The Gudaga Study: understanding the health, development, and health service use of Aboriginal infants in an urban environment

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- the Aboriginal community of SW Sydney
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- Ethics: AH&MRC, SSWAHS

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Research Centre for Primary Health Care and Equity
Research that makes a

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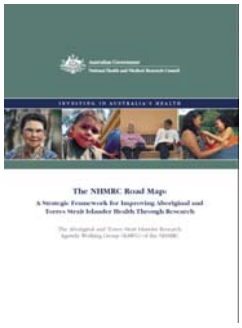
Ethical basis for research



Today's presentation

- What is the Gudaga project
- Progress to date
- Results:
  - Maternal characteristics
  - Birth outcomes
  - Breastfeeding
  - Family health visits
  - SIDS/DOCS
  - Immunisation
  - Development at 12 months
- Explaining findings
- Discussion

What is Gudaga?

- A birth cohort study
  - Infants recruited at birth and followed up to 5 years.
- Study aims
  - Assess growth and development
  - Describe patterns of health and illness
    - identify risk and protective factors
  - Describe patterns of health & children's services use
    - identify barriers and facilitators
  - Identify through discussion with mothers
    - issues mothers would like addressed to provide opportunities for health
    - identify mothers' aspirations for their children

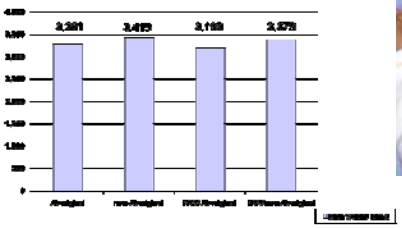
Making it all work

- Use of Indigenous project officers
- Extensive networks amongst service providers
- Strong involvement of community and participating mothers
- Being visible in the community

Maternal characteristics

	Gudaga Mothers n=159	Mothers of non-Aboriginal infants n=1869
Age <20 years old	22.0%	5.7%
Single	42.1%	16.3%
First baby	30.2%	36.9%
< year 10 education	27.0%	9.0%
Smoked antenatally	41.5%	18.6%
≥1 Psychosocial risk	68.6%	51.3%
Resides SEIFA (most disadv)	58.7%	32.9%

Birth outcomes

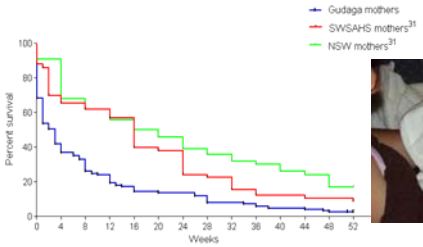


- Predictors of low birth weight:
  - -Aboriginal infant: -137.5 g
  - - Maternal smoking: -232.6 g
  - - Female infant: -115.8 g
  - - Education (<yr10): -131.1 g
  - - SEIFA (most disadv): -80.4 g

Breastfeeding: Initiation

- **Initiation of breastfeeding:**
  - mothers of Aboriginal infants: 66%
  - mothers of non-Aboriginal infants 75.2%
- Breastfeeding at discharge:
  - Mothers of Aboriginal infants: 54%
  - Mothers of non-Aboriginal infants: 75.2%
- Predictors of breast feeding at discharge:
  - -maternal age
  - - ≥ year 10 education
  - -non-smoking mother
  - - intention to breastfeed

Breastfeeding: Duration



- Predictors of breastfeeding at 2-3wks (Gudaga mothers):
  - - paid employment (prior to delivery)
  - - education ≥ yr 10
  - - intention to breastfeed

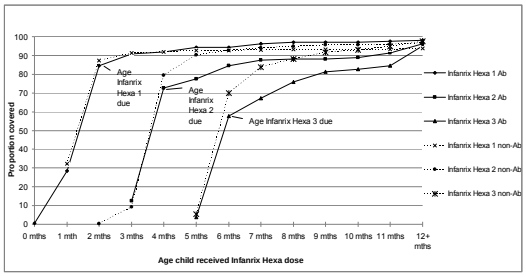
Universal Health Home Visiting

- 175 Aboriginal cases and 352 non-Aboriginal controls
- Found on system: 81.4%
- Visited: 67.4%
- UHHV within 2 weeks: 53.0%
  - Aboriginal infant: 42.9%
  - Non-aboriginal infant: 58.0%
- Predictors of UHHV ≤ 2wks:
  - - first baby
  - - maternal education ≥yr 10
  - - mother in paid employment when booking in
  - - not in the most disadvantaged SEIFA quintile

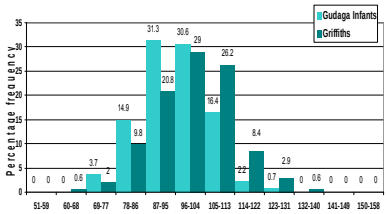
SIDS Deaths

- 3 SIDS deaths in first 18mths
- Correct identification of risk factors:
  - 0 factors : 12.2%
  - 1 factor: 21.6%
  - 2 factors: 34.5%
  - 3 factors: 31.8%
- 82.4% of infants put to sleep on back at 2-3 weeks, 68.2% at 6 months
- DOCS removals: 11 children

Immunisation at 12 months

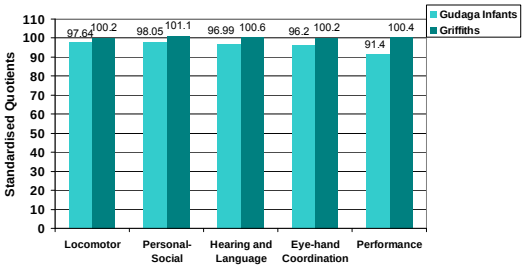


Development at 12 months



- Predictors of developmental progress :
  - mother reporting alcohol as a household problem
  - Cumulative risk (3 or more risk factors)

Development at 12 months



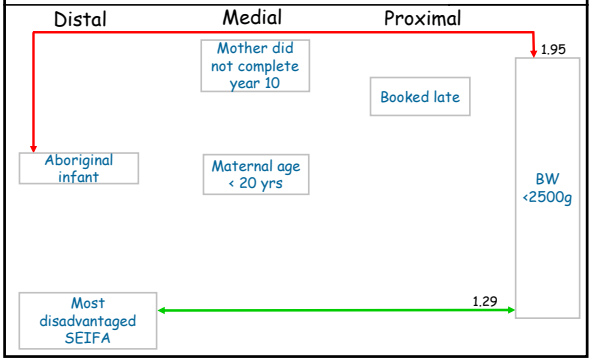
Risk factors for poor outcomes

Factor	Low birth Weight	Breast feeding	UHHV
Aboriginal infant	✓	✓	✓
<20 years of age		✓	✓
<year 10 education	✓	✓	✓
A/N smoking	✓	✓	✓
Disadvantaged SEIFA	✓		✓
Unemployed		✓	✓

Explanations

- Close association between Aboriginal and SES – confounding or mediation
- Causal pathway analysis
- When issues arise
  - Proximal – during pregnancy
  - Medial – characteristics of mothers
  - Distal – associated with community
- Predictive factors do not exist in isolation

Causal Pathway – low birth weight



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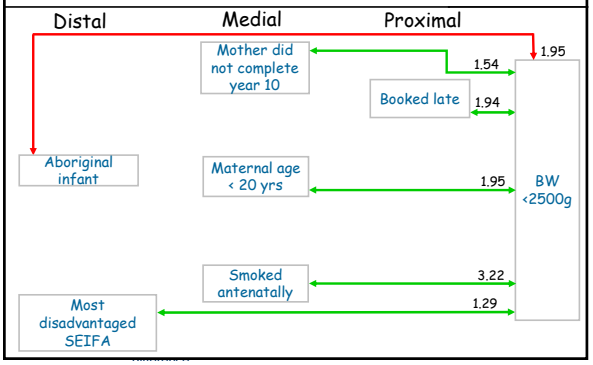

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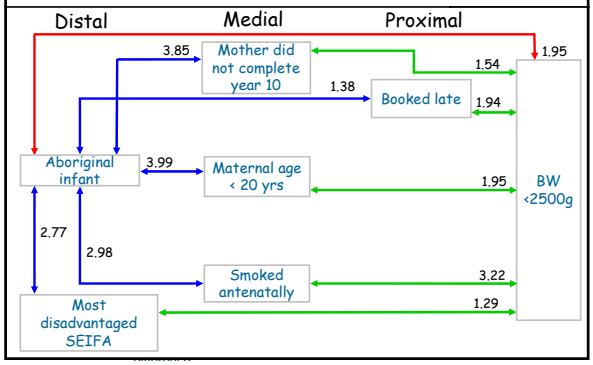
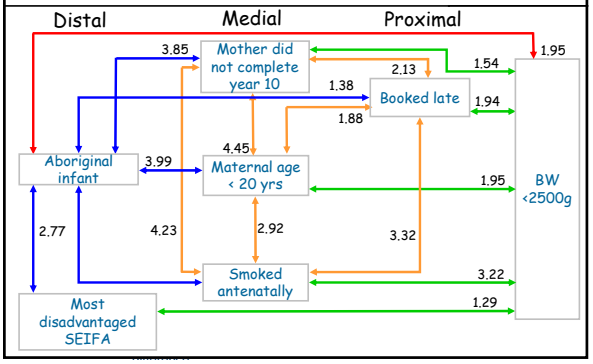


Causal Pathway – low birth weight



DISCUSSION

- Unique cohort
  - Enumerated population
  - Strong links to community
  - High rates of follow up
  - Flexible data collection
  - Urban location
- Providing information on health, development, and health service use of urban Aboriginal infants
- Informing services
  - Bulindidi Gudaga
  - AMS activities

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