

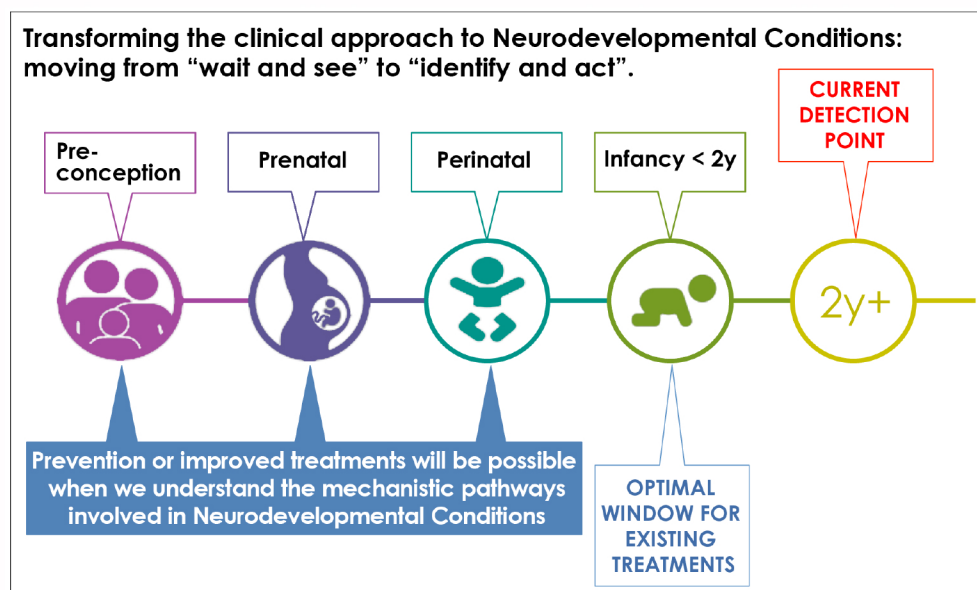
PROGRAM OVERVIEW

What are Neurodevelopmental Conditions?

Neurodevelopmental Conditions (NDCs) arise when brain development is disrupted. They include conditions such as intellectual disability, autism, fetal alcohol spectrum disorder, and attention-deficit hyperactivity disorder, and cumulatively affect approximately 15% of children. Children with NDCs can experience marked and lifelong difficulties across a number of functional areas, including cognition, emotion, executive function, communication, motor skills, behaviour, and learning. The burden for individuals, families, and society is immense.

Why is this research important?

Very early support (before 2 years of age) holds great promise for children at risk of NDCs, as during this period, the developing brain is highly responsive to learning opportunities. Providing targeted supports in the first few years of life has the potential to help reduce or avoid the difficulties experienced by children with NDCs. Currently, this window of opportunity is often missed, because identification and treatment typically depends on assessment of developmental problems that only emerge around 2-3 years of age. As a result, current services reach at-risk children later than is optimal or may miss them altogether.



Our research aims to improve the identification and treatment of children at risk of NDCs. We aim to identify very early signs and risk profiles for neurodevelopmental impairment, and to develop and evaluate support strategies for infants and very young children that are personalized to their individual strengths and difficulties. By doing this, we hope to give them the best start possible and promote better outcomes across the lifespan. Together with strategies that aim to work closely with at-risk families and turn screening and intervention principles into policy and practice realities, this program has the very real potential to revolutionize the clinical management of children at heightened risk of NDCs.

Main Research Questions

1. What are the key early socioeconomic, biological and behavioural risks that predict whether a child will develop an NDC?
2. How can early supports be used to optimise long-term developmental trajectories for children at risk of developing NDCs?
3. What is the return-on-investment for early identification and intervention approaches, and how can we optimise their accessibility, acceptability and appropriateness for Australian families?