NHS Confederation

Digital Transformation in the NHS

July 2022

About us

The NHS Confederation is the membership organisation that brings together, supports, and speaks for the whole healthcare system in England, Wales, and Northern Ireland. The members we represent employ 1.5 million staff, care for more than 1 million patients a day and control £150 billion of public expenditure. We promote collaboration and partnership working as the key to improving population health, delivering high-quality care, and reducing health inequalities.

One of the most striking aspects of the response to COVID-19 has been the way in which health and care organisations have worked in new and often digitally-enables ways to discuss, develop and deliver services in unprecedented circumstances. It is vital that we now build on this sacrifice and achievement to collectively reset the way we plan, commission and deliver health and care. The NHS Confederation is working with members across the NHS to do this.

How can the Government communicate the benefits of digital approaches in healthcare to the public and provide assurances as to the security of their data?

1. The COVID-19 pandemic has highlighted the many benefits of rapidly developing and utilising digital systems and sharing data, including creating more flexible services, capacity and widening access. New models of collaboration and pooling of information have been critical to facilitate the uptake of these innovations, particularly from diagnostic, prevention, and treatment perspectives.

2. However, we will only be able to continue to expand digital and data driven care if there is transparency around how data will be used and moved across health and social care, and between partners and providers. Currently only 20% of people feel sufficiently informed about how their data will be used, with more than half fearing that they might regret giving permission[1].

3. It is important for patients and communities to have transparency about how their health data will be used. Without trust, people are less likely to agree for their health

[1] Healthwatch,2018,https://www.healthwatch.co.uk/news/2018-05-17/how-do-people-feel-about-their-data-being-shared-nhs#:~:text=Overall%2C%20most%20people%20are%20positive,the%20healthcare%20treatment%20of%20others.&text=People%20trust%20the%20NHS

data to be used beyond their individual care, which will impede our ability to scale digital health care.

4. For example, previous iterations of an integrated general practice dataset have been scrapped after industry experts flagged privacy flaws that led to public mistrust in the 'GDPDR' system,[2] despite many citizens feeling positive about their health data being used for innovation.[3]

5. By simplifying the governance and oversight of NHS health data, we can drive more research and innovation, supported by ongoing public engagement at every step. This is essential to measuring, evaluating and rolling out large scale digital services, procuring new digital tools and working with industry to develop innovation that works for the NHS.

6. Using real-time data, the NHS can deliver more proactive care, which can help to improve health outcomes, reduce hospital readmissions and improve all-round efficiency.

7. One such example is Bexley Health Neighbourhood Care – a not-for-profit community interest company (CIC) and GP federation supporting 22 GP practices in South East London. They worked with digital partners Appian to track the care of patients and care home residents to improve workflows across a multi-disciplinary team (MDT). This helps GP surgeries and the Primary Care Networks (PCNs) in the area develop a wider 'helicopter' view of all patients in the system. It also tracks real-time care delivery and outcomes.[4]

8. It is incumbent on the Government to promote and encourage safe use of public health data so we can create, deliver and maintain quality healthcare based upon evidenced need. We are still awaiting the Digital Health Strategy, which we hope will facilitate this. A failure to do so will undermine the ability of the health service to meet the overwhelming demand it is currently experiencing.

What progress has been made in dealing with the proliferation of legacy IT systems across the NHS?

9. Health and care staff currently still use a plethora of legacy IT systems, many of which do not work with other systems across the NHS, subsequently hampering successful digital integration and the opportunity to deliver more personalised care and improved patient outcomes.

10. Almost a quarter (22%) of doctors responding to a British Medical Association (BMA) survey on IT in the NHS said IT systems at their place of work are not fit for purpose.[5] The Topol review also estimated between 15 and 70% of clinician's working time can be spent on administrative tasks, depending on the operability of the IT systems they are working with.[6]

[2] Digital Health, 2021, https://www.digitalhealth.net/2021/07/gpdpr-september-implementation-date-scrapped/
[3] NHS Digital, 2021, https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-collections/general-practice-data-for-planning-and-research
[4] NHS Confederation, 2020, https://www.nhsconfed.org/case-studies/using-digital-support-integration
[5] BMA, 2020, https://www.bma.org.uk/advice-and-support/nhs-delivery-and-workforce/technology/nhs-technology-infrastructure-and-data-report
[6] Health Education England, 2019, https://topol.hee.nhs.uk/

11. Addressing the barriers to transformation and innovation posed by either outdated or non-existent IT equipment must be a priority. This precludes patients and citizens receiving the best possible care, because it makes it more difficult to procure and embed new digital systems due to the many different IT systems health and care staff use.

12. The aim for each Trust to have an Electronic Patient Record (EPR) by end of 2023 is challenging in the climate of inadequate resource investment and rising costs, exacerbated by the cost-of-living crisis as hospital energy bills rise. Rushing to meet the EPR target for the Trusts outstanding will lead to them installing a poor-quality system that does not meet the needs of clinicians, administrative staff and patients. Therefore, flexibility on this target is needed.

13. Digital systems within a complex NHS care system needs a diversity of platforms, but which also have quality architecture to ensure they can transfer data between them.

14. We are still some way off - this will require time, cultural change, leadership but also adequate financial investment, especially when replacing legacy IT systems. A technology assessment into what each Integrated Care System (ICS) needs to provide a standard of digital care should be undertaken once they are put on a statutory footing from July 1st. Investing now to reduce the technology debt for the future is the foundation to building our way to digital transformation as the NHS moves to a system-working model.

How can the Government effectively foster co-operation between the NHS and the private sector to both develop and implement innovation in healthcare?

15. The NHS is working at pace to meet current high demand while simultaneously working through the elective care backlog built up during and before the COVID-19 pandemic. Innovation, technology and digital systems are being employed to automate services where possible such as waiting list management and outpatient appointments.

16. For example, in South Warwickshire NHS Foundation Trust, clinicians felt that some older patients could be managed at home if they could have clinical discussions with ambulance crew before conveyance. After calling 999 and having an initial discussion with the ambulance crew, patients deemed clinically well enough to remain at home were transferred to a virtual ward. This also helped the Trust to discharge patients in hospital to home sooner as they could continue to be monitored via the virtual ward. The use of the virtual ward meant 48 per cent of conveyances for over 80s were avoided.[7]

17. Collaboration between providers where digital systems is enabling better sharing of information leads to improved safety, particularly in mental health settings. Sharing digital systems for better delivery of therapy and care can be done with little additional capacity and investment if adequate digital systems are available to facilitate information between different health sectors and providers.

18. Sussex Community NHS Foundation NHS Trust needed to change the way patients accessed talking therapies during the pandemic. Video consultations are now

[7] NHS Confederation, 2020, https://www.nhsconfed.org/case-studies/reducing-conveyances-older-patients-south-warwickshire

employed for step 2 (low intensity) interventions and the service tracks progress relating to service by analysing data looking at appointment attendance and recovery figures – which have increased from 55.4 per cent in 2019 to 57.8 per cent in 2020 after the virtual appointments were introduced.[8]

19. To be truly transformative, digital frameworks and plans must integrate with the whole of the transformation and reform agenda. Integrating ambitions to deliver the world's first net zero health system by 2040; using pioneering innovation and AI solutions to partner with life sciences and industry; join up the three prong aims of the NHS, government and industry and deliver the vision of transformational care where we have a positive impact on the broader social and economic aspects of healthy society.

What progress has been made in digitising health and care records for interoperability, such that they can be accessed by professionals across primary, secondary, and social care?

20. Interoperability remains one of the largest digital challenges highlighted by our members and it is imperative that NHS leaders are supported with this challenge as ICS are put on statutory footing from July.

21. Data and information must be shared effectively with all partners and actors within a system, including voluntary and community sector organisations and PCNs who are involved in delivering contracts for providers. Research showed that patients believe that their patient data is routinely shared between NHS Trusts and are surprised to learn that this is not currently the case. Only 33% of people have heard 'a great deal' or 'fair amount' about how the NHS uses health care data.[9]

22. However, Trusts and ICS systems continue to adopt different digital technologies and solutions. It is vital that they are supported to set and follow interoperability standards (including in commercial contracts) to avoid siloed systems and facilitate vital data sharing at all levels. Additional guidance and technical support are required at an ICS and national level to support consistency in this space.

23. To deliver high quality care which reduces health disparities and improves population health, it is fundamental that digital information can be shared easily between ICS systems whilst also maintaining a level of different need which is responsive for their ICS system. This juxtaposition in standardised systems with the ability to meet different needs must be respected, while supporting interoperability cross system and requisite funding provided to ensure this.

24. One ICS leader told us this week: "*We are currently unable to properly build on our investment to date in EPR systems because we don't have enough capital to upgrade our network and Wi-Fi infrastructure. This will mean continuing frustration for colleagues and patients as our working practices remain in the last century.*"

25. We must stop expecting people to repeat health information to multiple professionals, especially in mental health care where this can be traumatising for patients.

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[8] NHS Confederation, 2020, https://www.nhsconfed.org/case-studies/adapting-time-talk
[9] Wellcome, The one-way mirror: public attitudes to commercial access to health data

What progress has been made on making data captured for care available for clinical research through digital transformation?

26. The ability of the NHS to share relevant and high-quality patient data safely and securely at local, regional, national, and international level is vital to providing patient care and to facilitate life-saving health research.

27. Transparency of data and how it will be used and moved across health and social care, between partners and providers, is important for patients and communities to fully understand and agree with. Without trust, people are less likely to agree for their health data to be used beyond their individual care, severely impacting scaling the use of digital health care.

What are the principal considerations that should be taken into account in this context and what additional training of the workforce will be needed to achieve this?

28. Using digital infrastructure to help recover services whilst making the best use of the workforce's time, will free up resource and accrue savings to be invested elsewhere. This bolsters capacity enabling service delivery to provide more choice, bandwidth for co-production, patient engagement, evaluation and monitoring all of which then leads back to improving services.

29. However, the NHS workforce is in crisis with 105,000 vacancies, and widespread burnout. Even with the ideal digital system plans there must be a shared understanding that the workforce is already running on empty. Digital systems have the power to transform working practices but not before time and capacity is first given to co-designing, training, embedding, learning and continuously re-visiting digital systems with staff and users. Without investing in our workforce both present and addressing future needs, even the best digital systems can only transform so much.

30. 'The recruitment and retention of digital staff in our trust is a constant challenge. One ICS leader told us "*Finding workforce capacity to support transformation and digital change at a time when change capacity is required to address ongoing operational pressures, recovery and respond to system reforms is creating tensions… recruiting for digital roles is competitive because we can't compete with other sectors offering better packages and remuneration."*

How can the creation or exacerbation of digital inequalities be avoided when implementing digital transformation?

31. It is important to note that not all digital appointments or care delivered remotely is acceptable for all patients. In pursuing a digital care agenda, we must not unintentionally create digital isolation or digital exclusion therefore exacerbating inequalities in health outcomes.

32. This is especially the case in communities with higher levels of deprivation and moving to digital services can make accessibility of services harder if people do not have personal use of digital tools. We risk ostracizing and effectively shutting large

communities out from accessing healthcare if we do not provide the choice for people to decide what mode of care best suits them. For instance, we know that around 1.7 million households in the UK do not have internet access.[11]

33. Having easily accessible, usable and consistently available choice of service provision are all vital components for successful digital services within healthcare. We often hear from our members that providing choice is key in the way services are delivered and experienced by communities, and that NHS organisations are working hard to reflect this in their service design.

34. To provide fully inclusive services which meet demand, are safe and effective, and have high quality clinical outcomes, it is essential that services are co-designed and co-produced with local communities from the outset with choice built in and costed for – be it offering digital or face to face. Local leaders need to be empowered by the centre and Government to make decisions that mean they can meet the needs of their local populations.

35. As the NHS makes sweeping inroads into the long waiting lists of elective care, it must actively provide a choice of digital or non-digital service for communities. In its pursuit to meet targets, the NHS must actively work to mitigate against digital exclusion so as not to inadvertently worsen health inequalities for groups of people who already experience poorer health outcomes.

36. Our members are already working to address digital exclusion. The NHS Confederation's Mental Health Network recently produced a digital inclusion guide co-designed with an independent advisory group of people with mental health problems[10]. It sets out our main principles for Providers of health care designing digitally inclusive services should follow f
    - Understanding the needs of the people who use the service
    - Prioritising flexibility and adaptability
    - Ensuring ongoing communication and feedback
    - Providing a personalised approach

37. We already know there are significant data quality issues with ethnicity coding in health records and systematic biases in the data. For example, among Clinical Commissioning Groups (which are now winding down ahead of ICS being put on a statutory footing from July), an average of 89.5% of patients had a known ethnic category, with some reporting as low as 72.6%[11]. This means that the 'Unknown Ethnicity' category included 6,317,905 patients. This one example represents a major blind spot in work to reduce race inequalities in our system[12].

38. The NHS Race and Health Observatory, hosted by the NHS Confederation, is working to examine the completeness, validity, and consistency of ethnicity coding within NHS health datasets in England, including through an early collaboration with The Nuffield Trust. Their work will help to establish the extent and nature of data quality issues and the findings will provide the basis for action to improve data quality and to inform more robust analysis and reporting of ethnic inequalities.

[10] NHS Confederation, 2021, https://www.nhsconfed.org/publications/digital-inclusion-mental-health
[11] NHS Race and Health Observatory, 2022, https://www.nhsrho.org/what-we-do/innovation-for-all-ages/
[12] *Ibid.*

39. The NHS Race and Health Observatory is also working with various stakeholders and partners to develop a race inequality dashboard. The dashboard will be interactive, updated regularly and automated. It will be developed with clinicians, academics, and patients to make sure that we include the indicators that are really needed.