



CNTW Digital Strategy 2023



Introduction

The use of Digital technology is commonplace in many aspects of life and healthcare is no exception. Accelerated by the COVID19 pandemic, we’ve seen the many benefits digital technology can bring to our patients, though there is also the potential to create digital inequality.

The NHS Long Term Plan and recently published Priorities for Digital Mental Health outline that that Digital offerings have an increasing part to play in the delivery of Mental Health, Autism and Learning Disability services.

At Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust we have invested significantly in Digital, have talented and committed digital teams and a strong culture of innovation across the Trust. We are an acknowledged digital leader in the NHS. In 2022, the organisation became an accredited NHS England Global Digital Exemplar. Whilst we know there is still much work to be done to deliver our digital vision, we are building on the sound foundations of past delivery.

This booklet describes the next phase of our Digital journey and how we will put patients at the centre of their care and support our clinical services in an increasingly challenging environment.

To be successful we recognise the need to work with partner agencies to ensure information and care can flow seamlessly across organisational boundaries to improve the care and outcomes we delivery.

By working together CNTW is well placed to realise the next phase of its digital ambitions.

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Priorities

Improving Core Clinical Systems

Enabling staff to work better with improved clinical systems

Empowering patients

Technology and support to enable patients to be more digitally active in their care

Advancing the use of Information

Turning data into actionable information to improve care and outcomes

Seamless System Wide Working

Working closer with partners across organisational boundaries

Improving efficiency

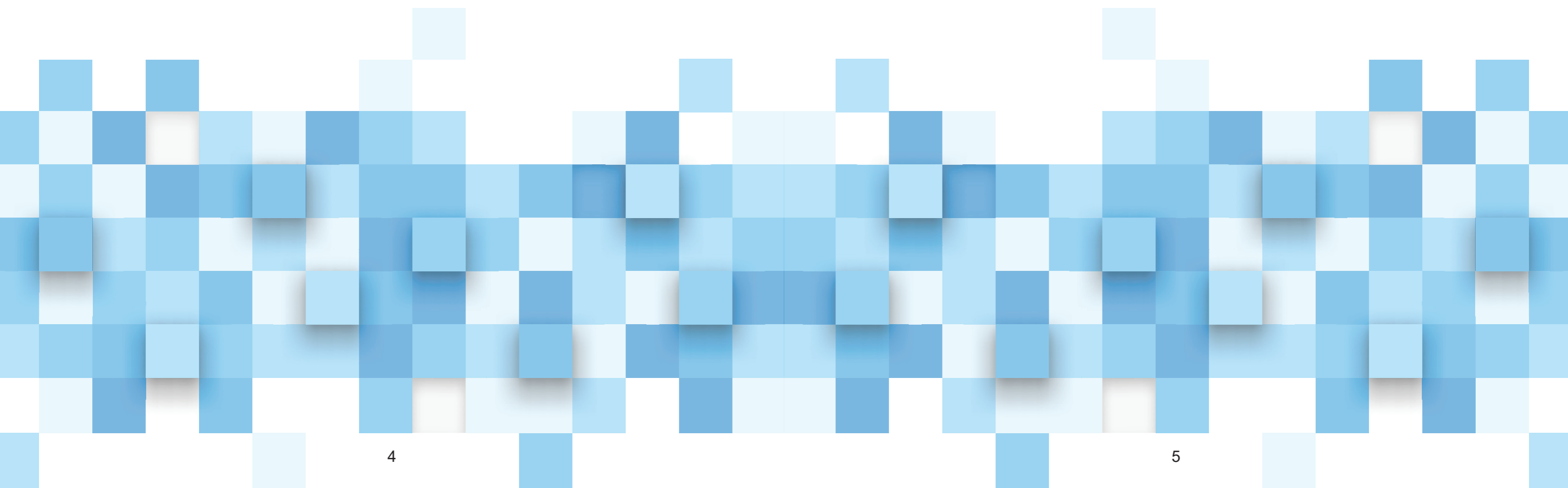
Releasing time to care through better systems and technology

Safe, secure and stable systems

Equipping our staff with the technology they need and keeping systems secure

The CNTW Digital Way

- Co-design Digital Services and systems with staff, service users and partner agencies.
- Work regionally and nationally to learn from others and share what we've done.
- Promote a positive image for Mental Health, Learning Disability and Autism services.
- Innovate and develop technology that delivers benefits and value for money.



Improving Core Clinical Systems

Enabling staff to work better with improved core clinical systems

CNTW is one of the most digitally advanced Mental Health Trusts in England. Recognised by NHS England as an accredited Global Digital Exemplar and attaining HIMSS¹ Level 5 which is a measure of its digital maturity.

RiO is the system used as our electronic patient record. It has been extensively rolled out across the organisation enabling clinicians to securely access records 24 hours a day to improve the quality and continuity of care. Since its implementation in 2010, the system has been extensively developed and rolled out to multiple specialties and includes clinical modules for electronic prescribing, lab results requesting and reporting, recording of observations and seclusion along with many other features. Information from the electronic record is also shared with partners across the North East and Cumbria through RiO's connection to the Great North Care Record.

Whilst this high level of digitisation has delivered many benefits, the extensive nature and growth of the electronic record has made it difficult for clinicians to find the information they need quickly as well as knowing where to record information consistently. As the sophistication of the digital record increases, the electronic record system needs to take advantage of modern technologies to improve usability. The system still lacks an affordable mobile solution and usability in a recent NHS England survey was rated poor compared to other global comparators.

There is significant opportunity to free up clinical time by improving our core clinical systems to make the day to day recording of information easier for staff along with making it easier to find the information they need when they need it.

A key priority of this strategy will be to work with our current supplier to improve the system, whilst also assessing the wider market to understand if there are more useable and functional systems that can be used to either replace the current system or integrate with it to improve key tasks and workflows.

We will also optimise the use of the current system. We will review our policies and processes for recording information to ensure that we record the right level of information at the right time and consistently to ensure the electronic patient record is streamlined whilst supporting clinical care and safety,

Over the next 18 months we will

- Undertake an options appraisal of our current core clinical systems to understand what the wider market can offer in the medium to longer term.
- Continue with RiO 23 upgrade to bring usability and functionality improvements
- Increase our RiO optimisation work to streamline current digital processes.
- Continue ePrescribing rollout across our community services.
- Continued development of integration work and information sharing via Great North Care Record



¹ <https://www.himss.org/what-we-do-solutions/digital-health-transformation/maturity-models/electronic-medical-record-adoption-model-emram>

Empowering patients

Technology and support to enable patients to be more digitally active in their care

Supporting our patients with digital access to view and update records and providing accredited digital apps and services is one of the biggest digital transformational opportunities open to CNTW and its patients.

Not everyone is able to or wishes to use digital technology. We must remain mindful of this and ensure digital technologies are developed to be as inclusive as possible, and not to exclude access to services where patients cannot access technology.

The NHS app is increasingly becoming the digital front door to access different patient services and this will allow the Trust to work with other organisations regionally and beyond to support patients to access information and services.

CNTW has worked extensively with several suppliers, Trust services and patients to deliver prototype and pilot solutions. The organisation is trialling a number of potential platforms that could be used to develop patient facing technology. Prior to the pandemic, the organisation delivered on-line consultation which was heavily used during lockdowns. The Trust is part of the Healthcall partnership which is developing Mental Health specific tools to support patients. The Trust is also supporting the Regional Patient Engagement Platform (PEP) programme also known as MyGNCR, and nationally the Wayfinder programme to link Electronic Health Records directly to the NHS app.

As a result, CNTW is very well placed to take the learning from this work, assess the best tools that will support the needs of patients and develop a business case to scale up the deployment of patient facing technologies.

Also, building on its track record of patient centred care and co-creation CNTW can make a significant contribution to the Integrated Care System (ICS) Digital Inclusion representing the specific needs of Mental Health, Learning Disabilities and Autism communities.



Over the next 18 months we will

- Assess the options we have available to deliver patient facing technology
- Develop a business case for the acceleration of patient facing technologies.
- Work with the ICS to understand the barriers to accessing the NHS app for Mental Health, Learning Disability and Autism service users.
- Support the ICS Digital inclusion work.

Advancing the use of Information

Turning data into actionable information to improve care and outcomes.

Advances in technology are providing unprecedented opportunities to use data and information in innovative ways to improve services and outcomes.

CNTW has a strong track record of using data well. It has a comprehensive, mature and reliable data warehouse platform which combines information from most Trust systems which have good levels of data quality and accuracy. This has been used as a foundation for the development of a suite of dashboards which have been developed extensively over the last 10 years. More recently, Power BI has been used to enable more sophisticated and engaging dashboards to be developed giving staff the ability to better analyse information for themselves. Further work is needed to scale the use of Power BI whilst maintaining the security and integrity of the Trust’s reporting systems.

CNTW has moved elements of it’s reporting to cloud services to improve reliability and security. This also opens the opportunity to use advanced technology that only a few years ago would have been unaffordable to public sector organisations. Using Artificial Intelligence technologies including Predicative Analytics and Natural Language Processing there is the potential to increase the sophistication of its reporting to turn unstructured data into actional information.

Increasingly the Trust is working in collaboration with other NHS organisations and partners from the 3rd sector. Through working in partnership with regional organisations CNTW has the potential to develop reporting tools that can cover not just CNTW, but also partners to support new service models and provider collaboratives. Through supporting the building of Secure Data Environments (SDEs) CNTW will be able to develop population health reporting to support not only improvement in care and outcomes, but also increasing preventative care in the future.



Over the next 18 months we will

- Continue to develop new methods and frameworks for internal reporting.
- Work with NECS to develop improved pan-organisation reporting to support new service models and provider collaboratives
- Pilot Artificial Intelligence technologies which could enhance reporting (Eg. Natural Language Processing, Predictive Analytics)
- Ensure Mental Health is embedded in Regional Population Health developments and Trust Research Environment Developments

Seamless System Wide Working

Working closer with partners across organisational boundaries

The NHS is developing more collaborative working through Integrated Care Systems and Provider Collaboratives. CNTW has excellent systems and reporting which put the patient at the centre of Trust services and enable clinicians to access information securely 24 hours a day. However, as multiple partner agencies increasingly become more integrated in the delivery of care, information is not always available at the point of care to all services.

A number of regional initiatives and platforms are being developed to support working across organisational boundaries including the Great North Care Record Health Information Exchange. CTNW was one of the Trusts that led on the development of GNCR and is well placed to influence and support its future development.

There are opportunities to increase the use of regional platforms including evolving the use of the Great North Care Record Health Information Exchange, Regional data platforms and Population Health. Collaboration could also be enhanced through better use of existing infrastructure technologies including shared WiFi and Office 365.

To maximise the benefits of regional platforms and systems for Mental Health, Learning Disability and Autism services, many of the current regional solutions will need expansion so that they support organisations outside of the NHS including Local Authority and the Third and Voluntary sectors.

As more collaborative services are built around our patients, our electronic systems need to evolve into more regional models and support the collaborative creation of key clinical documents by staff working in multiple agencies. This would include the development of shared assessments and care planning across partners.

When working across organisational boundaries, it is key to ensure that information and the rights of individuals are protected and that the right level of information is shared with the right people at appropriate times. Sometimes the information governance required to achieve this is perceived as a barrier to sharing information, particularly when sharing outside of the NHS. However, when correctly implemented information governance becomes the enabler. The development of common information sharing frameworks across the wider system is key to support the secure sharing of information and systems.

Over the next 18 months we will

- Ensure the requirements of Mental Health, Learning Disability and Autism services, including partner agencies, are articulated in the ICB Digital Strategy.
- Support the development of digital delivery plans for MHLDA services that co-ordinate digital developments at system and organisational levels.
- Support the development of region wide information sharing agreements across Health, Social Care and VCSE.
- Contribute to regional initiatives including the Great North Care Record so that requirements for MHLDA services are recognised and included.
- Develop systems that will support shared recording and the development of collaborative, multi-agency assessments and care planning.
- Facilitate infrastructure collaboration projects including shared WiFi solutions, and Office 365 federation.

Improving efficiency

Releasing time to care through better systems and technology

Technology brings the opportunity to deliver efficiencies through streamlining processes, automating routine work and speeding up decision making. However, poorly implemented, or ageing systems will hinder the delivery of benefits.

CNTW has good coverage of non-clinical systems but there could be opportunities to modernise these and consolidate on to fewer systems as contracts expire. Where systems have been implemented, they need to be maintained, upgraded regularly and optimised so they support Trust requirements. Current ongoing upgrades and optimisation include the Electronic Staff Record self service, Time and Attendance and Digital Dictation systems.

Some of older systems may not be fit for the future, including in-house developments. For example, they may not meet modern design standards for security, they may not be fully accessible for all staff and older systems may not support mobile devices hampering their use by staff whilst working remotely.

There are also efficiencies to be gained through developing systems interoperability to reduce the duplication of data across different systems and re-keying of data. Interoperability can also support the automation of whole processes, particularly where human intervention is needed to complete tasks and where staff may only work office hours or be busy with other work.

CNTW has successfully deployed automation within digital services using robotic process automation (RPA) to enable staff to reset their own passwords with RPA used to complete the administrative tasks across multiple systems 24 hours a day. The digital team have also developed the use of Application Programming Interfaces (APIs) in RiO which opens the potential to automate tasks and securely move information between systems without rekeying. For example, this could be used to pick up physical health information from GP systems and automatically update RiO with this information saving clinical staff valuable time.

Over the next 18 months we will

- Continue ongoing upgrades and rollout plan for current systems replacement, upgrade and optimisation.
- Develop full contract list with procurement and review opportunities for any systems consolidation
- Benchmark current systems, including in-house developments, to ensure they are fit for the future
- Discover additional areas for the further deployment of automation technologies including Robotic Process Automation (RPA) and Application Programming Interfaces (APIs).



Safe, secure and stable systems

Equipping our staff with the technology they need and keeping systems secure.

Maintaining a modern IT infrastructure enables staff to work with fewer disruptions and supports increased levels of cyber security.

CNTW set an ambition to be the “work from anywhere Trust” and as a result has a high ratio of devices to staff enabling significant levels of remote working. Because of this investment when the pandemic and lockdowns hit the UK in 2020, several thousand staff were seamlessly able to work from home and continue keeping our patients safe and our clinical and administrative services running. Since then, mobile and remote working has become an embedded way of working at CNTW.

It is not just in the community where we see mobile working. On wards staff are using laptops and tablet devices when providing care and treatments across hospital sites. The Trust also provides guest WiFi so our patients can stay connected to their loved ones whilst an in-patient and access the internet for education, recreation and entertainment by using streaming services. However, this increased use of WiFi is putting pressure on the capacity of Trust WiFi networks.

CNTW have been leaders in modernising its IT infrastructure and increasingly able to adopt an “any device strategy” to move away from being tied to Windows/ laptops. This gives even further flexibility to staff to work in a mobile manner and use different input methods including dictation and digital pens. The Trust is also an early adopter of cloud technologies which has enhanced its ability to deliver agile, secure and cost-effective digital services.

Supporting our staff to use technology and fixing things quickly when they break are important to maintain confidence in our electronic systems and increase in importance as more patient facing services are delivered. The digital team are implementing a new IT Service Management system to further streamline and enhance the high-quality service they provide and increase the levels of automation in service management.

As the Trust and patients become more dependent on technology it becomes increasingly important to ensure that the infrastructure is stable so that it remains reliable and available. Also, as the use of digital grows, so do cyber security threats and risks. There have been an increasing number of successful and hugely disruptive cyber-attacks on Health services in recent years and this is likely to increase further given the current volatility of world politics. The Trust needs to invest not only in prevention of cyber-attacks, but also in constant monitoring and being able to react swiftly and minimise disruption in the event of a cyber incident.

Over the next 18 months we will

- Continue to invest in updating and renewing the IT equipment used by staff.
- Review the current design of the Trust’s WiFi infrastructure to consider alternative approaches to meet the needs of the organisation.
- Deliver and optimise the new IT Service Management system to enhance IT support for staff.
- Continue the development of the Trust’s cyber security improvement plan moving to a zero trust and assumed breach strategy.
- Benchmark cyber security resource annually and consider optimum level of resourcing.



