

Ethnic inequity in diabetes outcomes—inaction in the face of need

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Evaluation of a longstanding primary care audit and diabetes care support service (DCSS) programme was reported in a paper published in *Lancet Global Health* on 15 October 2020. The paper showed 24 years of health outcome inequity among people with type 2 diabetes in South, East and West Auckland.¹ Mortality decreased and hospital admissions increased across European, Māori and Pacific ethnic groups over the period. However, Māori and Pacific had consistently higher hospitalisation rates than European patients. After adjusting for sex, age, socio-economic status, smoking, obesity, birth-cohort and period effects, Māori but not Pacific patients had higher all-cause mortality (adjusted incidence rates ratio (IRR): 1.96 [95% confidence interval 1.8–2.14], cardiovascular mortality (1.93 [1.63–2.29]), and cancer mortality (1.64 [1.40–1.93]) compared with European patients. The excess mortality for Māori occurred at a young age affecting people in their most productive years. Most of this excess mortality can be attributed to diabetes and its complications.

Both Māori and Pasifika had higher admission rates for cardiovascular disease (adjusted IRR: 1.26 [1.25–1.28], 1.09 [1.07–1.10] respectively), cancer (1.31 [1.28–1.34], 1.03 [1.00–1.06]) and end stage renal disease (2.05 [1.96–2.14], 1.59 [1.52–.67]) compared with European New Zealanders. Cardiovascular and end stage kidney disease disparities were again particularly pronounced among Māori and Pasifika aged 45–65 years.

Disparities in diabetes complication rates between Māori, Pasifika and European New Zealanders have been known for over 20 years in South Auckland.² Early strategies in the 1980s to combat the growing epidemic of diabetes and its complications, particularly among Māori and Pasifika,

included the introduction of a diabetes centre and community diabetes clinics and the training of community diabetes educators with their cultural and language skills. The establishment of a diabetes in pregnancy service helped improve the antenatal care of the large numbers of women with type 2 diabetes (diagnosed and undiagnosed). Co-created pilot programmes arose to support lifestyle change to prevent or delay diabetes in the wider Māori and Pasifika communities, and prevent diabetes complications among those with diabetes. The world's first published diabetes plan arose in 1994 from local research,³ although a five-year review revealed few of the recommendations had sustainable funding.⁴ Many subsequent national and local strategies have been introduced (and often subsequently withdrawn) including Get Checked, Lets Beat Diabetes and Māori Health Providers. However, there is strong evidence that overall, the Crown has failed to adequately or sustainably fund initiatives to address these disparities. Therefore, while it is alarming that health disparities identified over 20 years ago are still present, it is by no means surprising given inconsistent Government funding and resourcing.

Previous studies have attributed health disparities of Māori and Pasifika to European New Zealanders to socioeconomic status, smoking and obesity, but these were adjusted for. The measures used to adjust for these factors were imprecise but cannot explain this degree of disparity. Other possible explanations include poorer access to care, insufficient tailoring of the existing health system to the needs of those with diabetes (including in investment in strategies to address low health literacy and required self-management skills), and racism.⁵ Treatment on entry with antihypertensive agents (~70%) and statins (~55%)

were roughly similar between the three ethnic groups and anti-diabetes medications use was lowest among European New Zealanders (~80% vs ~90% among Māori/Pasifika). Earlier DCSS data suggested greater primary care attendance among Māori and Pasifika.⁶ Diabetes screening rates cannot be discerned from this paper although data from the Waikato have previously suggested that diabetes is not left undiagnosed among Māori, a finding supported by a low prevalence of retinopathy at diagnosis.^{7,8} These findings, largely arising from the work of primary care, suggest that the disparities are mainly due to a system that does not address the needs of Māori and Pasifika, rather than the failings of individual practitioners.

The paper does not report on glycaemia, blood pressure and dyslipidaemia over time, but some hints for the reasons behind the excess hospitalisation among Māori and Pasifika come through from the baseline data. Baseline data showed that in spite of having had their type 2 diabetes diagnosed for five years, with higher levels of prescribed anti-diabetes medications than Europeans, and at a relatively young age (52–53 years), HbA1c was still 11–13mmol/mol higher among Māori and Pasifika. This was shown back in 2006.⁶ In 2008, each 11mmol/mol increase in HbA1c across New Zealand, was shown to be associated with an increased risk for CVD of 1.08 (95% confidence interval 1.06–1.10), myocardial infarction [HR 1.08 (1.04, 1.11)] and stroke [HR 1.09 (1.04, 1.13)].⁹ A high proportion of patients across Auckland (20.4%) had an HbA1c >74.9mmol/mol for many years and particularly in Counties Manukau (23.8%). More than 5,000 of these patients with diabetes were Māori and Pasifika and only 1,500 were European New Zealanders (personal communication).

One key question is how this ethnic disparity in hyperglycaemia can have been allowed to happen over such a long period of time? More importantly, what can be done now as a matter of urgency to address the situation? If there have been strategies available within and beyond New Zealand/Aotearoa that have not been employed, then this must be seen as inequity, and indeed a failure to act in the face of need.¹⁰

When clinical goals are not being achieved then, patients are usually referred for

diabetes specialist multidisciplinary care to identify and address the reasons for the continuing hyperglycaemia. Auckland regional data show that among those with an HbA1c >74.9mmol/mol, 31–33% in Waitemata/Auckland and only 15.1% in South Auckland attended a diabetes specialist service at least once: only 6.5% in South Auckland attended two or more times (personal communication). There are clearly severe limitations in access to specialist services, with an obvious need for investment to integrate diabetes specialist services better with primary care through advisory, education and outreach services including case conferencing.¹¹ It is unclear whether this is a case of cost-shifting, or underinvestment with inertia.

For over 10 years, there has been worldwide access to newer anti-diabetes agents (SGLT2 inhibitors and GLP1 receptor agonists) that not only reduce glycaemia significantly without weight gain or hypoglycaemia side effects, but also reduce mortality, renal and/or cardiovascular complications. In 2016, there was a direct appeal to the New Zealand Government to provide access to these drugs¹² but in 2020, access remains limited to those who are able to pay. For many, and in particular Māori and Pasifika with an HbA1c >74.9mmol/mol, this is highly likely to be unaffordable.

The current Pharmac consultation seeks support for further inaction by providing these drugs only to those with existing complications. When we know that long-standing hyperglycaemia is a particular problem for Māori and Pasifika, with overwhelmingly high rates of often avoidable hospitalisation and that hyperglycaemia needs to be managed upstream in primary care with as few barriers as possible, the Pharmac proposal is beyond inequity, and could be seen as racism.

Addressing barriers to care and improved integrated population-based approaches to diabetes care is complex and will take time. No nation has perfected such strategies. However, where Māori and Pasifika have a clear additional need for hyperglycaemia management, and tools are available to address this need, we must start now. Obstructing access is inequitable and unacceptable.

Competing interests:

Nil.

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