Creating a dedicated home birth team in Tower Hamlets: a review of outcomes from the first year

he majority (approximately 87%) of births in the UK take place in a hospital-based obstetric unit (National Audit Office, 2013) with the remainder in midwifery-led settings such as birth centres or the home. While giving birth at home has been shown to be a safe, cost-effective and well received option for women at low risk of complications (Birthplace in England Collaborative Group et al, 2011). In 2017, just 2.1% of babies were born at home in England and Wales (Office for National Statistics, 2019).

Tower Hamlets is home to one of the few freestanding midwifery units in the city, and therefore is one of only three London boroughs that offers pregnant women without complexities the choice of four locations in which to give birth. Despite home birth being an option, without a dedicated team, the home birth rate in 2017 was less than 0.4% in Tower Hamlets, with only 22 women having planned births at home.

The Tower Hamlets Homebirth Team was set up as a service offered by the Royal London Hospital maternity department, part of Barts Health NHS Trust. Its aim was to provide a dedicated home birth service, offering continuity of carer to women in Tower Hamlets who chose to give birth at home. The women targeted were obstetrically 'low risk'; however, women with risk factors who were keen for home birth were encouraged to discuss the risks and benefits of all places of birth and were supported in their choice.

The main objective of the team was to offer home birth as a viable option, with a team of confident midwives experienced in delivering pregnancy, intrapartum and postpartum care in the home environment. Continuity of carer was provided to ensure safety and satisfaction, and to encourage women to consider home birth as an attractive option, since many women want to know the midwife caring for them in labour (Hollowell et al, 2015).

The Homebirth Team

The Homebirth Team consisted of four midwives, including one team leader in a Band 7 role who was responsible for overseeing the team, liaising with

Abstract

Background A dedicated home birth team was established at a large teaching hospital in a deprived inner London borough.
Aim To increase the home birth rate in Tower Hamlets and offer continuity of carer to women opting for home birth.
Methods Data were collected on all 90 women receiving care by the team. Data, including demographics, care episodes and maternal and neonatal outcomes, were recorded and analysed using Microsoft Excel 2010.

Findings With a dedicated home birth team, the home birth rate in Tower Hamlets increased by 68% compared to the previous year, while still remaining a small proportion of all births in the borough. The overall transfer rate was 32.6%, in line with national figures. Outcomes for both mothers and babies were very good, with 89% of women who started their labour at home achieving a normal vaginal birth. Feedback was exceptionally positive, with 100% of women who provided feedback recommending the service. The women being referred and choosing homebirth were not demographically representative of the population of the borough.

Conclusions The provision of a dedicated homebirth team in Tower Hamlets has been a positive addition to the area's existing maternity services. More needs to be done to improve the visibility of the team in order to secure more referrals and increase the homebirth rate, especially among the Bengali and other ethnic minority populations, to enable equitable access to homebirth.

Keywords

Home birth | Audit | Caseloading | Continuity of carer

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Mary Olusile Consultant Midwife Barts Health NHS Trust caitlin.foley@bartshealth.nhs.uk management and organising rotas and annual reviews. The target ratio of midwives to women in a year was 1:35, although currently the numbers of women are well below this. Each midwife worked 13 'long days' (8:00-20:30) in each 4-week period, eight of which were also 'on call' days, meaning that the midwife was scheduled to attend women at home in labour overnight. The team was not called upon to cover shortages in the unit, as this would threaten their availability for home births. The midwives were each responsible for their own workload and organising their antenatal and postnatal visits with the women in their care; however, the team worked very closely with each other, providing email handovers when work was shared. For example, after a birth, the first few days could involve a number of home visits, phone calls and additional referrals or help, which was undertaken by the whole team to ensure that women felt adequately supported. A typical day might include antenatal and postnatal home visits, booking visits, taking and checking blood results, organising equipment and pools for women's homes, organising referrals and updating shared caseload and audit forms. As a relatively new team, great effort was put into outreach work: the team attended local community events in order to spread the word and inform women about the benefits of home birth. There was also a monthly team meeting, which was attended the multidisciplinary team as well women who planned or were planning a home birth, so that they could meet the midwives and other women.

A narrative account of setting up the service, lessons learned and future plans sits alongside this article.

Methods

The data in this article result from a retrospective audit of women cared for by the Homebirth Team in 2018. Information on all women recruited to the Homebirth Team was recorded in Microsoft Excel in three stages: at booking, after birth and after discharge from midwifery care. On booking with the team, basic health and demographic information was collected, along with referral information and reasons for choosing to plan a home birth. After birth, information about the birth, including risk status, onset of labour, interventions and immediate outcomes, was recorded. Finally at discharge, longer-term outcomes, including infant feeding and postnatal health, were recorded.

Results

There is little published evidence on the outcomes from dedicated home birth teams in the UK; however, in 2018, Birmingham Women's and Children's NHS Trust published the results of a 3-year pilot setting up a dedicated home birth team (Sudworth et al, 2018). Although the unit was larger than the Royal London Hospital maternity department, with around 3000 additional births, as a recent study of a team with a similar set-up, it is useful to compare some of the data here. However, it is worth considering the much smaller numbers the Tower Hamlets Homebirth Team were auditing, as this can significantly affect percentages. A further analysis after 3-5 years could demonstrate additional insight.

Caseload

The team received 128 referrals in 2018, the majority of which (n=82; 64.0%) were from midwives working in the community. Of the referrals received, 90 women (70.3%) proceeded to plan a home birth and had antenatal care provided by the team. Two women experienced pregnancy losses and six women transferred out of the team before 37 weeks'; these women are therefore not included in the audit beyond referrals and demographics. A total of 59 women progressed to term and gave birth during the audit period. The other 23 women were still pregnant at the end of 2018 and were cared for by the team. More referrals were received for multiparous women (n=76; 59.4%) than primiparous women (n=52; 40.6%), although this was still significantly higher than the referrals reported by Birmingham's team, where primiparous women made up just 25% of referrals (Sudworth et al, 2018).

Place of birth

A total of 46 women started their labour at home. Of these women, 37 (80.4%) gave birth to their baby at home, 8 (17.4%) transferred to the obstetric unit in labour, and 1 (2.2%) transferred to the freestanding midwifery unit in labour. Of the women who gave birth at home, 20 (43.5%) were primiparous and 26 (56.5%) were multiparous (*Figure 1*).

Mode of birth

Of the 46 women who started their labour at home, 41 (89.1%) had a spontaneous vaginal birth, 4 (8.7%) had a vaginal delivery assisted by forceps, and 1 (2.2%) required an emergency caesarean section (category three, meaning that the baby required delivery but there was no immediate threat to mother or baby) (*Figure 2*).

Transfers

Of the 59 women who gave birth while in the care of the team, 13 women did not start their labour at home, with eight starting at one of the birth centres and five in the obstetric unit. These women are not included in this intrapartum sections of the audit but are included in postnatal and neonatal outcomes as they continued to receive care by the team throughout their pregnancies and postnatally.





The total transfer rate from the 46 women who started labour at home was 32.6% (*n*=15), which is significantly higher than Birmingham's overall transfer rate of 24% (Sudworth et al, 2018). However, this can be explained by the higher proportion of primiparous women (with their higher transfer rate) being cared for by the Tower Hamlets team, as when the groups of women are separated, the transfer rates are more comparable. Multiparous women, 19.2% (n=5) of whom were transferred, were significantly less likely to be transferred than primiparous women, for whom the overall transfer rate was 50.0% (n=10). Again these are slightly higher than the Birthplace (Birthplace in England Collaborative Group et al, 2011) findings, where transfer rates were 12.0% and 45.0%, respectively. Transfers in labour made up 60.0% (*n*=9) of the transfers, with the remaining 40.0% (*n*=6) being in the hours after the birth.

Antenatal transfers

Some women (n=13; 22.0%) who had been planning home births did not commence their labour at home. Five of these women developed obstetric risk factors that led to them being advised to give birth either in the obstetric unit or the alongside midwifery unit. The other eight women had no contraindications to home birth but chose not to labour at home, with three choosing the obstetric unit and five choosing one of the birth centres.

Transfers from home

Transfers in labour or shortly after birth are sometimes necessary to ensure the safety of mother and/or baby. Transfers are always discussed with women and their family and their decision takes precedence. The midwives



Figure 2. Mode of birth—labour commenced at home SVB: spontaneous vaginal birth

use Trust guidelines to inform their advice around transfer reasons and timing, although it is individual to each woman and their circumstances in labour. Transfers may be discussed with senior management or the labour ward co-ordinator, where appropriate.

Of the 46 women who started their labour at home, 8 (17.4%) were transferred in labour to the obstetric unit and one woman requested transfer to a freestanding midwifery-led unit. This intrapartum transfer rate of 19.6% is slightly higher than the rate of transfers from home in labour reported in the Birthplace study (Birthplace in England Collaborative Group et al, 2011), which was 14.2%. This trend is true of most of the transfer rates for the team in 2018, although it is worth noting that the numbers here are small, so percentages are greatly affected by very few women. It should also be noted that the transfer rates decreased as the year progressed. Of the 20 primiparous women who started their labour at home, 8 were transferred either to the obstetric unit or birth centre, compared to just 1 of 26 multiparous women.

Six women were transferred from home shortly after labour for either maternal or neonatal reasons.

Transfers from home: reasons and analysis

Transfer reasons are shown in *Figure 3*. The most common reason to transfer a multiparous woman was for neonatal reasons, whereas most primiparous women were transferred in labour, usually due to a delay in progress or maternal request. Of the women who requested to be transferred, one was to another midwifery-led setting.

Transfers for neonatal reasons were usually for observations and required no further support

Research



Figure 3. Reasons for peripartum transfer. PROM: Premature rupture of membranes

or intervention. Midwives stay in the home for approximately 2 hours post-delivery, and if it was felt that babies required further observations, transfer either to the midwifery unit or postnatal ward at the hospital was recommended. One woman planned a home birth intending to transfer into hospital after the birth in order to have her baby observed in line with hospital policy on Group B Strep, which she did.

Transfer rates decreased throughout the year, with far more occurring in the first half of the year than the second. The midwives in the team felt that this could have been linked to their confidence and increasing experience. From January to June, the transfer rate was 40.0%, with 10 of 25 women transferred; however, from July to December, this dropped to 23.8%, with only 5 of 21 women transferred.

Additional maternal outcomes at home birth

A small number of women (n=5; 13.5%) lost in excess of 500 mls of blood at home, and none lost more than 1000 mls. More women had an active third stage (n=20;54.0%), than a physiological one (n=17; 45.9%). Women choosing home birth are more likely to have an intact perineum than in other birth settings (Smith et al, 2013) and it was found that 37.8% (n=14) of women required no genital tract suturing. The remaining 62.1% (n=23)required some suturing, including one woman who sustained a third degree tear that required transfer to the obstetric unit for repair in theatre.

Significant interventions—including induction and augmentation of any kind, regional and general anaesthesia, episiotomy, continuous electronic fetal monitoring and intravenous antibiotics in labour—were low, with 80.4% (n=37) of women who started their labour at home receiving none of the above interventions in their labour. Intervention rates are difficult to compare directly, as they are not nationally recorded and definitions of 'significant' interventions vary; however, one report found that 66.3% of births recorded as 'normal' were associated with intervention (Downe and Finlayson, 2016). In comparison to this, the low intervention rate for women who commenced their labour at home with the team in 2018 appears very positive.

Neonatal outcomes

Neonatal outcomes for women giving birth at home were generally positive. Two babies born at home were transferred after birth for observations and, as previously discussed, in one case this was planned in advance. One baby born at home was transferred after resuscitation at home and admitted to the neonatal intensive care unit. An internal investigation found that there were no care issues in the pregnancy, labour or in the care of the baby at birth; that the need for resuscitation could not have been predicted; and that resuscitation was carried out correctly. The baby was discharged after 1 week with a good prognosis.

In total, 7 (18.9%) babies born at home had a birth weight categorising them below their customised 10th centile (according to the Perinatal Institute's growth assessment protocol, which is used by the Trust to monitor fetal growth in pregnancy). For three of the women, ultrasound scans after referral by the midwife predicted a likely small baby. These women were advised to give birth in an obstetric setting; however, all chose not to. Parents with babies calculated to have a birth weight below the 10th centile were offered admission for monitoring and a neonatologist review as per Trust guidelines; however, they all declined. None of these babies went on to experience any problems in the first month of life.

Infant feeding

Tower Hamlets reports some of the highest breastfeeding rates in the country, with 93.4% of women in the borough initiating at least partial breastfeeding in 2018 (Public Health England, 2018). However the mixed feeding rate, which is not considered to have the same benefits for mother and baby as exclusive breastfeeding (Kramer and Kakuma, 2012), is high, with 51.8% of mothers partially breastfeeding at 6 weeks (Public Health England, 2018).

Breastfeeding rates were very high for women cared for by the Homebirth Team, with 56 (94.9%) babies being breastfed at birth, and 51 (86.4%) babies being exclusively breastfed at discharge from midwifery care, which usually took place between 3–4 weeks. This is higher than the national rate of breastfeeding, which is 81.0% at birth dropping to 69.0% after 1 week (McAndrew et al, 2012). However, it is worth noting that the national data is taken from a survey conducted in 2010, which is the most up-to-date national data on breastfeeding initiation.

Home birth outside of guidance

The majority of women in the team's care had a low-risk pregnancy; however, some had existing risk factors or became higher-risk during their pregnancy, meaning that they were not recommended to give birth at home. These women chose to plan a home birth 'outside of guidance' after counselling from the Homebirth Team midwives, usually in addition to a consultant midwife and an obstetric consultant where appropriate. Of the 46 women who started their labour at home, 9 (19.5%) did so 'outside of guidance'. Risk factors are listed in *Table 4*. All 9 women gave birth at home and none experienced adverse outcomes related to their risk factors.

Continuity of carer

Midwife-led continuity of carer in pregnancy has been shown to offer significant benefits in pregnancy (Sandall et al, 2016) and as such has been made a priority in maternity care in the UK (National Maternity Review, 2016). The Tower Hamlets Homebirth Team is able to offer women very high levels of continuity during pregnancy: each woman has all her antenatal care co-ordinated and undertaken by a named midwife in the team, whom she is able to contact directly. Someone from the team is available to provide intrapartum care 24 hours per day, 7 days per week. Women are encouraged to attend monthly sessions to meet the other midwives in the team so when they go into labour, they are likely to have met the midwife, even if it is not their named caregiver. Postnatal care is co-ordinated by the named midwife with support from the team where needed.

In 2018, 48 women were attended at home in either labour or early labour. Of these, 42 (86.5%) women knew the midwife caring for them, and 20 (41.7%) were attended by their named midwife. Knowing the midwife caring for them in labour is significantly less likely for women giving birth in other settings in the Trust, making the Homebirth Team unique in its ability to offer this level of continuity.

At discharge, 23.7% (n=14) of women had received their care from three or fewer midwives across their whole pregnancy, including booking, all antenatal and postnatal care, and intrapartum care. This number of women could be significantly higher if referrals to the team are received earlier in pregnancy. The Government target of 20.0% of all women receiving continuity of carer (National Maternity Review, 2016) is something that the Trust is aiming to achieve, and the Homebirth Team may be part of the solution.

Table 4. Primary reasons for homebirth outside guidance			
Primary reason for home birth outside guidance	n		
Prolonged rupture of membranes >24 hours	1		
Prolonged pregnancy >42 weeks'	1		
Previous baby with Group B Strep	1		
Previous caesarean section	1		
Small for gestational age	3		
Gestational diabetes well controlled by diet	2		

Maternal satisfaction

Maternal satisfaction was extremely high, with 100% (n=25) of women who completed the Friends and Family test recommending the service. Families were very positive about the service and in particular about the continuity of carer offered by the team. Many women have returned to visit meetings and local events after giving birth, to share their experience and recommend home birth to other local women. One woman commented:

'During the birth I was met with kindness, expertise, advice and care that felt very personal and individual. I believe this is in part due to the fact that they are a small, very dedicated team that build up a personal relationship with the women they're working with.'

Discussion

In 2017, 33 women planned a home birth with the Royal London Hospital maternity service, with 25 women starting their labour care at home. This represents less than 0.5% of births that year. In 2018, this number increased to 67 women planning a home birth, and 46 women beginning their labour at home, which equates to approximately 0.9% of births. Although these numbers are small, they represent a significant increase in home births for the unit. No specific target was set; however, this is something the team will be considering for the future. Reaching or surpassing the national average of 2.1% (Office for National Statistics, 2019) will be a challenge, but an achievable one nonetheless.

Demographics

Tower Hamlets is one of the most ethnically diverse areas in the UK, with 55.0% of its residents from black and minority ethnic (BAME) backgrounds. Tower Hamlets is also one of the most deprived local authorities in England, and has the highest rate of child poverty in the country, with almost one-third of children belonging to families living below the poverty line (Tower Hamlets Council, 2018).

Ethnicity	Referrals received	Accepted care	Declined care
White British	57	46	11
Irish	2	2	0
Southern and other European	10	7	3
Northern European	5	4	1
Other non-European	6	4	2
Indian	4	1	3
Bengali	24	13	11
South-east Asian	3	3	0
Mixed white and black Caribbean	1	1	0
White other	2	1	1
African or African-Caribbean	13	8	5
Unknown	1	0	1

Table 5. Ethnicity of women referred to the Homebirth Team

One of the more significant challenges facing the team has been accessing certain communities in the borough. The Homebirth Team's caseload is not representative of the community, with more than half the caseload (n=46; 51.0%) identifying as white British, and a further 20.0% (n=18) as Irish, European or white other. In particular, the low rate of referrals and bookings from Bengali women (n=13; 14.4%) is disappointing, as they make up more than one-third (38.6%) of the birthing population of the borough (Barts Health, 2017). Of the Bengali women who were referred, 45.8% (n=11) decided against home birth, compared to 19.2% (n=11) of white British women referred. *Table 5* shows the number of referrals received and the number accepted and declined, organised by ethnicity.

Athough the team asks for feedback from women who decline care after referral, the reasons why so many women from a Bengali background decline home birth is unclear. Often these conversations are on the phone, and many women state they have 'just changed their mind'. Housing issues related to extended families living in the same accommodation are sometimes mentioned by women in Tower Hamlets; however, this is not the case for everyone. This is something the team is keen to explore further in future.

In addition, the team also recognises that there may be some bias from health professionals who discuss home birth with women regarding the 'type' of women who might choose a home birth. For example, there is a belief in midwifery and obstetric care that multiparous women are more suitable for home birth than primiparous women, despite the evidence showing that home birth is considered to be safe for all women at low risk of complications (Scarf et al, 2018). These reasons, among others, may mean that midwives overlook and therefore do not refer women who may not fit their idea of the 'typical' home birth mother. Time constraints in busy clinics is often cited as a reason why some staff feel there is not the time to discuss home birth with women.

Conclusion

Establishing a dedicated team has enabled women in Tower Hamlets to access a reliable home birth service, and has led to an increase in births at home in 2018. Outcomes were generally positive and feedback was excellent, as evidenced by the Friends and Family test. Women praised the supportive care they received and a reported a positive pregnancy and birth experience, even when they did not achieve a home birth. The continuity of carer offered to women was particularly valued.

The rate of transfer from home birth in 2018 was slightly higher than that found by the Birthplace in England Collaborative Group et al (2011); therefore, reducing the rate of transfer will be a focus for the future. While transfers during or after labour are inconvenient and disappointing for women, they are necessary to ensure safety of both women and babies. Decreasing the transfer rate may be possible; however, this cannot be pursued at the expense of safety.

In the long term, more work needs to be done to ensure equitable access to home birth across the diverse population of Tower Hamlets. Increasing the visibility of the team may be helpful in receiving more referrals, which should lead to an increase in home births. To achieve this, the Homebirth Team will continue to work with local communities. BJM

Declaration of interests: The authors have no conflicts of interest to declare.

Ethical approval: Not required.

Funding: This research received no specific grant from any funding agency in the public, not-for-profit, or commercial sector.

Review: This article was subject to double-blind peer review and accepted for publication on 11 June 2019.

Acknowledgement: The authors would like to thank their Homebirth Team colleagues, Irene Olanrewaju and Ruth Sloman; Lisa Greene, community manager; and Suzie Crowe and Rehan Khan, consultant obstetricians.

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- Women in Tower Hamlets have reacted positively to the creation of a dedicated home birth team, with many women self-referring for care
- Outcomes for mothers were positive when starting their labour care at home, with low rates of intervention and high rates of vaginal birth and breastfeeding
- Intrapartum transfer rates were higher than the national average, which is something the team will look to improve on over the coming year
- There is still education to be done around the safety and acceptability of home birth in the community of Tower Hamlets, which may help to increase referrals to the team

CPD reflective questions

- How do you talk to women about place of birth? Do you discuss home birth as a safe and comfortable option?
- Why do you think home birth is more or less acceptable to certain communities, and what do you think midwives can do to address this?
- Do you think the creation of a dedicated home birth team in your practice area could increase the number of women choosing home births?
- How can we enable students and newly qualified midwives to feel comfortable supporting women's choice of place of birth, and assisting women at home in labour?

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