

# Cardiovascular admissions more common among most deprived

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People with diabetes from deprived backgrounds in England are twice as likely to end up in hospital with a major cardiovascular event such as a heart attack or stroke as those from more affluent communities, according to new research being presented at this year's European Association for the Study of Diabetes (EASD) Annual Meeting in Berlin, Germany (1-5 October).

The nationwide study found that despite improvements in cardiovascular disease outcomes in the general population over the past decade, socioeconomic inequalities have persisted in hospital admissions for major cardiovascular causes across England among people with [diabetes](#).

Differences in health outcomes amongst different socioeconomic groups have been shown in many areas and have provided the focus for national initiatives in the UK to reduce inequalities.

Recent studies have shown that cardiovascular disease and mortality from heart disease in the general population has been steadily declining over the past few decades because of risk factor reductions in the population and improvements in medical treatments. However, little is known about how people with diabetes from different socioeconomic groups have benefited from this reduction in cardiovascular disease.

To explore this further, researchers from Imperial College, London, UK identified all patients with diabetes aged 45 years or older admitted to hospital in England for major cardiovascular events and procedures between 2004-2005 and 2014-2015, and calculated diabetes-specific admission rates for each year according to deprivation quintile. Socioeconomic position was classified using the Index of Multiple Deprivation that uses seven dimensions of deprivation including income, employment, education, health, housing, crime and living environments.

Over the decade, admission rates rose steadily with increasing levels of deprivation. People with diabetes from the most deprived quintile were around twice as likely to be admitted to hospital with a [heart attack](#), stroke, [percutaneous coronary intervention](#), or coronary artery bypass graft compared to the most affluent groups.

The results did however show that while absolute differences in admission rates between the least and the most deprived groups didn't change significantly for heart attack over the study period, they fell for stroke (by 17.5 per 100,000 people with diabetes), percutaneous coronary intervention (11.8 per 100,000 people with diabetes), and [coronary artery bypass graft](#) (15 per 100,000 people with diabetes).

Additionally, the findings indicated no difference in in-hospital outcomes—trends in inpatient mortality did not vary widely between the least and the most deprived groups over the study period, and inpatient mortality rates fell for all outcomes except percutaneous coronary intervention.

"Our findings indicate profound socioeconomic differences in outcomes, with [cardiovascular disease](#) among people with diabetes concentrated in those from socioeconomically disadvantaged backgrounds. These findings highlight the need for strengthened efforts to prevent and reduce cardiovascular risk in populations living in more deprived areas", says Dr. Eszter Vamos from Imperial College, London, who led the research.

"Our findings underscore the importance of improved risk stratification strategies considering socio-economically defined needs, and wide-reaching population-based policy interventions to reduce inequalities in diabetes outcomes."

Provided by Diabetologia

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