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Al in Healthcare

Recommendations to accelerate adoption and deployment



A report by the Health Tech Alliance, sponsored by



About the Health Tech Alliance

The Health Tech Alliance is a coalition of health technology companies and stakeholders from across the NHS and wider health system. This focus on partnership is integral to the Alliance's overarching objective of industry and the NHS working collaboratively to ensure that vital HealthTech innovation reaches patients.

Find out more about us by visiting <u>healthtechalliance.uk</u> or by contacting <u>secretariat@healthtechalliance.uk</u>. Follow us on <u>LinkedIn</u> and <u>Twitter</u>.

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Introduction

In February 2021, the Health Tech Alliance convened a roundtable of experts in the field of artificial intelligence (AI) and healthcare to discuss the current state of play in the area, and how adoption of such technologies can be accelerated and their full benefits realised.

The roundtable was chaired by Dame Barbara Hakin (Chair of the Health Tech Alliance), and brought together a range of expert figures from industry, the health system and its associated bodies (including AHSNs, and hospital trust groupings), former NHS representatives and individuals who have played key parts in helping the Government to develop its own strategy for AI and health.

The session, which was sponsored by NetApp, looked at the current state of play and how certain barriers still need to be overcome. The discussion was focused on providing tangible recommendations - for industry, the health service and policymakers - on how the benefits of AI can be best exploited and implemented. This paper sets out these initial recommendations.



Overview

"The technology is now there. The challenge is how to get it adopted and accepted"

"There are pockets of excellence, but also pockets of serious lag time in terms of uptake"



Our expert panel was keen to highlight the ongoing, high-quality work that is currently being undertaken across the health system and is already helping to drive the adoption of AI-based technologies. The five recommendations that have been formulated look to build on this existing work:

- 1. Further investment in the digitisation pathway is required
- 2. Better education of the public is needed on the benefits and security of data sharing
- 3. A single AI-specific work programme should be established to bring together all current AI-related healthcare activity
- 4. The NHSX/AAC Artificial Intelligence in Healthcare Award should be expanded
- 5. New regulatory pathways must be developed for AI-based technologies



Recommendations

1. Further investment in the digitisation pathway is required

In order for the full benefits of AI to come to fruition across the health service, systems (including basic infrastructure within hospital trusts) must be updated and enabled in order to take advantage of the wide-range of AI-powered tools that now exist. Basic digitisation is a clear first initial step that still needs to be taken across much of the health service. Unsurprisingly, areas where digitisation is more advanced - such as radiology - have seen greater progress and benefits from AI than areas which are still lagging behind.

Whilst various NHS digitisation funding schemes do already exist, much of the funding allocation has thus far been focused on a small number of NHS providers that have been judged to be well advanced in digital transformation. A more expansive and wide-ranging approach to digitisation funding is required to enable widespread AI uptake.

2. Better education of the public is needed on the benefits and security of data sharing

For the beneficial applications of AI to be fully realised in healthcare, further education of the public is needed so they better understand what exactly these benefits are. With AI, and algorithms specifically, having received prominent negative headlines in the past year due to the controversy over exam marking,

much work remains left to be carried out to address public suspicions over the use of their data in a health setting.

Without widespread trust and confidence amongst the public, mass data sharing on which the most significant benefits of AI rely - will not be possible. Given the incredibly high level of trust that the public has in the NHS, its staff and associated bodies, the UK health system is well placed to address public concerns over data sharing and security.



3. A single AI-specific work programme should be established to bring together all current AI-related healthcare activity

From the work of NHSX in leading digital transformation to that of the Accelerated Access Collaborative in speeding up spread and adoption, and not forgetting the role of the Office for Life Sciences, Innovate UK, NICE, NIHR and NHS England & Improvement, there is a wide range of bodies contributing to the excellent work already being done to develop AI's role in healthcare. However, this spread of bodies can lead to elements of fragmentation and confusion for industry and parts of the health system over exact roles and responsibilities.

We recommend that a single specific coordinated approach to AI should be pursued. This should consist of a dedicated work programme across all the many bodies which currently have an interest in the area. This would both simplify the system for industry and other stakeholders, but would also ensure that the widespread excellent work that is already happening does not take place in silos.

4. The NHSX/AAC Artificial Intelligence in Healthcare Award should be expanded

The launch of the AI Award by NHSX and the Accelerated Access Collaborative in January 2020 was a welcome move. The Award is already helping to accelerate the spread and adoption of innovative AI-based technologies across the country. Additionally, the wide range of eligibility for the scheme, both in terms of the types of technology but also the stage of their development, should also be praised.

Due to the success of the initiative to date and the escalation of activity in this area, we call for the AI Award to be extended beyond the initial three years that it is set to run. Further funding should also be allocated to the new extended Award on top of its original £140m pot.

5. New regulatory pathways must be developed for AI-based technologies

Although some areas and applications of AI are very advanced in healthcare settings - radiology being a prominent example - many technologies need further support to accelerate their development and assessment. While the range of AI-based technologies prevents the development of a single regulatory pathway, more should be done to assist with the assessment and testing. We recommend the establishment of regulatory sandboxes to aid the development of such technologies.



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