

# Frontline digitisation

Creating the conditions for a digital NHS

Supported by



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Lucy Knight  
Shehar Bano  
Rezina Hakim  
Ruth Lowe  
Ethical Healthcare Consulting

# About us

## NHS Confederation

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. For more information visit [www.nhsconfed.org](http://www.nhsconfed.org)

## Ethical Healthcare Consulting

Ethical Healthcare Consulting is a specialist advisory consultancy that works with healthcare providers and their partners to enhance digital maturity and enable sustainable digital transformation. Its mission is to make a positive and meaningful social impact by working with people and clients with whom it shares values, understanding and experience.

Ethical's team has extensive experience in digital health from organisations across the health service. It has deep experience of electronic patient record systems (EPRs), as well as expertise in data and infrastructure strategies, record sharing and interoperability, transformational communications and behaviour change for digital working. Ethical's individual subject matter experts are, collectively, a powerful force for change in digital transformation.

## About this report

In autumn 2023, Ethical partnered with the NHS Confederation to explore how to advance digital transformation, including finding out more about integrated care systems' (ICS) experience of frontline digitisation with a view to improving usability. This report represents a key part of our collaboration.

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# Key points

- NHS England's [frontline digitisation programme](#) was introduced in 2021 to support healthcare organisations to transition from paper-based to digital systems for patient information, clinical notes and access to data. Its aim is to reach a core level of digitisation following minimum digital foundations, where the health service and the people who use it have digital services and access to the data they need to effectively manage and improve health and wellbeing.
- Many integrated care systems (ICSs) have begun to see benefits from their frontline digitisation programme, such as freeing up staff time, encouraging collaborative working with partners and promoting interoperability.
- Use of digital in healthcare is a significant enabler towards improved productivity, better access and efficiency in the NHS. Yet over time, NHS leaders across trusts and integrated care boards (ICBs) have raised the complex challenges associated with digitising the frontline, and the tension of striving to meet national goals while operating and delivering care in a system that is not fully capable of harnessing digital innovation.
- Electronic patient record (EPR) system convergence has forced a much-needed dialogue across trusts and wider system partners to consider the consolidation of clinical and administrative services at a wider level. However, transformation on this scale comes at a cost, and organisational readiness is not consistent throughout providers.
- In our engagement with healthcare leaders for this report, workforce and training were seen as significant barriers to ICSs being able to provide and deliver a quality frontline digitised service. Leaders also recognised the need to invest in people and the workforce alongside the investment in technology, stressing that if the right balance isn't achieved and the workforce isn't effectively supported, digital transformation ambitions won't be realised.

- Funding, both revenue and capital, was reported as one of the most significant barriers to healthcare organisations achieving their frontline digital priorities. Some organisations also saw significant disparities in funding across acute, community, and mental health providers, potentially providing a limitation to consistent patient outcomes.
- Bureaucracy has stood in the way of systems being able to implement frontline digital services at pace, and many point to short-term pots of funding and the cost of the procurement process.
- The frontline digitisation programme has raised questions relating to the role of ICSs, their accountabilities for the programme and, specifically, how best to influence or lead multi-trust collaborations, due to the procurement and development of EPRs existing at a local level instead of at the ICS level.

# Background

Digital care in the NHS has increased in demand, with successive health and social care secretaries focusing on digital transformation as a means to address the challenges facing the NHS in England.

During the COVID-19 pandemic, the NHS implemented, at speed, a range of digital and technology-focused alternatives to delivering physical and mental healthcare, marking a turning point in the NHS's pursuit of a digitally enabled, modern health service. Since then, various policies and frameworks have emerged to solidify the digital gains over this period and to formalise the trajectory of digital transformation. This includes the following:

- The [What Good Looks Like framework](#), which sets out system-level success criteria for embedding digital change and what that will mean for outcomes and experiences of healthcare at the local level. Establishing a quality frontline digital service is a core part of the framework.
- [A Plan for Digital Health and Social Care \(2022\)](#), which set out national funding and support to local systems to have 'core digital capabilities in place by March 2025', including electronic patient records (see box 1) and other critical systems, cyber-resilience and fast connectivity.
- The [NHS Digital Capability Framework](#), which sets out the minimum digital foundations needed and expected from NHS organisations to achieve frontline digitisation.
- The [integrated care systems design framework](#), which details the expectations of ICS bodies in creating and implementing data and digital infrastructure. It sets out that systems will be able to determine the most locally appropriate way to develop these capabilities.
- The target for all trusts to procure an EPR, the deadline for which has recently shifted from March 2025 to [March 2026](#) despite the government announcing in November 2023 that it [had met its target](#) of 90 per cent of trusts having an EPR early.

Fundamentally, the principle for pursuing and delivering a digitally transformed health and care system is to release capacity within the workforce; reduce pressure in the NHS; provide modern-day digital tools and services and provide a more seamless and joined-up service that reaps financial savings. Increasing demand from people in how they interact and manage their healthcare – both in the services they need and how information is accessed – is driving an expectation that digital technology in healthcare should keep up as it does in other areas of life. This has created an environment where data and digital tools are democratised and personalised, and the population expects to use such tools to support their health and manage their care and treatment.

To facilitate this transformation, ICSs have a crucial leadership and governance role as part of their four key purposes. Digital and data infrastructure can reinforce the ICSs' purposes to improve outcomes, tackle inequalities, enhance productivity and support broader social and economic development. Reinforcing these purposes helps to bolster the impact that digital infrastructure can have.

## The benefits of digitising the front line

NHS England's frontline digitisation programme was introduced in 2021 to support trusts to reach a core level of digitisation following minimum digital foundations, and where the health service and its users have digital services and access to the data they need to effectively manage and improve health and wellbeing. Achieving frontline digitisation requires transitioning from paper-based to digital systems for patient information, clinical notes, and access to data. Done well, it can enable various benefits to the clinical, patient-facing side of care, as well as supporting the operational foundations.

Integrating patient data on to a safe, interoperable platform that can be accessed by various healthcare providers across the ICS, reduces the risk of unwarranted variation in patient notes, allowing for more seamless, integrated and timely care for patients. Subject to privacy and security permissions, information about a patient's care needs care can be accessed and updated in real time by the end user. For example, if a patient has an allergy a mature frontline digital system would be able to alert the clinical user and recommend

specific next steps. For a population that is increasingly subject to multiple health conditions, a digitised frontline is essential to ensuring that patient safety is maintained.

Organisations that have developed a mature digitised frontline will also be able to realise more efficiencies in their operational work. Paper-based systems can slow down efficiency and add a burden to sharing vital information about the delivery of care, as well as providing fewer productivity savings. There are also few barriers to ensuring that only the most appropriate and relevant information about a patient is accessed by staff, eroding a layer of a patient's safety.

The roles of ICSs also exist to ensure patient safety is maintained and, where digital infrastructure is concerned, the ICS has powers that can ensure the development of quality frontline digitisation across all its healthcare providers. However, the integrated care board (ICB) – the statutory function of the ICS – gets limited direct funding from the frontline digitisation programme, leading them to often govern and hold accountability with restricted input into the purse strings.

Overall funding for the programme has already seen a decline since coming into fruition from 2021, decreasing from £2.045 billion to £1.98 billion with a letter to leaders citing the ongoing effects of industrial action as one of the main reasons for this cut. The previous Conservative government forecast that EPRs, which form a large part of frontline digital initiatives, tend not to see any real cash-releasing benefits in the short term, instead coming into fruition after ten or more years. This can make it difficult to translate to the ICB when there may already be agreed ways of working through paper systems, or in the face of potential cuts. ICS leaders are also expected to harness the potential of digital while struggling against overhead costs, workforce shortages, industrial action and more.

The need for digital transformation in the NHS is clear: use of digital in healthcare is a significant enabler towards improved productivity and efficiency in the NHS. Yet over time, NHS leaders across trusts and ICBs have raised the complex challenges associated with digitising the frontline, and the tension of striving to meet national goals while operating and delivering care in a system that is not fully capable of harnessing digital innovation. Current frameworks, targets, requirements and funding streams, paired with an array of contextual



barriers in the NHS, can present various challenges for ICSs to harness the potential of digital – but can also present opportunities for innovative and collaborative ways of working.

In exploring these opportunities and challenges, NHS Confederation members were extensively engaged in order to understand the reality, the common issues, challenges and areas of improvement to unlock the potential of a digitally responsive and modern NHS.

## What are electronic patient records?

An electronic patient record (EPR) system contains organisation-centric, electronically maintained information about an individual's health status and care and focuses on tasks and events directly related to patient care. The EPR provides support for activities and processes involved in the delivery of clinical care.

The introduction of new EPR capability represents a significant opportunity to contribute to the transformation of care. It is expected to free up more time for patient care and increase capacity through the ability to document once and share information, leading to more consistent care planning and improved handover of care. Overall, this aims to improve satisfaction levels of service users and staff within the acute trusts and across an ICS.

EPR systems enable organisations to fundamentally transform the way they operate and are the foundation for more advanced technology systems for patient care. Trusts with higher levels of digital maturity have shown approximately 10 per cent improved efficiency compared with less digitally mature providers. EPRs boost productivity and experience for staff as well as improve the flow of information between services, making it easier to provide care.

Sharing information with clinicians across primary, secondary and community care will provide patients with continuity of care and can help to reduce clinical risk, giving clinicians confidence that those caring for them



have all the necessary information without repeatedly requesting it from the patient themselves. Details of medication, allergies and treatment plans can be shared, reducing avoidable errors and safety incidents.

## Complex challenges

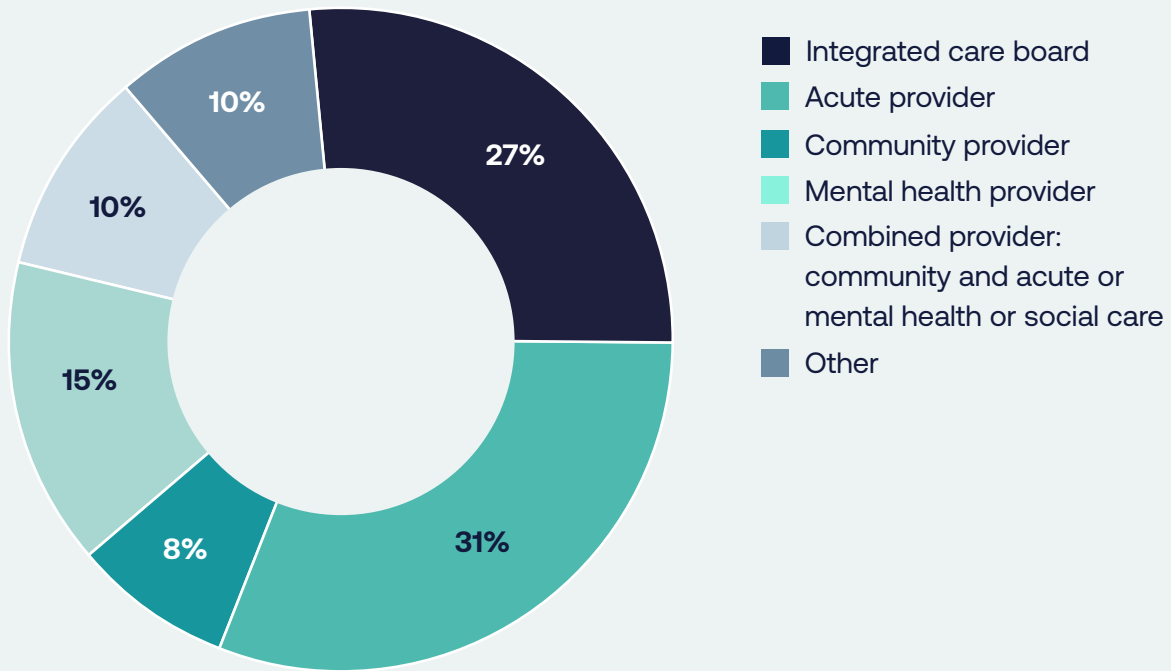
However, the successful rollout of such large transformation within an already under-resourced NHS brings significant challenges. At the forefront of these is the supply of specialist capabilities required for efficient deployment; managing the risks associated with realising the benefits of EPR implementation across integrated care boards and multiple trusts; initiating complex change programmes while managing operational and clinical demands; and making the right EPR solution choice when there is an increasingly large variety of options available.

Sourcing, designing and deploying an EPR is one of the most complex digital transformation processes a healthcare organisation can undertake. It is a significant investment in terms of time, people and cost but can offer a catalyst for change to improve the way in which health care is delivered. The current target, set by NHS England, is for all trusts in England to have implemented an EPR to a minimum standard by March 2026. This is enhanced by a further £3.4 billion announced in the [2024 Spring Budget](#) for supporting ‘the NHS’s existing tech and digital capital investment’, with £2.2 billion allocated in this Budget.

## Methodology

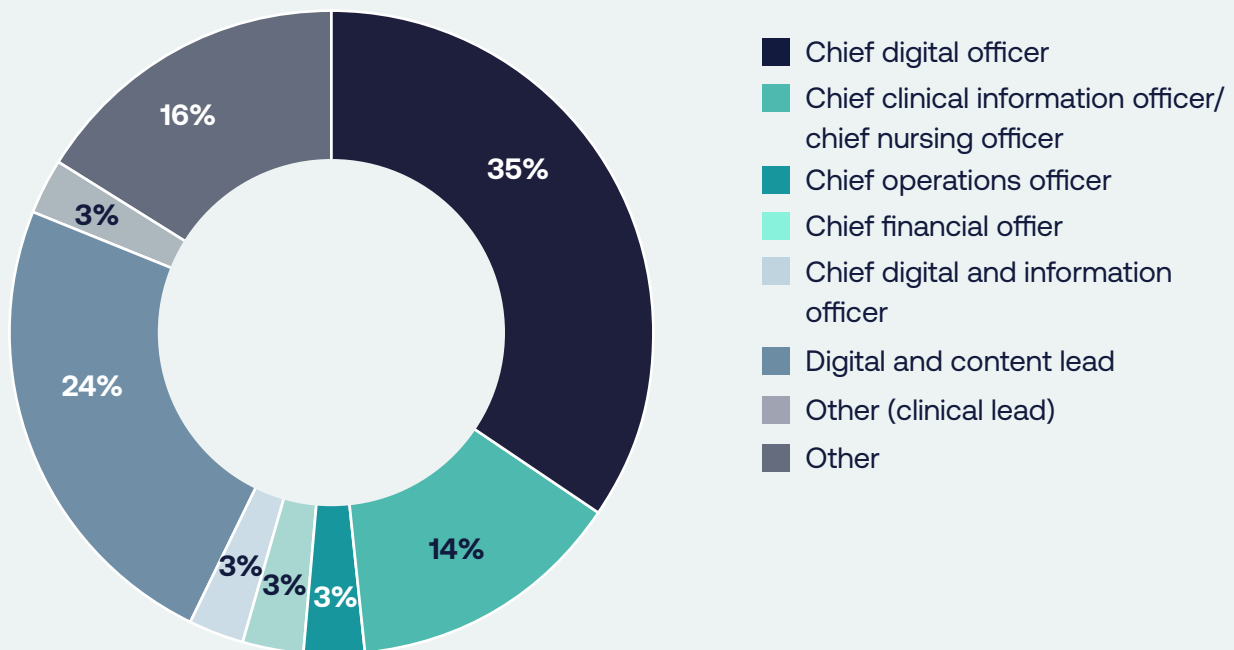
We designed a survey in collaboration with Ethical Healthcare Consulting to engage with NHS Confederation members to understand the current state of play in implementing frontline digitisation services in the NHS, and the challenges and opportunities that organisations are facing. The survey was open from January to March 2024, receiving 43 responses from leaders across ICBs, acute, mental health and community providers.

### Responses from each part of the health service



In terms of job roles responding, most responses were from chief digital officers (35 per cent). The chart below shows the complete breakdown of responses from each role:

### Responses from each role



We also held a roundtable in February 2024 attended by 11 leaders across trusts and ICBs. The discussion focused on the leaders' experiences of frontline digitalisation, as well as barriers and enablers to effective delivery.

Following the roundtable and survey, we held seven interviews with healthcare leaders from ICBs, trusts and community providers to delve deeper into their experiences of embedding frontline digitalisation within the health service.

We also re-tested our findings and continued member engagement both during the pre-election period and since the new government was elected in July 2024.

## Glossary of terms

- **Frontline digitisation:** A vision for a digitally enabled health and care system where the health service and its users have the digital services and access to the data they need to effectively manage and improve health and wellbeing.
- **Frontline digitisation programme:** An NHS programme supporting trusts to meet a core level of digitisation. It is for acute, ambulance, and mental health trusts, as well as community providers.
- **Electronic patient record (EPR):** A system of managing clinical information, to make it easily available for use by doctors, nurses and allied healthcare professionals.
- **Electronic health record (EHR):** A system that combines patients' medical history in an EPR with other wider details, such as demographic data and vaccination history.
- **Convergence:** The movement towards one single entity, for example, one single EPR.
- **Interoperability:** The ability for computer systems or software to exchange and make use of information.
- **Digital maturity:** An organisation's ability to respond to changes and trends in technology. It can also be viewed as an organisation's state of readiness to be able to adapt to and integrate with these technologies.

# Adopting frontline digitisation in ICSs

ICBs are a significant and integral driving force behind NHS digitisation. Their pivotal role in overseeing and planning strategic objectives; delivering and implementing digital change programmes; funding and commissioning digital plans and governing and monitoring adoption of digital tools has far-reaching benefits across the whole system. ICBs, working with partners from across the ICS, provide the necessary leadership and responsibility to drive improved data systems and ensure new tools and approaches are integrated into workflows so that every digital initiative, whether national or local, has the backing from this statutory body.

The healthcare leaders who took part in our research reported that the national drive towards frontline digitisation has been beneficial for their organisations, despite any barriers they may have faced locally in trying to implement the digital targets. There was also a broad understanding that EPRs are the core foundational infrastructure needed to develop a quality frontline digital service, and many reported still being at this step.

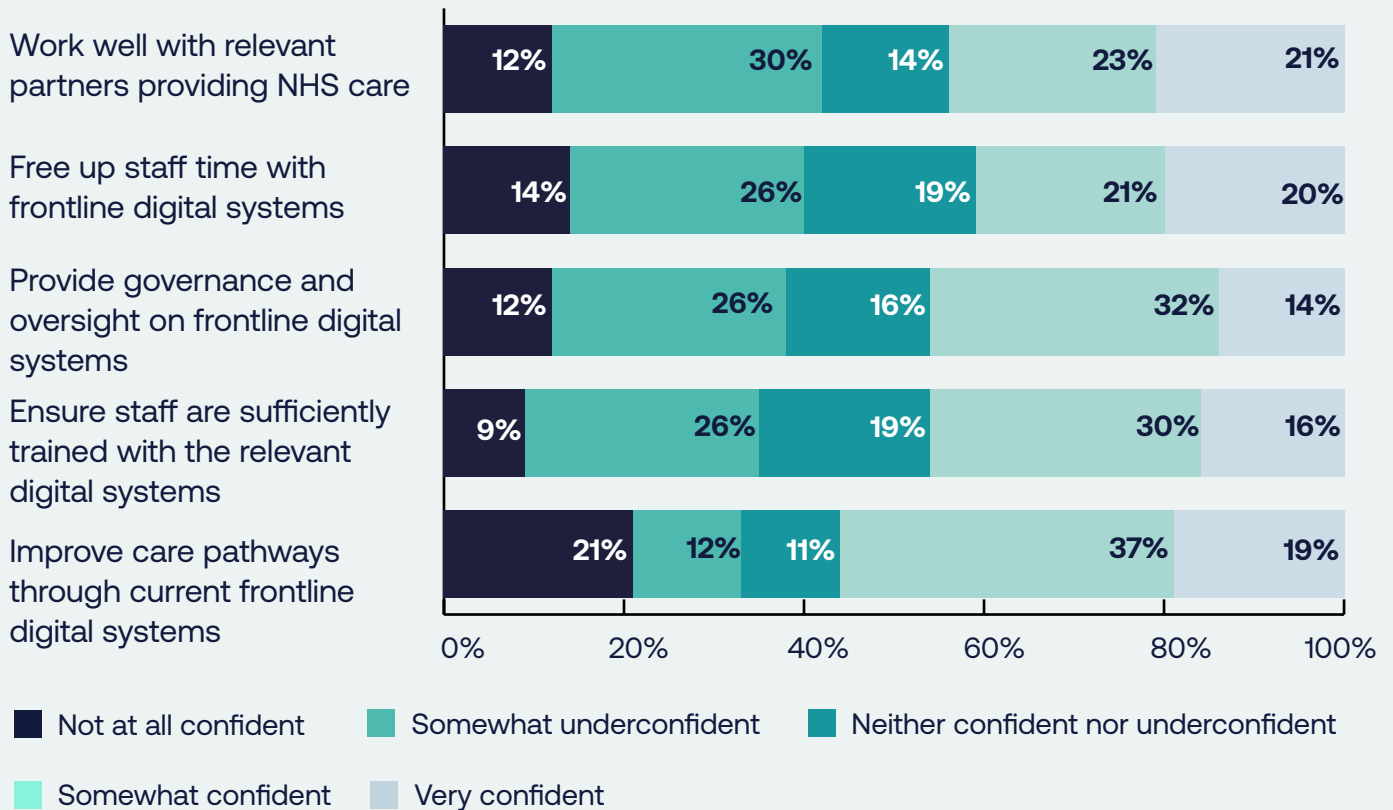
“[EPRs are] the foundation to support patient care and staff records. The shared care record, patient apps and more functionality is required to meet higher levels [of digital maturity]”

Overall, investing in frontline digitisation is based on the idea that digital systems will save staff time, improve care pathways and, if interoperable, will enhance partnership working across the system. Specifically, implementing an EPR is a core tenet to the What Good Looks Like framework and its ambition to ‘ensure smart foundations’.

To understand how digital transformation in the NHS is being experienced by healthcare leaders, we surveyed leaders between January and March 2024 on their confidence in the ability of their current frontline digital systems to release benefits to the healthcare service. Responses varied, which was expected because each organisation is on its own individual journey to digital transformation. We also refreshed our member engagement and research in June and July 2024 to ensure data and experience was up to date.

However, even in the early stages of the programme and with contextual challenges, 42 per cent of survey respondents said they were confident overall that their current frontline digitisation tools were supporting them to work well with relevant partners providing NHS care. Most of the healthcare leaders who spoke with us believed shared EPR systems are a useful tool to help enable integrated care through the consolidation and convergence of ICSs’ digital infrastructures.

### Confidence in current frontline digital tools to achieve the following objectives



However, more than half of the healthcare leaders who responded to us (56 per cent) had low confidence in their current frontline digitisation tools, such as EPRs and shared care records, being able to improve care pathways. Lack of organisational readiness for digital transformation may be behind these low levels of confidence. Improving care pathways requires mature data structures to be in place, including the capacity to analyse such data, allowing greater interoperability and enabling effective integration with wider partners, all underpinned by effective workforce training and all requiring stable and appropriate funding. The frontline digitisation programme aids hugely in helping organisations achieve these mature data structures, but also relies on local data-sharing agreements, sufficient staffing and ongoing training, which is outside of the programme's scope.

“The [digital] product quality ultimately slows teams down compared to the old days of paper, and we have evidence of that.”

## Achieving integrated care

EPRs are the core focus of the frontline digitisation programme and are considered the necessary foundation to build on to transform services into the digital age. The requirement for all trusts to have implemented an EPR has been frequently publicised. The current target, set by the Secretary of State for Health and Social Care, is for all trusts in England to have implemented an EPR to a minimum standard by March 2026.

The focus on EPRs has meant that acute care settings have been a primary focus of digital transformation, which healthcare leaders suggested is a cause for concern against the backdrop of integrated care, where there is an emphasis on delivering more care in communities and closer to home. Healthcare leaders expressed concern about the narrow interpretation of digital transformation efforts that primarily focus on EPRs and digital systems in acute care settings. The risk of perpetuating silos of care is seen through some healthcare leaders' experience of the disproportionate lower levels of

investment into areas such as mental health, social care and community care. Members acknowledged the need for comprehensive digitisation approaches that encompass all parts of the healthcare system.

“[Our mental health trust] could have gone faster and further if we had the funding the acutes do.”

Some senior leaders and members cautioned that there is a disproportionate focus on EPRs and instead offered a more holistic view of digital transformation. They called for an approach to the frontline digitisation programme that addresses other issues in digital healthcare delivery such as referrals, digital inclusion and accessible information. These require extensive and continued work with patients and communities as well as effective data sharing agreements, rather than just committing to establishing the foundation for digital transformation.

“This is about more than the [digital] systems. This is about our people, our pathways and how we use them and how we support people.”

EPR evaluations were not always seen as efficient, with healthcare leaders suggesting that a better way of measuring success would be to test how the frontline digitisation programme had improved healthcare integration. Ultimately, consensus suggests that while EPRs are essential and acute settings require a proportionate amount of attention, the effectiveness of the EPR in these acute settings depends on broader considerations such as organisational readiness, staff training and clinical engagement, throughout the care pathway.

## Convergence

The purpose of convergence in frontline digital transformation is simple: it allows staff to access the same database, with the same information on a patient, throughout multiple organisations. It can accelerate an ICS’s journey to providing flexible and seamless care to patients. Yet many different EPR



products were reported to be used by different providers within the same system, and the quantity of EPR systems in use means that many have found it difficult to achieve convergence across an ICS. Many respondents believed the principles driving system convergence are key to achieving integrated care across healthcare boundaries, and indeed many reported attempting convergence of an EPR supplier across the ICS. However, many felt too much emphasis has been placed on acute EPR system convergence, which has further compounded siloed working. Instead, respondents felt taking a more strategic converged ICS view of pathway service design, would then inform a different set of spending priorities.

“With no integrated EPR and a patchwork quilt of systems that don’t talk with one another, the level of digital support for care is woeful.”

The convergence agenda has forced parts of the system to rethink how it collectively delivers and standardises care. In some areas this has proved successful, however some trusts have felt disenfranchised from decision-making, adversely affecting their organisation’s response to change.

## Case study: Collaborative working for EPR convergence in Airedale

Airedale NHS Foundation Trust (Airedale) has aimed to integrate with the EPR that was in operation in two other trusts in its ICS, requiring collaboration, strong governance and expert guidance in preparation for going live and running the EPR.

### What the organisation faced

Implementing an EPR into a trust is challenging, and the added complexity of joining a system that was already fully deployed in neighbouring trusts has meant that additional expertise is required to ensure that the implementation was as seamless as possible. This meant that as the site prepares for its EPR, Airedale aimed to ensure a smooth rollout for the trust workforce but also to any change in existing technical functionality.



## What the organisation did

Procuring and optimising an EPR requires various programme phases, all with simultaneous and lengthy processes. Through collaborative working, Airedale recruited a 50-person, multi-skilled team which emphasised internal talent to ready the trust for its future EPR optimisation, including EPR consultants from Ethical Healthcare Consulting. This team was crucial in assessing how the current system configurations are affecting clinical and operational practices, to minimise risk and create a streamlined optimisation.

Experience with previous EPR deployments has shown that inadequate focus has been given to the improvement and transformation opportunities that arise from an EPR deployment. The team's strategy has therefore focused on quality improvement and transformation, blending change and improvement methodologies and up-skilling trust-based resources. Training on the new EPR also focused on collaboration and change management.

## Results and benefits

As a result, Airedale was able to:

- develop a successful induction programme for all team members
- minimise potential future disruption in the go-live by using toolkits for change supplied by Ethical, which helped to integrate the EPR as a central tool
- actively manage benefits realisation, in line with change and quality improvement, supported by a comprehensive communications programme for staff engagement. As a result, collaborative relationships with two other trusts in the area are now firmly established and expertise and learning is actively shared across all three organisations. The aim is that some of the complexities of the go-live and post-go-live optimisation process can be carefully managed and mitigated through shared learning and mutual support.

## Procurement

Many of the healthcare leaders we spoke to advocated for less bureaucracy in the procurement of EPRs, to be able to facilitate digital transformation in line with their strategic vision. For example, even when the same vendor is chosen by multiple trusts in an ICS, separate contracts for each organisation are required, requiring even more time and money. Collaborative procurements to achieve convergence aren't a new idea, but there is a risk in doing so due to the potential for interests to diverge over time.

However, while this risk was understood, members still broadly saw convergence as an effective route to level out digital maturity across the ICS landscape and to ensure parity in patient experience. Leaders reported that when there has been a clear strategy for convergence of an EPR in an ICS, it has proved impractical and cumbersome to spend considerable time and cost going out to tender when the business case has already clarified the benefits of convergence and data interoperability.

“It's really important that we do have fair market and open processes. But when you have a strategy and a rationale for why you're converging, [the process] just doesn't really seem to be making a whole lot of sense to me.”

This was also echoed by ICSs who did not want to converge on to one shared EPR, especially those who covered fewer trusts.

“For us, getting a shared EPR meant adding an extra layer of bureaucracy which was not worth the upheaval.”

Alongside the issues members reported with the procurement process, many suggested the implementation process to be just as lengthy. Some suggested that there is a backlog of organisations waiting for approvals and the funding to implement their frontline digital programmes, causing delays later down the line. Quicker financial approvals were suggested as a means to curb the lengthy process.

These experiences highlight a disconnect between procedure and practical ways of working, as healthcare leaders were clear to us on the issues and impracticalities of the current process. A recognition from the centre to challenge these inflexibilities were highlighted as ways the procurement process could be made less burdensome.

## Sustained funding

The diversity of approaches and digital maturity across trusts and systems underscores the challenges of implementing a national standardised model of a frontline digital ‘ideal’. Healthcare leaders emphasised the importance of a more strategic approach to funding allocation to address specific priorities and promote digital maturity across the healthcare system. Funding from the frontline digitisation programme is allocated to each individual trust based on their level of digital maturity, with those with a limited digital infrastructure being prioritised. Some members praised this approach, appreciating the recognition for systems that had very limited digital infrastructure and needed to work their way up to be mature, instead of having a generalist approach to funding that would instead just bolster ICS with higher levels of maturity.

However, not all members saw this approach, with a mixture of responses on the effects of their funding, potentially leading to disparities in ICS-level progress and even patient outcomes.

“We have received significant funding to enable us to pursue a single EPR within our ICS.”

“There is insufficient funding to achieve our goals. Further, there is a lack of investment in interoperability between systems.”

As well as disparities in levels of capital funding, respondents also said that an increase in revenue funding would help them achieve their digital transformation goals. Over half (56 per cent) of the respondents on our survey stated lack of revenue funding as a significant barrier to deliver their frontline digital priorities.

“We have capital funding but innovation needs revenue and we lack this.”

“NHSE revenue funding to ICSs is still a real concern.”

Members taking part in our research cited funding often being short term and ‘drip fed’, given to ICBs as sporadic injections of funding which impacts the ability of systems to invest and plan long term. Members expressed the absolute need for more equitable, coordinated, localised and sustained funding approaches to advance frontline digitisation effectively. This was especially highlighted in respondents’ context of inequity of funding across acute, community and mental health providers. Overall, there was significant appetite for longer term, strategic and sustained funding from the centre.

“I think the message to the centre is to hold their ground, to stop peppering funding.”

## Organisational readiness

No IT infrastructure, regardless of how up-to-date or advanced in its abilities, whether EPR or otherwise, can reach its desired effect if the organisation is not sufficiently prepared to receive and implement the digital opportunity. Respondents shared that many of their core technology, such as computers, could not handle digital system integration and inhibited the pace in which staff could care for patients. Research also suggests that NHS staff in England lose more than 13.5 million working hours yearly due to inadequate IT systems and equipment.

“The focus needs to be on stabilising on core systems before putting too much effort into integrations.”

“When the [digital] system crashes there is little alternative and have to refer patient back to the prescriber!”

However, when the technology does work, a positive clinical user experience within the NHS is attributed far more to how the digital system has been implemented, rather than the functionality of the system itself. This organisational readiness comes down to effective stakeholder management of all users, including medical staff and IT personnel as well as board executives, to keep them informed about the implementation process.

Digital leaders in ICSs that we engaged commonly reported challenges in securing the level of support needed from their ICB. Particularly in the early stages of frontline digitisation, there wasn't always a widespread understanding of the overall commitment that needed to be made when deploying or optimising an EPR, particularly getting appropriate access to clinical and operational staff. This interaction between the digital and clinical teams is crucial when procuring, configuring or optimising an EPR. This is even more significant when multiple trusts are converging to a standard way of working, which requires clinical and operational staff designing new ways of working, new processes, policies and standard operating procedures. Design work all needs to be completed prior to a system deployment.

As part of What Good Looks Like, clinical input is required throughout an ICS's digital strategy to better focus board decisions on workflow and patient need and to help improve clinical decision-making. In practice, challenges persist in fostering meaningful and consistent collaboration between clinicians and digital initiatives. Lack of clinical engagement and involvement of social or primary care providers were seen as detrimental factors for optimising the functionality of shared EPRs across trusts.

“If you don't have the clinicians' understanding of what the EPR can do and they're not engaged in the work, then I think it's really hard to get all of those benefits and you're paying a lot of money if you're not making the most of it.”

Disparities in engagement were apparent. Some clinical teams had limited capacity to engage with the procurement and development of frontline digital systems, yet some saw external pressures such as mergers forcing new and collaborative ways of working. Leadership was highlighted as pivotal in driving clinical and wider engagement, with members advocating specifically

for a prioritisation of clinical involvement from the outset of projects, even if it requires reallocating resources or restructuring priorities.

“The EPR doesn’t provide immediate interoperability. Staff change and engagement to support a culture of sharing info and data online is key.”

## Case study: Improving patient safety through an electronic health record (EHR) in Dorset ICB

An electronic health record (EHR) combines patients’ medical history in an EPR with other wider details, such as demographic data and vaccination history.

### Overview

Dorset Integrated Care Board (ICB) partnered with Ethical Healthcare Consulting to undertake a review into clinical safety requirements ahead of planning for its system-wide EHR programme.

### What the organisation faced

Patient (or clinical) safety is one of the most significant aspects to consider when implementing any new system in a healthcare setting, not least the implementation of an EHR. Although EHRs have the potential to significantly improve patient safety through better information handling, a number of risks stem from a lack of interoperability, testing the software for usability, and standardisation. Dorset ICB wanted to ensure that it was in a strong position in terms of clinical safety ahead of EHR planning, and this included clinician and staff engagement in the procurement, design and development of the EHR. The ICB also required support across major clinical and operational workstreams to define an outline business specification as well as with the development of their outline business case submission to NHS England.



## What the organisation did

To assess what actions were needed to address clinical safety requirements, Ethical interviewed a variety of stakeholders across all three trusts and the ICB. At the end of this period, Ethical produced a final report containing recommendations for three major technical changes that could potentially reduce immediate risks, as well as for the culture, behaviour, governance and skills for a successful EHR programme rollout. These included:

- **EHR programme leadership:** ensuring appropriate clinical representation in relevant boards, committees and forums, testing and strengthening governance frameworks and affirming a unified ICS vision
- **communications and engagement:** provision of open and collaborative communication channels between leaders and stakeholders and active engagement with clinicians
- **clinical leadership support:** setting up clinical and digital communities of practice.

## Results and benefits

Dorset ICB was able to:

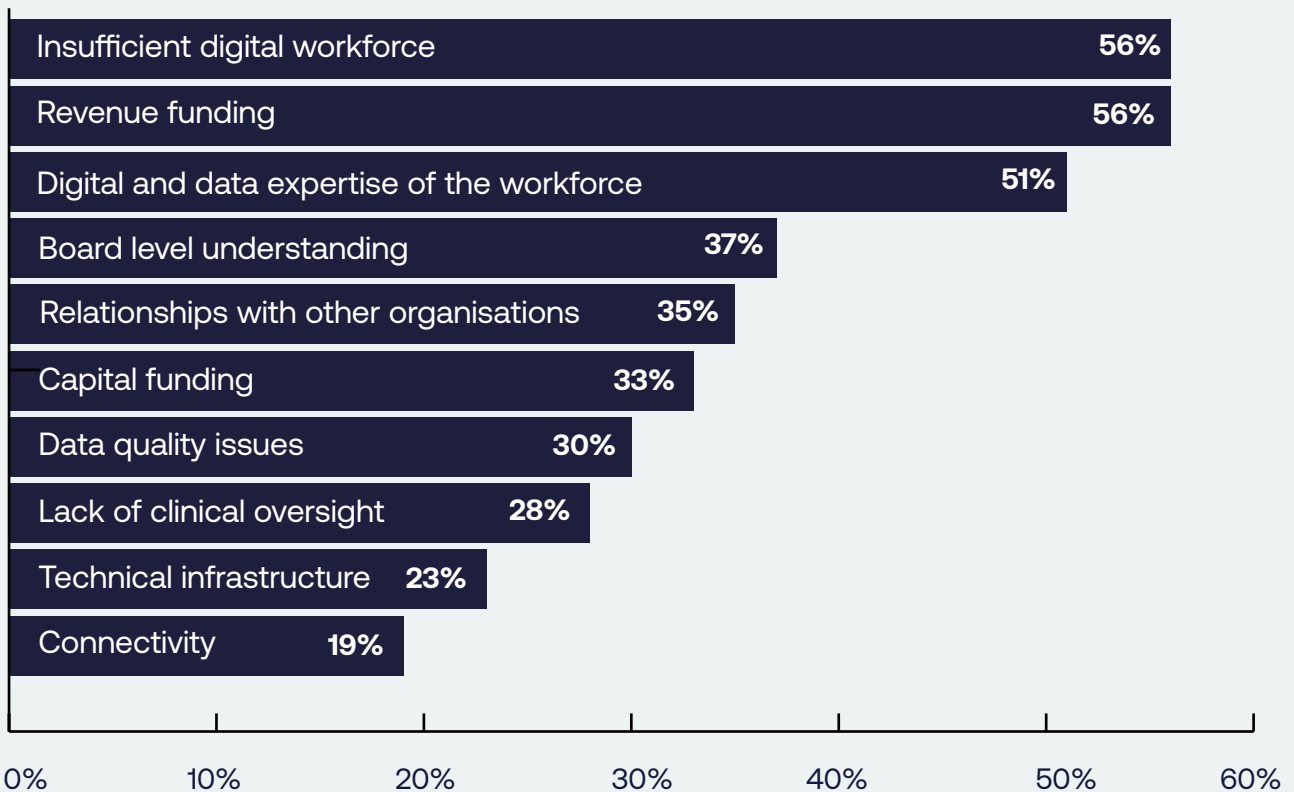
- identify existing clinical risk following board escalation
- have clear recommendations produced for best practice ahead of EHR programme implementation
- focus on where work was needed ahead of EHR business case
- maintain a more collaborative working approach between all three trusts and the ICB
- co-produce the outline business case and outline business specification with Ethical.



## Workforce

Learning and development among the workforce were understood as important enablers for successful and quality frontline digital programmes among respondents, stressing that investing in a strong digital, data and technology workforce is critical to realistically implement and transform healthcare services as set out in the national ambition for a digitally enabled NHS. However, workforce barriers – both a lack of filled roles and a lack of expertise – were two of the most significant barriers for organisations in delivering on their frontline digital priorities, with over half of the respondents listing it as in their top three barriers in our survey.

Which of the following are the three most significant barriers to delivering on your organisation’s frontline digital priorities?



Each ICS, however different in size of population coverage, demographics and health inequalities, the challenge with both workforce availability and capability was consistently raised. In order to successfully roll out not only EPRs to meet the national 2026 target, but to make good on the overall frontline digitisation programme, the right mix of clinical, managerial, digital and data roles are essential to service any overall transformation programme. With a current vacancy rate of 111,000 unfilled substantive posts in the NHS, the ongoing challenge for NHS leaders is backfilling, recruiting and training staff overall to meet these vacancies. Simultaneously, demand is outgrowing workforce capacity. With the ongoing introduction of digital and data requirements for NHS organisations to fulfil, these roles require not only overall vacancies to be filled but also a mix of specialty digital, data and technology roles that adequately meet the needs of organisations' digital ambitions – including for frontline digitisation.

The recent [Hewitt review](#) cited this very challenge, where the professional skills needed to meet the overall national digital transformation agenda is specialised and specific to a digital and data workforce. New systems, including EPRs, are not simply about the software needed, but require substantial time and effort before, during and after implementation in skills, culture, behaviours and leadership, and that more staff are recruited into specialist roles to enable successful application.

“We’re working on (EPR delivery) but lacking workforce capacity and funding is slowing us down.”

“The main challenge is digital and data expertise of the wider workforce. Our IT/digital teams have very strong technical and programme skills but have limited change management expertise and capacity.”

This has been a pressured year for ICSs, not least because of running cost allowance reductions, which saw each ICB subject to a [30 per cent real-terms reduction of resource](#) by the 2025/26 financial year. Efficiency pressures have led to reductions in the digital workforce, leading to gaps in capacity and capabilities. Cost constraints are therefore impacting the ability of systems and

trusts to invest in improving their current digital systems and in growing and developing their workforce.

“[There is a] reluctance to spend to improve clinical systems when there is already something that ‘gets the job done’, even though it might be very inefficient and produce poor data.”

Effective training on frontline digital services is key to ensuring a smooth implementation rollout and safeguarding patients. Members expressed clinical system training was often delivered as a one-size-fits-all approach instead of focusing on learning preferences, digital and data confidence and job roles. This was particularly seen in organisations where a wide range of clinical and administrative job roles now use digital systems for their daily tasks, yet there was little provision for training and support for those with limited digital literacy.

“Basic skills are lacking, including knowledge of MS Teams, the ability to work remotely for huddles, and the provision of phones is restricted to non-smartphones. There is a mismatch of programmes and access.”

Other research about EPR training in the NHS tells the same story. Even within top performing NHS organisations, satisfaction with their EPR training offer lagged behind international averages.

“We teach staff how to wash their hands every six months. Why can’t we do the same about our systems?”

## The oversight and vision of ICSs

Integrated care systems were born into a challenging context. Since their formal establishment in July 2022, and the creation of ICBs as statutory bodies, they have weathered political and economic uncertainty, rising inflation and a cost-of-living crisis. The health and care system faced one of its toughest

winters yet, with immense pressure on emergency services, an uphill battle to tackle the elective care backlog and the huge financial and workforce challenges facing the NHS and social care.

Currently, all allocated funding for the programme goes directly to trusts instead of through the ICB, which causes a tension whereby ICBs are accountable for digitisation yet have limited influence over how money is spent within their systems. Current capital funding can be overly biased towards short-term spending needs associated with large-scale digital programmes. These investments have a long-term revenue legacy too, and its important members and those making these investments decisions in government consider this over a longer-term timeframe.

Despite these challenges, ICSs have been able to achieve much success in their frontline digital transformation, especially harnessing their power as conveners to work effectively with national policymakers. They strive to ensure providers within a system are adequately supported to meet their frontline digital goals.

“I know of an organisation that wrote up a governance paper [on frontline digitisation] and shared it with the centre – not to be difficult stakeholders but to show that they really wanted to talk and work it through. This demonstrated maturity, to see the ICB as a listening voice and makes the process more system-focused.”

With an increasingly multimorbid population, digital strategies are needed to mitigate challenges around communication between services and poor-quality frontline digitisation, particularly with referrals. However, some ICS members acknowledged that their digital strategies sometimes overlooked a fully coherent digital vision, such as providing little focus on social care integration or mental health digitisation, on top of the inequity of funding for non-acute organisations. As a result, there was an agreed need from members for a more flexible approach to digital health policymaking.

“Our digital mental health offer is limited, and we don’t use digital infrastructure that could save us time and funding, as well as improving patient safety (e.g. digitising outcomes measures and digitising ward observations to help prevent falsifications).”

Due to their scope and oversight, ICBs are well placed to determine where investment might be needed to align with system-wide population health management and resource constraints. The diversity of approaches across ICSs for achieving frontline digitisation, as discovered through this report, underscores the challenges of rigidly implemented national strategies.

# Conclusion and recommendations

People, patients and communities all increasingly rely on internet-based, digitally and technologically advanced accessible services both as customers and as public service users. It's therefore not surprising that people, including NHS staff, also increasingly expect to interact with the NHS digitally. For the decades that efforts to digitise have been a priority from the centre, ambitions to continue to improve, use advanced innovation, meet increasing demand and improve productivity while being financially sustainable, have all been essential components of digital transformation for the NHS.

Faced with the COVID-19 emergency, the power to harness digital possibilities to transform care rapidly was seen as a pivotal turning point in the NHS's pursuit of being a modern, digital health service. This transformative capability has cemented expectation that the NHS has the potential to accelerate the use of digital to deliver care longer term that is both sustainable and has the power to address the issues the NHS grapples with daily. This ambition is also coming into fruition through wider digital transformation initiatives such as the introduction of the Federated Data Platform, moving towards secure data environments and further development and maturity of the NHS App.

The continued digitisation of the NHS through the frontline digitisation programme is a very welcome and much needed initiative. The Spring Budget 2024 announced £3.4 billion funding in 2025/26 for NHS technology and transformation to drive productivity improvements and support the NHS Long Term Workforce Plan. While this is a strong lever to make considerable strides forward in improving the productivity of the NHS, we must bear in mind the context the NHS operates within. The unprecedentedly high elective waiting list of over 7.6 million people;<sup>1</sup> the substantial mental health waiting list of 1.9 million people;<sup>2</sup> increasing public demand; an ageing, multimorbid population;

<sup>1</sup> As of July 2024.

<sup>2</sup> As of April 2024.

the impact of recent consecutive industrial action and longer-term challenges of climate change and rising inequalities continue to put more pressure on the NHS than any other time in its history.

Within this challenging context, innovation and transformation are difficult. While the frontline digital systems like EPRs promise to replace legacy systems and improve patient outcomes, many are still having to struggle with simpler issues such as infrastructure, computers or non-smartphones being out of date and leading to inefficiencies in work. The technology is obviously important, but our research has found that factors such as organisational readiness; engaging clinicians and the workforce; and working in partnership across the system are as important as the technology itself. With multiple providers attempting to collaborate in EPR programmes, any one organisation's challenges can become a challenge to the entire ICS.

Additionally, politicians and regulators expect an increasing amount of accurate, dynamic and real-time data to inform policy on the healthcare system. Placing targets for such implementation, including in this context for EPR fulfilment, is expected by public bodies and is a traditionally used lever by policymakers to ensure standardised care and timelines for improvement are clear and consistent. However, levels of digital maturity in England's health and social care sector remain mixed. The juxtaposition between racing towards nationally set targets against the reality of necessary in-depth methodology, processes and planning in order to make policies successful, must always be carefully managed by NHS leaders.

## For government, NHS England and policymakers

- To support the overall vision of the frontline digitisation programme to enable quality and efficient processes, **greater autonomy should be given to ICBs** and provider collaboratives to support the strong desire for collaborative procurement within many ICSs. We encourage the new Labour government and NHS England to commit to setting a small number of core targets based on outcomes and to give ICSs the autonomy to innovate in how they deliver against these targets.

- Allow for **flexibility within ICSs** for them to meet the demands and needs of the local population. This would also support the Hewitt review recommendation that ensures locally co-developed priorities or targets are treated with equal weight to national targets.
- Provide **quality training and support** for the whole health and social care workforce on how and why to use frontline digital technology and digital processes in their job role. This training programme should be provided on an ongoing basis; be tailored to job roles; and should include a particular focus on upskilling health and social care staff with low levels of digital literacy.
- **Greater capital funding for digital infrastructure** is needed, including for frontline digitisation. [The NHS Confederation has called for an extra £6.4 billion a year for the whole healthcare system to boost productivity and transform long-term care, both of which are vital for developing and implementing a fully digitised frontline and the wider digital transformation agenda for ICSs.](#)
- Allow for more strategic investment in the NHS, shifting the planning guidance process to align with **longer-term funding allocations** that allow local health and care leaders to make the best possible use of funding available. This also echoes the Hewitt review recommendation to provide greater financial freedoms and more recurrent funding mechanisms for ICSs, as well as ending the use of small in-year funding pots with extensive reporting requirements.

## For integrated care systems

- Realising the benefits of frontline digitisation requires concerted partnership working between all of the constituent parts of an ICS, particularly between the health and social care providers and the ICB. The ICB has a compelling responsibility to empower, enhance and champion frontline digitisation, which is a core element of an ICB's overall digital transformation strategy. Therefore, all ICS leaders should map existing partnerships between ICBs, trusts and providers and **actively work towards using these partnerships to enhance and support frontline digitisation convergence and efficiency.**



18 Smith Square  
Westminster  
London SW1P 3HZ

020 7799 6666  
[www.nhsconfed.org](http://www.nhsconfed.org)  
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