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Who gains most from increased health care spending?

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According to conventional wisdom, increased public spending on health care is bound to reduce social inequality in health. Our study, which examined mortality data across 32,784 small geographical areas in England, suggests the reality may be more complex.

We analysed secondary care health funding allocated to NHS administrative areas in 2018/19. Combining this with fine-grained data on small area population mortality rates and measures of social deprivation allowed us to explore how the relationship between funding and mortality varies between social groups. We used robust methods that allowed us to isolate the influence of funding on mortality from other factors that may have an impact.

We found that:

The middle group gained the most: Mortality benefits from increases in secondary care spending were significantly higher in the middle deprivation group than other groups.

Poorer groups do not always benefit more: We found no evidence that the most deprived groups received greater mortality gains than the least deprived groups.

Opportunity costs: Conversely, the most deprived may not always bear the largest share of "health opportunity costs" when funding is reduced or redirected towards new health technologies or programmes.

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Because more socially disadvantaged populations are sicker, it seems intuitively obvious that they will gain more from additional health care spending. However, three mechanisms may complicate the impact of spending on outcomes and inequality:

Sharp Elbows: Advantaged patients are often more effective at navigating the system to get early diagnosis and non-emergency treatment, while disadvantaged groups rely more on emergency care.

Crowding Out: Increased public funding may simply replace private spending for wealthy individuals. For example, if the spending reduces NHS waits, then this could reduce the demand for private surgery, limiting the overall impact on their health.

Co-morbidity/Co-investment: Disadvantaged patients may gain less health benefit per pound spent due to having a greater number of health conditions and fewer private resources (like stable housing and time for rehabilitation) to support recovery.

These three mechanisms may have become more powerful in England since the early 2010s, during a period of sustained deterioration in economic growth and public services. Since then, for example, disadvantaged groups have received a smaller portion of non-emergency secondary care spending in England compared to more affluent groups.

Our findings are directly relevant to the technical methods used by the National Institute for Health and Care Excellence (NICE) for assessing the health inequality impacts of cost-increasing interventions. In the light of our findings, NICE methods guidance on health inequalities now recommends that analysts start by assuming an equal distribution of opportunity costs across deprivation groups, while exploring alternatives in sensitivity analysis.

Our findings also have wider policy implications. Simply increasing expenditure on secondary care may not reduce social inequality in health. To reduce health inequality decision makers may need to target spending to overcome the barriers that prevent disadvantaged groups from getting early diagnosis and non-emergency specialist care.

Future research should explore whether our counter-intuitive findings can be replicated in other studies using fine-grained data from different years, using different methods, and in different countries.

Read the full paper, funding sources and disclaimers in Applied Health Economics and Health Policy

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