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RURAL INFLUENCES ON MATERNITY CARE: INSIGHTS FROM TARANAKI AND WHANGANUI, AOTEAROA NEW ZEALAND

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Executive Summary

This quality improvement report, *Rural Influences on Maternity Care: Insights from Taranaki and Whanganui, Aotearoa New Zealand* presents a comprehensive mixed-methods analysis of how rurality shapes maternity care access, delivery, and outcomes across the Taranaki and Whanganui districts. Using the Geographic Classification for Health (GCH) to distinguish between urban (U2) and rural (R1, R2, R3) settings, the study integrates workforce perspectives with quantitative analysis of 2022 birth data to explore the intersecting impacts of geography, ethnicity, service design, and socio-economic deprivation. Particular focus is given to Māori and Pacific hapū māmā, who are disproportionately represented in higher deprivation communities and more rural areas.

Context and Rationale

Maternal health inequities in Aotearoa New Zealand reflect the cumulative influence of rurality, socio-economic deprivation, and ethnicity. Māori and Pacific women experience higher rates of perinatal morbidity, lower engagement with early antenatal care in some contexts, and persistent inequities in access to culturally responsive services. Rural communities face additional structural challenges including distance from services, workforce shortages, reduced diagnostic availability, and limited transport infrastructure.

The introduction of the GCH classification provides a healthcare-focused rural-urban lens that enables more accurate identification of service inequities. Within Taranaki and Whanganui, a significant proportion of Māori reside in areas of high socio-economic deprivation, and rurality increases the likelihood of living in NZDep Quintile 5 areas. These structural determinants shape maternity care experiences and outcomes.

Study Design

This study employed a descriptive mixed-methods design consisting of:

1. A qualitative and quantitative survey of 19 maternity workforce participants across U2, R1, and R2/R3 settings, including midwives, GPs, rural hospital doctors, nurses, and clinical leaders.
2. Quantitative analysis of 2022 routinely collected birth data (n = 2,278) provided by Health New Zealand – Te Whatu Ora, examining birth location, LMC registration timing, gestational age, birth weight, and smoking status by ethnicity and rurality.

The integration of workforce insight and administrative data provides a system-level understanding of how rural maternity care functions in practice.

Key Findings

1. Rurality Shapes Access to Core Services

Distance to diagnostic services, birthing units, and specialist care increases substantially with rurality. Women in R2/R3 areas may travel up to 160km for secondary services and over 300km for tertiary services. Travel times can exceed three to four hours. Ultrasound services in rural hospitals were frequently described as unreliable due to workforce constraints and scheduling inconsistencies. Laboratory access varied by locality and funding arrangements, with some rural practices providing funded on-site phlebotomy while others required women to travel or pay fees.

Transport barriers compound these challenges. Public transport options are minimal or absent in most rural areas, and ambulance availability is limited, with extended response times in remote communities. These structural constraints disproportionately affect women with limited financial resources, unstable employment, or childcare responsibilities.

2. The Cost of Rurality is Multi-Dimensional

The “cost of rurality” extends beyond travel. Direct costs include private ultrasound co-payments, laboratory fees in some practices, fuel, accommodation, and childcare. Indirect costs include lost income, time away from work, and administrative complexity when claiming travel assistance.

The psycho-emotional cost is borne heavily by the rural workforce. Midwives described 24/7 on-call expectations, invisible administrative and compliance work, advocacy efforts to coordinate appointments, and working in clinical “grey areas” where they carry responsibility for risk in under-resourced environments. This hidden workload threatens workforce sustainability and contributes to burnout.

3. Primary Birthing Units are Valued but Vulnerable

Primary birthing units in rural areas were consistently described as essential community assets. Benefits include:

- Reduced travel burden
- Greater whānau presence and support
- Lower intervention rates for low-risk pregnancies
- Strengthened relational continuity

Quantitative data indicate that women in R2/R3 areas are significantly more likely to birth in local primary centres. This pattern is particularly evident for Māori and Pacific women residing in these areas.

However, declining birth numbers, workforce shortages, and limited postnatal bed availability threaten the sustainability of these units. Staffing gaps restrict 24/7 service coverage, reduce opportunities for midwives to maintain competencies, and increase pressure on remaining staff.

4. Strong Relational Models in Remote Areas

One of the most striking findings is that the most rural communities (R2/R3) often demonstrate the strongest relational integration across services. Co-location of midwives, primary care teams, rural hospital services, and iwi or Hauora Māori providers fosters:

- Immediate collegial consultation
- Warm handovers
- Coordinated high-risk management
- Improved enrolment and continuity

Participants described corridor conversations, shared clinical decision-making, and collaborative maternal mental health support as key enablers of safe care. These relationship-based systems contrast with more fragmented service models reported in U2 and R1 settings, where siloed practice and weak collaboration between LMCs and primary care were more common.

5. Navigating a Fragmented System

Despite strengths in some rural settings, the overall maternity system is frequently fragmented. Women are often directed to independently “find a midwife,” with inconsistent integration between primary care, LMCs, secondary services, and kaupapa Māori providers. Data-sharing limitations, boundary restrictions between Health NZ districts, and funding constraints exacerbate fragmentation.

Knowledge of how to navigate the system becomes a protective factor. Women and providers familiar with cross-boundary referral processes are better able to reduce travel burden. However, reliance on informal advocacy risks inequity, favouring those with stronger voices or system literacy.

Tools such as Best Start GEN2040 are inconsistently used, and shared early pregnancy assessment between primary care and midwives is variable. Missed opportunities for first-trimester screening were noted, particularly where funding models disincentivise early engagement.

6. Cultural Responsiveness and System Misalignment

Kaupapa Māori models, including Te Whare Piringa and hapū wānanga initiatives, were highly valued for their whānau-centred, holistic, and culturally grounded approaches. These services integrate mental health, addiction support, and social services within a supportive community environment.

However, participants identified misalignment between these models and Western biomedical systems. Differences in referral processes, data-sharing protocols, and funding structures limit integration. While co-location opportunities are emerging, systemic alignment remains incomplete.

Pacific-specific antenatal education and culturally tailored services were notably absent across the districts, representing a significant service gap.

Quantitative Highlights

In 2022, 2,278 births were recorded across Taranaki and Whanganui, with no maternal deaths reported.

Key associations include:

- A significant relationship between ethnicity and rurality, with higher proportions of Māori and Pacific births occurring in the most rural areas (R2/R3).
- Women in R2/R3 areas were significantly more likely to birth in primary centres.
- For Māori and Pacific women, there was a significant relationship between rurality and timing of LMC registration, though effect sizes were small.
- First-trimester registration was proportionally higher in rural areas compared with U2 for both Māori/Pacific and non-Māori/non-Pacific groups.
- Fourth-trimester registration was proportionally higher in R2/R3 compared with U2.

While statistical effect sizes were small, the patterns reinforce that geography and ethnicity intersect to influence service utilisation and engagement.

System Strengths

- Strong relational networks in remote communities
- Co-located models enabling integrated care
- High value of primary birthing units
- Dedicated rural workforce willing to advocate beyond contractual boundaries
- Emerging integration with iwi and Hauora Māori providers

These strengths reflect community resilience and relational capital within rural health systems.

System Risks

- Ongoing midwifery workforce shortages
- Sustainability risks for primary birthing units
- Inconsistent diagnostic reliability in rural hospitals

- Transport and travel inequities
- Funding and regulatory barriers limiting nurse practitioner and midwife authority
- Fragmented data systems and poor cross-boundary coordination
- Limited Pacific-focused services
- Psycho-emotional strain on rural providers

Without structural reform, these pressures risk widening inequities and undermining workforce retention.

Implications for Policy and Practice

The findings point to several priority actions:

1. **Scale the Strengths of Co-located, Integrated Maternity Service Models**
   Reframe high-performing rural maternity services as scalable models of care for urban areas.
2. **Improve Geographic Access to Diagnostics**
   Strengthen reliability and workforce support for rural ultrasound and laboratory services.
3. **Sustain Rural Maternity Workforce and Services**
   Review funding models under the Primary Maternity Services Notice to recognise invisible rural workload and support skill maintenance.
4. **Enhance Integration Across Care Continuum**
   Strengthen shared care arrangements between LMCs, primary care, rural hospitals, and secondary services.
5. **Strengthen Kaupapa Māori Integration**
   Align referral pathways and data-sharing processes to enable seamless collaboration between mainstream and iwi-led services.
6. **Improve Data Systems**
   Develop interoperable maternity data systems to support continuity from early pregnancy through postnatal transfer.
7. **Reconsider Regulatory Barriers**
   Address limitations preventing nurse practitioners and midwives from ordering diagnostics or facilitating travel assistance under Section 88.
8. **Leverage Telehealth Strategically**
   Reinstate and expand specialist telehealth consultations, particularly where LMC participation can enhance safety and reduce travel burden.

Conclusion

Rurality profoundly shapes maternity care in Taranaki and Whanganui. While geographic isolation creates structural barriers - including travel burden, diagnostic unreliability, workforce strain, and financial cost - remote communities also demonstrate powerful relational strengths. Co-located services, collegial collaboration, and kaupapa Māori approaches provide promising models of integrated, culturally responsive care.

The intersection of rurality, deprivation, and ethnicity means that Māori and Pacific hapū māmā are disproportionately affected by systemic barriers. Although statistical associations in 2022 data were modest, qualitative insights reveal significant lived impacts and workforce pressures that threaten long-term sustainability.

Addressing rural maternity inequities requires structural reform, not solely local adaptation. Sustainable funding, regulatory change, improved diagnostic access, strengthened integration, and culturally grounded models of care are essential. The evidence presented in this report provides a foundation for policy, service redesign, and future research aimed at strengthening rural maternity systems across Aotearoa New Zealand.