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ORIGINAL RESEARCH: RURAL CLINICAL

Rural women's perspectives of maternity services in the Midland Region of New Zealand

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ABSTRACT

INTRODUCTION: Rural women face many challenges with regards to maternity services. Many rural primary birthing facilities in New Zealand have closed. The Lead Maternity Carer (LMC) model of maternity care, introduced in 1990, has moved provision of rural maternity care from doctors to independent midwifery services. Shortages of rural midwives in the Midland region led to rural maternity care being seen as a vulnerable service.

AIM: To understand the views and experiences of rural women concerning maternity care, to inform the future design and provision of rural maternity services.

METHODS: Participants were drawn from areas purposively selected to represent the five District Health Boards comprising the Midland health region. A demographic questionnaire, focus groups and individual interviews explored rural women's perspectives of antenatal care provision. These were analysed thematically.

RESULTS: Sixty-two women were recruited. Key themes emerging from focus groups and interviews included: access to services, the importance of safety and quality of care, the need for appropriate information at different stages, and the role of partners, family and friends in the birthing journey. While most women were happy with access to services, quality of care, provision of information, and the role of family in their care, for some women, this experience could be enhanced.

CONCLUSION: Midwives are the frontline service for women seeking antenatal services. Support for rural midwives and for local birthing units is needed to ensure rural women receive services equal to that of their urban counterparts.

KEYWORDS: Rural, maternity, midwife, health services

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Introduction

The Midland region of New Zealand (NZ) is in the centre of the North Island and comprises five District Health Boards (DHBs). It covers 21% of New Zealand's land area and has a population of ~865,000, with a high rural population. Between 2007 and 2012, 65,535 women birthed in the Midland region, of whom 16,680 (25.5%) lived rurally (in communities of < 15,000 people and > 30 km from a major centre). Rural women have to deal with many challenges, including the closing of rural primary birthing facilities due to falling birth rates since the 1960s.[1]

Over the last 20 years, there have been substantial changes in rural maternity care services. Most rural doctors ceased providing maternity care with the development of independent midwifery practice as the main maternity provider.[2]

General practitioner (GP) obstetricians believed the Lead Maternity Carer model made GP participation untenable and disrupted continuity of care for women.[2] In addition, maternity care services became more regionalised, and in some areas, centralised.[1] Some DHBs still employ midwives and run primary birthing facilities in rural areas. In other areas, DHBs contract with community providers. Most rural birthing units do not have medical cover.[3] Increasingly, many 'low risk' rural women are choosing a specialist centre over primary care birthing options.[4]

As the demographic profile of rural NZ changes and farming families are replaced by rural 'lifestylers', urban facilities are more favoured, enabled by improved roads and dependable vehicles.[2] This may explain why rural women sometimes bypass local maternity units.[2] Furthermore, the birth rate is falling and the highest fertility rate is now in women aged 30–34 years. Consequently, the obstetric risk profile is changing with older women birthing, more of them being primigravidas, and specialist units therefore preferred.[5]

The Midland Regional Services Plan 2012–13 highlighted concerns about the viability of some rural maternity units, lack of general practice support for intrapartum care, and the needs of Māori women.[6] Within the Midland region, there are six maternity units providing specialist services and 17 primary birthing units: 15 are considered rural.[3] Previous research suggested a shortage of midwives in many rural areas, including the Midland region.[3] In 2011, the Ministry of Health conducted a nationwide maternity consumer survey that provided an opportunity for women to comment on maternity services they received during pregnancy, birth, and in the postnatal period.[7] The survey generally noted satisfaction with maternity services, but did not specifically address views of rural women.

As part of a Midland review of rural health services, the Rural Advisory Group commissioned the NZ Institute of Rural Health to undertake a survey of rural women to ascertain their perspective of current services. With data from this survey, the aim of this study was to understand the views and experiences of rural women concerning maternity care, to inform the future design and provision of rural maternity services.

WHAT GAP THIS FILLS

What is already known: Rural maternity services are midwife-led and have become more centralised in the past two to three decades. In the Midland Region, rural maternity services have been deemed vulnerable.

What this study adds: This study provides the views of rural women on the provision of maternity care and highlights their needs for safety, information and more family centred services.

Methods

The study qualitatively explored the experiences of rural women in their journey through pregnancy, birth, and up to handing over their baby's care to a Well Child provider (at 6 weeks of age), and a short survey was conducted to understand the characteristics of participating women.

Study participants

To ensure women from each of the five Midland DHBs contributed to the study, and that there was representative input from Māori, women were recruited from purposively selected rural communities, ensuring that a mix of low socioeconomic and high Māori communities, as well as more affluent rural farming communities, were sampled. Women were included if they had given birth within 3 months and their primary residence was in the designated areas of: Waikato DHB (Te Kuiti, Tokoroa, Coromandel and Matamata), Bay of Plenty DHB (Ōpōtiki; Lakes DHB – Turangi), Taranaki DHB (Hawera), and Tairāwhiti DHB (Tolaga Bay, Gisborne (mothers residing at least half an hour drive from Gisborne)). Information sheets and consent forms were distributed via child and infant health services, including Plunket and Well Child/Tamariki Ora providers. Health services within the community, such as Pacific and Māori health providers and GPs, also contributed to recruitment. Focus groups were organised in each rural centre by two authors (GL and KG), and women responding

to the notices from their local primary care practitioner were invited to the focus group.

Questionnaire

All participants completed a brief questionnaire providing information on their age (5-year age bands), ethnicity, initial contact with midwifery services, antenatal clinic attendance, and travelling distance to maternity services. Questionnaires were anonymous and not linked to interview responses, but were used to characterise the study group and gain insights into the way rural women use their maternity services. Responses were analysed using descriptive statistics.

Interviews

Focus groups were conducted at a local venue in each region. Participants were asked to relate experiences of their pregnancy and the birth of their child up to and including transfer to Well Child services. Key questions (prompts) were used if necessary to aid discussion to ensure all aspects of the maternity pathway were included. Separate focus groups for Māori were offered, and individual interviews (including some telephone interviews) were conducted if requested by interested mothers. Interviews with Māori participants followed the Tikanga (best practice) of the Iwi or tribal area.

Table 1. Distribution by age, ethnicity and District Health Board of the participants

Age group (years)		Count	%
16–20		5	8
21–24		4	6
25–29		19	31
30–34		17	27
35–39		11	18
> 40		6	10
Total		62	100
Ethnic group		**Count**	**%**
NZ European		30	48
Māori		26	42
Pacific Islander		2	3
Other		4	7
Total		62	100
Area		**Count**	**%**
Waikato	Coromandel	5	8
	Matamata	4	6
	Te Kuiti	8	13
	Tokoroa	12	19
Bay of Plenty	Ōpōtiki	10	16
Lakes	Turangi	8	13
Taranaki	Hawera	6	10
Tairāwhiti	Gisborne/Tolaga	9	15
Total		62	100

Analysis

Interview responses were recorded and transcribed. Each investigator used a thematic approach to individually analyse the transcripts and to identify key themes, which were then compared and discussed. Each theme was subdivided into areas of the maternity pathway such as midwifery services, antenatal care and antenatal classes, delivery, and postnatal care. In the results section, quotes are given with a number to indicate individuals' responses.

Results

A total of 62 women were recruited across the Midland region (Table 1). Most of this sample of rural women (74%) enrolled with a midwife before 13 weeks' gestation, while 10% were enrolled after 20 weeks' gestation. Māori women were more likely to enrol with a midwife at later gestation than NZ European women (58% *v.* 83%). According to the questionnaire, most women travelled < 10 km to access maternity services; however, transcripts indicated that some women travelled further distances, sometimes past local primary birthing units to get to the birthing unit of their choice.

Access to services

Initial registration

Rural women mostly had no difficulty accessing maternity services. Of the 62 participants, 34 (54.8%) initially accessed maternity services by seeing a GP, and 27 (43.5%) saw a midwife first. Women who were pregnant for the first time were more likely to see their GP first. Some

rural women in our study had difficulty accessing a midwife due to a shortage in their areas; one woman noted it had taken her 5 months before she found a midwife to take care of her.

Antenatal classes

Less than one-third (18/62 (29%)) of women said they attended antenatal classes; only 3/26 (12%) Māori women had attended. Of the Māori women who did not attend, only one had previously attended antenatal classes. Half of the NZ European women attended antenatal classes. Reasons for non-attendance were: having previously attended classes, classes not needed, or that the hours did not suit. Neither of the two respondents of Pacific origin attended antenatal classes. Eight women cited that there were no antenatal classes offered or that they did not know about them. One woman declared that 'Google' was her antenatal class.

Antenatal care: backup or locum midwife services

Access to a backup or locum midwife went well when the primary midwife had a good system working. Midwives frequently worked together, either in an arranged collective agreement or less formally as backup to support each other so that their clients have 24-h access to maternity services. In many cases, this worked well, with women finding access to services easy, but some women felt let down:

> *'I didn't even know she had a backup midwife, she didn't tell me.' [1]*

> *'If I went into labour on her non-working days I would get whoever was on call – I didn't know that would happen…it made me worried in case I got someone else, … .' [4]*

Access to ultrasound scans

For rural women, having scans meant having to travel. For many, the distance was not too great or not an issue, while for others it was demanding, particularly when extra monitoring was needed. In some areas, facilities were available only 1 day a week and in others, a backlog of people needing a scan meant that women had to travel an additional hour to the local facility, incurring extra cost.

Intra-partum care

Midwife advocates the birthing facility

Safety for themselves and their unborn child was a major underpinning theme in women's expectations. For some women, their midwife advocated they give birth near to or in a secondary care birthing unit for safety.

> *'She said she wouldn't give me a home birth as well because I was too far away, she also says because it's so easy for things to go wrong.' [2]*

> *'My midwife said if you are going to birth here you might as well have a home birth because you are still going to need an ambulance if anything happens.' [29]*

Many women accepted their midwife's expert advice: 'she was the professional so I took her word for it' [2]. For others, this was not the case, and one woman felt pressured to use a particular facility she did not want.

Birthing units and specialist services

Many women chose to access particular birthing facilities where there was easy access to secondary services, for safety reasons, regardless of their midwife's advice. This resulted in many rural women bypassing rural maternity units where there is no emergency backup, and travelling to a primary unit closer to secondary health services.

Some women who required specialist services, such as the diabetic service, during the antenatal period, found their midwife made access easy. One woman had gestational diabetes, *'She referred me immediately, I had to go up to [base hospital] for some classes and I had to monitor my glucose six times a day'* [18]. In general, access to specialist services if needed during pregnancy, birth, and postnatally was easy, with only a couple of exceptions relating to distance to service, unavailability of local services, and crossing DHB boundaries.

Postnatal care and Well Child services

Access to postnatal care was good, but women experienced varying lengths of stay in birthing units. The frequency of postnatal visits from their midwife also varied.

> *'The midwife was good, she came weekly up to six weeks.' [6]*

> *'She came in and saw us every second day while we were in hospital … and came up every second day for the first week to make sure we were ok.' [29]*

> *'It was more like every two weeks.' [1]*

Midwifery care was transferred to a Well Child provider 6 weeks after birth. Sometimes women were able to choose which provider they were referred to while others were not consulted.

> *'I was discharged at four weeks and sent to Plunket.' [16]*

> *'They said do you want Plunket or Tamariki Ora, I did say I wanted the Māori one and they didn't even send me to that one.' [1]*

Sometimes referral was delayed or the Well Child provider did not receive the referral.

Quality of clinical care

Quality of clinical care and the need to feel safe and secure was important for rural women, and most received care that met their expectations. Many mothers had a good pregnancy experience and they were quick to praise their midwives and maternity services. The care some women received did not meet their expectations and caused some to change midwives.

Information

Many women felt they were well informed to make decisions at all stages of their pregnancy, while others described difficulty in getting the information they needed. A few women found accessing information about midwives as lead maternity carers challenging, including what to expect from a midwife during their pregnancy. The 'one size fits all' teaching approach of antenatal classes did not suit the learning style of all the women:

> *'the information was there but I don't learn like that. I need someone to tell me stuff. If I have to read it all I don't bother too much.' [6]*

> *'She was really hands on … I kind of found that a lot better than saying here is a piece of paper, read it through.' [26]*

Family and friends were often the source of information and advice, and for some, their advice was preferable to that of health professionals. Women wanted information on what to expect during their pregnancy to be able to make informed decisions on their choice of midwife and the care they would receive.

Women wished to be involved in any discussion, particularly in decision-making if complications arose.

> *'My partner, he was scared and he didn't realise either, but she talked him through it.' [29]*

> *'… she wasn't telling us anything that was happening…It wasn't until the ambulance came and we were like, what's going on?' [9]*

Role of partners, family and friends

Partners, family and friends can play a crucial part in the health and wellbeing of pregnant women. While many participants had support from whoever they wanted, when they wanted, and in the way they wanted, there were some exceptions. Many women received all the support they needed from their partner and family, while others wanted only their partner:

> *'we had a strong whānau presence.' [7]*

> *'I was at the hospital pushing and she (mum) was helping me out.' [14]*

Sometimes family were not encouraged to be at the delivery and some birthing units actively discouraged families from staying.

'For her to turn around and tell me that my whānau aren't allowed in there, I don't think so, at the end of the day that's my support.' [7]

Discussion

Primary maternity services are expected to ensure each woman and her whānau has every opportunity of a fulfilling outcome to her pregnancy and birth through the provision of services that are clinically and culturally safe and based on partnership, information and choice.[8] Rural women face particular challenges due to distance, the limited range of services available locally, and midwife shortages.

In this study, distance was rarely mentioned as a factor except in relation to antenatal care for some women needing extra monitoring. This is in contrast to a Canadian study[9] and probably reflects the shorter distances to travel in NZ compared to countries such as Canada and Australia. The number of available midwives proportional to the number of births has been decreasing, and resultant shortages are likely to be felt more acutely in rural areas.[3] Most study women reported no difficulty finding a midwife, although their choice was sometimes limited. Backup relief for rural midwives is important to allow midwives to have time off. They also need to manage boundaries between work and home that can be difficult when living in a rural community.[10] Our study highlighted the importance of communicating to patients the backup arrangements midwives have made.

We found rural Māori mothers were less likely to book early – a similar finding to a recent NZ study in an urban setting.[11] Participation in antenatal classes was similar to that reported in the Growing Up in NZ study.[12] Accessing antenatal classes appeared less urgent for women who had subsequent pregnancies or who had strong maternal support. However, the timing of classes impacted attendance; some areas provided classes during the day, limiting access for women who worked or had other daytime commitments. One woman used 'Google' to find the answers she needed. The Maternity Consumer Surveys 2011[7] identified younger mothers as less likely to attend antenatal classes and more likely to be dissatisfied with them. Using modern technology and a blended learning approach may be particularly suited to younger mothers and rural women (dependent on access to the Internet) and provides for differing learning styles. Using asynchronous solutions would allow women access at times that suit them.

There is evidence both in this study and in the Ministry of Health report that local primary birthing units in rural areas are bypassed (not always on midwives' recommendation) to attend secondary and tertiary units. A driver for this appears to be women's need to feel safe – which has been equated to knowing specialist services are easily available.[13] Safety was also a key factor in an Australian study of rural maternity care; women noted that the safety for their baby was very important.[14] In contrast, choosing to travel to a specialist unit has social 'risks' for mothers relating to 'dissonant interpretations of risk in childbirth'.[15] The impact this trend has on the viability of rural primary birthing units is a reality, and the views driving midwives to make these recommendations needs to be explored, including what is required to make local primary birthing units more acceptable. Women who choose to birth in rural maternity centres understand that there is a risk of having to be transferred to a specialist centre. A recent NZ study estimated that 16.6% of women need transfer,[16] but most are transferred for reasons not generally considered as emergencies, where risks of adverse outcomes are considered low.[17]

There is an important place for partners, families and friends in the health and wellbeing of pregnant clients. After considering safety, availability of family support has been identified as an important influence on choice of birthing place.[14] The ability to provide a platform in which significant others become part of women's plans, both in a cultural and family context, needs further development for the provision of maternity care.

Conclusion

Key issues identified from this study of rural women's experience of maternity care are that accessing antenatal services, including information about antenatal classes, should be more readily

available; there needs to be a better understanding of the travel and costs for women. Safety is also another key concern for most women.

Most women were happy with their access to services, quality of care, provision of information and the role of their family in their care. For some women, the experience could be enhanced. Midwives remain the frontline service for rural women seeking antenatal services. However, for rural women re-establishing GPs involvement in maternity care, a move supported by the Ministry of Health, a more flexible funding model is required.[2] Ongoing support of rural midwives and for local birthing units is needed to ensure rural women receive an equitable service to their urban counterparts.

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ETHICAL APPROVAL
This study did not require ethics approval under the terms of the Health and Disability Ethics Committee scope (13/NTB/50).

COMPETING INTERESTS
None.

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