

Lay Summary

Paying for health gains

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Payments to healthcare providers are often based on the volume of activity provided. For example, NHS hospitals who treat more patients obtain proportionally higher revenues. Such payment systems have limitations, as higher volumes are no guarantee of substantial improvements in health.

Payments to healthcare providers based on health gains, rather than volume, have sometimes been advocated as a natural solution. The appeal of health outcome-based payment systems is that they reward what ultimately matters, health gains. It is however accepted that health outcomes are difficult to measure. Some commonly available indicators, such as mortality and readmission, can only be applied to treatments where adverse events are frequent.

Recently, broad measures of health gains have been collected in the NHS in the form of patient reported outcome measures (PROMs) for specific surgical procedures which potentially constitute the basis for developing hospital payment systems based on health gains.

This study uses economic theory to inform practical implementation of pay-for-performance schemes that reward health gains using patient reported outcome measures for hip and knee replacement as an illustration.

We outline the various steps that the funder would have to put in place to develop such outcome based payment schemes. First, the funder has to identify the target health to be achieved by the provider, and to compare it with the provider provision of health before the policy intervention. Second, the funder requires an estimate of the costs of additional health improvements. Third, based on these estimates, the funder should set the bonus payment to reflect the difference between provider costs of additional (incremental) health improvements before and after the policy intervention. Fourth, the funder has to adjust other elements of the payment system to ensure that as a whole these cover the costs of the provider.

We provide estimates of the optimal bonus for hip and knee replacement under a range of assumptions about provider costs and the value of health improvements. For example, for hip replacement we show that the bonus paid to the provider for one unit of health improvement as measured by the Oxford Hip Score ranges between £45 and £226 under different assumptions related to the cost function. For knee replacements, the price for one unit of health improvement as measured by the Oxford Knee Score ranges between £72 and £254 again under different assumptions related to the cost function.

Full paper available at

https://www.york.ac.uk/media/che/documents/papers/researchpapers/CHERP183_Paying_Health_Gains.pdf

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