How the NHS can take advantage of new technologies to reduce waiting lists and provide better care

techUK is the trade association for the technology sector in the UK. techUK has over 1000 member companies based around the United Kingdom, the majority of which (over 50%) are UK-based SMEs. Within techUK’s membership there are several hundred companies providing varied health and social care-focused technology products and services, from digital therapeutics, to electronic patient and care management software, remote monitoring, clinical data systems and more.

This briefing has been prepared to help MPs and their teams understand key health tech issues in the UK, what can be done to tackle these challenges, and the benefits of doing so. This briefing draws upon:

- techUK’s Digital Health Evidence Pack
- techUK’s Right from the Start report: What should Integrated Care Systems prioritise to make digital, data and technology work for them and their populations?
- techUK’s Five Point Plan for CareTech
- techUK’s Ten Point Plan for HealthTech

More briefings, both from techUK and our members, can be found on techUK’s online briefing hub.

What are the challenges?

Digital transformation of the health and social care sector faces three major challenges: (a) lack of digitally mature infrastructure, (b) lack of data interoperability (i.e. inability to share data across systems) and (c) lack of digital skills in the workforce.

a. Lack of Digitally Mature Infrastructure

IT infrastructure needs to be able to support minimum standards of digital capacity to handle the demands of modern digital health and social care services.

This requires the levelling up of out-of-date “legacy” IT systems. Legacy systems are those that have been superseded by more modern technologies and may not provide the necessary infrastructure to support a range of digital technologies.

b. Lack of Data Interoperability (i.e. inability to share data across systems)
High quality digital data forms the cornerstone of effective health and care delivery. While the NHS holds one of the largest repositories of healthcare data in the world, indeed the potential value of the data held in NHS England is valued at some £9.6 bn per annum in benefits. However, we cannot currently utilise the current data to its full potential due to systemic fragmentation, a lack of common data sharing standards and information governance concerns.

Whilst there are a number of ongoing projects aiming to enable better data sharing including the Federated Data Platform, Shared Care Records and Electronic Patient Records most NHS data still remains siloed across different healthcare providers with major difficulties in transferring data from one to the other. This prevents the creation of unified shareable citizen records and the delivery of coordinated care.

c. Lack of Digital Skills in the Workforce

There is a pressing need to improve digital skills within the health & social care workforce. For a successful digital transformation in healthcare to take place, staff need to go beyond just using digital tools. They must develop strategic digital literacy, allowing them to identify areas where technology can truly improve care delivery.

Indeed, Forecasts by Health Education England (HEE) suggest that the DDaT (Digital, Data and Technology) workforce in the NHS will need to grow from a baseline of 46,000 Whole Time Equivalents (WTEs) by 32,000 WTEs in specialist DDaT roles by 2030 to meet our demands for a data driven future, and that without any further action we can expect that there will be a shortage of ~17,700 DDaT professionals in the NHS.

However, many digital health and care initiatives currently face barriers to adoption due to ongoing resource constraints and a lack of digital training opportunities. In addition, the recruitment of skilled digital specialists into the public health and care workforce has been hindered to date due to factors including a lack of clear career progression and professional development opportunities, as well as more competitive salaries offered by the private sector.

How can we accelerate the digital transformation of health and social care systems?

Investment
As outlined in techUK’s Digital Health Evidence Pack, comprehensive, sustained investment in the digital transformation of health and social care is essential to realise the positive benefits of digital transformation for citizens, staff and the whole health and care system. The Chancellor’s 2024 Spring Budget set out a welcome £3.4 billion funding for the NHS with a significant focus on digital transformation and increasing productivity, however this funding is not due to take effect until the next Parliamentary session, and no comparable resources were announced for social care. Parity of centralised investment is vital to ensuring that digital transformation of social care does not fall significantly behind in relation to health systems. Furthermore, it will be paramount that all funding announced for digital health and care transformation is ring-fenced to protect against the risk of being repurposed for other agendas.

Digitising foundational infrastructure

As outlined in the House of Commons’ Health and Social Care Committee’s 2023 report on Digital Transformation in the NHS, the persisting prevalence of legacy IT systems, software and hardware remains a significant barrier to digital transformation progress. Through upgrading the basic technological infrastructure, it is possible to lay the foundational groundwork required upon which new innovations can be introduced. Furthermore, in phasing out legacy systems, newer infrastructure will be able to ensure compliance with regulatory and cyber security requirements, which will help to mitigate cyber attacks (due to insecure data storage or encryption), and serious operational inefficiencies (such as delayed tests or poor communication ability).

The digitisation of patient and social care records allows health and care professionals to access to up-to-date, accurate information about an individual in a standardised format, which can increase the efficiency and coordination of care (for example by preventing record duplication and enabling faster information access and information flow). The Digitising Social Care Programme (jointly delivered by the Department of Health and Social Care and NHS England) has been leading work to digitise social care records. Over 60% of social care records in CQC-registered care providers have now been digitised, with progress on track to reach a target level of 80% social care record digitisation in registered care providers by March 2025.

However, efforts must also be made to ensure that foundational infrastructure can be successfully utilised in order to maximise the benefits for the health and care
ecosystem. For example, while over 90% of NHS Trusts now have an EPR (electronic patient record), findings from the first Digital Maturity Assessment conducted in 2023 indicate that in practice just 10-30% of NHS Trusts with an EPR system can use the key functionalities the technology provides.

Supporting the health and social care workforce

As highlighted above, ensuring that health and social care professionals have the skills, trust and confidence to engage with and fully utilise new innovations is vital to maximising the successful adoption of new innovations and their potential impact.

From embedding digital skills training into frontline staff education programmes, to equipping senior managers of health and social care organisations with digital expertise, to ensuring that staff are fully supported when new innovations are deployed, these constitute necessary factors to support the introduction of new technologies as part of wider system digital transformation.

What are the benefits of health and social care digital transformation?

The benefits which can be realised by the digital transformation of the health and social care system are varied and manifold. For example, digitisation of patient and social care records and improved data interoperability will allow health and care professionals greater capacity to focus on directly supporting patients, as opposed to navigating unconnected complex patient care pathways resulting from non-interoperable IT systems via phone calls/emails.

This will in turn contribute to making progress on fundamental government and NHS priorities for the health service such as cutting NHS waiting lists and increasing productivity and efficiency across the health and care system.

Tools such as remote monitoring, for example through wearable devices and virtual wards, can also improve access to care, increase patient empowerment over their own health, and alleviate the high demand for inpatient hospital stay.

Additionally, automatic and AI-assisted technologies can offer benefits in the form of reduced administrative burdens arising from universal and repetitive tasks such as staff rota-scheduling and appointment processing. Moreover, taken together, progress in digital transformation will facilitate improved citizen outcomes thanks to faster and improved diagnoses and interventions, and the provision of care which is more proactive and personalised.
How can I learn more?

To find out more about techUK’s recommendations for improving the digital transformation of health and social care, you can read techUK’s Digital Health Evidence Pack, plus our Right from the Start: What should Integrated Care Systems prioritise to make digital, data and technology work for them and their populations?, Ten Point Plan for HealthTech and Five Point Plan for CareTech reports.

techUK can also arrange a call with yourself and our Health and Social Care Team so we can brief you on this topic in more detail. If this would be of benefit to you, please contact archie.breare@techuk.org and alice.campbell@techuk.org.

techUK is also able to arrange a meeting between yourself and a member company of ours who has premises in your constituency if possible. This would provide you with a photo opportunity and allow you to discuss the importance of this issue further with a company operating in your constituency.