

Ethnic disparities in quality of diabetes care in Scotland

Compared to White people with type 2 diabetes in Scotland, glycaemia was higher and the odds of receiving all 9 care processes were lower in those from non-White ethnicities, particularly African, Caribbean, Black and Asian individuals, according to this study published in *Diabetic Medicine*. The retrospective cohort study used data from the Scottish Diabetes Research Network National Diabetes Dataset and looked at levels of glycaemia and care process delivery in the first year following diagnosis and during medium-term care (median follow-up 5 years). The greatest, statistically significant, differences in receiving the care processes were seen during the first year after diagnosis in Indian and African, Caribbean or Black ethnicities compared to those of White ethnicity, with retinal screening rates 30–40% lower in all non-White ethnicities. Ethnic differences were similar but less marked in subsequent years. Adjusting for confounding factors such as socioeconomic status did not significantly change the results. The authors highlight the need for support for healthcare providers to develop culturally appropriate diabetes services to try to reduce inequalities.

In Scotland, an estimated 6% of the population – around 330 000 people – have diabetes. People from non-White backgrounds are known to have a higher prevalence of diabetes, lower age at diagnosis, poorer glycaemic control and higher risk of complications. Studies provide differing data on whether cardiovascular disease and all-cause mortality rates are higher or lower in other ethnic groups compared to White populations.

In this study published in *Diabetic Medicine*, [Scheuer and colleagues](#) aimed to identify whether delivery of all 9 care processes differs between various ethnic groups in Scotland and, thus, may contribute to some of the differences in outcomes. The Scottish Diabetes Research Network National Diabetes Dataset, which includes over 99% of all people diagnosed with diabetes in Scotland, was used to identify those with new-onset type 2 diabetes.

The study

This cohort study included 162 122 people newly diagnosed with type 2 diabetes between 2009 and 2018, and compared numbers receiving the 9 diabetes care processes between different ethnicities during the first and subsequent years

after diagnosis. Ethnicities were self-reported and divided into as many categories as possible, although some of these were combined during reporting.

Measurement of HbA_{1c}, cholesterol, serum creatinine, urinary albumin, BMI, blood pressure, smoking, retinopathy and foot screening were reviewed for the first year after diagnosis. To determine whether any differences in care differed over the longer term, HbA_{1c} (as a proxy of care processes overall) and retinopathy screening were examined longitudinally (median follow-up 5 years).

Results

The Scottish population is predominantly White but includes significant numbers in each ethnic group to allow analysis. At baseline, compared with the White population, more people from Asian and African, Caribbean or Black ethnicities lived in areas of high social deprivation, while people of Indian, Pakistani and Chinese ethnicity were less likely to live in deprived areas. Compared with most other ethnicities, White people were more likely to have a history of mental health disorders, smoking, cardiovascular disease and other comorbidities.



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Compared with White people, the odds of receiving care processes were lower in those from other ethnicities, particularly in African, Caribbean or Black individuals and those from Indian backgrounds, both in the first year following diagnosis and during the medium term.

First year after diagnosis

- After adjustments, more White people received each of the 9 care processes than people from other ethnicities:
 - Fewer differences in Chinese and mixed ethnicities.
 - Largest, statistically significant, differences seen in Indian and African, Caribbean or Black ethnicities, with an almost 50% lower chance of receiving certain care processes (e.g. HbA_{1c}, blood pressure, BMI) compared with White people.
 - Retinal screening rates were 30–40% lower in most other ethnicities compared with White people.
- As in many other studies, urinary albumin measurement was low (64% overall), with less difference between groups than for HbA_{1c}.

Medium-term care

- Ethnic differences were similar to the first year but less marked.
 - HbA_{1c} was 10–39% less likely to be tested in other ethnic groups compared to White individuals (except in the “other Asian” category).
 - Eye screening was 11–38% less likely to be received in all other ethnicities compared with White individuals.

Adjusting for confounding factors such as socioeconomic status did not significantly change the results.

Discussion

This is the first UK study to explore ethnic differences across delivery of all 9 diabetes care processes, and to analyse these using more refined ethnic categories than have been used previously and across a large, nationally representative population.

Limitations include the 8.8% of people with no ethnicity data in primary or secondary care

records (who were included as a combined group), the need to combine some ethnic groups, lack of data on levels of healthcare engagement and, in the longitudinal analysis, the use of HbA_{1c} levels as a proxy for all care processes.

Previously, a 2019 retrospective cohort study in England explored type 2 diabetes care and glucose-lowering medication use in the Royal College of GPs Research and Surveillance Centre dataset between 2012 and 2016, across five ethnic groups: White, Asian, Black, mixed and other (Whyte et al, 2019). Deprivation and ethnicity were found to be important determinants of inequalities in glycaemic control, prescribing of newer drugs and completion of the five care processes explored (HbA_{1c}, eGFR, blood pressure, retinopathy and neuropathy/foot checks). HbA_{1c} was higher in those from the most deprived groups versus the least deprived, and with Black ethnicity versus White. Compared to White people with type 2 diabetes, Black and Asian people were less likely to be prescribed SGLT2 inhibitors or GLP-1 receptor agonists, and Asian people were also less likely to receive insulin. Black people were less likely to have annual HbA_{1c} and retinopathy screening, and Asian people were more likely to receive HbA_{1c} and eGFR annual testing but less likely to have retinopathy or neuropathy screening, than White people.

The present authors postulate that the differences between ethnicities are likely to be multifactorial, with potential contributors including higher deprivation, cultural and language barriers, living in areas underserved by healthcare resources, cultural differences in healthcare and other beliefs, gender dynamics, and low accessibility of culturally appropriate services. Cultural beliefs may particularly influence desired body weight and desire to follow traditional diets, and these may influence behavioural change.

Implications for practice

We need to be aware of and work hard to minimise the inequities in the diabetes care we provide and the inequalities faced by the people we support. The authors highlight the need for support for healthcare providers to develop culturally appropriate diabetes care aligned with

recommendations in the Diabetes UK Tackling Inequalities Commission report to help tackle disparities in care delivery (Slattery et al, 2023). Reading or re-reading the [executive summary](#) of the Tackling Inequalities Commission report can help us to see our current care delivery through new eyes.

LanguageLine and similar interpreting services provide excellent support, are easy to use and can help reduce language barriers, greatly improving our consultations with people who are not comfortable discussing their health in English. Diabetes UK and other organisations provide resources in multiple languages, and we need to understand and individualise the appropriateness of written versus video/audio-based internet resources, since often older people may not read in their native language.

Where I practise, over recent months we have been welcomed into our local Mosque, where our team, including our registrars and local medical students, led by our Advanced Nurse Practitioner, has been offering diabetes screening to people from all the practices across the city, seeking to replicate work originally undertaken in Leicester (Willis et al, 2016). People have been so willing to share information about their cultures, health beliefs and traditions, and I hope we will be able to translate this into improved cultural competence in future.

One major learning point from these sessions is that the key dietary contributors to weight and type 2 diabetes are high carbohydrate intake and large portion sizes from home-cooked meals, rather than the ultraprocessed foods that are the

main challenge in our White population. Using resources such as the Carbs & Cals *World Foods* book and the dietary guidance linked below, we have been able to participate in culturally appropriate discussions and share resources around potential dietary changes which may reduce risk – all received enthusiastically.

By continuing to listen to and learn from all the people we support with diabetes and by fine-tuning our services, we hope this will translate into reduced inequalities in future. ■

Scheuer SH, Fleetwood K, Wild SH, Jackson CA; Scottish Diabetes Research Network epidemiology group (2024) Ethnic disparities in quality of diabetes care in Scotland: A national cohort study. *Diabet Med* **41**: e15336

Slattery A, Ruddock F, Bauld L (2023) *Tackling Inequality Commission report*. Diabetes UK, London. Available at: <https://bit.ly/3A7SRsB>

Whyte MB, Hinton W, McGovern A et al (2019) Disparities in glycaemic control, monitoring, and treatment of type 2 diabetes in England: A retrospective cohort analysis. *PLoS Med* **16**: e1002942

Willis A, Roshan M, Patel N et al (2016) A community faith centre based screening and educational intervention to reduce the risk of type 2 diabetes: A feasibility study. *Diabetes Res Clin Pract* **120**: 73–80

Useful resources

- **Diabetes UK:** [Tackling Inequality Commission report and executive summary](#)
- **Diabetes UK:** [Diabetes information in different languages and formats](#)
- **Diabetes UK:** [Flavour toolbox for South Asian cooking](#)
- **Carbs & Cals:** [World Foods book](#)
- **Healthier You NHS Diabetes Prevention Programme:** [Healthier Eating: African, Caribbean and South Asian cuisines](#)
- **Know diabetes:** [Website and how to access resources in different languages](#)

Ethnic disparities in quality of diabetes care in Scotland: A national cohort study

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