Original Article

The St. George Homebirth Program: An evaluation of the first 100 booked women

Jane McMURTRIE,[1] Christine CATLING-PAUL,[1,2] Ali TEATE,[1,2] Shea CAPLICE,[3] Michael CHAPMAN[1,4] and Caroline HOMER[2]

[1]*Women's and Children's Health Services, St. George Hospital,* [2]*Centre for Midwifery, Child and Family Health, Faculty of Nursing, Midwifery and Health, University of Technology Sydney,* [3]*Royal Hospital for Women, and* [4]*School of Women's and Children's Health, Faculty of Medicine, University of New South Wales, Sydney, New South Wales, Australia*

Background: The St. George Homebirth Program was the first publicly funded homebirth model of care set up in New South Wales. This program provides access to selected women at low obstetric risk the option of having their babies at home. There are only four other publicly funded homebirth programs operating in Australia.
Aims: To report the outcomes of the first 100 women booked at the St. George Homebirth Program.
Methods: A prospective descriptive study was undertaken. Data were collected on the first 100 women who gave birth between November 2005 and March 2009. Two databases were accessed and missing data were followed up by review of the relevant charts.
Results: Of the first 100 booked women, 63 achieved a homebirth, 30 were transferred to hospital or independent midwifery care in the antenatal period and seven were transferred intrapartum. Two women were transferred to hospital in the early postnatal period, one for a postpartum haemorrhage and one for hypotension. One baby suffered mild respiratory distress, was treated in the emergency department and was discharged home within four hours.
Conclusion: The St. George Hospital homebirth program has provided reassuring outcomes for the first 100 women it has cared for over the past four years. Wider availability of this service could be achieved provided there is the appropriate close collaboration between providers and effective processes for consultation, referral and transfer. The outcomes of women and babies in publicly funded homebirth programs deserve further study, and the development of a national prospective database of all planned homebirths would contribute to this knowledge.

Key words: home childbirth, maternity hospitals, parturition, pregnancy, term birth.

Introduction

The first publicly funded homebirth program in New South Wales (NSW) commenced through the St. George Hospital in 2005. The St. George Homebirth Program was established as a result of an identified need to provide access to publicly funded homebirth services for local women. The Area Health Service funded a part-time Clinical Midwifery Consultant for two years and resources to purchase additional equipment for homebirths. Apart from this, the homebirth service was implemented within the existing budget of the maternity unit.

Prior to the implementation of the St. George Homebirth Program, there were three other publicly funded homebirth programs, in Western Australia (WA), the Northern Territory (NT) and South Australia (SA). Evaluations of two of these programs (SA[1] and WA[2]) as well as the studied program at St. George Hospital have shown positive outcomes for both mothers and babies and high levels of satisfaction for women and midwives.[3] Planned homebirth has been demonstrated to be a safe option for a carefully selected group of women.[4–14] Despite this evidence, homebirth is a relatively rare occurrence in Australia, with less than 1% of babies in Australia born at home.[15]

Homebirth is controversial, both in Australia and the UK. There has been publicity in the media[16] and the professional literature,[17–19] and debate amongst maternity care providers, consumers and government.[20] More than half of the consumer submissions to the National Maternity Services Review[21] were in relation to homebirth. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) has reiterated their opposition to homebirths in a recent Guideline.[22] These debates highlight the need to evaluate current models and examine international evidence in this area.

This study presents an evaluation of the first 100 women who booked with the St. George Homebirth Program.

Correspondence: Christine Catling-Paul, Centre for Midwifery, Child and Family Health, Faculty of Nursing, Midwifery and Health, University of Technology, Level 7, 235-253 Jones Street, Broadway, NSW 2007, Australia.
Email: christine.catling-paull@uts.edu.au

Received 1 July 2009; accepted 21 September 2009.

Developing the model of care

Initial planning and development of the St. George Homebirth Program commenced in 2003. Early planning and development were facilitated by a Steering Committee, which had representatives from three hospitals in the area, and included midwifery, medical and consumer representatives. Meetings with the Area Ambulance Liaison Officer also occurred. The Birth Centre at St. George Hospital hosted the program. A successful caseload model of midwifery care had been operating out of the Birth Centre for two years and the homebirth program built on the existing professional relationships and systems of on-call already in place.

Access to professional indemnity insurance coverage was required from the NSW Health Department's insurer, the Treasury Managed Funds (TMF). After considerable consultation, the TMF stipulated a number of conditions so that cover would be available for employed midwives at St. George Hospital (Fig. 1). These requirements were all met.

Description of the homebirth model of care

Eligible women booked into the Birth Centre at The St. George Hospital are given the option of a homebirth. This model is described to women in conjunction with the provided information sheet *Choosing to Give Birth at Home*. The criteria for booking, consultation and referral are fully consistent with the *National Midwifery Guidelines for Consultation and Referral*.[23] Essentially, women are deemed 'low risk': have no previous or current medical and obstetric risk factors, a healthy pregnancy and anticipate a normal birth. When any deviations from normality occur, consultation and referral (and in some cases, transfer) are made to obstetric and/or medical care. Women sign a consent form for the homebirth service during pregnancy and an obstetrician reviews the clinical records of all women wishing to have a homebirth and acts as the primary referral source for the midwives.

1. The midwives need to keep detailed records of the births, similar to the current inpatient notes, charts and electronic databases.
2. A 36 week antenatal visit should take place at the pregnant woman's home involving the midwives and support people who planned to attend the birth. This will ensure that the midwives have an:
    a. Opportunity to meet those who will be involved and delineate their roles for the homebirth
    b. Appropriate and safe work environment for the future birth and any deficiencies are to be attended to by the pregnant woman and her family prior to the midwife agreeing to a homebirth.
3. A specific homebirth consent form should be developed.
4. The mother and any other persons who will be present at the birth should sign a document acknowledging and accepting attendance and the roles of support person(s) during the birth.

Figure 1 Requirements for professional indemnity insurance to be provided for midwives practising in The St. George Homebirth Program.

In the homebirth model, women are allocated a primary midwife, with back-up support provided by an additional midwife who conducts at least one antenatal visit. This ensures that women are cared for by a midwife they have previously met. If transfer is required, the primary midwife continues to provide care regardless of where the woman gives birth (eg birth centre, labour ward or operating theatre).

Antenatal care is provided in the Birth Centre and in the woman's home. Any medical consultations are conducted at the hospital. At 36 weeks' gestation, a visit is conducted in the woman's home with her support people present to discuss plans for the labour, birth and postnatal period and to review the woman's home to ensure a safe working environment. Support people are asked to read the information sheet and sign a consent form that agrees to support a transfer, should it be necessary. Postnatal care is provided at home, or in hospital if transfer is required.

The primary midwives work together to provide mentoring, backup and support for one another and two midwives are present at each homebirth. The midwives work within the policies and protocols of The St. George Hospital and apply the same documentation standards for birth at home as that currently exists for birth in hospital. The program uses standard incident reporting using NSW Health's Incident Information Management System and the standard complaint processes.

A number of strategies were implemented to ensure that the model of care provided a high quality and safe service. These included the development of *Homebirth, Homebirth Transfer* and *36 week Home Visit* Clinical Guidelines and criteria for primary midwives, and mentoring by experienced homebirth midwives. Midwives underwent the NSW credentialing process (now the Australian College of Midwives' Midwifery Practice Review process)[24] within 12 months of commencing working in the model and this was repeated every three years. For the first two years of the program, a quarterly case review of all booked homebirths was conducted by a multidisciplinary group, including midwives, managers, obstetricians, consumers and academics.

Methods

A prospective descriptive study of the first 100 women who booked into the St. George Homebirth Program was undertaken. Data were collected prospectively on all women who gave birth between November 2005 and March 2009. As each woman was booked to have a homebirth, she was included in the study and data on her birth outcomes were collected from two databases. These were a specially designed database for the Birth Centre and the routine perinatal database (ObstetriX). Any missing data were obtained from review of the relevant charts. Data on women who transferred to other hospitals or independent midwifery care were not collected.

Review by a Human Research Ethics Committee was not sought for this evaluation as the program involved 'the use of existing collections of data or records that contain only non-identifiable data about human beings (p. 79)'.[25]

Results

In total, 100 women booked for a homebirth with The St. George Homebirth Program and gave birth between November 2005 and March 2009. Most women (93%) were between 30 and 34 years of age, with only two women of less than 24 years and five women of 40 years or greater. One-quarter of the women were primigravidae (n = 23).

Almost one-third of the women (n = 30) were transferred out of the program during the antenatal period, with the remainder (n = 70) commencing labour at home as planned. Figure 2 shows the progression of care for the 100 booked women.

A total of 30 women were transferred out of the Homebirth Program during the antenatal period. Of these, 25 gave birth at St. George Hospital. Most (n = 18; 72%) had normal births (15 in the Birth Centre and three in the Delivery Suite), two (8%) had emergency caesarean sections and two (8%) had vacuum extractions. Three (12%) who planned to give birth in hospital gave birth before arrival at the hospital. Five women chose to give birth somewhere other than St. George Hospital. Nine were positive for group B streptococcus (GBS), which excluded them from the program and two of these women gave birth at home, with independent midwives. Two other women were diagnosed with grade four placenta praevia and had planned caesarean births at other hospitals. The last woman was transferred out of the program because of workforce shortages and chose to have a homebirth with an independent midwife (Fig. 2).

Of the women who commenced labour at home, 90% (63/70) achieved homebirth. There were seven intrapartum transfers: four because of slow progress in the first stage of labour; two because of prolonged rupture of membranes, requiring intravenous antibiotics; and one because an irregular fetal heart rate was detected during labour. These women were transferred to hospital by private car. Two women underwent emergency caesarean section, two had assisted vaginal births and three had normal vaginal births. Of the 87 normal births, 42 (48%) were waterbirths, both at home and in hospital. Of the 63 babies born at home, all had five minutes Apgar scores > 7, one later required transfer to hospital with mild respiratory distress, was observed in the emergency department for less than four hours and discharged home.

Two women who gave birth at home were transferred to hospital for treatment in the postnatal period: one woman had a postpartum haemorrhage after pulling out her placenta during a physiological third stage and one had hypotension. Another woman merely accompanied baby to hospital.

Of all the 100 women orginally booked in the Homebirth Programs, there were three women who had a postpartum haemorrhage: two in hospital and one at home. This occurred after one woman had a caesarean section, another required a manual removal of her placenta, and during a physiological third stage at home.

Discussion

Birth is a significant physiological, spiritual and social event in a woman's life, and, as such, provision of choice in maternity care is important. Women choose homebirth for complex reasons, including those of increased control and personalised continuity of care, to avoid intervention in their care and a dislike or fear of hospitals.[26,27] In Australia, only 0.3% of women currently have homebirths, which may reflect a lack of services.[15] The homebirth rates in the UK and NZ are around 2.5%,[28,29] although regional rates vary widely. Recently, homebirth rates in Suffolk, UK are reported to be around 12%[30] and in South East London, the homebirth rate in one midwifery practice is 47%.[31] In addition, in Sheffield, UK, the simple act of increasing the availability of birthing pools for community midwives has seen a doubling of homebirths in the area.[32] This demonstrates the popularity and uptake of homebirth when dynamic models of care are in place.

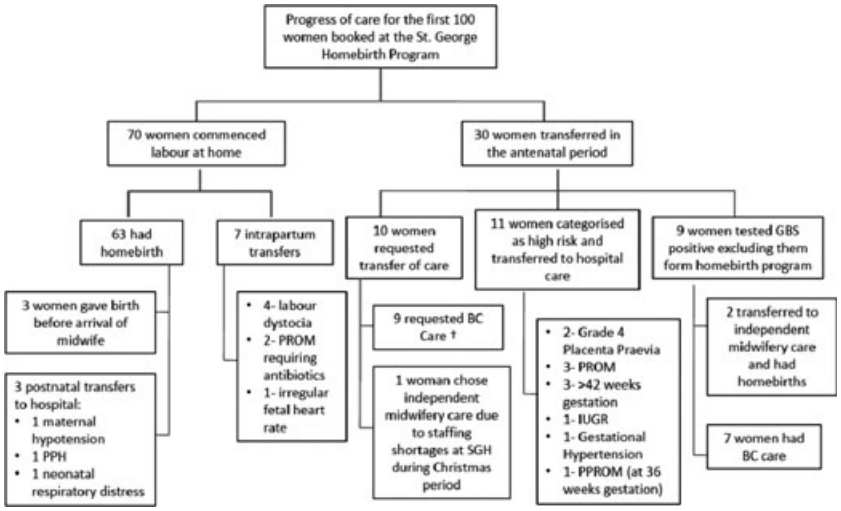

Figure 2 Progression of care for the first 100 women booked at the St. George Homebirth Program.

Journal compilation © 2009 The Royal Australian and New Zealand College of Obstetricians and Gynaecologists; **49:** 631–636

Table 1 Maternal and neonatal outcomes of the first 100 women booked in the St. George Homebirth Program

Place of birth	*N* = 100
Home	63
Birth centre	17
Delivery suite	8
Operating theatre	4
BBA	3
Elsewhere	5
Onset of labour	
Spontaneous	95
Induced	3
No labour	2
Type of birth	
Normal	90
Vacuum/forceps	4
Caesarean section	6
Analgesia/anaesthesia during labour/birth†	
Nil	86
Epidural	8
Nitrous oxide or Pethidine	5
Unknown	5
Management of third stage	
Physiological	75
Active	15
Unknown	5
Third stage complications	
Nil	92
Postpartum haemorrhage	2
Manual removal of placenta + PPH	1
Unknown	5
Perineal status	
Intact/grazes	48
1st degree tear	13
2nd degree tear	25
3rd degree tear	2
Episiotomy	3
Nil: CS	4
Unknown	5
Gestation (weeks)	
< 37	1
≥ 37–41	66
> 41	28
Unknown	5
Birth weight (g)	
< 2500	0
≥ 2500–4500	95
Unknown	5
Apgar Score at five minutes	
< 7	0
≥ 7	92
Unknown (three BBA)‡	8

†Some women had more than one form of analgesia.
‡The unknown Apgar scores were of the five women who transferred to other hospitals/independent midwives antenatally, and those born before arrival (BBA) at hospital.

The safety of homebirth has been studied extensively,[4,8,11,14,33] but remains a subject surrounded by much fear and controversy within society and health professions. Large well-conducted studies in the USA,[8] the Netherlands[14] and Canada[4] support the safety of homebirth for women at low obstetric risk when there are back-up systems of hospital care in place. Reviewing the evidence, it appears that much of the fear surrounding the safety of homebirth for low risk women is unfounded when it is conducted within an appropriate healthcare system.

The St. George Homebirth Program has provided a service for women in the area. It is staffed by a specific group of midwives, with back-up hospital care if required. The skills of midwives providing care in the program are assessed during a rigorous credentialing process, including practice review. They have skills and competence in maternal and neonatal resuscitation, cannulation and perineal suturing. Policies guiding their practice, and existing ACM consultation and referral guidelines are adhered to. There is effective collaboration between the midwives providing the homebirth service and the midwifery and medical staff in the hospital. The homebirth model at St. George Hospital has become a choice for low risk women attending the birth centre.

The St. George Homebirth Program has a low intrapartum hospital transfer rate compared with rates in studies elsewhere.[8,10,29,34] This may be because of the low proportion of women having their first baby (23%) or could be as a result of careful screening and selection. The antenatal hospital transfer rate is internationally comparable.[10,35]

Three women gave birth at home before arrival (BBA) at hospital. The women were multiparous, which has been previously identified as a more common trait,[36,37] and were anticipating a hospital birth having been transferred to hospital care antenatally. Higher proportions of homebirth-booked women having a BBA have been found in other studies.[37] An explanation for this could be that women having homebirths have different coping mechanisms regarding their labour, consequently contacting the midwives later than other women: having less perception of their advanced labour state.[38,39] However, given the small numbers in this study, no conclusion can be reached regarding the BBA rate within the St. George Homebirth Program.

A number of women in the program were post-dates at birth (≥ 41 weeks' gestation). The clinical policy at St. George Hospital requires women to be reviewed by an obstetrician at 41 weeks' gestation to discuss possible induction of labour (IOL), and ensures that women are fully informed regarding the risks involved with post-dates pregnancies. At ≥ 42 weeks, women are excluded from the homebirth program and are strongly advised to have an IOL. These women made an informed choice to continue with their pregnancies, were offered daily CTG monitoring and twice weekly ultrasounds and were counselled on the importance of fetal movements. A recent study found that

older, white, nulliparous women with high BMI were more likely to have post-date pregnancies.[40] Given that the overwhelming majority of women on the homebirth program were less than 35 years of age, and having a high BMI is an exclusion criterion for the Homebirth Program, these circumstances cannot be fully explained, and are probably because of the small cohort presented in this study.

The St. George Homebirth Program excluded nine women as they tested positive to GBS. The exclusion of these women from the program is often a source of disappointment for the women. Other publicly funded homebirth programs (eg in South Australia) accommodate these women through their midwives attending a formal accreditation process. A move towards a similar process at The St. George Homebirth Program is currently being investigated.

Currently in Australia, there are only small numbers of women who choose homebirth. However, with the increase in midwifery-led continuity of care and homebirth models, together with the rise of Bachelor of Midwifery programs, training midwives more conducive to work in these models, the numbers are likely to rise. Widespread electronic access to information sources regarding birth, increases in choice of services and a rise in the profile of midwives may also contribute to this increase. The articulation of a homebirth program within an already existing and robust collaborative midwifery/medical model of care has the potential to raise the profile of homebirth and increase both professional and consumer acceptance. The overseas trend towards an increase in homebirth will probably spread to Australia in the future, if we put in place the services to enable this change.

The limitations of this study are its small size and non-randomised method. There are no randomised controlled trials (RCT) undertaken that ascertain the safety of homebirth versus hospital birth, as few women would be willing to be randomly assigned to either home or hospital.[41,42] Johnson and Daviss[8] remark that prospective cohort studies are the most appropriate measure of the safety of homebirth, given the unfeasibility of an RCT.

Conclusion

The St. George Hospital Homebirth program has provided reassuring outcomes for the first 100 women over the past four years. It is recognised that the safety of a program such as this cannot be established after the first 100 births. The outcomes are encouraging but do not allow any conclusions to be drawn about relatively uncommon but serious adverse outcomes (eg shoulder dystocia, severe postpartum haemorrhage).

Systems of care and back-up support for consultation, referral and transfer are in place. Evidence-based protocols ensure appropriate transfer to hospital care. Our review of our initial experiences supports the controlled rollout of this model of care in the publicly funded health system. The outcomes of women and babies cared for in publicly funded homebirth programs should be more widely studied and the development of a national prospective database of all planned homebirths would contribute greatly to this knowledge.

Acknowledgements

We thank the women, midwives, doctors and members of the Steering Committee for their involvement with this program.

References

1 Nixon A, Bryne J, Church A. *An Evaluation of the Northern Women's Community Midwifery Program*. Adelaide: Department of Human Services, 2003.
2 Thiele B, Thorogood C. *Community Based Midwifery Program in Fremantle WA*. Fremantle, WA: Centre for Research for Women (WA) and the Fremantle Community Midwives, 1997.
3 Homer C, Caplice S. *Evaluation of the Publicly-Funded Homebirth Program in South East Sydney Illawarra Area Health Service*. Sydney: Centre for Midwifery, Child and Family Health, Faculty of Nursing, Midwifery and Health, University of Technology Sydney, 2007.
4 Janssen P, Saxell L, Page LA, Klein M, Liston RM, Lee S. Outcomes of planned home birth with registered midwife versus planned hospital birth with midwife or physician. *Can Med Assoc J* 2009; **181** (6–7): 377–383.
5 Woodcock HC, Read AW, Moore DJ, Stanley FJ, Bower C. *An Epidemiological Study of Planned Homebirths in Western Australia 1981–1987*. Perth: Department of Health, 1990.
6 Crotty M, Ramsay AT, Smart R, Chan A. Planned homebirths in South Australia 1976–1987. *Med J Aust* 1990; **153** (11–12): 664–671.
7 Bastian H, Keirse MJ, Lancaster P. Perinatal death associated with planned home birth in Australia: population based study. *BMJ* 1998; **317** (7155): 384–388.
8 Johnson K, Daviss B. Outcomes of planned home births with certified professional midwives: large prospective study in North America. *BMJ* 2005; **330** (7505): 1416–1422.
9 Chamberlain G, Wraight A, Crowley P. *Home Births: The Report of the 1994 Confidential Enquiry by the National Birthday Trust Fund*. Carnforth: Parthenon Publishing Group Ltd, 1997.
10 Murphy PA, Fullerton J. Outcomes of intended home births in nurse-midwifery practice: a prospective descriptive study. *Obstet Gynecol* 1998; **92** (3): 461–470.
11 Wiegers T, Keirse MJNC, van der Zee J. Outcome of planned home and hospital births in low risk pregnancies: prospective study in midwifery practice in the Netherlands. *BMJ* 1996; **313** (7068): 1309–1313.
12 Ackermann-Leibrich U, Voegeli T, Gunter-Witt K *et al.* Home versus hospital deliveries: follow up study of matched pairs for procedures and outcome. *BMJ* 1996; **313** (7068): 1313–1318.
13 Gulbransen G, Hilton J, McKay L. Home birth in New Zealand 1973–1993: incidence and mortality. *N Z Med J* 1997; **110** (1040): 87–89.
14 de Jonge A, van der Goes B, Ravelli A *et al.* Perinatal mortality and morbidity in a nationwide cohort of 529 688 low-risk planned home and hospital births. *BJOG* 2009; **116**: 1177–1184.
15 Laws P, Hilder L. *Australia's Mothers and Babies*. Canberra: Australian Institute of Health and Welfare, 2008.
16 Devine M. A home birth is not a safe birth. *Sydney Morning Herald* 2009. [Accessed 14 Ocotober 2009.] Available from

Journal compilation © 2009 The Royal Australian and New Zealand College of Obstetricians and Gynaecologists; **49:** 631–636

URL: http://www.smh.com.au/lifematters/a-home-birth-is-not-a-safe-birth-20090408-a0S3.html.
17 Newman L. Why planned attended homebirth should be more widely supported in Australia. *Aust N Z J Obstet Gynaecol* 2008; **458**: 450–453.
18 Symon A, Winter C, Inkster M, Donnan P. Outcomes for births booked under an independent midwife and births in NHS maternity units: matched comparison study. *BMJ* 2009; **338** (b2060): DOI: 10.1136/bmj.b2060.
19 Shorten A, Shorten B. Independent midwifery care versus NHS care in the UK. *BMJ* 2009; **338**: b2210.
20 Community Affairs Legislation Committee. *Health Legislation Amendment (Midwives and Nurse Practitioners) Bill 2009 and two related Bills [Provisions]*. Canberra: Commonwealth of Australia, 2009.
21 Commonwealth of Australia. *Improving Maternity Services in Australia: Report of the Maternity Services Review.* Canberra: Commonwealth of Australia, 2009.
22 RANZCOG. *College Statement: Homebirths*. Melbourne: Royal Australian & New Zealand College of Obstetricians & Gynaecologists, 2008.
23 ACM. *National Midwifery Guidelines for Consultation and Referral*, 2nd edn. Canberra: Australian College of Midwives, 2008.
24 NSW Health. *NSW Health Credentialling Framework for Midwives*. Sydney: Nursing and Midwifery Office, NSW Department of Health, 2005.
25 NHMRC. *National Statement on Ethical Conduct in Human Research*. Canberra: Australian Government, 2007.
26 Viisainen K. Negotiating control and meaning: home birth as a self-constructed choice in Finland. *Soc Sci Med* 2001; **52** (7): 1109–1121.
27 Neuhaus W, Piroth C, Kiencke P, Gohring U, Mallman P. A psychosocial analysis of women planning birth outside hospital. *J Obstet Gynaecol* 2002; **22** (2): 143–149.
28 UK Office of National Statistics. *Home Births in the UK, 1955 to 2008: Population Trends 133*. London: Department of Health, 2008.
29 New Zealand Information Service. *Report on Maternity Maternal and Newborn Information 2004*. Auckland: Government of New Zealand, 2007.
30 Dodwell M, Armes R, Gibson R. *Home Birth Rates*. [Accessed 14 October 2009.] Available from URL: http://www.birthchoiceuk.com/BirthChoiceUKFrame.htm?http://www.birthchoiceuk.com/HomeBirthRates.htm. London, 2009.
31 Albany Midwives. *The Albany Midwifery Practice*. London. [Accessed 14 October 2009.] Available from URL: http://www.albanymidwives.org.uk/albanymidwivesfactsandfigures.php, 2009.
32 MIDIRS. *100% Rise in Homebirth in Sheffield*. [Accessed 14 October 2009.] Available from URL: http://www.choicesforbirth.org/newsarticle.php?id=118. London, 2009.
33 Olsen O. Meta-analysis of the safety of homebirth. *Birth* 1997; **24** (1): 4–13.
34 Lindgren H, Hildingsson I, Christensson K, Radestad I. Transfers in planned home births related to midwife availability and continuity: a nationwide population-based study. *Birth* 2008; **35** (1): 9–15.
35 Ford C, Iliffe S, Franklin O. Outcome of planned home births in an inner city practice. *BMJ* 1991; **303** (6816): 1517–1519.
36 Loughney A, Collis R, Dastgir S. Birth before arrival at delivery suite: associations and consequences. *Br J Midwifery* 2006; **14** (4): 204–208.
37 Ford J, Pett G. 'BBA' birth. Analysis of one year's 'born before arrival' births (n = 29) and trends in BBA birth 2000–07 in a large English maternity unit. *MIDIRS Midwifery Dig* 2008; **18** (2): 217–223.
38 Borquez H, Wiegers T. A comparison of labour and birth experiences of women delivering in a birthing centre and at home in the Netherlands. *Midwifery* 2006; **22** (4): 339–347.
39 Morse J, Park C. Home birth and hospital deliveries: a comparison of the perceived painfulness of parturition. *Res Nurs Health* 1988; **11** (3): 175–181.
40 Caughey A, Stotland N, Washington A, Escobar G, Caughey A, Stotland N. Who is at risk for prolonged and postterm pregnancy? *Am J Obstet Gynecol* 2009; **200** (6): 683e1–683e5.
41 Dowswell T, Thornton J, Hewison J *et al.* Should there be a trial of home versus hospital delivery in the United Kingdom? *BMJ* 1996; **312** (7033): 753–757.
42 Hendrix M, Van Horck M, Moreta D *et al.* Why women do not accept randomisation for place of birth: feasibility of a RCT in the Netherlands. *BJOG* 2009; **116**: 537–544.