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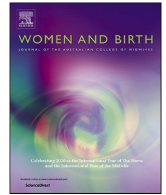

Women and maternity care providers experiences of planned home birth in Northern Ireland: A descriptive survey

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ABSTRACT

Background: Where a woman gives birth impacts both her postnatal outcomes and experiences. However, for women who plan home birth in Northern Ireland, their experiences and that of their maternity care providers are rarely sought.
Aim: This study examined women's and maternity care providers' experiences and perceptions of home birth service provision in Northern Ireland.
Methods: Online surveys were used to investigate the experiences of women (n = 62) who had experienced a home birth or had a view on planned home birth and maternity care providers (n = 77) who offered home birth services in Northern Ireland between November 2018 and November 2020. The surveys were analysed using descriptive statistics.
Findings: The women were all multigravida, with 39 experiencing a planned home birth and three having an intrapartum transfer. Most of the women (61.3 %; n = 38/62) knew about home birth services through social media or friends and 91% (n = 57/62) discussed their plans for home birth with their maternity care providers antenatally. Maternity care providers were mostly supportive (64.9 %; n = 50/77) of women having a choice about place of birth. Midwives were mostly confident (52 %; n = 13/25) or very confident (28 %; n = 7) about caring for women having a planned home birth but did not always feel supported by colleagues.
Discussion: Most women rated their care as excellent or very good. Midwives reported limited support from colleagues for home birth provision.
Conclusion: There is a need to support women in their birthplace choice and empower maternity care providers to facilitate this through a fully resourced home birth service infrastructure and collegial support.

Statement of significance

Problem or issue

Some women in Northern Ireland plan to have a home birth. However, little is known about their experiences or that of the midwives or other members of the multidisciplinary team who care for women planning a home birth.

What is already known

Outcomes from planned home birth are as good as those in other settings, including reduced intervention with women having greater autonomy and control over their birthing experience. Despite this, planned home birth is often viewed through the lens of risk despite evidence in support of planned home birth.

What this paper adds

This paper provides insight into women's and maternity care providers' experiences of planned home birth in Northern Ireland. Women receive most of their information about planned home birth from social media and friends. It is important to make

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evidence-based information necessary for decision-making around planned place of birth accessible for women, their family and maternity care providers.

Background

Where a woman plans to give birth has important implications for her birthing experience as well as maternal and neonatal outcomes. In the United Kingdom (UK), the number of women who have a planned home birth remains low, ranging from 0.22 in Northern Ireland (NI) to approximately 3 % in Wales [1,2]. In NI, home birth services are provided free of charge by the five geographically aligned Health and Social Care Trusts (hospital and community services). Care is funded under the National Health Service with each Trust providing a range of maternity care for women and their families. Women who plan a home birth, experience lower numbers of interventions (such as amniotomy, augmentation of labour), than those giving birth in an obstetric unit [3]. A systematic review by Olsen and Clausen [4], [p.2], concluded that there was 'no strong evidence to favour either planned hospital birth or planned home birth for low-risk pregnant women'. Outcomes for multiparous and nulliparous women and babies of multiparous women who have given birth at home are equal to, if not better than those in other birth settings [5–7]. A small increase in the risk of adverse outcomes for babies of nulliparous women who had a planned home birth was reported by the Birthplace Study [8]. However, in a comparison of studies on planned births in hospitals, birth centres and at home, the authors concluded that women had lower odds of intervention and severe morbidity during labour and birth if they planned to birth at home or in a birth centre [9].

In NI, there is a paucity of home birth research. An examination of women's experiences of home birth in NI highlighted that women's perception of birth as a normal physiological event and being at home, made them feel more in control of what was happening [10]. In 2014, research into women's experience of maternity care in NI reported that only 36 % of respondents knew that giving birth at home was an option and only 0.4 % of survey respondents experienced a home birth [11].

A preliminary review of the literature by the authors, on women's experiences of planning a home birth in consultation with maternity care providers in middle to high-income countries, highlighted the importance of the availability of information on planned home birth services for women and their family and friends. Therefore, this study aimed to examine women's, their partners' (if applicable) and maternity care providers' experiences, and perceptions, of home birth service provision in NI. The study provides timely and important evidence from, both before and during the initial COVID-19 response.

Methods

Study design

An explanatory sequential mixed methods approach was used [13]. This included two cross sectional online surveys and focus groups. The online surveys were conducted first, with findings used to develop a topic guide for the focus groups. The focus groups were conducted to provide insight into responses from the survey. This paper presents findings from the online surveys.

Survey development and design

The women's and maternity care providers' surveys were developed and hosted on Qualtrics™ . Survey questions were informed by the literature and items from (anonymised) survey.The final draughts of both the women's and maternity care providers' surveys were distributed to a panel of maternity care professionals, women and researchers who had experience of planned home birth. The content validity index approach [14] was used and minor changes made, further to the feedback. These changes included clarifying the wording of demographic information, for example in relation to previous pregnancy, ordering of questions, and wording some questions more clearly.

Data collection

Between November 2020 and January 2021, the survey was administered via Qualtrics™ to a purposive population. Women were recruited via social media and snowballing through the researchers' networks (PG and MH). Women who self-reported a planned home birth in NI since November 2018 (a two-year timeframe from birth to survey participation) or were interested in home birth services were eligible to take part. Maternity care providers received the survey link via their work email which was disseminated through collaborators in each of the five Health and Social Care Trusts in NI. Maternity care providers were eligible to take part if they self-reported that they managed or provided home birth services or had an interest in the provision of home birth services in NI. The women's survey contained 75 questions and the maternity care providers 32 questions, arranged in 7 and 3 sections respectively. Adaptive questioning was used throughout the survey to ensure respondents only had access to questions, most relevant to them with a back button available to enable review or change responses if needed. Only single survey completion from any IP address was possible.

A participant information sheet included details on researchers, the purpose of the study and data storage. On completion of the survey, respondents were offered the opportunity to participate in follow-up focus groups by providing their email address. The focus group data are reported elsewhere.

Data analysis

Further to exporting the data from Qualtrics™, and quality assuring the data, descriptive statistics were performed on the quantitative data from the survey using Excel ® and SPSS Version 26. Frequency distributions and percentages were used to summarise the data and percentages based on number of responses to questions were rounded to one decimal point. Responses to the open-ended questions were extracted and aggregated under the relevant question into Excel® for ease of reading, rereading and analysis. Direct quotations were used to provide further insight and validity to the quantitative responses [15].

Ethical considerations

Ethical approvals were received from x University, the North East-Newcastle & North Tyneside 2 Research Ethics Committee (IRAS Ref 246711) and NI Trusts. Each participant's completion of the online questionnaire was voluntary, with access to the questionnaire only possible, once the elements of consent had been completed. Contact details of relevant support services were provided at the end of the Participant Information Sheet, in case completion of the survey caused the respondents to feel upset or distressed.

Results of women's experiences of planned home birth survey

Demographics

Sixty-two women aged 20–45 + years, mostly in paid employment (75.7 %; n = 47) and of White ethnic origin completed the online survey. The women were mostly married (75.8 %; n = 47) or living with their partner (16.1 %; n = 10). See Table 1 for full demographic details of the women.

Table 1
Women's demographic information.

	Frequency	Percent
Age		
20–24 years	1	1.6
25–29 years	8	12.9
30–34 years	25	40.3
35–39 years	19	30.6
40–44 years	7	11.3
45 + years	2	3.2
Ethnicity		
White	62	100
Employment type		
Healthcare	14	22.6
Retail and Hospitality	9	14.5
Education	7	11.3
Childcare	3	4.8
Clerical Services/Administration	2	3.2
Financial Services	2	3.2
Public Service	2	3.2
Other	8	12.9
Not in paid employment	12	19.4
Not reported	3	4.8
Marital Status		
Married	47	75.8
Living with partner	10	16.1
Separated or Divorced	3	4.8
In a relationship	1	1.6
Not in a relationship	1	1.6
Highest level of education		
Postgraduate Certificate, Diploma or degree	16	25.8
Degree	25	40.3
Professional Qualification	9	14.5
Non-Degree	10	16.1
Secondary School	2	3.2

Physical and mental health and wellbeing

The majority of the respondents (96.8 %; n = 60/62) described their physical health as excellent, very good or good and their mental health as good, very good or excellent (85.5 % (n = 53/62). However, 14.5 % (n = 9) of respondents reported fair (9.7 %, n = 6/62), poor (3.2 %, n = 2/62) or very poor (1.6 %, n = 1/62) mental health.

Parity and place of birth

All respondents self-reported they had previously given birth (between November 2018 and November 2020), with 12 (19.4 %) pregnant at the time of the survey and 53.2 % (n = 33/62) having planned to have a home birth in their latest or current pregnancy. 19.4 % (n = 12/62) of women who planned to birth at home in their latest or current pregnancy, reported that they did not birth at home. Three women reported transferring to hospital during labour. In their last pregnancy, 32 (52 %) women birthed at home, 14 (22.6 %) in a hospital (obstetric unit), 9 (14.5 %) in an alongside midwifery unit and 1 (1.6 %) in a free-standing midwifery unit. Six women (9.7 %) started off their labour in a midwifery unit or at home before transferring to an obstetric hospital.

Information about the availability of home birth services

The majority of respondents (61.3 %, n = 38) indicated that social media and friends were their main sources of information on home birth services. Only 19.4 % (n = 12) of the women reported receiving information about home birth from a midwife while one woman obtaining information from her GP (See Fig. 1). Some women indicated they did their own research while others already knew that home birth was available as an option. Two women indicated that doulas were the source of their information about home birth provision.

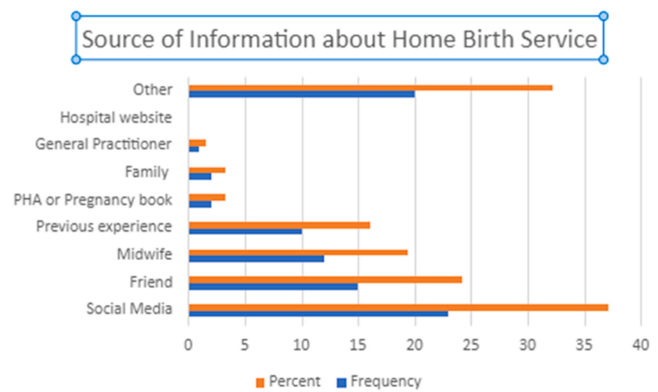

Fig. 1. Source of information about Home Birth Service.

Experiences of antenatal care when planning to birth at home

First point of contact and gestation when contact made

The first point of contact with maternity healthcare professionals for the majority of women in their current or latest pregnancy was a midwife (58.1 %, n = 36/62), or GP (38.7 %, n = 24/62), which took place between 5 and 8 weeks gestation (40.3 %, n = 25) or between 9 and 12 weeks (35.5 %, n = 22) (Table 2). Women reported their experience at this point of contact as excellent (14.5%, n = 9), very good (33.9 %, n = 21) or good (25.8, n = 16) as supported by their responses: "*I felt I had been heard, understood and they would work with me to try and organise a home birth*". However, just over a quarter (25.8 %, n = 16) of the women reported a fair (17.7 %, n = 11) or poor (8.1 %, n = 5) experience. Indications about why their experience was less positive included "*Because I was told that it was too early to even think about it [never mind]. discuss it*' and '*I felt I wasn't being taken seriously, was told to wait as there may be complications*".

Antenatal discussions regarding planned home birth and home birth services

In their current or latest pregnancy (November 2018- November 2020), over a third of the women discussed their home birth plans with a midwife at their first antenatal care visit (37.1 %, n = 23). More than a quarter of the women discussed their plans at 13–24 weeks' gestation (27.4 %, n = 17) and 16.1 % (n = 10) first talked about their plans in their third trimester. When asked how they felt immediately following their appointment, 32.3 % (n = 20) women reported feeling very satisfied, or somewhat satisfied (14.5 %, n = 9) commenting that; "*I felt that I had been heard and understood, and that they would work with me to try and organise a homebirth*". However, 9.7 % (n = 6) of the respondents reported feeling neither satisfied or dissatisfied and 41.9 % of women (n = 26) reported feeling somewhat dissatisfied (27.4 %, n = 17) or very dissatisfied (14.5 %, n = 9). One woman stated. "*I was told it would be my fault, if my baby died*". The majority of women (80.6 %, n = 50)

Table 2
First contact with maternity care provider.

In your current or latest pregnancy, at your first contact with a maternity healthcare professional, how many weeks pregnant were you?	Frequency	Percent
Between 1 and 4 weeks	5	8.1
Between 5 and 8 weeks	25	40.3
Between 9 and 12 weeks	22	35.5
Between 13 and 16 weeks	6	9.7
Between 17 and 20 weeks	3	4.8
Week 21 or later	1	1.6
Total	62	100

discussed their planned home birth at other appointments during their antenatal period and found the discussion very useful (38 % (n = 19/50) or somewhat useful (32 %, n = 16/50).

Perceptions of care received during pregnancy and birth

Regarding how they felt about the care they had received during pregnancy, respondents reported being very satisfied (30.6 %, n = 19), somewhat satisfied (32.3 %, n = 20), neither satisfied or dissatisfied (11.3 % (n = 7), somewhat dissatisfied (16.1 %, n = 10) or very dissatisfied (9.7 %, n = 6).

Regarding the care they received for their home birth, over a third of the women felt very satisfied (36 %, n = 14/39) or somewhat satisfied (31%, n = 12/39), indicating a marginally higher level of satisfaction overall with the care they had received while pregnant. Women provided further insights into how they perceived their care consultations with maternity care providers to plan a home birth:

> *"I had to fight so hard for a home birth and by the end I was exhausted. The care on the night was amazing, I could not fault it"*

> *"Some midwives were extremely supportive and were enthusiastic whereas one seemed reluctant".*

> *"Still currently pregnant and just been told at 30 weeks, my home birth could be off"*. There was no further detail on why this may happen.

Antenatal classes

Most of the respondents (n = 47/62) did not attend or were not planning to attend generic antenatal classes, which focus on pregnancy, labour and birth. Among those who attended, 9 (14.5 %) and six (9.7 %) women attended in-person and online classes respectively. Ten of the women also had their birth partners attend antenatal classes with them. Four of these women reported the antenatal classes helped them prepare for birth to a great extent, one to a moderate extent, three to some extent and seven found that they did not help at all. In the free text responses, it was disclosed that home birth "*wasn't mentioned*" and some women attended private classes and not those provided by the Trusts. Some of the private classes may have been on hypnobirthing, which is mentioned by respondents in the next section.

Care during labour and birth

Interventions before or during labour

Thirty-nine respondents had planned and given birth at home, among which 15 (38.5 %) women reported they had an intervention, either before or during labour. Free text responses indicated that these were most often a sweep of the membranes with nine out of the fifteen women indicating that the intervention(s) was/were unnecessary.

Labour care at home

When their labour started, 18 (46.2 %) of the 39 women described their first contact with a midwife as excellent, very good (n = 9, 23.1 %) or good (n = 7, 17.9 %). The majority (30/38, 78.9 %-; 1 missing answer) had continuity of carer from the same midwife/midwives who were with them during labour. Thirty (78.9 %,) out of the 39 women who birthed at home (1 answer was missing) had their birthing partner present during labour and birth. The majority of women felt that they and their baby were safe, in the care of the midwives, (92.3 % n = 36/39) during labour and home birth.

Women mostly used hypnobirthing for coping with contractions (29/39, 74.4 %), and 25 women (64.1%) used water in the bath or pool for mobilising in their birth space. However, twenty-one women (53.8 %) used Entonox, 16 (41 %), the birthing ball and seven (17.9 %) women used *Transcutaneous Electrical Nerve Stimulation* (TENS). None of the women used systemic analgesia such as Diamorphine with thirty five (89.7 %) women indicating that they received adequate advice about pain relief in labour. A range of positions and mobilisation during labour were adopted by the women including, all fours (31/39), swaying from side to side (22/39), walking (20/39) and squatting (13/39).

Of the women who had a home birth, 35 had a birth plan with 29 women indicating their preferences were considered during labour and birth. One woman emphasised that "*Every preference was taken on board and they knew them prior to coming out for my delivery",* while another woman noted "*Everything was perfect, I was treated with respect and my preferences were met to the very last detail". However,* some women found it challenging that their preference to have a water birth was not facilitated. Only one women reported having an episiotomy and 25.6 % (n = 10/39) of the women who birthed at home required sutures after birth.

Birth of the placenta and delayed cord clamping

When asked if they had an injection to help the birth of the placenta, 27/39 (69.2 %) of the women who responded did not. Nearly two thirds of the women (64.1 %, n = 25/39) reported that the umbilical cord was clamped and cut after the cord stopped pulsating/turned white. One woman reported that: "*I think at least half an hour passed just holding him in the pool, got out when it got cold and cord was cut then"*. This can be compared with "*Cord was clamped two mins after delivery, midwife claimed it had stopped pulsing but I think it was too soon. Felt very rushed"*.

Skin to skin contact

All the women had immediate post birth skin-to-skin contact with their newborn baby, while 77 % (n = 30) had uninterrupted skin-to-skin contact for more than one hour. The majority of the women's birthing partners (56.4 %, n = 22) also had skin-to-skin contact within the second hour post birth.

Postnatal care

In relation to care following their home birth, 66.7 % (n = 26/39) of women were very satisfied with their postnatal care with 15.4 % (n = 6/39) satisfied and 7.7 % (n = 3/39) mostly satisfied. Most women (71.8 %, n = 28/39) felt that they received adequate advice about pain relief postnatally.

Perineal care

All but one woman felt that they received the information they required to care for any tear or episiotomy that they had required: "*Paracetamol to relieve pain from the tear. I had previous tears so felt I knew how to manage it anyway"*.

Infant feeding method of choice

All the women who responded (n = 62) had chosen to breastfeed their baby and only one woman did not breastfeed her baby within one hour of birth. Nearly a third of the women (31 %, n = 11/39) who gave birth at home breastfed their baby for two years or more with 20 % (n = 7/39) breastfeeding for 12 weeks or less but 25.7 % (n = 9/39) breastfeeding their baby for up to 22 months. Most of the women (59 %; n = 23/39) of the women felt that they received the support they needed to breastfeed their baby following birth with 21 of the 39 women (53.8 %) currently breastfeeding their baby at the time of responding to the survey.

Transfer to hospital

The majority of women (92.3 %, n = 36/39) did not require transfer to hospital. The two women who transferred highlighted the reason as "*meconium in the waters*"; although the precise type of meconium was not indicated. One woman indicated: "*I didn't necessarily want to transfer in, but felt it was medically necessary based on the midwives' advice*". She further stated that following transfer "*the midwife was very supportive and understanding, however the doctor was dismissive and arrogant*".

Reflections on care experiences and home birth services

Rating of quality of care provided and meeting expectations

When asked to rate the overall home birth care that was provided, most of the 39 women who had experience of the home birth services in NI, rated it as excellent (38.5 %, n = 15/39) or very good (28.2 %, n = 11/39) with most women indicating that they would opt for a home birth in their next pregnancy. One woman commented: *"It changed my life. It was the most incredible experience that I ever had' and another said having a homebirth 'was transformative, healing and empowering. I cannot overstate what a profoundly positive experience it was"*. However, five women rated care as poor (10.3 %; n = 4/39) or very poor (2.6 %; n = 1/39). Some women commented on the negativity that they experienced while planning a home birth: "*the most negative was dismissive discussions during pregnancy. Unsupportive midwives who clearly were not keen on home birth*". In relation to the home birth service overall, 74.4 % (n = 29/39) of the respondents indicated that it had met their expectations to a great or moderate extent.

Partners' views of planning a home birth

The majority of the 62 women who responded to the survey (88.7 %; n = 55) indicated that their partner was supportive of their plans to birth at home with 54.2 % (n = 32) indicating that their partners opinion impacted on their decision to have a home birth.

How homebirth service could be improved

Women indicated that better support for home birth was needed including information about home births services and that health care providers including midwives and doctors need to show less reluctance to provide the service. One women indicated *'Less bullying about potential risks, more acceptance needed. Also staff need to be trained to be more comfortable with home births'*.

Results of maternity care providers experiences of home birth care provision

Demographics

Seventy-seven maternity care providers responded to the survey including 36 midwives (46.8 %), 14 General Practitioners (GPs) (18.2 %) and 12 Obstetricians (15.6 %), 1 nurse (1.3 %), 1 maternity support worker (1.3 %) and 1 unspecified (1.3 %) (Fig. 2).

The maternity care providers were aged between 20 and 59 years, mostly educated to postgraduate or professional level (65 %, n = 50) and predominantly of White ethnic origin. Full demographic details are provided in Table 3.

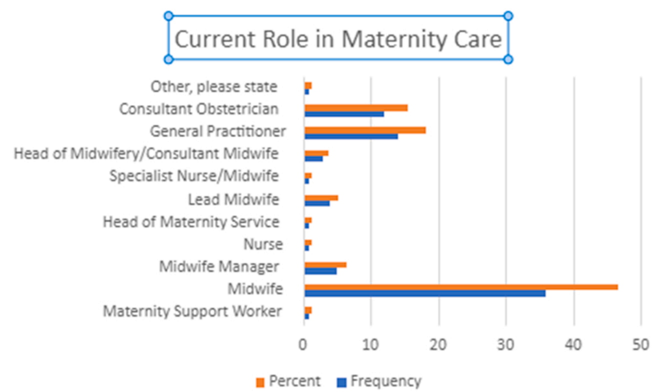

Fig. 2. Role of respondents in maternity care service provision.

Table 3
Demographic characteristics of maternity care providers.

	Frequency	Percent
Age		
20–29 years	3	3.9
30–39 years	21	27.3
40–49 years	21	27.3
50–59 years	25	32.5
60–65 years	7	9.1
Ethnicity		
White	77	100
Professional Registration		
Less than 2 years	3	3.9
2–5 years	6	7.8
6–10 years	10	13
11–15 years	8	10.4
16–20 years	13	16.9
21–25 years	6	7.8
26–30 years	10	13
31–35 years	11	14.3
> 35 years	10	13
Highest level of education		
Postgraduate Certificate, Diploma or degree	27	35.1
Degree	23	29.9
Professional Qualification	23	29.9
Non-Degree	4	5.2

Views and experiences of planned home birth

Type of training/education during initial maternity care provider training

Nearly half of the maternity care providers (46.8 %, n = 36/77) indicated they had received no education on home birth. Among those who had received some education in home birth, 3.9 % (n = 3/77) received practical training only, 27.3 % (n = 21/77) received theoretical education only while 22.1 % (n = 17/77) received both theoretical and practical education. Of these, 11 attended a planned home birth during their initial maternity care provider training/education and reported that it was a positive experience. Since their initial maternity care provider training/education, n = 15 had further training or education on planned home birth.

Home birth as an option

57.1 % (n = 44) agreed that all women should have the option of planning a home birth, with most indicating that it was "*the woman's choice*" and that "*birth is a social and family event as well as an episode in a woman's life when she receives healthcare.*". However, one maternity care provider felt that' "*the risk of experiencing an adverse event during labour or following delivery outweigh the benefits of home birth*".

Experience of caring for women at a planned home birth

Of the 50 midwife respondents who are involved in home birth provision, 50 % (n = 25) had provided care for a woman who had a home birth with experience ranging from 1 to 5 years (20 %, n = 5/25) to more than 20 years (24 %, n = 6/25). 40 % (n = 10/25) midwives

had experience of 6–15 years and 40 % (n = 10/25) had a minimum of 16 years' experience. Many of the midwives had cared for women in the antenatal period, some had been present at home births and involved in transfers into hospital or caring for women who for some reason (not stated) did not meet the planning to birth at home criteria.

Another six (12 %) of the 50 midwife respondents indicated that they would like to provide care for women having a home birth. Only three midwives had been involved in home birth care provision outside of Northern Ireland (NI).

Feeling supported as a home birth midwife

Of the 25 midwives who had provided home birth services for women in NI, just over half (52 %, n = 13/25) felt that they received a lot of support from their midwifery colleagues while 44 % (n = 11/25) felt that they received only a little support. In relation to support from their manager, nearly two thirds felt they received a lot of support (64 %, n = 16/25) and nearly half (45.8 %, n = 11/24) reported receiving a lot of support from their lead midwife. Most of the midwives (79.2 %; n = 20/24) reported only a little or felt not at all supported by their obstetric colleagues with 12 out of the 21 who responded reporting that they did not feel supported by GP colleagues. Only 2 of 20 of the home birth midwives indicated that they felt a lot of support from paediatric and anaesthetic colleagues.

Information for women about home birth services

Nearly half of the midwives (48 %, n = 12) who provide home birth services felt that women are not provided with the information they need to choose or plan a home birth.

Midwives' confidence in providing care for women having a planned home birth

The midwives felt very confident (28 % n = 7/25) or confident (52 %, n = 13/25) about providing care for women having a planned home birth. The majority of midwives who provide care for women having a planned home birth (64 %, n = 16/25) felt that they had received adequate training/education on home birth while 32 % (n = 8) indicated that they did not and 1 (4 %) did not know.

Planned home birth provision in Northern Ireland

Challenges of providing home birth services for women

Challenges indicated by 78 % (n = 60) of the respondents were caring for 'high risk' women or emergencies at home birth (73 %, n = 56) and transferring women during labour (47 %, n = 36). Only 11 (14 %) of respondents had been involved in transfer of a woman from a planned home birth to a midwife led unit/obstetric unit (Table 4).

Other challenges included midwives lacking confidence in their home birth care provision (66 %, n = 51), a shortage of midwives (66 %, n = 51) and 56 % (n = 43) chose the on-call rota for home birth (i.e. the number and length of time needed to be on call for a planned home birth) as one of the main challenges when providing home birth service for women.

Table 4
Challenges when providing home birth services for women.

What are the main challenges when providing planned home birth services for women?	Frequency	Percent
Caring for 'high risk' women	60	78
Emergencies at home birth	56	73
Midwives lacking confidence in home birth provision	51	66
Shortage of midwives	51	66
On-call rota	43	56
Concerns regarding need to transfer the woman during labour	36	47
Not enough training/education	29	38
Lack of support from colleagues	21	27
Attitudes from colleagues	19	25
Other, please specify	19	25

Benefits of planned home birth

The benefits of planned home birth reported by the maternity care providers included relaxed surroundings (84 %, n = 65), familiarity with the woman and her family (74 %, n = 57), a reduction in interventions during labour and birth for the woman and her baby (68 %, n = 52), increased initiation of breastfeeding (47 %, n = 61), better outcomes for women and their babies (49 %, n = 38) and, not having to travel in labour (43 %, n = 33). Maternity care providers noted the benefits of planned home birth for women and midwives as: "*Maternal choice and control during…[labour], increased support from family members and midwives get the opportunity to see physiological birth in naturalistic settings, the basics that aren't often seen, building their subsequent confidence in birth process*". While a small number (n = 5) of maternity care providers suggested no benefits in providing the home birth service.

Information to assist in professional practice around planned home birth

The Maternity Care Providers also indicated they accessed a range of materials to assist them in caring for women who had accessed planned home birth services (See Table 5). These included the NICE Intrapartum care for healthy women and babies Clinical Guideline [7]; Trust Policies on home birth and Royal College professional guidelines [12,16]. However, 22 % (n = 17) of the respondents reported that they were not familiar with the documents listed in Table 5.

The positive impact of Covid-19 on planned home birth services

The maternity care providers most often reported that, their perceptions of the positive impact of Covid-19 on planned home birth services was that more women choose to plan a home birth (48 %; n = 37), which impacted on outcomes such as positive birth experiences (25 %; n = 19), and less intervention (22 %; n = 17). It was also stated that with a home birth service, there was less chance of COVID-19 virus being transmitted onto women and babies (18 %, n = 14) and there was a need for a reorganisation of home birth services (17 %, n = 13).

The negative impact of Covid-19 on planned home birth services

The maternity care providers highlighted the negative impact of COVID-19 including less availability of ambulance services for transfer if required (n = 51), discontinuity of some home birth services (n = 34)

Table 5
Access to information to assist in professional practice around planned home birth.

Which of the following have you accessed to assist you in your professional practice around planned home birth?	Frequency	Percent
National Institute of Health and Care Excellence (NICE) (2014, Updated 2017) Intrapartum care for healthy women and babies Clinical guideline [CG190]	45	58
My Trust Policy on home birth	42	55
Royal College of Obstetricians and Gynaecologists/ Royal College of Midwives (2007) Home births-RCOG and RCM joint statement number 2	32	42
Joint RCM/RCOG Information for healthcare professionals Version 1 Guidance for provision of midwife-led settings and home birth in the evolving coronavirus (COVID-19) pandemic (2020)	31	40
I am not familiar with these guidelines/joint statements	17	22

and redeployment of some maternity care staff leading to staff shortages which reduced home birth service provision (n = 30) and "*stretched the capacity of the community midwives*". They further indicated there was less opportunity for women and their partners to plan home birth (n = 17).

Improvements of home birth service provision

Some maternity care providers were not supportive of home birth, such as *'a healthy baby should be the goal which is retrospective, so don't agree with home births'*, while others indicated that staffing and adequate resources were vital, indicating '*This would be an ideal situation for women but needs the back up of better staffing and skilled practitioners'*.

Discussion

The findings from these surveys provide insight into women and maternity care providers' experiences and views of home birth service provision in Northern Ireland. The majority of women who responded to the survey had experienced a planned home birth and nearly half of the midwives who responded had cared for a woman having a planned home birth. The majority of women respondents rated their overall quality of care as excellent or very good and reflected that the home birth service had met their expectations. Interestingly, all of the women and maternity care provider respondents were of white ethnicity. It is salient to identify the ethnicity of women as there are inequalities in outcomes for women of different ethnicities. However, in NI, although the ethnicity of women is recorded at a Health and Social Care Trust level, the ethnicity of women giving birth is not recorded on a central database [16]. The age of the maternity care providers reflects the NI Workforce Census 2020 [17] which reported that most midwives were in their late fifties. This is concerning as this will lead to greater workforce challenges with an urgent need for succession planning to maintain and further build a home birth service [18]. This is in line with the new Continuity of Carer Model for Northern Ireland [19] which supports an integrated approach to maternity services which will be available to all women based on the 'clinical need' (p3).

The majority of midwives who responded had provided care for women having a planned home birth and reported that they had received adequate training/education for this role. However, nearly a third of midwives did not feel confident about providing care to women having a planned home birth. Further information about the type of training they received or would have liked would be useful to explore in future research. Vedam et al., [20], in a study with nurse-midwives highlighted the importance of education for home birth and knowledge of the statistics regarding outcomes, as a means of increasing confidence in planned home birth provision. In NI, home birth services are provided by midwives, who work in collaboration with obstetricians to ensure women receive the care they need. It is important to highlight that the majority of the midwives who are involved in home birth service provision, reported feeling only a little or not at all supported by their obstetric colleagues in the provision of home birth services. This is not reflective of the UK's Royal College of Obstetrics and Gynaecology's (RCOG) position on home birth, which is supportive of women's accessing personalised care and choice of place of birth including home [21]. Team working between hospital and community obstetric and midwifery teams is vital for the provision of high-quality maternity services [22].

Most women reported a positive experience at their first point of contact or immediately following their appointment when they first discussed home birth with some first discussing their plans for home birth in the third trimester of their pregnancy. This is quite late in pregnancy to have those discussions and may reflect a reluctance to discuss plans with maternity care providers due to a perceived lack of support for their plans. This is in line with other research in this area, where women felt stigmatised for planning a home birth [23]. Despite this, the majority of the women who responded reported being very satisfied or somewhat satisfied about the care they received during pregnancy. However, a large proportion of women indicated a level of dissatisfaction with their care. Developing a trustful relationship with a midwife is important for assisting women in their decision-making [24] and optimising a woman's birth experience [25]. Home birth provision infrastructure where continuity of carer is facilitated would help to improve women's home birth experiences [26]. In relation to the overall care that was provided at the home birth, most of the women who responded were satisfied with their care and felt safe, in the care of the midwives during labour and giving birth at home. However, a minority of women received poor care. Some of this related to the attitudes of staff, which is reflected in other studies [24,25,27].

Maternity care providers indicated that women are not provided with enough information about planned home birth service provision and women described seeking information on planned home birth from other sources such as social media and friends, which is similar to recent studies on decision-making around homebirth [28–30]. Antenatal classes can be an important source of information [31], however, less than half of the women who planned to birth at home, attended either online or face-to-face antenatal classes, with only some being accompanied by their partners. While partners were largely supportive of the planned home birth and women found that helpful; some women indicated that '*I would have done it anyway'*.

Women who choose to have a planned home birth, often do so to reduce the number of interventions [28,32]. However, some women who had a planned home birth in this study, indicated that they had an intervention, either before or during labour. The interventions were considered unnecessary by some women, with free text responses indicating that most often the procedure was a 'membrane sweep'.

Delayed cord clamping results in a baby receiving 30 % more blood than a baby whose cord is clamped at birth [33,34]. In this study, the majority of women reported that the umbilical cord was clamped and cut in line with the evidence base. However, for some women, this was not the case. Further evidence-based education and awareness of the importance of the timing of cord clamping is required for women and maternity care professionals.

Almost all of the women in this study, who birthed at home had their birthing partner present during labour and birth. Having their birth partner present and sometimes other family such as children are important for most women and often considered more important, than discussion around clinical risk [35]. Most of the women felt that their preferences were considered during labour and birth with some women highlighting that the midwives knew the woman's birth preferences prior to the birth.: … '*Every preference was taken on board, and they knew them prior to coming out for my delivery'*.

The women who birthed at home indicated that they received adequate advice about pain relief in labour with none of the women requesting systemic analgesia and they used a wide range of mobilisation and alternative therapies to help them through their labour. Often women who choose to birth at home, are keen to avoid analgesia and to be more autonomous about alternative, less invasive methods and coping with labour in partnership with their birth partner and midwife [36]. Care immediately after birth not only for the women but also the baby is an important aspect of care, although it needs to be individualised. Some women indicated that they didn't need support but they knew that it was available if needed, '*I had nil issues, support was available if required'*, perhaps reflecting the demographic that all the women had previously had a baby.

While maternity care providers, identified caring for high-risk women and emergencies at home birth as the top two challenges of providing care for women at a planned home birth, few had been involved in transfer of a woman from a planned home birth to a midwife led unit/obstetric unit. Recorded rates of transfer vary from 9.9 % to 31.9 % [37] with indications most often related to non-emergency situation for example, slow progress in labour.

This research was undertaken during a time when COVID-19 pandemic was impacting on day-to-day life for everyone and on health care service provision in particular. Maternity services cannot be stood down and pregnant women were feeling more anxious about their pregnancy being classed as vulnerable and therefore more susceptible to the virus, especially, respiratory infections [38]. In maternity services, local COVID-19 restrictions impacted on women and their families, through changes to partners being allowed to accompany women to key appointments and visiting restrictions [39]. There were also challenges brought about by the availability of staff to maintain planned home birth services, as often midwives facilitating home birth were redeployed to other aspects of service delivery with obstetric-led provision being prioritised, despite maternity services reporting an increase in demand for planned home birth [40].

Some women reported that COVID-19 made them more determined to have a home birth. This became apparent in NI with the increased demand for home birth provision due to women's partners not being allowed to be present during the birth of a previous baby in hospital due to COVID-19 restrictions. There has also been the establishment of new birth at home teams within Trusts in NI. Some women in the study suggested that ambulance shortages may have impacted on their decision to give birth at home, while free birthing was also considered as an option if the midwives facilitating the home birth were not available due, for example, to rota challenges, especially during COVID-19 which is in line with other research [41,42].

Strengths and limitations

This study included the self-reported experiences of women and maternity care providers who had planned a home birth or were interested in planned home birth in Northern Ireland. While the number of respondents who took part in this study is relatively small, this is reflective of the small numbers of home births that take place in NI. Both positive and negative experiences of planned home birth provision were shared.

The study was disseminated to women who were interested in taking part via social media and the researchers contacts. This may have excluded women who were not on social media or in that network of contacts although snowball sampling was encouraged.

The women respondents self-reported that they had previously given birth (November 2018–November 2020), but it was not possible to know the exact timeframe of the birth. This meant that for some questions, such as length of breastfeeding following birth, it was not possible to identify the exact timeframe.

All of the women were of white ethnicity with the ethnic mix of pregnant women in NI uncertain, as births statistics [17] only report on marital status and maternal age. Each Health and Social Care Trust record the ethnicity of women who birth under the care of their maternity services team, in order to plan service provision, but this information is not publicly available.

Implications, recommendations and conclusions

Most women were satisfied with the care they receive while planning a home birth, their labour and postnatally. However, there were some women who reported that their care was not to the standard that they would expect. Some of the dissatisfaction arose from how women felt after discussing their plans to have a home birth with maternity care providers. Many felt that they had to 'fight' to have their choice of place of birth and one woman was made to feel that she was putting her baby at risk by having a home birth. Further information about place of birth should be made accessible to all women and their families in NI, to help reduce the stigma that some women feel when planning a home birth. This needs to be freely available in places where women frequent including maternity units, GP surgeries; creches and locations where families spend time, such as leisure and entertainment venues.

This study found a high level of support for the use of evidence-based practice in some aspects of care such as skin to skin time following birth. However, even in low intervention settings, such as a woman's home, care is not always in line with best evidence. An example from this study includes clamping of the umbilical cord before it had stopped pulsating. Further awareness and education in relation to the implementation of best practice is needed.

There is irrefutable evidence that women of black and Asian ethnicities are more likely to die during pregnancy [42]. So while NI still has a relatively small population of women of black and Asian ethnicities, the ethnic background of all women who birth in NI should be recorded on national statistical databases, so that any patterns or concerns in outcomes at a regional level are apparent, can be addressed and limited services directed where they are needed most.

The majority of the maternity care providers were in the over-40 age group with nearly a third over 50 years of age. Given that many maternity care providers retire from health and social care work in their mid-fifties, it is vital that for the maintenance of services and a delicately balanced workforce (experienced and newly qualified), there is appropriate succession planning in order to maintain home birth service provision; an issue highlighted in 2021 by the RCM [19] and further reflected in the regional health and social care workforce strategy [43].

The findings of this research provide evidence which can inform the development of home birth services across NI and provide evidence to inform the development of a new NI Maternity Care Strategy which is now overdue [19]. The findings also support the current implementation of Continuity of Midwifery Carer (CoMC) model across Northern Ireland [20]; the provision of which must provide choice of place of birth including home birth, as supported by the evidence [7]. The Implementation of the Continuity of Carer model is the ideal opportunity to undertake the necessary work to optimise support for colleagues working in home birth provision who both need and value the supportive collaboration of their hospital-based colleagues.

Ethical Approval

Ethical approval was received from Ulster University, the North East-Newcastle & North Tyneside 2 Research Ethics Committee (IRAS Ref 246711) and NI Trusts.

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CRediT authorship contribution statement

Conceptualization: PG, MH; Methodology: PG, MH; Data curation: PG, MH, OB; Formal analysis: PG, MH, OB; Investigation: PG, MH; Resources: PG; Project administration: PG; Writing – original draft: PG; Writing – review & editing: PG, MH, OB; Funding acquisition PG, MH.

Conflict of Interest

No conflict of Interest has been declared by the authors. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

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