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Implementing an equity-focused model for early pregnancy care in general practice

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ABSTRACT

Introduction. Disparities in maternal health outcomes in Aotearoa New Zealand are well documented, with Māori and Pacific women experiencing disproportionately poorer outcomes. Early pregnancy care delivered through general practice offers an opportunity to reduce these inequities. The Best Start early pregnancy assessment tool, developed by the National Hauora Coalition, was implemented across four general practices in Whanganui to support timely, culturally safe care. **Aim.** To implement and evaluate an equity-focused model of early pregnancy care in general practice using the Best Start assessment tool, with the goal of improving timely, culturally responsive support for pregnant Māori and Pacific women. **Methods.** An iterative, co-designed implementation was carried out across a Very Low Cost Access clinic, an iwi health provider, and two general practices. The project was structured in three modules: (1) co-design with hapū māmā (pregnant Māori women), (2) clinical implementation, and (3) integration of wrap-around services. Mixed methods were used, including practice management data queries, clinical audits, and qualitative insights from community hui. **Results.** In the lead practice, 85% of estimated pregnancies were identified, with 84% identified in the first trimester. Of these, 79% received a Best Start assessment (74% of Māori pregnancies). Mental health concerns were the most common referral need (18%), while low attendance at external stop smoking services highlighted persistent barriers. Community feedback led to system improvements, including warm handovers (in-person referrals) and protected appointment slots. **Discussion.** The Best Start model demonstrates that early pregnancy care in general practice can be redesigned to better support equity, provided it is culturally responsive, co-designed with māmā, and supported by systemic change. Ongoing investment is needed to sustain and scale the model, especially for Māori and Pacific women.

Keywords: Best Start model, culturally responsive care, early pregnancy, equity, general practice, Māori health, maternal health, primary care.

Introduction

Outline of the problem

Significant disparities exist in maternal health outcomes in Aotearoa New Zealand, with Māori and Pacific women experiencing higher rates of complications and poorer outcomes compared to non-Māori women.[1] These disparities are closely linked to barriers in accessing early pregnancy care, highlighting the importance of culturally responsive models to improve equity in outcomes.[2–4]

Best Start usage is tracked and reported to participating practices to support monitoring and improvement. In the Whanganui district there is marked variability in the delivery of these early pregnancy assessments and resulting service inequities. This data was reviewed by the Primary Maternity Interface Group, a collaborative forum of general practitioners, midwives, iwi provider representatives, public health staff, and Te Whatu Ora Whanganui clinicians who meet regularly to address gaps and improve coordination across services. This group identified the need to strengthen early pregnancy care systems as a local priority. With support from the Health Research Council (HRC), a collaborative funding

WHAT GAP THIS FILLS

What is already known: Primary care has been recognised as a key setting to address maternal health disparities by identifying and managing clinical and social risks during early pregnancy.

What this study adds: This quality improvement reports implementation of the Best Start early pregnancy assessment model in primary care, highlighting the importance of integrating clinical systems and wrap-around services.

initiative was established to develop and implement a model of care designed to address these inequities.

The objective was to develop and implement an equity-focused model of care utilising the Best Start early pregnancy tool.[5] Using best practice guidance,[6,7] this initiative aimed to provide comprehensive early pregnancy assessments that addressed clinical and social risks while embedding culturally safe and responsive practices.

Outline of the context

Whanganui is a semi-rural district in New Zealand. Māori comprise 28.5% of the population compared with 17.7% nationally,[8] and experience relatively high levels of socio-economic deprivation with 35.6% of data zones in the Whanganui District among the most deprived compared with 20% nationally (Quintile 5).[9]

In New Zealand, a shift from general practitioners (GPs) to midwives as primary providers of maternity care occurred in the early 1990s. This transition was initiated by the *Nurses Amendment Act 1990* (NZ),[10] which granted midwives the autonomy to practice independently without medical supervision. Subsequently, in 1996, the introduction of the Lead Maternity Carer (LMC) model allowed women to choose their primary maternity care provider – midwife, GP, or obstetrician – with midwives becoming the predominant choice.[11]

These changes led to a significant decline in GP involvement in maternity care. By the late 1990s, midwives had become the primary providers for most pregnancies in New Zealand, with GPs largely stepping back from this role.[12] This evolution established New Zealand's current maternity care model, characterised by midwife-led continuity of care. However, primary care guidance identifies roles for general practice including pre-conception information, confirming pregnancy, managing acute or long-term conditions, giving advice about medicines use, offering pertussis and influenza vaccinations, and providing ongoing postnatal support to the mother, infant, their partner, and family/whānau.[6] Furthermore, in response to Māori health disparities, the National Hauora Coalition (NHC) has developed the Best Start early pregnancy assessment tool as part of its 20/40 Equity Generation programme, providing a nationally available resource for early pregnancy assessments.[13] In Whanganui, the Primary Maternity Interface Group identified early pregnancy care as a key area for improvement, particularly seeking to address fragmented pathways, inconsistent documentation practices, and challenges in cross-sector communication.

Method

Detail of the approach taken

An iterative, test-and-revise quality improvement approach[14] was used to develop a model of care that responded to reported experiences and concerns. Collected through a series of hui (meetings), a kaupapa Māori approach (an indigenous methodology rooted in Māori principles, values, and worldviews) was used to identify and understand experiences and concerns from both hapū māmā (pregnant women) and their whānau (extended families).[15] Insights from these hui were used to implement the Best Start model across four diverse primary care settings in the Whanganui district: a Very Low Cost Access (VLCA) clinic owned by a health network trust, an iwi-Māori health provider clinic, and two group general practices. This approach aligned with continuous quality improvement methodology and incorporated Total Quality Management (TQM) principles,[16] enabling flexible, real-time adaptation based on both clinical experience and patient feedback.

The methodology was underpinned by kaupapa Māori principles[15] to ensure culturally responsive engagement and uphold mana-enhancing practices. Co-design with māmā and whānau was prioritised, enabling reflection, adaptation, and service realignment at each stage. The overall intent was to develop embedded systems for delivering equity-focused care that could be sustained within everyday general practice workflows.

The project was structured into three inter-related modules:

Module 1: Hapū Māmā village

Wāhine hapū and their whānau (pregnant women and their families) were recruited through kaiāwhina (community health workers) and a Facebook group for hapū māmā, and invited to participate in hui (meetings) held across the region. Led by a kaupapa Māori design team from Healthy Families Whanganui, these hui employed a kaupapa Māori approach centred on whakawhanaungatanga (relationship building), shared decision-making, and co-design. The objective was to understand the experiences and expectations of māmā regarding early pregnancy care, and to integrate their insights directly into service design.

Module 2: Clinical Implementation

Insights from the Hapū Māmā Village module informed the iterative development and testing of the Best Start model of care, initially within the lead VLCA practice (serving a high Māori prevalence population with around 100 newborn

enrolments per year). The Best Start tool guided early pregnancy assessments, and system supports were developed to enable its consistent use. The model was then adapted and tested in the three other participating practices, with agreed workflows established to support implementation.

Data on pregnancy identification and assessment completion were extracted via Practice Management Software (PMS) queries. Clinical issues were identified through structured notes audits. As these issues emerged, they were compiled into a cumulative list, forming the basis for discussion and refinement within the clinical teams.

Module 3: Wrap-around Services

A focused review of 67 completed Best Start assessments at the lead practice was conducted to examine how clinical and social issues were identified and managed within an integrated care approach. Referrals made during these assessments were reviewed to assess outcomes and gaps in service access.

Findings and progress from all three modules were regularly reported to and discussed within the Primary Maternity Interface Group to guide further refinement and ensure alignment across the district.

Criteria, standards, and guidelines

The Best Start early pregnancy assessment tool, developed by the NHC,[5] served as the central framework for clinical care delivery. The tool included prompts to guide best-practice care, such as:

- Early identification of pregnancy.
- Comprehensive assessment of clinical and social risk factors.
- Culturally safe and responsive engagement with māmā and whānau.

The tool was originally informed by national guidelines, but was locally adapted in partnership with practitioners to ensure it reflected the realities of general practice. This made the standards both evidence-based and contextually realistic.

Measurement of the problem

Variability and gaps in early pregnancy care were assessed using complementary methods:

- Quantitative review: PMS queries were conducted across practices to measure rates of pregnancy identification and completion of Best Start assessments.
- Clinical audit: Patient notes were reviewed systematically to assess the quality and completeness of risk documentation and to identify common clinical issues.
- Qualitative feedback: Hui with māmā and whānau were used to gather insights into care experiences, barriers to engagement, and enablers of trust and continuity.

Together, these methods allowed triangulation of quantitative and qualitative data, providing a more comprehensive picture of current care processes and identifying clear areas for quality improvement.

Results and Discussion

Module 1: Hapū Māmā village

How results were used to understand the problem

Participants expressed a strong desire for pregnancy care to focus on strengths, rather than risks, and to emphasise positive narratives. Māmā stressed the importance of relationships with healthcare providers and the incorporation of mātauranga Māori (Māori knowledge) in pregnancy care. They wanted services to be better connected and more accessible, with a particular emphasis on supported engagement through technology. The recommendations from māmā included the use of champions or community influencers to encourage healthcare engagement, and a warm handover process for referrals to ensure continuity of care. A full report on the Hapū Māmā Village is available.[15]

Module 2: Clinical Implementation

In the lead practice, 85% of pregnancies were identified and known to practices prior to 100 maternity services birth notifications, with the majority (84%) identified in the first trimester. Of all pregnancies identified, 79% were assessed using the Best Start tool (74% of Māori pregnancies and 85% of European pregnancies). While an equity gap remains, this represents an improvement for Māori: only 4% of Māori pregnancies in the region were assessed using Best Start in 2020/21, increasing to 19% in 2021/22, and reaching 27% in the project period 2022/23. These data suggest that while parity has not yet been achieved, access for Māori has markedly improved through the programme.

Systems changes within the practices included dedicated pregnancy task lists, protected appointment spaces, and warm handovers for referrals. These recommendations were shared with the other research practices, and a Best Start implementation list was developed. A brief version of the tool was developed for opportunistic use during time-pressured clinical presentations. The most common clinical issues identified and referrals made were for mental health concerns and for smoking cessation. Training needs were identified, and an educational package was developed. A full analysis of the clinical implementation module is available.[17]

Module 3: Wrap-around Services

Mental health issues were the most common reason for referral, with 18% of māmā referred for support, primarily managed within the practice by a health improvement practitioner (HIP). Smoking was identified in 21% of māmā,

most stopped without formal intervention, and the small number agreeing to referral did not attend stop smoking services. A gap in community resources, particularly for māmā without whānau support, was identified. Best Start provider feedback recommended the development of a community service directory as the initial stage of improving access to wrap-around services for māmā.

The model of care

The Best Start model developed through this project incorporated the NHC early pregnancy assessment tool to proactively identify health risks and social concerns during early pregnancy. It was supported by clinical governance and a commitment to continuous quality improvement, including regular audits. The model relied on early identification of pregnant patients and the provision of protected time for comprehensive checks. The structured recording tool guided clinical management and identified social risks. Key features of the developed model included early engagement with Best Start assessments, close collaboration with the wellbeing team (HIPs and health coaches as part of the integrated primary care team), active recall for pregnancy vaccinations, and coordinated care with midwives, including text or phone contacts when clinically indicated, and access to the Best Start report which was consent added to the shared access health clinical portal.

Strategies for quality improvement or change

Feeding back information to relevant staff

Feedback from the Hapū Māmā Village module was shared with clinical teams via regular peer meetings and through the Primary Maternity Interface Group. Feedback also informed Best Start implementation discussions across all four participating practices.

The Hapū Māmā Village co-design process produced an Insights report,[8] and the recommendations from māmā and whānau influenced the model of care development. Involving clinical and non-clinical staff allowed the project team to reflect on current processes and adapt the Best Start model to better support culturally responsive care.

Staff responded positively to the feedback, noting the value of receiving direct community input and recognising the need for relationship-centred, strengths-based engagement. Regular peer discussions also provided opportunities for staff to refine their approach to pregnancy care and learn from each other's experiences.

Mechanism for change

The project followed an iterative, co-designed approach, developed in response to the Hapū Māmā Village insights. The Best Start model of care implementation included:

- Improved accessibility by creating a pregnancy-friendly practice experience, including pregnancy identification at all points of contact and unpressured appointment allocation.
- Fostering of trusted relationships through consistent team engagement and clinician training, including addressing knowledge and skills, particularly maintaining a strengths-based approach for māmā while identifying pregnancy risks.
- Improving integration by creating direct links with midwives and uploading Best Start reports to shared clinical portals.

These changes recognised the importance of relationships, culturally grounded care, and accessible services, and were developed in response to both the systems issues identified as barriers to improving pregnancy outcomes and the recommendations from māmā in the hapū Māmā Village hui.

The changes required practice-level system redesign and resource allocation. It was enabled by strong local leadership and responsiveness to feedback. Implementation affected all team members involved in pregnancy care – including receptionists, clinicians, and the wellbeing teams – and was made feasible by staged development and regular feedback loops.

Additional mechanisms to address wrap-around care gaps included HIPs to manage early mental health needs. However, limited referrals to other services (such as community mental health or Stop Smoking Services) highlighted a gap in navigation and system integration, informing future priorities.

Lessons learnt

What Changes Occurred?

The project resulted in the development and partial implementation of the Best Start model across four general practice settings. All practices agreed in principle to the model and made progress in:

- Systematising early pregnancy identification.
- Embedding a culturally responsive, strengths-based assessment process.
- Including wellbeing teams and improving communication with midwives.
- Recognising the need for more community services information and better navigation to community services.

The model requires further development to boost participation for wāhine Māori in early pregnancy assessment, including social media engagement to increase awareness of the service and improved integration with community and kaupapa Māori services.

What were the benefits for patients?

Māmā benefited from:

- Timely, culturally safe, early pregnancy assessments.
- Greater responsiveness to mental health and social needs.
- Care that focused on their strengths and supported self-efficacy.

Feedback from māmā within the Hapū Māmā Village hui suggested this increased engagement and trust in primary care.

Lessons and messages – for your organisation

- Culturally grounded care models are more effective when co-designed with māmā and whānau.
- Iterative, reflective practice enables meaningful change within resource-constrained settings.
- Primary care teams benefit from accessible tools and team-based approaches that support the delivery of comprehensive care.

Lessons and messages – for other organisations

- Early pregnancy is a critical equity opportunity that requires both clinical and relational systems to be in place.
- Integration with midwifery and community services must be designed intentionally and supported with shared information systems.
- Implementation success depends on sustained staff engagement, adequate resourcing, and local leadership support.

Were benefits sustained?

At the time of reporting, the model had been implemented in all four participating practices in varying degrees. The VLCA and the iwi Māori clinics demonstrated the most complete integration. Ongoing monitoring and feedback from māmā who received the Best Start assessment are planned to further refine the model and support long-term sustainability.

Improving the maternity system and addressing pregnancy outcome inequities are known to be complex.[18] A Best Start model of care has the capability to go beyond screening and risk identification and to draw on the resources within the primary care team. In the local context, continued support from the Primary Maternity Interface Group, the development of a shared community services directory, and emerging connections with kaupapa Māori wānanga programmes all offer promising avenues for embedding this model more widely.

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Data availability. The data reported in this study are available at https://www.harc.org.nz/research-project/best-start-early-pregnancy-assessment.

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