



THOUGHT LEADERSHIP
INSTITUTE PAPER

Enabling the Adoption of Technology and AI in the NHS:

Opportunities for Improvement
and Recommendations for
Change

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Executive Summary

It is widely understood that the NHS is facing a major set of challenges as the UK looks forward to the July 24 General Election. Despite political rhetoric, solutions to the challenge of the demand for health and care exceeding supply based on supply-side growth look highly improbable and so, leaders have turned rightly to the need for service transformation built on the foundations of adopting new technologies as a significant strategy. These include artificial intelligence (AI), AI, Robotic Process Automation (RPA), and remote digital service delivery.

The major barrier to deploying this strategy, as has been identified in many national reports, is the ability of the NHS to commission, create, and implement the necessary regulatory, procurement, financial, and cultural environment to enable the adoption of these technologies at scale and pace.

Despite the challenges, the push towards faster and more widespread adoption of AI in healthcare continues. The discussion in this paper is based on what took place at the same time as the NHS ConfedExpo which featured numerous sessions on AI, including the 'AI Hackathon in Health', sponsored by Google Health. With a new Government in the UK, the thorny issue of how to manage technology and AI deployment in the NHS has never been more important.

Stakeholders from across the NHS as well as the AI and technology industry took part in the discussion on 11th June 2024. This paper summarises their contributions and highlights the key issues discussed and priority areas for action.

The Big Issues

There was widespread agreement on a number of key issues surrounding the deployment of technology and AI in the NHS, which are summarized in the table below. The lack of centralized funding and a clear system for adoption were overarching issues that all stakeholders identified.

Financial Issues	Cultural Issues	Operating Model Issues	Miscellaneous issues
Absence of sufficient dedicated funding for investment in the necessary technologies and applications	Lack of a clear vision and narrative with sufficient precision to inspire staff rather than link technology to efficiency/ productivity.	Insufficient time for management and clinical staff to understand and implement new technological solutions	Need to secure the regulatory and legal context to enable risks of adoption to be handled
The absence of money for training and education in adopting new technologies	The need for leaders to provide this vision at local level in order to create hope rather than additional work	Lack of scale makes adoption and commercial deals difficult but ICS and Provider Collaboratives create new opportunities	Chance to identify positive examples of adoption and use appreciative inquiry to help spread confidence and capability
Underdeveloped financial business cases to enable adoption	Uninformed senior leadership struggles to embrace the new opportunity	Need to wrap a whole system of implementation around any technology adoption	Procurement processes are misaligned and act as a barrier rather than a facilitator
The short term financial cycle and annual accounting periods makes the return on investment argument difficult to secure	Business as usual mentality trumps the hunger for innovation and need for change	Need to see technology adoption whole pathway and embrace primary and social care not just focus on hospitals	Important for leaders and boards to identify problems better in order to target tech solutions and development

Opportunities for Improvement & Recommendations for Action

A number of opportunities and recommendations for action were identified during the discussion. These are based on the current state of affairs and focus on a small number of key areas where actions will be most effective.

- 1** Use the opportunity of a Government with a five-year view to create a road map for technology and AI adoption that allows for proper understanding of capability, training and education of staff and targeting of solutions to relevant problems.
- 2** Link AI and software development closely to the current deployment of electronic patient records (EPRs) across the NHS, in order to capitalise on the significant investment already made into them.
- 3** Rewrite procurement processes with sufficient emphasis on standardisation of technology to drive the supplier market to embrace the opportunity of AI and machine learning.
- 4** Work with senior leaders at policy and service delivery levels to create an inspiring and hopeful vision for the deployment of AI and technology that provides hope of achieving better outcomes and better value from each pound spent, rather than linking this to efficiency and productivity. Too much focus on efficiency and productivity tends to alienate rather than inspire staff who will be crucial for the success of AI and technology.
- 5** Build on examples of best practice in technology adoption to create confidence in the NHS's capability to adopt at scale and pace.

- 6** Develop a clear funding strategy to accompany technology adoption that is consistent with key targets and KPIs. This should have a multi-year approach to enable and support the 'invest to save' principle.
- 7** Be clear about any potential liabilities and how these are handled in the NHS.
- 8** Recognise that human error currently happens and, therefore, that levels of AI-led error are likely to be lower than current levels. This should be reflected in risk assessments of adopting new technology.
- 9** Use the scale of Integrated Care Systems (ICSs) and provider collaboratives to promote adoption on a multi-organisational basis, thereby improving standardisation and opportunities for better commercial deals.
- 10** Develop an implementation plan that is clear about the actions that need to be taken nationally (e.g. data standards) and those that must be undertaken locally (e.g. clinical engagement).

Conclusion

The wide range of stakeholders in this roundtable discussion identified a number of key issues affecting both those on the NHS side and those in industry, but also some shared priorities and areas for action.

The first priority for the NHS should be the early adoption of 'low-hanging fruit' technology. In many places this is underway and clear benefits are already being seen. This approach will help to ease the transition of many new technologies into healthcare, as well helping to pave the way for future technologies by identifying inadequate digital infrastructure or the need for training programs.

It was clear that to adequately address the challenge posed by AI and other emerging technologies, there must be a recognition of the times required to adopt and implement these tools properly. Rushed adoptions that don't have clear rationales or the buy-in of key stakeholders are set up to fail and don't provide evidence to support future adoptions.

There was also broad agreement that local and national leaders urgently need to work together to establish a realistic and hopeful narrative that will encourage stakeholders at all levels to embrace this opportunity. The possibilities of AI and other technologies are inspiring, but people also have concerns which need to be addressed and allayed.

Looking to the future, once the 'low-hanging fruit' technology has been adopted, the NHS will need to be in a position to get ahead of technological advances and to create a proactive system that can accommodate new technologies as they iterate and improve. Standing still cannot be an option, and we need to lay the ground now or risk being left behind.