



## Nini Helthiwan

**Research Focus:** Maternal and Child Health, Indigenous Maternal Care, Women's Health

**Project Overview:** This project addressed the challenges of delivering quality healthcare to pregnant women and young children in remote settings. Using a randomised stepped-wedge cluster design, Nini midwife coordinators provided ongoing support to primary care providers through phone, email, and on-site visits. Key areas of focus included:

- Maternal nutrition and management of substance use (alcohol and smoking)
- Social and emotional well-being, guided by the Kimberley Mum's Mood Scale (KMMS)
- Treatment and follow-up for maternal and infant anaemia
- Early infant care practices, including breastfeeding, bonding, and attachment
- Coordination and planning for referrals and discharge
- Regional screening protocols, including KMMS for perinatal mental health and ORCHID for gestational diabetes
- On-the-job education in using electronic primary care systems

To measure impact, Nini child health workers in the West and East Kimberley assessed neurodevelopment and anaemia levels in infants and their mothers when they reached 6–10 months. At this assessment, mothers agree that researchers access their antenatal medical records. Data from the file audits is currently being analysed to examine at iron screening practices, including adherence to protocol and the incidence of iron deficiency, anaemia, and iron deficiency anaemia during pregnancy. Additional analysis may consider the antenatal factors associated with iron deficiency during and after pregnancy.

This project emphasises the importance of culturally safe antenatal care, the value of positive provider relationships, and the role of family support. Findings highlight Aboriginal fathers' desire to participate actively during pregnancy and point to a need for resources that involve fathers in antenatal care. The insights provided are shaping a more patient-centred approach to antenatal care for Aboriginal families in remote regions.

### Team Members:

- David Atkinson, Julia Marley, Emma Griffiths, and Cathryn Josif - Rural Clinical School of WA, Broome
- Emma Carlin and Erica Spry – Rural Clinical School of WA and Kimberley Aboriginal Medical Services, Broome
- Catherine Engelke - Rural Clinical School of WA, Kununurra
- Stephanie Trust, Pat McCready, Joanne Forbes, Zaccariah Cox, and Janet de San Miguel - Kimberley Aboriginal Medical Services, Broome
- Kristy Newett and Melissa Williams - WA Country Health Service, Kimberley
- Karen Edmond - UWA School of Paediatrics and Child Health, Perth
- Natalie Strobel - UWA Medical School, Perth
- Rhonda Marriott - Murdoch University School of Nursing, Perth
- Stephanie Sherrard - Princess Margaret Hospital for Children, Perth

**Collaborators:**

- Kimberley Aboriginal Community Controlled Health Services
- West Australian Country Health Service – Kimberley
- University of Western Australia
- Murdoch University
- Princess Margaret Hospital for Children

**Timeframe:** 2015 – current

**Funding and Support:** National Health and Medical Research Fund [NHMRC], 2015-2019 (Five years)  
\$1.97M

**Plain Language Reports:** [Nini Women Plain Language](#)

**Publications:**

Seear KH, Spry EP, Carlin E, Atkinson DN, Marley JV. Aboriginal women's experiences of strengths and challenges in antenatal care in the Kimberley: A qualitative study. *Women and Birth* 2021, 34(6), 570-577. [DOI:10.1016/j.wombi.2020.12.009](#)

Carlin E, Cox Z, Spry E, Monahan C, Marley JV, Atkinson D. "When I got the news": Aboriginal fathers in the Kimberley yarning about their antenatal experiences. *Health Promotion Journal of Australia* 2021, 32(3), 513-522. [DOI:10.1002/hpja.375](#)

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