**Glycaemic and cardiometabolic outcomes in youth with diabetes in New Zealand primary care**

Aim: To describe the glycaemic control and cardiometabolic outcomes among individuals under 25 years with type 1 (T1D) and type 2 diabetes (T2D) across two major regions in New Zealand.

Methods: Primary care records between February 2021 and December 2023 were analysed from four Primary Healthcare Organisations located in the Waikato and Auckland regions. A total of 1,198 patients < 25 years were identified from a larger cohort of 57,743 individuals (aged 0–75 years). Sociodemographic characteristics and clinical indicators including HbA1c, blood pressure, lipid profile, urinary albumin-to-creatinine ratio (UACR), and estimated glomerular filtration rate (eGFR) were assessed and stratified by diabetes type, age group, ethnicity, and socioeconomic deprivation.

Results: Of the 1,198 youth with diabetes, 863 (72.0%) had T1D and 335 (28.0%) had T2D. In individuals with T1D, the median HbA1c was 70.0 mmol/mol (IQR: 63.0–91.5), significantly higher among those aged 20–25 years compared to younger age groups (P=0.012). Ethnic disparities were observed, with Pasifika and Māori patients having higher HbA1c levels (85.0 and 80.0 mmol/mol, respectively) than European and Asian patients (67.0 and 62.0 mmol/mol, respectively; P<0.001). HbA1c was also higher among those living in areas of greater socioeconomic deprivation (P=0.006). Only 9.5% of T1D patients achieved target HbA1c levels (≤48 mmol/mol), though over 60% met targets for LDL-C and blood pressure. In T2D, the median HbA1c was 62.5 mmol/mol (IQR: 48.0–88.0), with no differences by age, sex, BMI, or deprivation. Hypertension was common, and males had significantly higher systolic blood pressure than females (P=0.009). Albuminuria was prevalent, with 35.8% showing microalbuminuria and 10.4% macroalbuminuria, more commonly in males (P<0.001).

Conclusion: Young people with diabetes experience suboptimal glycaemic control, with marked ethnic and socioeconomic disparities. Findings highlight the need for targeted, equity-focused interventions in primary care.