

## World-leading rates of youth-onset type 2 diabetes revealed in northern Australia



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Only 14% of study participants, based in northern Australia, had blood glucose levels within recommended targets.

A new study of youth-onset type 2 diabetes among Aboriginal and Torres Strait Islander young people across northern Australia has uncovered what is arguably the highest prevalence reported in any youth population globally within the past 25 years.

Led by Menzies School of Health Research PhD student and Royal Darwin Hospital (RDH) paediatric endocrinologist Dr Angela Titmuss, the study found alarming rates

of youth-onset type 2 diabetes among young Indigenous people in the region – 10 times higher than previously reported in Australia.

The study was entitled *Youthonset type 2 diabetes among First Nations young people in northern Australia: a retrospective cross-sectional study*, and was published in the prestigious journal *The Lancet Diabetes & Endocrinology* on 30 October.

Despite knowledge of the very high prevalence of youth-onset type 2 diabetes in Aboriginal and Torres Strait Islander populations across northern Australia – encompassing Northern Territory, Kimberley and Far North Queensland – Titmuss said there had been minimal data available to accurately determine the burden for these young people.

The study identified 381 people aged 24 years or younger with type 2 diabetes from an estimated resident population of 56,882 young First Nations people. The majority (68%) were female and the youngest reported age at diagnosis was four.

“This is the first study to use primary healthcare data as the basis of prevalence estimates which gives us confidence in the accuracy of the findings as it is primary healthcare services who usually look after these young people,” Titmuss said.

“Only 14% of young people in our study, defined as before the age of 25 years, had blood glucose levels within recommended targets. For those falling outside of the target, the risk of developing complications such as kidney damage at a young age is significantly increased.”

“This reflects the reality that the majority of young people in this study are living in poverty with very high levels of educational disadvantage. They are also living with the impacts of intergenerational trauma including exposure to multiple adverse early childhood experiences, which we know contributes greatly to the development of chronic disease in later life, including diabetes and metabolic syndrome. Lack of food security further compounds these issues.”

Co-author Professor Louise Maple-Brown, a Menzies Senior Principal Research Fellow and RDH’s head of endocrinology, said the data determined by the study was an important stage of the collaborative work already occurring across northern Australia between Aboriginal Community Controlled Health Services, government health services, Menzies and other agencies.

“It builds on the evidence required for us to work together with families and communities to further develop models of care that better meet the needs of young Aboriginal and Torres Strait Islander people with type 2 diabetes and improve their outcomes,” she said.