Research Proposal:
Institutional Failures in Healthcare —The Case of Prevention in NHS *

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1 Motivation

In most countries, healthcare is at least partially produced and allocated by public institutions. A prominent example is the National Health Services (NHS) in the United Kingdom. The NHS is entrusted with providing healthcare to the entire population of the UK with a budget that typically exceeds 10% of GDP.

These public institutions set the goals and priorities for the healthcare system, while the delivery depends on healthcare providers. The institutional design of the healthcare system—budgets, monitoring, delegation, and evaluation between the public authorities and healthcare providers—plays a crucial role in the extent to which systems can achieve their stated goals. Poor institutional design can lead to poor health and wasted public funds.

However, designing effective contracts is challenging for two reasons. First, healthcare systems hope to achieve multiple competing objectives with limited resources. Political pressure pushes leaders to try and do "more with less". Second, the map from the actions of providers to outcomes is stochastic and imperfectly observed. Even if providers spend a lot of time recommending preventative care to patients, the impacts of these actions are noisy (because of factors outside the healthcare system), and any benefits that accrue are also observed nosily after a long lag. The imperfect observability of actions and results complicates matters for two reasons. First, the NHS will find it difficult to verify whether providers are acting optimally. Second, voters will find it difficult to verify whether institutions are effectively delivering public goods. Finally, there is considerable scope for moral hazard and reneging by healthcare providers by exceeding budgets.

These issues are highlighted most prominently in the passage of an array of policies, such as the The Health and Social Care Act 2012 and the Health and Care Act 2022, incentive schemes, and bonus plans. Despite best intentions, these policies have not achieved their stated goals, leading to decades of chaos and frustration. Unfortunately, there is little rigorous research to diagnose precisely where the system fails and how we can design better institutional features. This research aims to fill that gap.

2 Brief Background

The NHS is primarily funded through general taxation and National Insurance contributions, with a small fraction (about 1%) derived from patient charges. Despite past attempts like separating NHS England from the Department of Health, political pressure continues to shape expectations and financial planning, often setting unrealistic targets for NHS managers. The overall NHS budget is set centrally through the government's Spending Review

and annual budgets, reflecting political priorities and fiscal constraints. Managers must balance external political demands with operational realities, either passing pressures down the chain or absorbing them to protect service delivery.

Once the Department of Health (via NHS England) receives its allocation, Integrated Care Boards (ICBs) are responsible for distributing most of the NHS funding within their geographic areas. Allocation to each ICB is determined through a needs-based, weighted formula, adjusting for factors including age, deprivation, urban density, disease burden, and regional cost differences (e.g., London's higher costs via the Market Forces Factor).

Once allocations are made to local organizations, Finance Directors are responsible for preparing and submitting detailed budgets and financial plans. These submissions ensure that NHS England can monitor the financial health of the system and intervene if organizations are at risk of breaching their spending limits. FDs are often caught between central expectations and local realities. When budgets are tight or target politically driven, they must choose between passing financial pressure onto service leads (potentially cutting services or staffing) or carrying the deficit and facing scrutiny from NHS England or government ministers. Of course, they are not fully independent, as their actions are constrained by their contractual obligations. In addition, the increase in performance-based pay further shifts the incentives of ICBs.

At the end of the chain, ICBs contract with Trusts to provide hospital, community, mental health, and ambulance services. They are publicly owned organisations, overseen by boards and regulated by the Care Quality Commission (CQC) for quality and by NHS England for financial and strategic performance. Trusts are evaluated mainly on visible, short-term outputs like waiting times, financial balance, and safety. These are politically sensitive and easy to measure. By contrast, preventative care, population health, and inequality reduction are largely ignored in trust-level accountability, even though they're essential for the NHS's long-term efficiency and resilience.

3 Research Questions

In this research project, our aim is to answer three interrelated questions:

1. Under the existing institutional structure, how do changes in budgets and political priorities influence the allocation of healthcare and outcomes?
    (a) H1: Trusts and providers are incentivized to underestimate costs
    (b) H2: Healthcare services are reduced as the year progresses, especially in the places with the largest short fall

(c) H3: Services that are not directly measured by CQC and provide benefits over time (eg., prevention) are more likely to be cut

2. What are the key sources of failure: (1) unexpected healthcare costs, (2) political pressure, and/or (3) low productivity in the healthcare sector?

3. What alternative institutional design would mitigate the existing failures?

4 Value-added

4.1 Policy

Our analysis will provide much-needed evidence to inform the debate on healthcare policy in the UK. For decades, the NHS has struggled to meet rising expectations and disagreements about the source of these difficulties remain unresolved. Politicians often attribute failures to poor management and declining productivity, while healthcare providers emphasize insufficient resources and unrealistic demands. Yet, there is little rigorous evidence that pinpoints the precise sources of failure, quantifies their impacts, and guides the design of effective solutions.

By identifying whether hospitals operate below the production frontier, we can inform policies that focus on improving efficiency and management. Conversely, if the challenge lies in politicians setting infeasible targets given current resources and technology, then policy must shift toward more realistic goal-setting and the efficient allocation of scarce resources.

Beyond diagnosing problems, our research will also generate actionable insights to support the design of institutional arrangements that better align incentives, reduce waste, and ensure sustainable improvements in healthcare delivery. Specifically, our findings will directly inform contract design and performance management policies, including reforms to Payment by Results, the Quality and Outcomes Framework, and waiting-time targets. They will also provide evidence for institutional design reforms, such as strengthening the governance of Integrated Care Boards and clarifying the division of responsibilities between the NHS and local authorities.

4.2 Academic Research

Our research makes central contributions to the academic literature on healthcare and institutional design. In most countries, healthcare is at least partially allocated by public institutions that, much like markets, must design information and incentive systems to allocate and produce care efficiently. While there is a rich body of research on market failures

in healthcare, rigorous work on institutional failures—how governance, contracts, and political constraints distort outcomes—remains sparse. By analyzing one of the largest public healthcare providers in the world, we highlight the trade-offs between political economy and productivity that these systems face.

First, we extend the literature on market design. Classic work in this area Roth (2018); Budish (2012) demonstrates how carefully designed allocation mechanisms can improve efficiency in markets ranging from school choice to organ donation. We build on these insights by considering political economy constraints that shape institutional design in healthcare systems, showing how political pressures can undermine otherwise well-designed mechanisms. Our empirical setting allows us to test these ideas directly, leveraging comprehensive data and a natural experiment to identify the key economic primitives governing the NHS.

Second, we contribute to the literature on incentives in the public sector. Foundational theoretical work Holmstrom and Milgrom (1991); Dixit (2002) highlights how multitasking and weak monitoring complicate contract design in public institutions. We bring these ideas to healthcare, demonstrating how imperfect observability of outcomes interacts with short-term political targets to generate distortions in provider behavior.

Finally, we add to the growing literature on prevention and long-term health investment. Recent work, Li (2025), emphasizes that insurers face weak incentives to invest in prevention because benefits often accrue outside their coverage horizon. We show that public institutions are subject to a parallel distortion: tight budget constraints and short-term political cycles lead to systematic underinvestment in preventative care, even when such investments are socially efficient.

References

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