

## DIABETES across the LIFECOURSE: Northern Australia Partnership

# Our Research Highlights for Policy and Practice

## August 2023

This Diabetes across the Lifecourse: Northern Australian Partnership brief covers Publications from September 2022 to July 2023.

Further resources are available on our website, which can be accessed here:

<https://diabeteslifecourse.org.au>

*Should you have any questions, or require further information, please contact us at [diabetespartnership@menzies.edu.au](mailto:diabetespartnership@menzies.edu.au) or ring (08) 8946 8698*

### **Pancreatitis and post-pancreatitis diabetes in Central Australia**

**Published in:** Internal Medicine Journal 2023, 53:568-576. doi.org/10.1111/imj.15620

<https://onlinelibrary.wiley.com/doi/10.1111/imj.15620>

**Authors:** Wicks M, Barr ELM, Maple-Brown LJ.

Pancreatitis and type 2 diabetes are both common in Central Australia. Previous studies suggested that the rates of pancreatitis in Central Australia were among the highest in the world. This study sought to assess the prevalence of post-pancreatitis diabetes mellitus; a specific type of diabetes that has different diagnostic criteria and management as compared to type 2 diabetes. A review of 2107 episodes of pancreatitis over ten years (2009-2018) from Tennant Creek and Alice Springs Hospitals was undertaken. From a total of 638 individuals with pancreatitis, 73% were Aboriginal and 48% female. Acute pancreatitis was most common at 78% of first presentations to hospital. The most frequent cause of pancreatitis was alcohol misuse. Nearly 30% of people were diagnosed with diabetes after the first episode of pancreatitis but only 5% had adequate testing to fulfill criteria for post-pancreatitis diabetes mellitus. This study is important because it was the first study to report the prevalence of chronic pancreatitis in Central Australia. It also confirmed that the rates of both acute and chronic pancreatitis are the highest recorded internationally and are part of the alcohol-related harm experienced in this community. Low numbers of people were appropriately tested for post-pancreatitis diabetes mellitus, pointing to a practice gap in knowledge of doctors regarding this type of diabetes.

**Postpartum uptake of diabetes screening tests in women with gestational diabetes: the PANDORA study**

**Published in:** Diabetic Medicine 2022 Nov 7:e14999. doi: 10.1111/dme.14999.

<https://onlinelibrary.wiley.com/doi/10.1111/dme.14999>

**Authors:** Wood AJ, Lee IL, Barr ELM, Barzi F, Boyle JA, Connors C, Moore E, Oats JJN, McIntyre HD, Titmuss A, Simmonds A, Zimmet PZ, Brown ADH, Corpus S, Shaw JE, Maple-Brown LJ

This study aimed to better understand how many women with gestational diabetes went on to have screening for prediabetes and diabetes after pregnancy (postpartum). Gestational diabetes is a risk factor for developing type 2 diabetes and guidelines recommend all women with gestational diabetes have a 75g oral glucose tolerance test (OGTT) 6-12 weeks after pregnancy. However, we know that postpartum OGTT uptake is low and we don't know whether women are having alternate tests (eg an HbA<sub>1c</sub>); furthermore, there are very few studies involving Aboriginal and/or Torres Strait Islander women. Among women with gestational diabetes in the PANDORA study (n=712) we examined how many women (both non-Indigenous and Aboriginal and/or Torres Strait Islander) had an OGTT at 12 weeks postpartum and how many women had an OGTT, HbA<sub>1c</sub> or fasting plasma glucose by 6 months postpartum. Postpartum screening rates with an OGTT by 12 weeks and 6 months postpartum were lower among Aboriginal and/or Torres Strait Islander women than non-Indigenous women (18% vs. 30% at 12 weeks, and 23% vs. 37% at 6 months,  $p < 0.001$ ). Aboriginal and/or Torres Strait Islander women were more likely to have completed a 6-month HbA<sub>1c</sub> compared to non-Indigenous women (16% vs. 2%,  $p < 0.001$ ). Screening by 6 months postpartum with any test was 41% for Aboriginal and/or Torres Strait Islander women and 45% for non-Indigenous women ( $p = 0.304$ ). From our study, we suggest a pragmatic approach, whereby as many women as possible are targeted for HbA<sub>1c</sub> testing after gestational diabetes, particularly for Aboriginal and/or Torres Strait Islander women who are at high risk for developing type 2 diabetes.

**Racial microaggressions and interculturality in remote Central Australian Aboriginal healthcare**

**Published in:** International Journal for Equity in Health 2023 May 25;22(1):103. doi: 10.1186/s12939-023-01897-4. [Racial microaggressions and interculturality in remote Central Australian Aboriginal healthcare | International Journal for Equity in Health | Full Text \(biomedcentral.com\)](#)

**Authors:** Wicks M, Hampshire C, Campbell J, Maple-Brown LJ, Kirkham R

With the epidemic of type 2 diabetes in Central Australia it is essential to have high-quality relationships between health care workers (HCW) and Aboriginal people living with type 2 diabetes. This study examined the talk of HCWs working in two remote Aboriginal communities in Central Australia. Fourteen HCWs were interviewed - 7 nurses, 5 doctors and 2 Aboriginal Health Practitioners. Racial Microaggressions are a form of everyday racism which, may not be intentional, but still cause harm to the racialized person. Racial microaggressions were identified in the talk of HCWs about Aboriginal people. These included assumptions about competence, stereotyping, seeing Aboriginal people as dangerous or criminal, treating Aboriginal people as second-class citizens, expressing hostility toward Aboriginal people and problematising Aboriginal culture. A model of respectful interculturality was proposed requiring attitudes of openness, knowledge about the ongoing impact of colonisation and skills that improve communication and HCW reflexivity. This study is important as it highlights this type of everyday racism in the remote Aboriginal community setting which causes harm to Aboriginal people and undermines the formation of strong respectful relationships required to address the epidemic of diabetes.

### **Feasibility and acceptability of intermittently scanned continuous glucose monitoring for women with type 2 diabetes in pregnancy.**

**Published in:** Journal of Diabetes Science and Technology. 2022 Sep 19;19322968221124956.

doi:10.1177/19322968221124956 [Feasibility and Acceptability of Intermittently Scanned Continuous Glucose Monitoring for Women with Type 2 Diabetes in Pregnancy - Anna McLean, Ashim Sinha, Elizabeth Barr, Louise Maple-Brown, 2023 \(sagepub.com\)](https://doi.org/10.1177/19322968221124956)

**Authors:** McLean A, Sinha A, Barr E, Maple-Brown LJ.

This pilot study in Far North Queensland assessed the feasibility and acceptability of intermittently scanned continuous glucose monitoring (iscCGM) in pregnancy for women with type 2 diabetes. Fifty-seven women referred with type 2 diabetes prior to 30 weeks gestation between 2019 and 2021 were given a “Freestyle Libre” glucose monitor and sensors for the duration of pregnancy. Results of the satisfaction questionnaire showed that most women found iscCGM worthwhile and easy to use and 94% would recommend iscCGM to others. Women reported that Diabetes Educators gave the most useful device education. Reasons for discontinuation included rash, sensors falling off early and distrust of the accuracy. Feasibility assessment revealed that nearly all eligible women agreed to participate and were able to use the technology. Ethnicity and remoteness were not necessarily barriers to use. However, late referrals (23%), discontinuation (21%) and variability of use meant that few women used the device for the entire pregnancy. Improving referral pathways, culturally appropriate health systems and ensuring access to diabetes educator time and expertise are essential to support optimal use of this technology. This study suggests that iscCGM could be a useful and well received tool for improving glycaemic levels in women with type 2 diabetes in pregnancy. Further rigorous study by way of randomised controlled testing is needed to confirm this impression.

**Please see links below to recently published papers the Diabetes Partnership has contributed to:**

#### **1. Diabetes Among Indigenous Peoples - IDF Atlas Report 2022**

Includes articles – Type 2 Diabetes Among Indigenous Adult Populations and Type 2 Diabetes among Indigenous Peoples aged 30 years and under

<https://diabetesatlas.org/atlas/indigenous-2022/>

#### **2. The Global Alliance for Chronic Diseases researchers’ statement on non-communicable disease research with Indigenous Peoples**

[The Global Alliance for Chronic Diseases researchers’ statement on non-communicable disease research with Indigenous peoples - ScienceDirect](https://www.sciencedirect.com/science/article/pii/S0954682023000000)