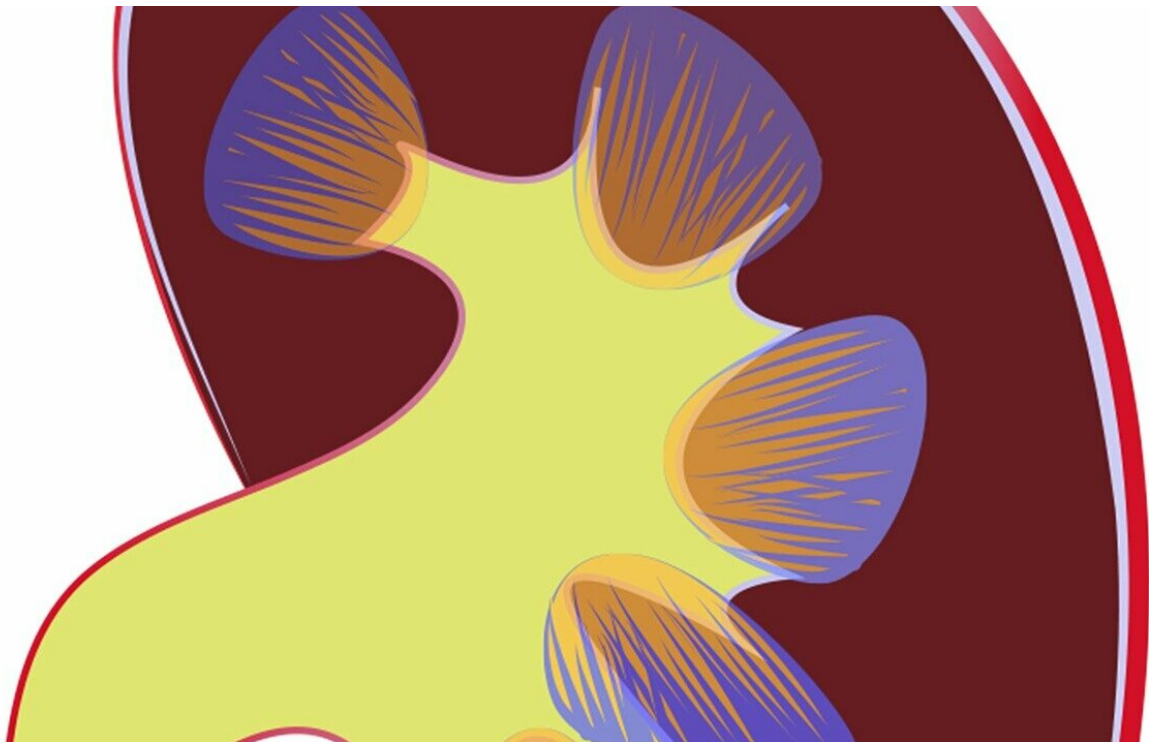


Socioeconomic deprivation increases risk of developing chronic kidney disease in England

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The George Institute for Global Health at the University of Oxford investigated whether there was an association between socioeconomic deprivation (measured using the English Index of Multiple Deprivation combining income, employment, health and disability, education, skills and training, barriers to housing and services, crime, and living

environment, into a single score by geographical area) and onset of advanced CKD and related outcomes, specifically end-stage renal disease (ESRD).

They found that adjusting for known risk factors for CKD development, such as body mass index, [high blood pressure](#), diabetes and cardiovascular disease, reduced the risk of CKD amongst the most deprived group (indexed as the bottom 20% of the population) as against the least deprived group (top 20%) by 32%, but the disadvantage remained marked at 36%.

"CKD is generally associated with old age, cardiovascular disease, diabetes and high blood pressure. Using contemporary NHS data, we were able to directly explore the relationship between [socioeconomic deprivation](#) and risk of advanced CKD and ESRD, and our findings bear relevance to the 2.6 million people in England currently living with CKD", said Dr. Misghina Weldegiorgis, Epidemiologist at The George Institute, who led the research using participants in the Clinical Practice Research Datalink.

Socioeconomic deprivation adversely influences development of CKD and progression to ESRD by exacerbating these established risk factors. So too, deprived patients may have poorer access to high-quality care and treatments, including [kidney transplantation](#), which improve survival, than more advantaged peers.

"The good news for clinicians is that the greater risk of developing advanced CKD experienced by the most socioeconomically deprived may be modifiable by established risk factors. Appropriate management of these is crucial to delay the progression of CKD to ESRD and so improve patients' quality of life and survival, irrespective of their socioeconomic status".

"However, wider systemic change beyond healthcare will be required if the general population is to experience risk of CKD equitably, regardless of their [socioeconomic status](#)", added Weldegiorgis.

CKD is a long-term, irreversible condition where the kidneys do not work as well as they should to 'clean the blood', and makes individuals more susceptible to worsened kidney functioning at times when they may be unwell for other reasons. Those with advanced CKD have an increased risk of hospital admission and death.

The research team recommend that interventions be tailored to engage socioeconomically deprived groups through targeted communication to improve screening and treatment rates; close follow-up of patients following diagnosis; and targeted public health education to reduce behavioural [risk factors](#).

More information: Misghina Weldegiorgis et al. Socioeconomic disadvantage and the risk of advanced chronic kidney disease: results from a cohort study with 1.4 million participants, *Nephrology Dialysis Transplantation* (2019). [DOI: 10.1093/ndt/gfz059](https://doi.org/10.1093/ndt/gfz059)

Provided by University of Oxford

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