

Diabetes across the Lifecourse: Northern Australia Partnership Our Research Highlights for Policy and Practice Northern Territory Edition

This Diabetes across the Lifecourse: Northern Australian Partnership (Partnership) brief provides an overview of recent Partnership publications (from April 2020 to October 2020).

Also included in this mailout (but not summarised in this document) is a recent piece by Emily Gilbert with contributions from the Partnership's Indigenous Reference Group, 'Using co-design to develop a culturally responsive reproductive health learning resources for Aboriginal and Torres Strait Islander youth', available here: DOI: [10.1002/hpja.392](https://doi.org/10.1002/hpja.392)

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Diabetes during pregnancy and birthweight trends among Aboriginal and non-Aboriginal people in the Northern Territory of Australia over 30 years

Published in: *The Lancet Regional Health Western Pacific*, 2020, doi.org/10.1016/j.lanwpc.2020.100005

Authors: Hare MJL, Barzi F, Boyle JA, Guthridge S, Dyck RF, Barr ELM, Singh G, Falhammar H, Webster V, Shaw JE, Maple-Brown LJ

Diabetes is becoming much more common among pregnant women in the NT. This paper reports on an analysis of three decades worth of information about essentially every birth in the NT from the NT Perinatal Data Collection (Midwives' Data Collection). The focus was on rates of gestational diabetes (GDM) and pre-existing diabetes during pregnancy as well as trends in birthweight over time. Data from 109 349 babies born to 64 877 mothers (36% of whom identified as Aboriginal) were included.

Between 1987 and 2016, there was a six-fold increase in GDM among pregnancies of non-Aboriginal women and a ten-fold increase in the rate of pre-existing diabetes in pregnancy among Aboriginal women. Rates of small-for-gestational-age and stillbirth decreased significantly, while rates of large-for-gestational-age and high birthweight increased. Now, about 1 in 5 pregnancies to Aboriginal women is complicated by diabetes. Central Australia has one of the highest rates of type 2 diabetes in pregnancy ever reported (8.4% in 2016). These data reinforce the importance of working in partnership with communities and across sectors to address the underlying social determinants of diabetes.

Walking the path together: incorporating Indigenous knowledge in diabetes research

Published in: *The Lancet Diabetes & Endocrinology*, 2020; 8(7), 559-560. doi:10.1016/S2213-8587(20)30188-1 <https://pubmed.ncbi.nlm.nih.gov/32559468/>

Authors: Maple-Brown LJ, Graham S, McKee J, Wicklow B

This commentary reviews the impacts of colonisation and systemic racism on Indigenous peoples in Canada and Australia which have contributed to the highest rates of type 2 diabetes among any population worldwide. This paper discusses two initiatives, one from Canada (the Diabetes Research Envisioned and Accomplished or 'DREAM' based in Manitoba) and the Indigenous Reference Group of the Diabetes across the Lifecourse: Northern Australia Partnership. These initiatives have been developed in partnership with Indigenous peoples and communities, to address the challenges of diabetes in Indigenous people. Both initiatives developed formal Indigenous advisory groups with clear roles within the governance structures of the research. These initiatives have strengthened the existing partnerships between researchers and Indigenous communities; Indigenous peoples' roles and contributions have been respected and recognised, including governance relating to Indigenous knowledge in Indigenous health research.



Associations of gestational diabetes and type 2 diabetes during pregnancy with breastfeeding at hospital discharge and up to 6 months: the PANDORA study.

Published in: Diabetologia, <http://link.springer.com/article/10.1007/s00125-020-05271-9>

Authors: Danielle K. Longmore, Elizabeth L.M. Barr, Alyce N. Wilson, Federica Barzi, Marie Kirkwood, Alison Simmonds, I-Lynn Lee, Eyvette Hawthorne, Paula Van Dokkum, Christine Connors, Jacqueline A. Boyle, Paul Zimmet, Kerin O'Dea, Jeremy Oats, Harold D. McIntyre, Alex D.H. Brown, Jonathan E. Shaw, Louise J. Maple-Brown

Breastfeeding is thought to be more challenging for women with hyperglycaemia in pregnancy, however the benefits for both mother and child are great. This study evaluated breastfeeding in women in the PANDORA cohort with pre-existing type 2 diabetes and gestational diabetes (GDM) at hospital discharge and up to 6 months after birth.

In this study of 1,050 women, including 684 with GDM and 144 with type 2 diabetes, women with type 2 diabetes had lower odds for exclusive breastfeeding at hospital discharge compared to women with no hyperglycaemia in pregnancy. Aboriginal and Torres Strait Islander women had high rates of breastfeeding across all time points. Women with GDM were as likely to achieve predominant breastfeeding at 6 weeks and 6 months as women without hyperglycaemia in pregnancy, however, more research is needed to evaluate the relationship between type 2 diabetes and long-term breastfeeding success. Continuation and support for in-hospital breastfeeding services are needed particularly for women with pre-existing type 2 diabetes.

Improving systems of care during and after a pregnancy complicated by hyperglycaemia: A protocol for a complex health systems intervention.

Published in: *BMC Health Services Research*, 2020, doi.org/10.1186/s12913-020-05680-x

Authors: MacKay D, Kirkham R, Freeman N, Murtha K, Van Dokkum P, Boyle J, Campbell S, Barzi F, Connors C, O'Dea K, Oats J, Zimmet P, Wenitong M, Sinha A, Hanley AJ, Moore E, Peiris D, McLean A, Davis B, Whitbread C, McIntyre HD, Mein J, McDermott R, Corpus S, Canuto K, Shaw JE, Brown A, Maple-Brown L.

This paper outlines the planned work of the Partnership to improve the healthcare that women with diabetes in pregnancy receive in the NT and FNQ, addressing barriers to care identified in previous work of the Partnership. The project activities planned to focus on increasing workforce capacity, skills and knowledge; improving access to healthcare through culturally and clinically appropriate pathways; improving information management and communication; enhancing policies and guidelines; and using the Diabetes in Pregnancy Clinical Register as a quality improvement tool. The paper also describes the planned evaluation of the project, which is currently underway and expected to report late 2020-early 2021 – watch this space!

Thank you to all of our partners for your support.

To view other Partnership publications and materials, please visit our website:

<https://dipp.org.au>

REMINDER: 2020 Virtual Annual Educational Symposium

My Story. Our Journey. Diabetes is everyone's business.

Featuring international keynote speaker **Professor Dana Dabalea** (University of Colorado, USA) and **Professor Sue Kildea** and **Associate Professor Yvette Roe** (Molly Wardaguguga Research Centre, Charles Darwin University, Australia). Topics will include type 2 diabetes in young people and diabetes in pregnancy.

When: Friday 23 October, 8.30am to 1.00pm (ACST)

Where: via zoom and in person at Menzies School of Health Research (JMB Building at RDH Campus and various satellite sites in the Kimberley, Cairns and across the Northern Territory, please note in person places are limited due to COVID safe precautions).

For more information, please see: <http://www.stickytickets.com.au/6PJ7E> or dipp.org.au