

Northern Australia Youth Diabetes Collaboration:

Co-design of youth-friendly, culturally appropriate models of care for Aboriginal and Torres Strait Islander Children and Youth with type 2 diabetes

Collaboration members:

- **Lead Investigators:** Prof Louise Maple-Brown, Dr Renae Kirkham (Menzies, Darwin)
- **Researchers:** Menzies School of Health Research (S Graham, L McCarthy, E Barr), Telethon Kids Institute, Perth (E Davis, G Pearson, A Haynes), SAHMRI (A Brown, P Azzopardi), Baker Heart and Diabetes Institute (J Shaw), University of Melbourne (S Eades)
- **State/Territory Government Health:** NT Department of Health (C Connors, P Bauert, A Titmuss), Queensland Health (A Sinha), WA Country Health Service, Broome (L Scott)
- **Aboriginal Community Controlled Health Sector:** Kimberley Aboriginal Medical Service (V O'Donnell, S Singleton), Apunipima Cape York Health Council (M Wenitong)
- **Diabetes Health Professional Organisations:** Australian Diabetes Society, Australian Diabetes Educators Association, Australasian Paediatric Endocrine Group
- **Consumer organisations:** Diabetes Australia
- **National Diabetes Strategy Implementation Review Group:** P Zimmet (Monash)

Aims: To develop, pilot and evaluate culturally appropriate diabetes management programs for Aboriginal and Torres Strait Islander children and youth with type 2 diabetes across Northern Australia (Northern Territory, Kimberley and Far North Queensland).

Methods:

Year 1: Co-design models of care (Financial year 2019-2020)

- Co-design with an Indigenous Youth Reference Group (membership from each of the regions), communities, and health services, guided by formative work including an audit of youth diabetes and qualitative work. It will likely include peer-support models (including camps), culturally-appropriate and youth friendly diabetes education, enhanced access to care and increased health professional awareness around the needs of this group.

Year 2: Pilot of enhanced models of care (Year 2020-2021)

- A Participatory Action model will enable changes to be made to the design and implementation of models of care. We expect to have shown feasibility of the audit by end 2019 (relating to prevalence in 2017) and will repeat the audit in 2021 (for health service data in 2020), to assess change in prevalence of type 2 diabetes in the same regions. These data will inform health service planning and will contribute to models of care planning.

Year 3: Implementation and Evaluation (Year 2021-2022)

- Evaluation of the effectiveness and implementation of the 12-month pilot. Adjustments to models of care and supporting structures will be made (and be relevant to each region) to ensure sustainability of the model. Year 3 will focus on implementing successful models across regions and completing all educational resources for youth.

Key outputs:

1. Enhanced model of care developed, piloted, evaluated for broader implementation.
2. Production of age-appropriate and culturally-appropriate educational resources.
3. Describe prevalence rates of type 2 diabetes in Aboriginal and Torres Strait Islander youth