



DIABETES across the LIFECOURSE: Northern Australia Partnership

Our Research Highlights for Policy and Practice

March 2022

This Diabetes across the Lifecourse: Northern Australian Partnership brief (November 2021 to March 2022).

Further resources are available on our website, including **Dr Angela Titmuss' podcast** with the **Lancet** regarding **youth diabetes** in Northern Australia. These can be accessed here:

<https://diabeteslifecourse.org.au>

Should you have any questions, or require further information, please contact us on diabetespartnership@menzies.edu.au or ring (08) 8946 8698

Youth onset type 2 diabetes among First Nations young people in northern Australia: a retrospective, cross-sectional study

Published in: Lancet Diab, Endocrinol, 2021. Doi: 10.1016/S2213-8587(21)00286-2

[https://www.thelancet.com/journals/landia/article/PIIS2213-8587\(21\)00286-2/fulltext](https://www.thelancet.com/journals/landia/article/PIIS2213-8587(21)00286-2/fulltext)

Authors: Titmuss A, Davis E, O'Donnell V, Wenitong M, Barr E, Boffa J, Brown ADH, Connors C, Corpus S, Dowler J, Graham S, Griffiths E, Kirkham R, Lee C, Moore E, Pearson G, Shaw JE, Singleton S, Sinha A, White G, Zimmet P, Maple-Brown LJ*, Haynes A*, Hot North Diabetes in Youth collaboration group. (*authors contributed equally)

This study involved a collaboration across the Kimberley, Northern Territory and Far North Queensland using primary health care hospital and outreach service data to understand the prevalence of type 2 diabetes among Aboriginal and Torres Strait Islander young people aged under 25 years. There has previously been minimal data available to understand the burden for these young people and this was the first study to use primary health care service data. The study reported prevalence rates approximately 10 times higher than previously reported in Australia, with 1 in 150 Aboriginal and Torres Strait Islander youth with type 2 diabetes. The study also reported that a large proportion of young people had glucose levels outside of suggested target ranges, increasing their risk of long-term complications. This reflects the reality that the majority of young people in the study are living in poverty, as well as the impacts of intergenerational trauma, educational disadvantage, food insecurity and adverse early childhood experiences. Our findings indicate the need to work together with families and communities to develop models of care that better meet the needs of young Aboriginal and Torres Strait Islander people with diabetes and improve their outcomes.

Type 2 diabetes after a pregnancy with gestational diabetes among First Nations women in Australia: the PANDORA study

Published in: Diabetes Research and Clinical Practice. 2021;181:109092.

[https://www.diabetesresearchclinicalpractice.com/article/S0168-8227\(21\)00451-4/fulltext](https://www.diabetesresearchclinicalpractice.com/article/S0168-8227(21)00451-4/fulltext)

Authors: Wood AJ, Boyle JA, Barr ELM, Barzi F, Hare MJL, Titmuss A, Longmore DK, Death E, Kelaart J, Kirkwood M, Graham S, Connors C, Moore E, O'Dea K, Oats JJN, McIntyre HD, Zimmet PZ, Lu ZX, Brown ADH, Shaw JE, Maple-Brown LJ.

Within the PANDORA cohort, a subgroup of Aboriginal women and women of European background with and without a history of Gestational Diabetes Mellitus (GDM) participated in the Wave 1 study at 18 months to 4 years postpartum. The focus was on development of type 2 diabetes after pregnancy. For Aboriginal women with GDM there was a very high rate of progression to type 2 diabetes (22%) in a short timeframe after pregnancy (2.5 years) in comparison to no European women developing diabetes in this timeframe. Women were more likely to develop postpartum diabetes if they were older, had higher glucose values in pregnancy, used insulin in pregnancy and had a higher body mass index (BMI). Results highlight the importance of early postpartum screening after GDM and a need for systems and social policy change to address food security, poverty, structural racism and other social and cultural determinants driving the diabetes epidemic

The Adaptation of a Youth Diabetes Prevention Program for Aboriginal Children in Central Australia: Community Perspectives

Published in: International Journal of Environmental Research and Public Health, 2021, 18; 9173. Doi: 10.3390/ijerph18179173 <https://www.mdpi.com/1660-4601/18/17/9173>

Authors: Athira Rohit, Leisa McCarthy, Shiree Mack, Bronwyn Silver, Sabella Turner, Louise A. Baur, Karla Canuto, John Boffa, Dana Dabelea, Katherine A. Sauder, Louise Maple-Brown and Renae Kirkham

In 2018, the Diabetes across the Lifecourse Northern Australia Partnership's Aboriginal and Torres Strait Islander Advisory Group set the importance of community-based initiatives to prevent youth-onset obesity and diabetes as a priority. This paper reports on community perspectives to adapt a family-focused, culturally appropriate behavioural intervention program to prevent diabetes among Aboriginal children in Central Australia. This work was a partnership between researchers, practitioners and communities in Central Australia, with community leadership by Central Australian Aboriginal Congress. Our consultations indicated a strong need for such a youth diabetes prevention program and, that it is owned and led by the community. Other recommendations included the need for trained local facilitators, culturally appropriate program delivery and acknowledgment of social determinants of health within the community while implementing the program.

Incorporating Aboriginal women's voices in improving care and reducing risk for women with diabetes in pregnancy

Published in: *BMC Pregnancy and Childbirth* 2021;21(1):624. Doi: 10.1186/s12884-021-04055-2 <https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-021-04055-2>

Authors: Wood A, Graham S, Boyle J, Marcusson B, Anderson S, Connors, McIntyre H, Maple-Brown LJ, Kirkham R, – A phenomenological study

Interviews were conducted with Aboriginal women and health professionals, focusing on preferences for a program to prevent and improve diabetes after pregnancy. Identified structural barriers to lifestyle change included: food insecurity, persuasive marketing of unhealthy food options, lack of facilities and cultural inappropriateness of previous programs. Enablers to lifestyle change included: a strong link between a healthy lifestyle and connection with Country, family and community. Suggested strategies to improve lifestyle included: co-designed cooking classes or a community kitchen, team sports and structural change (targeting the social determinants of health). From these findings, it is recommended that individual level programs be designed alongside policies that address systemic inequalities. A postpartum lifestyle program should be co-designed with community members and grounded in Aboriginal concepts of health to adequately address the health disparities experienced by Aboriginal people in remote communities.

Improving systems of prenatal and postpartum care for hyperglycemia in pregnancy A process evaluation

Published in: *Int J Gynaecol Obstet.* 2021. Doi: 10.1002/ijgo.13850 <https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.13850>

Authors: MacKay D, Kirkham R, Freeman N, Boyle J, Campbell S, McLean A, Peiris D, Corpus S, Connors C, Moore L, Wenitong M, Silver B, McIntyre H, Shaw J, Brown A, Maple-Brown L,

This qualitative paper reports on an interim evaluation of our Diabetes across the Lifecourse Partnership's work to improve systems of care for women with hyperglycaemia in pregnancy. Clinicians, policymakers and the project team were interviewed in 2018, to identify what impact the Partnership's work had made to date and opportunities for further improvements. Participants reported that care for women had improved, including earlier referral for specialist care and increased consistency. Strong relationships between researchers, clinicians and policy makers were highlighted as important in project implementation. Ongoing challenges included engaging meaningfully with remote clinicians and communicating effectively with women across languages and cultures. These findings have informed further work of the Partnership. Findings from the final evaluation of this project, including maternal and neonatal outcomes, will be reported in 2022.

New Resources have been added to our website.

Listen to Dr Angela Titmuss' interview with the Lancet, now available via below link:

<https://diabeteslifecourse.org.au/in-the-media/>

*(This interview is owned by the Lancet)