Title: Improving methods to evaluate the causal impact of health policies on population health

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Much health economic research focusses on estimating causal effects of policies from observational data, referred to as programme or impact evaluation [1]. However, these evaluations do not usually identify the full (i.e. long-term) health impacts of policies on affected individuals, nor do they reflect the opportunity costs of policies in terms of their impact on wider population health as a result of the resources expended. Such information is important for policymakers that need to decide whether to implement, amend or discontinue health care policies.

Extending programme evaluations to full economic evaluations presents numerous analytical challenges and there are still few applied examples [2,3]. Challenges include understanding the mechanisms of action, establishing the causal impacts of distinct components of a policy as well as their interdependencies, reflecting heterogeneity in impacts across groups, and capturing the opportunity costs [2]. As part of the PhD project, the student will develop potential solutions to one or more of these analytical challenges, drawing on insights from microeconomics, econometrics, machine learning and decision-analytic modelling. These will be demonstrated through applied case studies of health care policies in the UK and internationally.

References

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3. Kreif N, Mirelman AJ, Love-Koh J, Kim S, Moreno-Serra R, Revill P, et al. From impact evaluation to decision-analysis: assessing the extent and quality of evidence on 'value for money' in health impact evaluations in low- and middle-income countries. Gates Open Res 2021 51 [Internet]. F1000 Research Limited; 2021 [cited 2022 Feb 24];5:1. Available from: https://gatesopenresearch.org/articles/5-1