

PANDORA: A PARTNERSHIP FOR CHANGE

THE NEED

Australia's population of Indigenous women and girls is much younger than the non-Indigenous female population. It's because Aboriginal women die younger, and Aboriginal birth rates are higher. At the same time, Aboriginal Australians are much more likely to have diabetes, and to get it younger. This means, of course, that Indigenous mothers are more likely to have diabetes in their childbearing years.

Combine this fact with growing international evidence that suggests that exposure to diabetes in utero exponentially increases risk and a sobering picture emerges.

In this context, there's a clear and compelling case for investment in Indigenous maternal and infant health, particularly and acutely in its epicentre of disadvantage, remote communities. Diabetes is a public health scourge for all Australians, but in Indigenous Australia especially children are being born with a destiny in which diabetes is much more likely, regardless of their lifestyle decisions. This is a cycle we need to break.

THE PARTNERSHIP OPPORTUNITY

Pandora – Pregnancy and Neonatal Outcomes in Remote Australia – is a Menzies-led partnership in which health care providers and communities have been brought together to improve maternal and infant health for Indigenous women and children. It rests on the assumption that partnerships such as these deliver the greatest chance of successful translation of research findings into policy and practice.

This project involves three key components:

1. NT diabetes in pregnancy partnership – in which researchers talk to women about their experiences in pregnancy and post-natal health care as part of a process to inform health care providers about Aboriginal women's perspectives and preferences, and design appropriate service solutions
2. Pandora Generations – a sub-study of detailed longitudinal research study, following 1000 women over 12 years, with 100-300 women in this epigenetics sub-study. In partnership with Murdoch Children's Research Institute, epigenetic analysis is done at birth, and between 18 months and 3.5 years, for both mother and child
3. Testing in urban and remote Aboriginal communities between 18 months to 3.5 years after birth– part-funded by the NHMRC, Menzies is testing for the standard risk markers of diabetes, heart disease, obesity. It requires additional support to undertake functional immune analyses for both mother and child, and to test babies' microbiome and Vitamin D levels

THE IMPACT

Menzies needs to conduct this research to elucidate exactly what's going on in the Australian Indigenous context. A better understanding of the early life factors that contribute to future risk of chronic conditions for both mothers and their children will precede new diagnostic tests and therapies, and inform the design of future policy and practice. This package of projects is a key tool in addressing current inequities in Indigenous maternal and infant health, and the human tragedy this represents.

PARTNERSHIP SOUGHT: SCALABLE

Every component part of this project is scalable – they can be done on a smaller or larger scale as funding dictates. Menzies is seeking partners for this work, and in its component parts, as follows:

1. Exploring the experiences of Aboriginal women with diabetes in pregnancy \$79,336
2. PANDORA Generations \$227,370**
3. Testing in remote communities SCALABLE

** This initiative is the most time sensitive. If additional testing agreements are not locked in before NHMRC-funded work is completed at end 2016 an existing cohort will be lost. It will be difficult to re-recruit.



FACTS AND STATS

- Indigenous Australians are three times more likely to develop Type 2 diabetes than non-Indigenous Australians. It is a serious health problem for many Aboriginal and Torres Strait Islander people, who tend to develop it earlier than other Australians, and often die from it younger.
- 17% of Indigenous adults reported 'pregnancy' as a stress in their lives in the 2008 National Aboriginal and Torres Strait Islander Social Survey
- Almost half (45%) of Indigenous females are aged less than 20 years, compared with 25% of the total female population.
- Indigenous babies are three times more likely than non-Indigenous Australian babies to die before their first birthday.
- On average, an Indigenous Australian will die 17 years before a non-Indigenous Australian. This is in large part due to their disproportionate burden of chronic disease

Contact

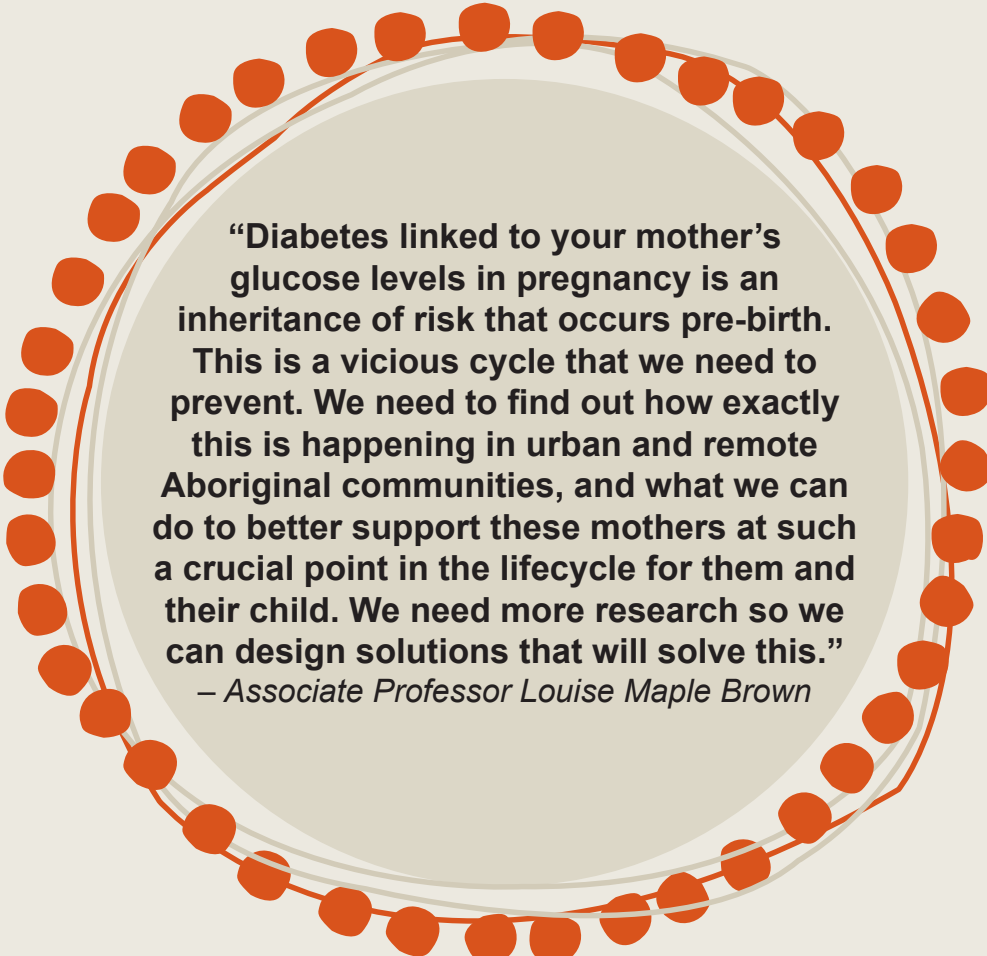
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“Diabetes linked to your mother’s glucose levels in pregnancy is an inheritance of risk that occurs pre-birth. This is a vicious cycle that we need to prevent. We need to find out how exactly this is happening in urban and remote Aboriginal communities, and what we can do to better support these mothers at such a crucial point in the lifecycle for them and their child. We need more research so we can design solutions that will solve this.”

– Associate Professor Louise Maple Brown