Tech powered healthcare

A strategic approach to implementing technology in health and care

Getting the partnerships right

pwc

Introduction

In response to the challenges that lie ahead for health and care organisations, the learnings from the COVID-19 pandemic and the unstoppable advances in technology that are propelling healthcare into a new era, we have distilled our research into a series of four essays. Each essay will seek to address key questions around how culture, money, skills and partnerships can play a role in transforming the health and care system.

To find out more and access the other essays in the series visit:
www.pwc.co.uk/tech-powered-healthcare

Getting partnerships right

The NHS and industry must work together to create successful partnerships.

Partnerships with technology and innovation companies will define digital transformation across healthcare. We believe that the NHS can no more transform to become a technology driven organisation alone than it could manufacture all its own scanning equipment, or build hospitals using only NHS staff.

In a world built increasingly on collaboration, on connections that reach across the globe and into every sphere of our lives, our healthcare institutions should also be connected – with each other and with patients – so that they can share learning, innovation and information. Some of the UK's greatest strengths are the diversity of our economy, the vigour of our academic institutions, and the prevalence of innovation across sectors. And while we continue to see world class research and innovation happening in the UK, our health service too often falls behind in implementing and scaling this innovation.

We need to embrace our national assets and invest in creating dynamic, responsive partnerships to address the biggest healthcare challenges of our generation and spearhead a digital revolution.

Our research – conducted with healthcare leaders across the NHS and social care, government, and industry, and members of the public – suggests that most people agree. The majority of healthcare and government leaders think the NHS should co-produce solutions with industry; though software and technology leaders are more likely to suggest an off-the-shelf approach. This is telling: industry and healthcare organisations need to be better aligned in their approach and thinking to overcome differences that can hinder the success of digital implementations. However, our interviews and surveys suggest that the NHS currently lacks the commercial skills and mindset to partner in a way which brings the best value.

Why partner?

The value of partnership working – not only between health and care organisations, but across sector boundaries – has become acutely evident during the COVID-19 pandemic. Strong partnership working was the architect of the sweeping, overnight changes across the healthcare system. The challenge now will be to maintain the unique conditions that the response to COVID-19 has engendered – united purpose, agility, pragmatic risk assessments, pace – that could support a transition to partnerships where all involved genuinely collaborate to deliver better results for all.

Partnership is important. An off-the-shelf technology solution might have benefits – improving care, making services easier and more convenient, and improving efficiency – but we see three main reasons to partner over a build or buy approach:

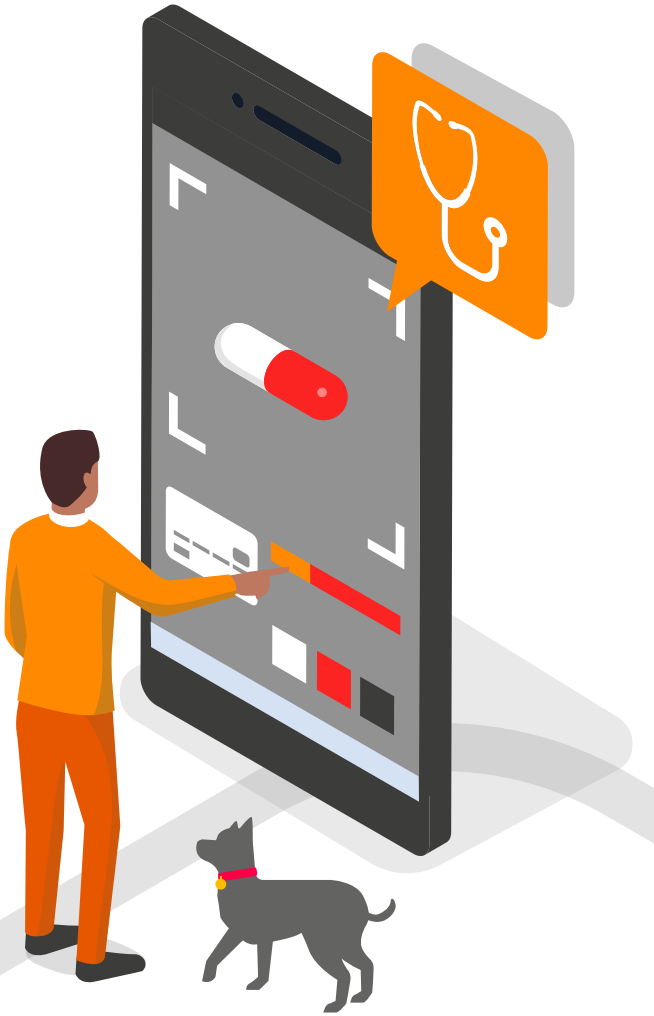
> "Partnerships between the NHS and the wider healthcare community have been critical to advances in patient care. These partnerships have helped the UK to both sustain our world-renowned NHS and become a global leader in life sciences, with 25 of the world's 100 most used medicines discovered or developed here"

Sir John Bell
Writing for The Times (2019)

1. **Access to skills, knowledge, and expertise.**
2. **Appropriate tailoring to meet challenges.**
3. **Better results through mutual investment and benefit.**

Technology companies offer a wealth of specialised skills and experience from outside the traditional healthcare sphere. Though our healthcare system, and all the professionals who work in it, will need to become increasingly tech-savvy, there is much to be said for recognising where organisational strengths lie and maximising them through partnerships. The UK Government's change of direction on developing its COVID-19 contact tracing app highlights this: sometimes, it's better to leave it to the professionals.

Few people we surveyed felt that off-the-shelf solutions were the right model for the NHS (interestingly, we also found an ambivalence towards entirely homegrown solutions) – and even if they were, technologies cannot be lifted and planted in an organisation without a lot of work to shape implementation to the organisation's social context. Thinking about partnership as solely one between the NHS and a technology provider is an unhelpful model; even a simplified illustration of those involved would need to include a dynamic relationship between universities, government, the NHS, industry, patients, and carers.
An important additional benefit of fostering technology partnerships is the economic growth it stimulates: in 2018-19, Academic Health Science Networks (AHSNs) and the NHS Innovation Accelerator invested £152m in innovation and technology companies, and created around 700 jobs.



There is a web of support in partnering with the NHS and its complexity forms a barrier to entry

There is a long list of mechanisms for driving partnerships and technological change in the NHS: Global Digital Exemplar (GDE) programme, Research Councils, Collaborations for Leadership in Applied Health Research and Care (CLAHRCs), Academic Health Science Centres (AHSNs), NHS Innovation Accelerator, NHS partnership with techUK, Innovation and Technology Payment Programme, Digital Innovation Hubs, Digital Health Technology Catalyst, Accelerated Access Collaborative, and myriad funding bodies. They operate in different ways and are targeted at different organisations, but all these programmes and initiatives aim to advance digital transformation through financing or supporting technology partnerships in some form.

However, despite some examples of improvement and successful transformation, this many pronged approach isn't always working. Digital transformation in the health and care system remains a huge challenge, and ambitious targets can be missed. One example is the 'Paperless 2020' ambition set in 2015 – in 2019, only 12% of NHS trusts were fully digitised.

Though the intention behind all these programmes – to fund and support digital transformation and the companies that can deliver it – is the right one, the NHS and the Government need to rethink their approach.

Consider the GDE programme: only 27 (of a total of 200) digitally mature NHS providers have been awarded GDE status, and the accompanying funding, since the programme's inception in 2016. Scaling the GDE programme would be an opportunity to tackle digital inequalities and service variation.

There's no shortage of principles, approaches and targets. The UK has a proliferation of national technology standards, frameworks, and strategies to match its array of partnership programmes. Since 2014, NHS organisations and the UK government have set out at least five digital transformation strategies and frameworks. NHS Digital, NHS England, the National Institute for Health and Care Excellence (NICE), and the Department of Health and Social Care have all recently released technology standards.

What is arguably lacking is a coherent way to navigate the system for potential partners, and guidance on how business and the NHS can work together to partner effectively.

Rather than shaking up the landscape further, there is a need for simplification: NHSX should take responsibility for providing real clarity about the function and purpose of the dizzying array of organisations, frameworks and standards, and simplifying wherever possible. We were repeatedly told during our research that technology companies see the NHS as challenging to do business with on many levels – we heard that it's over complicated; procurement is clunky; there's a closed shop mindset and a suspicion and rejection of ideas from outside. It is NHSX's responsibility to start reducing barriers to entry that exist simply due to complexity.

COVID-19 has shown how a simple solution can work effectively. Several people commented that ambiguity and equivocal guidance around information governance had previously left the NHS and business unconfident about what was permissible. Clear, explicit and bold guidance issued during the pandemic left trusts in no doubt that more was allowed than they had thought – and more progress was made in weeks around data sharing and remote consultations than had been made in years previously. The clear guidance was only one factor in the rapid change, but several people we spoke to pointed to it as an example of a blocker which simply fell away.

"We already have more frameworks than we need – the NHS has a lot of buying power but is one of the most difficult businesses to do business with."

Head of healthcare, international technology company

Encouraging hyper-collaboration could further drive innovation

There are benefits of partnerships to patients, the NHS and to the wider economy. But, to get the most from partnerships, the NHS needs to start engaging in hyper-collaboration – accept that many of the problems it faces will have already been solved by external companies and research organisations – and build meaningful partnerships with a whole ecosystem of players who are prepared to collaborate on mutual terms.

To support local partnerships, a tested and agreed framework should be in place from the centre that sets out core terms, and a streamlined route for healthcare organisations and technology companies to begin building mutually beneficial arrangements. The terms in this framework should be strategic and values-based – a set of minimum quality and value principles to guide how organisations engage with innovation partners. Part of this should stipulate that established players looking to partner with the NHS should be prepared to contract on the basis of patient outcomes, rather than specific process measures. This would ensure that private companies collect the data that allows them to improve their offer in a way which impacts outcomes. This will give the public confidence that solutions meet core expectations (e.g. of delivering improvements and being financially transparent), while still meeting specific local population needs, which may vary across the country.

A significant advantage of hyper-collaboration would be to bring together the ideas of start-ups, experienced players, clinicians and research organisations, to improve products and ultimately outcomes. Partners should be financially incentivised to collaborate over the long term where this can improve outcomes for the population. At an ICS level, there should be regular opportunities for those involved in partnerships to come together and work to solve local challenges. Traditional market engagement events could be replaced by co-design sessions to develop ideas, build relationships and – ultimately – commission partners with the right skills, values and approach to help improve patient outcomes and create value.

> “Innovative technology is difficult to implement because the basics aren’t in place – there needs to be investment in getting the fundamentals and foundations right.”
>
> **Head of healthcare, international technology company**

"Whoever owns the data owns the customer"

Our polling prior to the pandemic showed that 65% of the public are willing to share their data with technology companies if it benefits the NHS – and this data sharing will be the bedrock of partnerships across the healthcare system. People's willingness to put their data forward (appropriately anonymised) for the greater good of the NHS reveals that the UK has a strong foundation on which to build public trust in technology partnerships.

Public conversations around data ownership are prominent and important and this is clearly in the mind of NHS organisations and their partners. On the FAQs of one large teaching Trusts in London which has a high profile partnership with an international technology company, 7 of the 18 questions are about data protection and consent, while another dedicates half of the webpage detailing its partnership to data protection. While it's right that data protection is taken seriously, it is important that this conversation doesn't drown out discussions around value, outcomes, and other risks and benefits.

COVID-19 has lubricated the conversation around data sharing and helped prompt clear guidance on what is permissible from a data governance perspective. The guidance is unequivocal, going as far as issuing the explicit statement "In the current circumstances it could be more harmful not to share health and care information than to share it. The Information Commissioner has assured NHSX that she cannot envisage a situation where she would take action against a health and care professional clearly trying to deliver care."

65%

of the public were happy for the NHS to share their anonymous data with a large technology company if it improves efficiency of service (e.g. the NHS making a profit to pay doctors and nurses).

60%

were happy if the technology company uses the data to create treatments for a specific disease.

62%

were happy if profit goes into general NHS budget.

Source: Survey carried out by Opinium on behalf of PwC (January 2020)

For a partnership with the NHS to be meaningful and long lasting, a clear understanding of the value that both sides get from that data is essential. From an NHS perspective some of that value is clear – access to rigorous R&D and disruptive technologies; access to a disruptive working environment and culture (perhaps most famously demonstrated through Virginia Mason's enthusiastic adoption of the Toyota Production System); and access to capabilities and talent. For technology companies, partnership with the NHS provides a gateway to the overwhelming majority of the UK population who use its services, access to a market of £20bn worth of business and a sales pitch to use elsewhere in the world.

The patient's role in providing the raw material for this value should not be underestimated. NHS bodies should use this asset wisely by treading a fine line – avoiding guarding it so closely that it's impossible to release its value (the data equivalent of keeping a windfall under the mattress rather than investing it), but equally by being transparent about the value – financial and in terms of health outcomes – that comes from it. ICSs should be working with their local population to understand what a good return on their data looks like, and reporting back on how they've achieved this. There should be an expectation that patients withdraw consent for data to be shared with private companies if value isn't achieved. We found that people expect the NHS to get a return on their data – but that the majority are open minded about the nature of that return: whether the value comes back financially to be reinvested into the health service; as part of research into treatments; or to improve efficiency. Whatever form value takes, co-designing value with the public and partners will be essential to building and maintaining trust.

Recommendations

1

Private sector companies partnering with the NHS should do so on a risk and gains share basis.

There should be an assumption that established players partnering with the NHS are prepared to take on financial responsibility for outcomes.

2

At a local level, the NHS should explore hyper-collaboration and create an ecosystem of a diverse range of partners who can bring value.

To facilitate this, trusts should be incentivised to work closely with start-ups in various ways, including providing 'innovation hubs' on-site, where ideas can be exchanged; providing shorter term contracts to allow smaller players to enter the market; and working to evaluate solutions and share evidence. At an ICS level more should be made of local partnerships. ICSs should work closely with local universities, AHSNs and R&D organisations who can provide innovation and entrepreneurial ideas and should set out a clear approach for how they can mutually engage as part of wider local economic planning.

3

At a national level, NHSX should continue to take responsibility for supporting technology companies to navigate how to partner with the NHS.

To make the most of technological advances, and for hyper-collaboration to work, more support and guidance should be given to companies who have valuable solutions and who want to work with the NHS. The work done by NHSX during COVID-19 to simplify and provide guidance to technology companies on issues such as information governance, CE marking, funding streams, outcome measurements and partnership approaches, in order to ensure that both sides can benefit, should continue.

4

The NHS should work with the public to ensure they are comfortable with how their data is being used.

The public is prepared to share data – but the NHS needs to be aware that this rich asset is on loan and report explicitly on the return it gets from sharing this data. The public are essentially shareholders in the NHS, although the 'shares' they contribute are their sensitive personal data. Trusts and ICSs should be mandated to publish an annual report on the value they get from sharing this data with technology companies.

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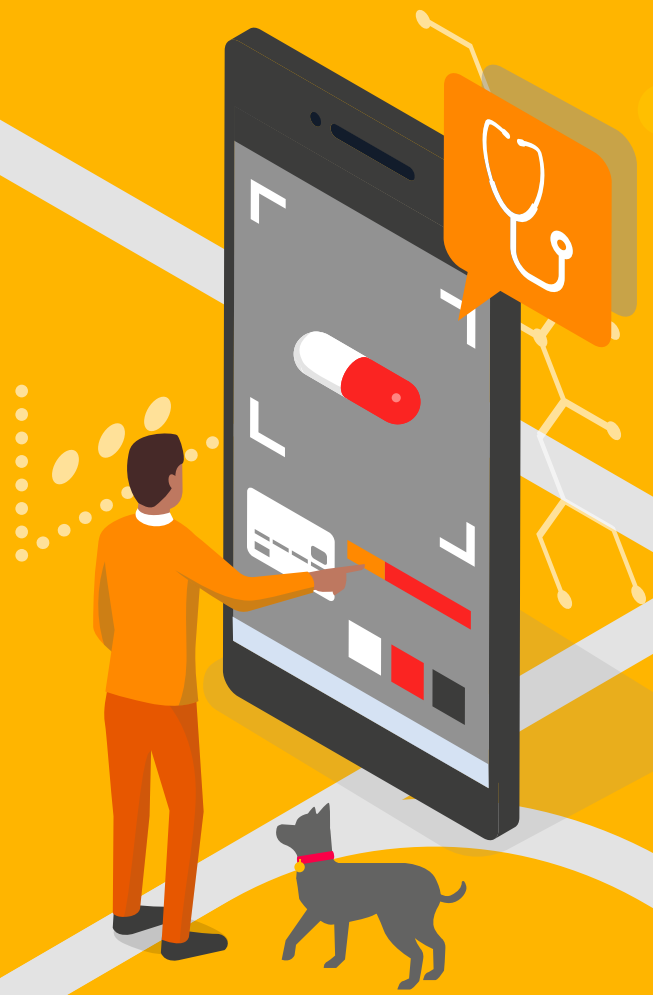

How we can help

At PwC, we're helping to lay the technology foundations for healthcare. And we're working with the industry to create the innovations that will transform healthcare for the future.

From supply chain analysis and management, to cyber security. From data and analytics, to experience design. Our teams bring together business understanding, real-world human insight, and cutting-edge technological capabilities. All built on our heritage of building trust in society.

At the heart of it all are our healthcare experts. They use their industry expertise to curate and convene the best of PwC, to create the technology innovations that will transform healthcare.

www.pwc.co.uk/tech-powered-healthcare

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Thank you

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