**The clinical characteristics and healthcare relations of people with diabetes experiencing housing instability and homelessness who present to the emergency department**

**Aims**: Housing instability (HI) including homelessness is associated with adverse outcomes for people with diabetes mellitus (DM) such as unstable glucose levels, increased complications, and frequent emergency department (ED) presentations. This study assessed the characteristics and outcomes of people experiencing HI who presented to a major metropolitan Brisbane hospital ED.

**Methods:** The clinical and social circumstances of all DM-related ED presentations to the Princess Alexandra Hospital in 2023 by people experiencing HI were retrospectively reviewed. DM-related presentations were defined by either a DM-related problem as primary (e.g. hypoglycaemia) or a contributing diagnosis (e.g. myocardial infarction in a person with DM). HI was determined by an address that matched known residential locations (e.g. supported living, boarding houses, day drop-in centres), or a diagnosis of homelessness.

**Results:** 543people with at least one DM-associated ED presentation were identified. Of those, 33 (6.1%) met our search criteria for HI. Their average HbA1c (±SD) within 12 months of presentation was 10.1% (±7.3). The majority (72.7%) presented with DM as their primary diagnosis. Documented DM-associated macro- and microvascular complication rates were 30.3% and 39.4%, respectively. Nearly half (45%) had no regular general practitioner listed. Only 48% had previously been linked to an endocrine service and half of those had not engaged. A total of 84.8% had more than one ED presentation (any reason) in 2023. Low health literacy, reduced medication use, and limited engagement with community services were frequently mentioned as potential contributors. Many people had documented mental health (66.7%), substance use (72.7%), and/or cognitive disorders (18.2%).

**Conclusions:** Co-prevalence of mental health disorders and reduced linkage with community-based services are likely contributors to DM-related ED presentations associated with HI. This study helps unpack the complex care needs associated with HI and inform strategies to improve health care pathways and outcomes.