Health inequalities could be reduced by more effective health care, says new study

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Wide differences in death rates from disease still persist throughout England – but effective healthcare can help to reduce these inequalities, a new study has discovered.

Researchers from the University of Leicester led a two-year project funded by the National Institute for Health Research (NIHR) into why differences in death rates from diseases like heart disease, strokes, lung disease and cancers still persist.

They found that age and poverty were among the biggest factors that accounted for the differences – but they also discovered that effective delivery of healthcare could lessen the impact of these health inequalities .

The research, published in PLOS ONE and funded by the NIHR Collaboration for Leadership in Applied Research and Care (CLAHRC) for Leicestershire, Northamptonshire and Rutland, was led by a University of Leicester team including Louis S Levene, honorary clinical fellow, John Bankart, lecturer in medical statistics, Kamlesh Khunti, Professor of Primary Care Diabetes and Vascular Medicine and Richard Baker, Professor of Quality in Health Care and Director of the NIHR CLAHRC.

Dr Levene, a full time GP, said: "Our research examined the wide variations in death rates from major diseases between different areas in England, despite an overall steady decline.

"Our aim is to better understand what factors, particularly in the delivery of healthcare, might explain these variations in death rates. This knowledge could help local health authorities to focus on those measures (such as detecting more people with high blood pressure) that are more likely to reduce these 'health inequalities' over time and to tailor the delivery of these measures to the needs of the local population.

"Looking across all the primary care trusts in England, the main predictors of variations in death rates were population characteristics, especially age and socio-economic deprivation. However, the study showed that for each additional 1% of people known to have raised pressure, there is a decrease in coronary heart disease death rates of 3% and in stroke death rates of 6%.

"Also, for each 1% increase in the percentage of patients recalling being better able to see their preferred doctor, there was a decrease in lung disease death rates of 0.7% and in cancer death rates of 0.3%. These effects are independent of the other factors studied. Variation in the performance of GPs was generally not associated with variations in death rates."

Dr Levene said that, previously, it has not been entirely understood why there are still such variations in death rates in different primary care trusts in England.

He added: "This study successfully tested a new conceptual model that variations in death rates are mainly predicted by variations in the characteristics of populations, but that these effects are altered by some healthcare activities."

Professor Richard Baker, Director of the NIHR CLAHRC and based in the University of Leicester Department of Health Sciences added: "At a time of big changes to how the NHS, especially in the community, will

deliver healthcare and associated financial constraints, those who commission healthcare need information about what aspects of healthcare are most likely to benefit the health of populations as a whole. Despite the universal provision of healthcare by the NHS, there remain huge variations in health outcomes.

"This study reminds us all of persisting health inequalities, and challenges for the future of healthcare. Health inequalities are mainly predicted by variations in the characteristics of local populations; healthcare can only partly combat this effect, but it is important that it does so through interventions that include measuring blood pressure, and offering a service that enables people who want to to see the same doctor.

"Healthcare system reforms should therefore aim to deliver cost-effective evidence-based interventions to whole populations, and foster sustained patient-doctor partnerships."

Dr Levene concluded: "It is gratifying to have completed a challenging project, which has the potential to inform and influence decisions about how healthcare needs to be delivered to local populations. It also demonstrates that our Department has increasing expertise in analysing important public health issues. Personally, I am excited by the opportunity that I, an ordinary full-time GP, have had to work with high-powered academic colleagues and to complete a piece of research accepted for publication in a peer-reviewed academic journal."

Provided by University of Leicester