consider irrelevant.

The Birthplace in England programme, which investigated the quality and safety of different places of birth for 'low-risk' women, included a qualitative organisational case study in four high trusts. The authors collected documentary, observational and interview data from March to December 2010 including interviews with 58 obstetricians, A&E consultants, and midwives. Women's narratives about birth trauma referred to professionals' neglect of communication and their own feelings of powerlessness.

In an investigation of a maternity service where serious incidents had occurred, the Case Quality Commission documented cases of women 'routinely being ignored and their concerns referred to professionals' neglect of communication and their own feelings of powerlessness. In an investigation of a maternity service where serious incidents had occurred, the Case Quality Commission documented cases of women 'routinely being ignored and their concerns referred to professionals' neglect of communication and their own feelings of powerlessness.

Women are speaking up, but this is not enough: organisations need to be required to improve staff response. Further research is needed to understand why women and their families are not speaking up. Women are speaking up, but this is not enough: organisations need to be required to improve staff response. Further research is needed to understand why women and their families are not speaking up.

INTRODUCTION

There has been increasing interest internationally in the ability of patients and their families to contribute to their own safety.^{1,2} There is some evidence that

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Further Information

Full reports

Health Services and Delivery Research
Programme

<http://www.nets.nihr.ac.uk/projects/hsdr/081604140>

The Birthplace in England Research Programme (Birthplace)

www.npeu.ox.ac.uk/birthplace

National Perinatal Epidemiology Unit
University of Oxford

NHS Choices

<http://www.nhs.uk/news/2011/11November/Pages/hospital-births-home-births-compared.aspx>

NICE Guideline Intrapartum Care December 2014 CG190

<https://www.nice.org.uk/guidance/cg190>



Acknowledgements

Birthplace combines the Evaluation of Maternity Units in England study funded in 2006 by the National Institute for Health Research Service Delivery and Organisation (NIHR SDO) programme, and the Birth at Home in England study funded in 2007 by the Department of Health Policy Research Programme (DH PRP). From January 2012, the NIHR SDO programme merged with the NIHR Health Services Research programme to establish the new NIHR health Services and Delivery Research (NIHR HS&DR) programme. The views and opinions expressed by the authors do not necessarily reflect those of the of the HS&DR Programme, NIHR, NHS, DH PRP or the Department of Health.

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<http://www.kcl.ac.uk/schools/medicine/research/wh/>



Birthplace Collaborating Group



Additional slides

Complicating conditions at start of care in labour

- Higher prevalence of complicating conditions recorded at the start of care in labour suggested possible differences in the risk profile of the groups

Conducted additional analyses restricted to women without complicating conditions at start of care in labour

Unexpected differences in the proportion of women with complicating conditions recorded by the midwife at the start of care in labour:

	OU %	Home %	FMU %	AMU %
Prolonged rupture of membranes (>18 hours)	7.4	2.4	2.1	2.3
Meconium stained liquor	6.4	1.5	1.2	1.4
Proteinuria (1+ or more)	1.8	0.5	1.0	2.2
Hypertension	2.6	0.6	0.7	0.7
Abnormal vaginal bleeding	1.4	0.2	0.2	0.2
Non-cephalic presentation	0.6	0.2	0.2	0.2
Abnormal fetal heart rate	2.0	0.4	0.5	0.4
Other	0.3	0.1	0.2	0.1
% with a complicating condition	19.5	5.4	5.5	6.9

Midwifery staffing

- Birth at home
 - 1:1 midwifery care (continuous) plus another midwife for time of birth of the baby
- FMU / AMU
 - 1:1 midwifery care (continuous)
 - sensitivity analysis: 80-100%
- OU
 - set to 65% intermittent across labour care
 - sensitivity analysis: 50-85%

Economic evaluation

Planned birth at home, in a free standing midwifery unit or an alongside midwifery unit generates incremental cost savings compared to planned birth in an obstetric unit but effectiveness, as measured by adverse perinatal outcome avoided, differs by parity for planned home births.

- For nulliparous 'low risk' women, planned birth at home generates incremental cost savings but increases adverse perinatal outcomes
- For multiparous 'low risk' women, planned birth at home generates incremental cost savings with no significant effect on adverse perinatal outcomes
- For nulliparous 'low risk' women, planned birth at home is likely to be the most cost-effective option (probability of cost effectiveness of 0.63 at a £20,000 cost-effectiveness threshold).
- For multiparous 'low risk' women, planned birth at home was found to be the most cost-effective option (100 % probability of being the most cost-effective option across all cost-effectiveness thresholds).

For maternal outcomes, planned birth at home was the most cost-effective option.

Birthplace in England Collaborative Group (2012) Cost effectiveness of alternative planned places of birth in woman at low risk of complications: evidence from the Birthplace in England national prospective cohort study. *BMJ*. 2012 Apr 18;344:e2292.



Cost effectiveness analysis

- Total costs captured
 - all resource use and the unit costs of intrapartum care and immediate postnatal period after birth, including any higher level care for the mother or baby
 - all costs allocated to planned place of birth

Cost effectiveness analysis

- Mean differences in costs per woman for planned OU and non-OU births were weighted, adjusted and bootstrapped in an additional analysis
- Means costs of births in planned non-OU settings were cost-saving when compared with the mean cost of births planned in OUs:
 - £366.8 (home)
 - £182.1 (FMU)
 - £129.3 (AMU)