Menzies’ researchers contribute to global studies on structural racism’s impact on unequal diabetes cases and care

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A new series on diabetes research published in *The Lancet* and *The Lancet Diabetes & Endocrinology* journals has found diabetes is pervasive, growing in prevalence and outpacing most diseases globally, despite increased awareness and ongoing multinational efforts.

The researchers found structural racism experienced by minority ethnic groups and geographic inequity experienced by low-and middle-income countries are accelerating the soaring rates of diabetes disease, illness, and death around the world.

Published in *The Lancet*, the paper *Global Inequity in Diabetes: The role of structural racism and geographical inequity in diabetes outcomes* reviews the complex and overlapping ways in which structural inequity impacts social determinants of health and diabetes outcomes on a global scale. The authors analysed previous research on diabetes to examine how structural inequity (structural racism and geographic inequity) has accelerated rates of diabetes around the world.

Diabetes remains the leading cause of death for Aboriginal and/or Torres Strait Islander females nationally and for all Aboriginal people in the Northern Territory. Aboriginal and Torres Strait Islander populations are 3 times more likely than the general population to have type 2 diabetes (T2D). In central Australia 40% of adults have diabetes. They also have amongst the highest rates of youth-onset T2D worldwide.

Menzies School of Health Research’s Deputy Director Research, Professor Louise Maple-Brown, and Senior Research Officer, Sian Graham, were invited to be co-authors of the series. As part of their work, they discussed an increased diabetes risk is linked to the home environment that people are living in, intergenerational trauma, and mental health and wellbeing. Food insecurity in remote communities and overcrowded housing were also highlighted as barriers to diabetes self-management and care.

The researchers highlight/summarise key findings from recent research led by Menzies related to diabetes among Aboriginal and Torres Strait Islander people, including the growing number of young people getting diabetes in Australia. The youngest youth-onset T2D diagnosis was a 4-year-old in a 2022 report across northern and central Australia. The highest prevalence of diabetes (3.1%) among Aboriginal and Torres Strait Islander youth aged under 25 years, was in females aged 15 to 24 years in central Australia, with Aboriginal and Torres Strait Islander females more likely to be diagnosed with T2D. Those higher rates of youth-onset T2D also contribute to higher rates of pre-gestational diabetes, up to 8.4% in pregnant Aboriginal women in central Australia.

The study highlighted that as a result of the widening diabetes inequity, Australian Aboriginal and Torres Strait Islander communities experience significant and premature morbidity and mortality from T2D and its complications. In 2021, diabetes-related mortality and hospitalisation rates were more than 4 times higher among Aboriginal and Torres Strait Islander people than non-Indigenous Australians. The median age of death was 62.5 years compared to 82.2 years for the general Australian population, with cardiovascular disease and diabetes among the 2 leading causes of death.
The study draws on the long-running work of the Diabetes across the Lifecourse: Northern Australian Partnership (the Partnership). The Partnership led by Menzies School of Health Research (Menzies) originally began in the Northern Territory in 2011 with foundation partners Aboriginal Medical Services Alliance of the Northern Territory (AMSANT), Baker Heart and Diabetes Institute, Healthy Living NT and NT Health. It has since grown to include parts of Queensland and Western Australia in collaboration with the Apunipima Cape York Health Council, Central Australian Aboriginal Congress (CAAC), Diabetes Australia, Kimberley Aboriginal Medical Services (KAMS), Mater Research, Miwatj Health Aboriginal Corporation, Monash University, Northern Territory Primary Health Network (NT PHN), Telethon Kids Institute, the Queensland Government (Cairns and Hinterland Hospital and Health Service and Torres and Cape Hospital and Health Service) and Wuchopperen Health Service.

The work by Menzies and the Partnership has been funded by the Australian Government’s Department of Health, Medical Research Future Fund and National Health and Medical Research Council.

To read the article in full, head to: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(23)00909-1/fulltext

To read more about the other publications in this series, go to: https://www.thelancet.com/series/global-inequity-diabetes

For more information on diabetes research, visit Menzies’ website.

Quotes attributed to Menzies School of Health Research - Deputy Director Research, Professor Louise Maple-Brown:
“Our work is part of a larger global study that reported longstanding structural racism and inequity is contributing to higher rates of diabetes and poorer health outcomes amongst marginalised populations around the world. In Australia, that contributes to the higher rates of diabetes in Aboriginal and Torres Strait Islander people, and challenges in diabetes management. A misalignment of health systems with sociocultural norms and health behaviours of communities is exacerbating this. Generational mistrust and trauma are also hampering patient’s ability to access and experience high-quality diabetes care. There are changes that can be made to improve health outcomes as Menzies’ long-running involvement in diabetes research has demonstrated.”

Quotes attributed to Menzies School of Health Research – Senior Research Officer, Sian Graham:
“While the figures are grim, there are solutions that can help improve health outcomes. Structural changes to the health systems and new partnerships must be forged to re-engage and rebuild trust with Aboriginal and Torres Strait Islander communities. Aboriginal and Torres Strait Islander health workers, liaison officers, and interpreters must be included in health systems to advocate for communities, provide resources in local languages, and enable access to high-quality medical care for communities. In addition, access to healthy food in remote communities must be addressed. Integrating Aboriginal and Torres Strait Islander people into care will work to break this intergenerational cycle of diabetes.”
Quotes attributed to Central Australian Aboriginal Congress – Chief Medical Officer Public Health, Dr John Boffa

“The need to do more to address the social determinants of health has also been starkly revealed through the findings of the Congress history project. There has been significant health gain for Aboriginal people in Central Australia since 2001 primarily due to health system improvements and the gap is now closing but at the same time the social determinants of health beyond the health system have barely changed. Poverty and inequality have got worse in remote communities as has food security. Small gains in education attainment and overcrowding are not sufficient to make a difference. For a nation as wealthy as Australia the lack of progress is not acceptable and will see the obesity and diabetes epidemic continue in spite of more effective treatments becoming available.”

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Professor Louise Maple-Brown and Sian Graham are currently in the USA for the 83rd Scientific Sessions | American Diabetes Association. They are presenting at the joint ADA/The Lancet symposium on Global Inequity in Diabetes - An International Perspective to discuss Structural Racism and Geographic Inequity in Diabetes.

FAST FACTS

- Globally, the number of adults with diabetes has nearly quadrupled in the last 20 years and continues to rise, from 153 million people in 2000 to 529 million in 2021.
- Global diabetes prevalence rates are projected to reach 1.3 billion by 2050, increasing to 1 in 10 adults from 1 in 25 adults in 2000.
- Research shows diabetes is associated with high morbidity and mortality. It is a major cause of blindness, kidney failure, heart attacks, strokes, and lower limb amputations worldwide. diabetic ketoacidosis and severe hypoglycaemia are major causes of death in young people.
- In 2019, diabetes was attributed as the direct cause of 1.5 million deaths, with approximately half of them before 70 years old. Diabetes also caused nearly 500,000 additional deaths due to diabetic kidney disease and comprised 20% of cardiovascular deaths globally.
- In Australia, Aboriginal and Torres Strait Islander people in experience a disproportionately high burden of type 2 diabetes and related conditions:
  - more than 3 times higher rates than the general Australian population
  - nearly 40% prevalence in the most remote and disadvantaged regions of central Australia.
- Structural racism which contributed to higher rates of diabetes in Aboriginal and Torres Strait Islander people includes:
  - the impacts of colonisation, including intergenerational trauma, caused by loss of culture, loss of identity, Stolen Generations, trauma and removal from Country.
  - intergenerational health affecting social determinants of health, such as mental health and wellbeing, increasing diabetes risk
  - social determinants of health affecting diabetes care, such as food insecurity (lack of access to healthy and fresh food, and resources to afford healthy foods) preventing healthy diets, and overcrowded housing.
In the Northern Territory around 30% of the population identify as Aboriginal and/or Torres Strait Islander people. They experience the greatest socio-economic disadvantage, as well as the highest rates of diabetes, end-stage kidney disease, and mortality nationally.