Iron deficiency anaemia: epidemiology and prevention in Aboriginal children of the Northern Territory

Menzies School of Health Research

CENTRE FOR CHILD DEVELOPMENT AND EDUCATION | **HONOURS** | **MASTER BY RESEARCH**

Iron deficiency anaemia (IDA) has been shown to negatively impact on physical, behavioural, and cognitive development as well as academic achievement in children. While iron supplementation has shown to have positive effects on mental development in older children, there is no evidence that it has similar effects in children aged 3 years or younger. This suggests that the negative impact of IDA on infants may be irreversible leading to recommendations for preventive low dose oral iron supplementation in high risk populations.

The prevalence of anaemia is high in Aboriginal children living in remote Northern Territory (NT) communities and IDA is the predominant type. A prevalence of anaemia of 68% among children aged under 12 months was reported for two remote NT communities for the period of 2004-2006. Other studies, from this period have reported prevalence of 22-25% in children aged 0-5 years. A recent survey, in 2018, conducted in six remote communities reported a prevalence of 42% in infants aged 6-24 months. To date, there has been limited population level information on the epidemiology of IDA among Australian Aboriginal infants and the effectiveness of routine oral iron supplementation has not been evaluated.

This project will investigate the prevalence of IDA in young Aboriginal children in the NT; the impact of anaemia on early childhood development and academic performance; and, evaluate the effectiveness of oral iron supplementation in preventing anaemia. The project will utilise a large-scale data repository with records for the same child linked across multiple datasets from health, education and social services sectors.

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Eligibility Criteria and Scholarship Provisions

Eligibility: The applicant should have skills in epidemiology and statistics and be familiar with Stata statistical software.

It would be preferable that the applicant has an undergraduate degree in a health-related area.

Scholarship Provisions: Nil

Application Process:
Applicants should submit the following:

- Brief summary of why they want to complete the project
- Current CV
- Copies of certified academic transcripts
- Proof of Residency (not required for Australian citizens)

All applications should be submitted to Dr Jiunn-Yih Su (jiunn-yih.su2@menzies.edu.au)