

North Central London Integrated Care System

Digital Strategy Refresh

September 2022



Foreword & Executive Summary



Foreword

We have made significant progress to address the aims of the NHS Long Term Plan and have used the plan as an opportunity to renew our focus to improve outcomes for our residents, provide a better experience and ensure future financial stability.

At the heart of our progress to meet the goals of the NHS Long Term Plan, is Digital transformation. Since the publication of our first Digital Strategy in 2017, we have seen first-hand, the benefits that Digital transformation can provide. We have mobilised and maintained three Digital programmes which have benefited our system, through better access to data and increased collaboration between our partners. Through this work, we have laid down solid foundations to further develop and build our Digital services, to ensure we provide the best care to the people we serve.

We must acknowledge that the context within which the 'Digital Strategy-2017' was written has changed. The Covid-19 pandemic has stimulated new ways of working founded in strengthened collaboration between ICS partners, creating opportunities for more connected services, through working in different ways. We can grow further from this experience and leverage our Digital technologies to tackle the additional challenges we face, such as addressing climate challenges, demographic shifts and financial pressures.

Through this, we have the opportunity to refresh our Digital Strategy and reaffirm our priorities for the next few years. By doing this, we will be able to fulfil the ambitions of the NHS Long Term plan for 'Digitally-enabled care to become mainstream.' We will increase connectivity between all organisations across health and social care both across our ICS and beyond and provide our staff with the data they need to better prioritise and plan; to be more targeted and effective.

We believe that the Digital transformation signalled in this Digital Strategy Refresh will help us address these external challenges as well as support improvements in the quality and safety of the care we deliver in partnership with our residents.

We must ensure we put the needs of people at the centre of how and where their care is delivered. We will use data to better understand what needs to be done, to enable better joined decision making and consider how technology can help us deliver better, safer care. Our focus will be on the entire population, making sure that we do not create inequalities through Digital exclusion, instead using this opportunity to maximise the benefits for all. The scope of the Digital Strategy document will be maintained to be aligned with ICS priorities and Regional and National priorities and directives.



Jo Sauvage, Chief Medical Officer, NCL ICS



Context

Case for Change: External Factors



Rapidly changing external factors place new pressures on how we deliver health and social care to the people we serve

The context within which our existing NCL ICS Digital Strategy was developed in 2017 has changed and a new set of external challenges exist for the NCL ICS. We believe that Digital transformation, enabled by a refreshed Digital Strategy, will be a key component in helping NCL ICS to mobilise an effective response to mitigate against these external factors. We are aiming to align this strategy according to the NHS Long Term Plan, which will increase the range of digital health tools and services. People will be able to seek health information and support online, and choose whether they speak to a doctor on the phone or in person. A wide range of NHS-approved apps will help people get ongoing support to help them manage their health and wellbeing needs, backed up by face-to-face care when this is needed. The NHS app is of huge importance as it provides a valuable resource for clinicians who have all the information they need to make the best decisions for the patients in their care.

Covid – 19 Recovery

Demographic shifts

Covid-19 has put additional pressure on our clinicians and staff by increasing the demand for specialist review and diagnosis and exacerbating waiting times for the people we serve.

This is creating pressure on our ability to sustain consistently highquality health and care services and meet increased demand across all NCL ICS boroughs and our specialist services. An ageing population is increasing the number of people needing care.

This is particularly true of those affected by long-term conditions and multi-morbidity, putting increased pressure to develop new models of care to address these demographic challenges. NCL has a very high proportion of Specialist Care Providers whose population is National meaning integration at a national and regional level is essential for the ICS for all offered services.

Economic Stability

Our health and social care services are under financial stress and NCL ICS is in significant budget deficit.

This is increasing the need to reduce operational expenditure and increase productivity and capacity with the overall goal of reducing the cost of care whilst sustaining the quality of the service we provide. Climate Change Crisis

Climate change is a major threat to public health and the NHS is responsible for around 4% of the nation's carbon emissions.

There is a requirement for the NCL ICS to support NHS's ambition to be the world's first 'net zero' national health service.

Case for Change: Implications on the NCL ICS



The recent changing external factors are just the root-cause of a wider set of challenges impacting our system



Reduced clinician capacity impacting waiting times

Covid-19 has increased waiting times for elective interventions for the whole of the NHS with 6 million people now on the waiting list, up from 4.4 million before the pandemic*. This has reduced our ability to meet the needs of the people we serve and increased the complexity of the conditions for some of those waiting with significant impact across health and social care settings.



Compromised staff wellbeing due to increased workload pressures

The reduction in clinician and staff capacity as a result of Covid-19 has exacerbated wellbeing challenges and we have a role to play in improving the environment for our staff, clinicians and people we serve. By addressing this challenge, we will be able to support the wider NHS and Social Care system to meet its ambition to become a consistently great place to work**.



Exacerbated health inequalities

Covid-19 has further highlighted some of the health and wider inequalities for the NCL ICS, impacting those who already face disadvantages and discrimination. Multi-morbidity is more common in deprived areas, and some parts of our population including Black, Asian and minority ethnic (BAME) communities are at substantially higher risk of poor health and early death^{**}.



Increased need for sustainable processes

The climate crisis poses a significant long-term health risk to our residents so we must look for ways to redesign and transform our health and care services to reduce our carbon impact on the planet.



Increased need for financial stability

The NCL ICS has been in in long-term budget deficit and the national economic outlook is challenging over the medium term. Our residents, clinicians and staff require a financially sustainable health and social care service to ensure that their needs are met over the long term.

Case for Change: Why Digital Transformation?



NCL ICS is at a critical junction and Digital transformation will be a key enabler to support and meet the challenges facing the service

What is the role of Digital Transformation?

The pace of technology continues to advance, and Digital transformation is accelerating across the UK. Society is becoming increasingly connected, with people spending more time online*, and our dependence on digital technologies and channels continues to grow. The health service needs to keep up with this evolving Digital landscape. Along with this, none of us can foresee exactly how the next decade of health and social care will evolve and what new external challenges will continue to impact our services. We can, however, strengthen our ability to respond to potential changes through Digital transformation. This will be even more important to achieve the ambitions set out in the NHS Long Term Plan including the creation of an Integrated Care System. In alignment with OneLondon's ambition* of delivering a vision of joined up health and care with the help of this Digital Strategy the ICS will make the right information available to health and care professionals at the right time can save lives and improve treatment and care.

As well as supporting care for individuals, shared information can help to provide the best possible health and wellbeing outcomes for our communities, and reduce health inequalities.

Whilst we acknowledge that Digital will not be solely responsible for addressing the external factors and ambitions in the NHS Long Term Plan previously outlined, we need to ensure that we proactively use Digital transformation to provide the people we serve with high quality care at a time and place that works for them.

What can Digital transformation do for the ICS?

Within the NCL ICS, we have already seen the benefits that technology and data has provided in enabling our ICS to deliver more effective care - the benefits of Digital have also been seen more broadly across the NHS through the pandemic. For example, the use of online and video consultations became commonplace to ensure effective care was delivered to patients.

With a robust Digital transformation strategy, we can ensure the ICS is able to meet its core purposes:

- 1. To improve outcomes in population health and care
- 2. To help support broader social and economic development
- 3. To enhance productivity and value for money
- 4. To tackle inequalities in outcomes, experience, and access.

This Digital transformation strategy will be integral for ensuring that our services are modernised, without compromising the service we provide, and impacting the tools and requirements that our people need to deliver high quality care. Planning a pan-London approach to personal health records will ensure people can access and contribute to their own information, as a single shared record that provides an accurate, complete picture of a person's health and care from over time and across organisations for the purposes of individual care is essential in the modern world.

^{*}Online Nation, Ofcom 2022 Report: <u>https://www.ofcom.org.uk/___data/assets/pdf__file/0023/238361/online-nation-2022-report.pdf</u> *OneLondon Online, What's this all About: <u>https://www.onelondon.online/whats-this-all-about/</u>

Our Progress and Plans for One London Initiatives

We have already made significant progress on our Digital journey and our Digital Programmes are already delivering change

Our Digital journey commenced in 2017 and significant progress has been made. We now have a chance to prioritise the next steps based on the current challenges in order to continue delivering tangible, beneficial change. This will provide us with new opportunities for prevention, care and treatment through Digitally-enabled care as set out in the NHS Long Term Plan and will ensure the priorities of the NCL ICS are aligned with the three OneLondon Levels. The following two slides point to the Programmes that are currently underway:

	Lond	on	Care	Recor	d
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Description

NCL ICB has launched the LCR platform to provide real-time information to the care team at the point of care to optimise care delivery for patients. Priority is currently on onboarding organisations across the ICS to contribute and consume information to the platform and to connect London.

HealtheIntent Our HealtheIntent Platform has been launched

to provide clinicians with live data from health and social care providers to drive proactive care through algorithm developments.

PHR

NCL consciously chose to approach patient Digital interaction and record access as 3rd priority and to learn from other London ICSs and work within the system with technical solutions such as Zesty and Epic.

Consume data:

- 205 out of 207 GP Practices on-boarded
- 4 out of 5 Councils on-boarded
- ²rogress 10 out of 12 Hospitals on-boarded

Integrate fully with the London Care Record, aligning on data, Information Governance and support models.

Integrate with other close neighbours such as West Hearts where there are large patient flow.

Consider other valuable settings such as community pharmacy

- 206 out of 207 GP Practices on-boarded ٠
- ٠

and from other London Platforms.

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PHR Programme mobilised.

- Options appraisal done, Patient Knows Best (PKB) appraised against other options (Consistent London interface a consideration)
- Business Case currently being drafted.

With clearly value being realised already, particularly with the tightly EPR integrated solutions (e.g. Zesty and Epic), the business case is examining how these should/can work with the benefits of a common London platform based on PKB.

6 out of 12 Hospitals on-boarded

Continue to pursue the full deployment of

HealtheIntent and supporting analytics and

Build on the NCL work done to federate data to

Consider advanced data platforms and

interface with region and national platforms.

All Councils engaged

registries.

Strategy

Our Digital Transformation Progress



We have already made significant progress on our Digital journey and our Digital Programmes are already delivering change

The ongoing NCL ICS Digital Programmes:

Digital Diagnostics

Outcomes

The Programme consists of six key projects – four in imaging (image sharing, ordercomms, home reporting, and PACS/RIS/VNA refresh); and two in pathology (Digital histopathology, and LIMS alignment). The projects are enablers for future interoperability and have a significant Digital strategic element. Digital developments in diagnostic services will improve the quality and safety of services to patients and enhance working practices for staff. This will not only deliver improved outcomes but will also facilitate research and training.

Maternity

The NCL LMNS/ICS is committed to rolling out initiatives that support women/ birthing people and their families in receiving care that is truly personalised to their individual needs and based upon informed choice. Digital is the key enabler of health and care service delivery, as it is changing the landscape of Maternity care. The NHS Long-Term Plan (2019) identified that by 2023/24 all women/ birthing people should have access to their full Digital Maternity record and information via their devices.

 The immediate tangible and aspirational benefits of deploying Digital Diagnostics are undoubtable in terms of supporting precision medicine and improving the care of our patient population. 1. Infrastructure: support our trusts in securing a modern foundation to support their Digital programmes

- 2. Analytics: ensuring that trusts utilise data to provide insight to drive decision making
- 3. Digital culture: by collaborative working across the sector, we can foster the delivery of quality patient care as staff will have ownership in their MIS
- 4. Innovation: utilising feedback and sharing of ideas will enable streamlining of care pathways.

Digital First

The NCL Digital First team work to formulate standard approaches that can promote, enhance, and accelerate primary care Digital maturity; as well as capture and track measurable benefits to build long term business viability for Digital First approaches. The NHS app gives access to certain NHS services online, such as Digital First, allowing patients to order their repeat prescriptions and view, set or change their nominated pharmacy, where they want their prescriptions to be sent, as an example.

- 82 out of 185 GP Practices signed up to Digital Journey Planner.
- 100% Practices delivering Online Consultation / Video Conferencing.
- 7,834 new patient online registration to May 2022.
- 50.88% NCL NHS App coverage/logins to date.

EPR Convergence Strategy



NCL has one of the most diverged EPR estates, our strategy is to reduce the number of EPRs to simplify integration

With 8 EPRs across the ICS, NCL faces a challenge to ensure system interoperability, patient flow and data sharing, and to achieve economies of scale in EPR procurement. We want to use the forthcoming expiry of several EPR contracts to seize opportunities for convergence, whilst mitigating the disruption to clinical services resulting from EPR system change. This task is more complex in NCL than in many other London ICS due to a high proportion of specialist services; high-volume patient pathways crossing in and out of neighbouring ICS's, and significant recent investment (GDE-FF programme) in the Acute sector. The priority Trusts for EPR investment are Moorfields, RNOH, and Camden & Islington Mental Health Trust. Our goals include: Storage management of Records & Assessments, Diagnostics Management, Management of Medicines, Decision support tools, Support for remote and assistive care, Asset and resource optimisation, as well as Business and Clinical Intelligence.

Considerations	Description
Reduce the number of EPRs	There are 8 Electronic Patient Record (EPR) systems across NCL. The NCL strategy is to use forthcoming expiry of several EPR contracts to seek convergence with neighboring EPR domains where appropriate. This will facilitate service integration and integrated care for patient flows within the ICS. NCL will aim to consolidate EPRs where financially and operationally feasible.
Financial Imperatives	Any EPR consolidation must consider financial imperatives. With 1 Global Digital Exemplar (GDE) and 3 "Fast Followers" there has been significant recent investment, particularly into the the Acute sector. The strategy to consolidate EPRs must consider this investment and meet with the ICS capital investment plan, based on evidenced benefits realisation.
Support for specialist services	NCL has a high proportion of specialist hospitals and services, the EPR convergence strategy must maintain support for these specialist services and recognise that the majority of patients for many specialist services are referred from outside NCL and therefore EPRs must interoperate with other EPRs through standard interfaces wherever possible.
Support inter- ICS patient flow	There are patient pathways with very significant patient flows across ICS boundaries (e.g. North East London and West Hearts). EPRs must support these patient flows and therefore NCL will develop an EPR interoperability strategy, based on open standards wherever possible.
Levelling up Digital maturity	While the Acute sector in NCL has received recent EPR investment, other settings (Mental Health, Specialist Hospitals and Sodal Care) are under invested which impedes cross-system integration. Under invested settings and organisations where EPRs are reaching end of life shall be the priority to consider for EPR convergence.

The priority Trusts for EPR investment are Moorfields, RNOH, and the mental health Trusts: Camden & Islington and BEHMHT which plan to move forward together.

Maternity Strategy

North Central London Local Maternity and Neonatal Maternity System (NCL LMNS) and Integrated Care System (ICS) cover a population of over 1.7 million people across five London boroughs (NCL CCG, 2022). There are four acute hospital trusts that provide maternity services in North Central London, located across system with five maternity units. The NCL LMNS/ICS is committed to rolling out initiatives that support pregnant women/birthing people and their families in receiving care that is truly personalised to their individual needs and based upon informed choice. Digital is the key enabler of health and care service delivery, as it is changing the landscape of maternity care. An extensive gap analysis was undertaken in May 2022 to map our maternity populations including areas of deprivation and ethnic categorisation. These metrics are required to be provided from our Trusts and work is underway to establish how these can be accomplished.

Deliverable Description OneLondon To deliver the One London Vision by 2023/2024, all pregnant women/birthing people will be able to access their maternity notes and information through their smartphones or other devices if they have them. To support the end-to-end patient pathways in maternity: Vision by 2023/2024 virtual consultations, specialist opinion, remote monitoring. Connect and join services together across NCL by developing and upgrading digital infrastructure for the sector's units to enable digital data sharing of records and create robust reporting system and collaborative working across the ICS. Encourage **Connect & Join** convergence in the procurement of future systems. levelling up of the digital systems within the Trusts across the NCL LMNS Services. footprint with a view to ensuring that they have a core level of infrastructure, interoperability of IT systems and integration of Levelling up maternity records. Support and encourage Trusts to develop digital exclusion strategies and action plans, hence tackling inequalities in outcomes. Digital experience, and access. The core focus for maternity services will be ensuring that we are part of ICS-wide discussions around Exclusion digital exclusion within NCL. **Strategies** Digitally enable improved access and quality of data. Focus on standardising care pathways to enable access to real-time joined-up accurate and complete information, including onboarding by HealtheIntent and Start Well. This will improve outcomes in population Access & **Quality of Data** health and care. Encourage development of more centralised processes and governance models across the Trusts to improve user experience across NCL.



What is our Digital ambition?

The Digital Strategic Priorities of the NCL ICS

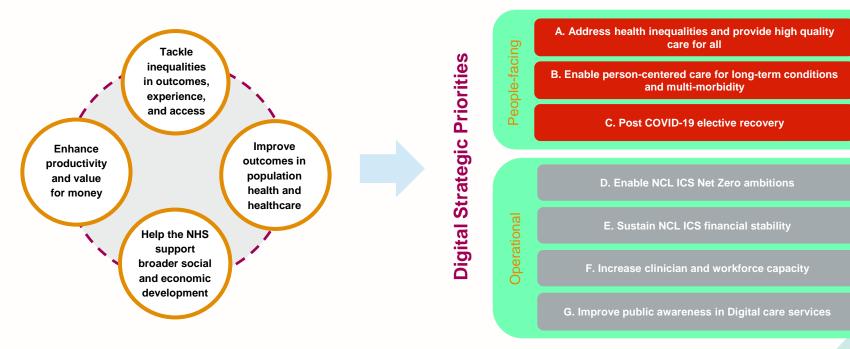


Our Digital Strategy will be driven by a set of strategic priorities which will inform our Digital initiatives

As an ICS, we have a set of 4 set of core purposes which have been used as the baseline for this Digital Strategy Refresh. We have developed a further set of Digital strategic priorities which will shape the contents within strategy and focused on addressing our population needs.

We have categorised the Digital Strategy Priorities into:

- People-facing Priorities directly impacting our people (clinicians, health care users and staff)
- Operational Priorities impacting the entire system which will result in long-term benefits for the people we serve.



What will be different for our Clinicians?



When defining the Digital Strategy Refresh, we have set out the ambitions for what will be different for clinicians



Through Digital transformation, we anticipate that our clinicians will....

...be equipped with the right tools for preventive care due to real time monitoring and data, which will improve their overall decision-making and set the basis for a shared accountability framework and increased confidence in the clinical pathways. All this is to result in a reduced number of people requiring further treatment, clinical intervention and follow-up appointments, which will eventually free up capacity from the clinical backlogs and waiting lists and increase the overall system capacity, reducing the need for in-person appointments and overall travel times.

We anticipate our clinicians will feel less pressured which should improve their overall wellbeing.

Future State Ambitions:

- Freed up capacity and reduced clinical backlogs
- ✓ Reduced number of people requiring further treatment

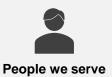
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- ✓ Improved clinician decision-making and tools for proactive care
- ✓ Increased confidence in pathways
- Clearer accountability and joined-up decision making
- ✓ Reduced travel time
- ✓ Improved staff morale and wellbeing

What will be different for the people we serve?



When defining the Digital Strategy Refresh, we have set out the ambitions for what will be different for the people we serve



Through Digital transformation, we anticipate that the people we serve will....

...be equipped with the right tools for better access to our care services and information regarding their health and social care (E.g. Healthcare records). This will enable a more preventative approach to care and early diagnosis through increased engagement and better access to real time monitoring and data availability. This will also support how people move across regions and ensure that everyone gets the same quality of care at the time and place they require.

The adoption of Digital will also increase the overall system capacity and productivity, which should result in reduced clinical backlogs and waiting lists helping our people get a quicker and timely care. This will bring reduction in the overall demand for further hospital treatment, clinical intervention and in-person appointments as well as travel times

All this is to provide our people with visibility and confidence that their clinician has the right data to support medical decisions. This will increase engagement with their own heath and opportunities for self-management and monitoring.

Future State Ambitions:

- ✓ Access to health and social care data
- Reduced waiting times and quicker access to services
- Reduced travel times for appointments and disruption of daily activities
- ✓ Boundaryless and seamless care across the ICS
- ✓ Reduction in the need for follow-up appointments
- Earlier diagnosis and reduction in emergency care
- ✓ Better visibility of clinician decision-making rationale
- ✓ Increased confidence that their health and conditions are managed effectively
- ✓ Increased self-management and preventative care actions
- ✓ Clear escalation processes

What will be different for the ICS?



When defining the Digital Strategy Refresh, we have set out the ambitions for what will be different for our ICS



NCL ICS

Through Digital transformation, we anticipate that the NCL ICB as a system will....

...be able to bring positive changes to the workforce wellbeing, productivity and overall system capacity. The adoption of the right Digital capabilities and use of data will enable us to perform a better clinical research work, optimise our operational planning around demand, coordinate with other ICSs and justify any further system-wide initiatives with the right data and tools in place.

By doing so, we will be able to improve the overall quality of care we provide and build trust in the people we serve as well as optimising our processes through a reduction in the need for long-term cost of care.

Creating opportunities for optimised Digital care adopted by all – our people, clinicians and staff – will contribute to our Net Zero ambitions reducing the travel times due to less demand for in-person appointments, hospital treatments and administrative work.

Future State Ambitions:

- ✓ Improved care capacity and quality
- ✓ Better operational planning around demand and capacity of the workforce
- ✓ Increased opportunities for a more precise clinical care
- ✓ Contributions to population health research
- ✓ Increased opportunities for system-wide evaluation, justification of initiatives and technological purchasing
- ✓ Improved staff morale and wellbeing
- ✓ Reduced carbon footprint
- ✓ Improved public perception of our ICS due to person-centric care and robust data security
- ✓ Reduced cost due to process efficiency and standardisation
- ✓ Better coordination with other ICSs
- Reduced number of unplanned and/or emergency admissions



What do we need in order to deliver our Digital ambitions?

The ICS's Strategic Digital Initiatives Summary

appropriate to the needs of the individual.

The ICS will prioritise five Digital initiatives spanning front-end patient engagement through to defining a target state Digital architecture

The 6 Initiatives have been further mapped against the Digital Strategic Priorities (introduced on Slide 10) with the assumption that some priorities will be immediately addressed by the successful implementation of the initiatives and others will generate a tangible impact at a later stage.

Strategic Initiatives

Digital End-User

Engagement

Integrated Care

Planning

Remote &

Assistive Care

(Virtual Wards)

Advanced Data

Analytics

Description

Provide all the people we service with appropriate information using accessible, easy to use and reliable systems, with a focus on ensuring all the information contained on these systems is

Mapping against Digital Strategic Priorities

technology platforms, wearables and medical devices. Initial approach to implement Virtual Wards to support remote care initiative across the ICS. Consolidate integrated care pathways across the ICS with an overall ambition to consolidate the pathways across the region (London). Co-ordinate across the different health and social care settings. The Digital Strategy aims to empower and speed all Digital Initiatives up without slowing any of them down.

Digitally enable care pathways to be delivered remotely and with self monitoring options using apps,

Segment patient data to support the division of the patient population into distinct groups to implement targeted care models and intervention programmes tailored to an individuals need.

Digital Architecture **Target State**

Collaboratively define and implement a coherent and interoperable Digital architecture, underpinned by modern and pragmatic architectural principles, across the System.

Digital **Diagnostics** Programme

Key:

The Programme will take a lighter touch, proportionate approach to assurance to reduce the burden on Recipients and align with other Programmes, it will also serve as an enabler for future interoperability.

A. Address health inequalities and provide high quality care for all B. Enable person-centered care for long-term conditions and multi-morbidity C. Post COVID-19 elective recovery D. Enable NCL ICS Net Zero ambitions

- E. Sustain NCL ICS financial stability
- F. Increase clinician and workforce capacity
- G. Improve public awareness in Digital care services

Primary: Immediate impact

Our ICS's Strategic Digital Initiatives



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1. Digital End-User Engagement

Overview

Provide the people we serve with appropriate information using accessible, easy to use and reliable systems, with a focus on ensuring all the information contained on these systems is appropriate to the needs of the individual.

What will Digital End-User Engagement look like?

We want to give the people we serve the opportunity to interact and engage with information regarding their own care and treatment to promote more proactive health and social care management. Information will be made available to an individual at a time that suits their needs and utilising the technologies that align with their personal preferences (E.g. Tablet, smart phone). All individuals will have access to continuous user support, and we will maintain public trust by ethically processing the data contained within these systems.

We will start with Person Held Records (PHR) which is a portal that provides people with access to parts of their medical record, such as test results, and relevant advice and guidance.

Anticipated Benefits

There is evidence to suggest that provision of an individual's health and social care information promotes higher levels of engagement which leads to the following benefits:

- Promote self-management through better data access
- Increase opportunity for informed decision making by individuals
- Promote proactive care rather than reactive care and response
- · Ensure patients can receive the right care in the right place
- Reduce number of in-person follow-up appointments
- Free up capacity for the Digitally excluded people
- Instil confidence in Digital technology via improved interactions
- Promote better decision making by the Clinician and the patient on the care pathway
- Contribute patient data to the population health management platform

The Strategic Digital Initiatives of the NCL ICS





2. Integrated Care Planning

Overview

Consolidate integrated care pathways across the ICS and its organisations with an overall ambition to consolidate the pathways across the region (London). Co-ordinate approach across the different health and social care settings.

What will Integrated Care Planning look like?

We want to provide the people we serve with a consistent experience of care and support, experiencing less inequality and promoting better outcomes through the development of integrated care pathways which are consistent across the ICS.

We will achieve this through a review of all existing care pathways and development of Digitalised care pathways. This will include the development of a set of NCL-wide Common Information and Workflow Standards to make the movement of data and information between organisations more efficient to support the free movement of people across our ICS.

We will start by reviewing the existing Digitalised Integrated Care Pathways developed by Royal Free to understand the opportunity to consolidate and streamline pathways across our other organisations within our ICS.

Anticipated Benefits

By increasing consistency in care plans and pathways across our region, we will be able to:

- Deliver better care for patients across a whole region utilising a consistent approach
- Enable patients to transfer across different clinical pathways
- Improve outcomes for individuals that use both health and social care services by minimising duplication, repetition and delay.
- Create efficiencies to offer opportunities for financial savings
- Improve data sharing across all health and care settings (E.g. Pharmacists)





3. Remote and Assistive Care (Virtual Wards)

Overview

Digitally enable care pathways to be delivered remotely and with self monitoring options using apps, technology platforms, wearables and medical devices.

What will Remote and Assistive Care look like?

We will provide the people we serve with access to remote care by using self-monitoring tools and technologies. Remote and assistive care will particularly support those with long-term health conditions in an accessible and cost-effective manner. These technologies will input real time data into a system which Clinicians will be able to access and monitor regularly. Data will be inputted into a system at a place and time that suits the needs of an individual and dependent on their acuity.

Through remote and assistive care, we want to ensure our people have increased choice in how they receive care from us. We will ensure that public trust in the technology is embedded and sustained by ethically acquiring, storing and sharing their data.

We will start by implementing Virtual Wards to commence our remote and assistive care initiatives across the ICS.

Anticipated Benefits

Increasing the options for how our people receive care provides the following benefits:

- Provide patients with appropriate care in the appropriate place (e.g. avoiding unnecessary hospital admissions) and through different Digital means
- Provide appropriate and immediate care through faster identification patient health
- Improved identification of patients who require further treatment (e.g. in hospital)
- Reduce infection transmission and shorten length of stay in hospital
- Effective monitoring for escalation and de-escalation (e.g. Chronic Disease Management)
- Reduction in travel times
- Reduction in follow-up clinical appointments





4. Advanced Data Analytics

Overview

Segment patient data, using cloud-based platforms, to support the division of the patient population into distinct groups to implement targeted care models and intervention programmes tailored to an individuals need.

What will the Advanced Data Analytics look like?

We want to build an extensive cloud-based data platform to gather near real-time data across the system. Advanced data analytics can improve the service we provide to our people including detecting the spread of diseases earlier and generating new insights for improved disease management.

Advanced data will also promote improved clinical care and performance through better access to information and support the implementation of target care models.

We will deliver this using a targeted and use case-driven approach in order to make sure we are providing the right data and algorithm accuracy and sustaining data privacy rights. We will commence the advanced data analytics initiative by agreeing the categories we want to segment our data into and reviewing use cases to inform our approach.

Anticipated Benefits

Advanced data analytics has many benefits for the Clinician and the people we serve:

- Address multi-morbidity via tailored patient pathways to improve patient experiences of healthcare
- · Ability to target certain demographics to tackle inequalities
- Enable a proactive care, risk stratification, health needs analysis and response plan
- Reduce data silos and move towards a whole ICS approach
- Enhance connected pathways
- · Incentivise better planning and forecasting
- Ability to improve data quality through better usage and effective tool management
- Opportunities for extensive and more precise clinical, care and population health research
- Better operational planning (demand and capacity) for workforce





5. Digital Architecture Target State

Overview

Collaboratively define and implement a coherent and interoperable Digital architecture, underpinned by modern and pragmatic architectural principles, across the System.

What will the Digital Target Architecture State look like?

We will deliver a collective and equitable Digital transformation across our ICS through the development and implementation of a consistent and streamlined new Digital Architecture Target State. This will be underpinned by modern and pragmatic architectural principles and highly standardised software which will drive uniformity.

The Digital Target Architecture State will consolidate clinical and operational systems in one inter-operable and secure Single Sign-On with easier access to data from across the NHS, where operationally and financially practical to reduce the integration challenge and platform running costs.

Anticipated Benefits

- Simplified access to NHS technologies with a joint patient and clinician view
- Easy and seamless access to data from across NHS for both patients and clinicians with simplified Information Governance when sharing data
- Interoperable and secure systems by design with better cyber security features and controls
- Remove potential duplications in the produced analytics across the NCL ICS
- Drive whole system care pathway standardisation to reduce unwarranted variation
- Provide a streamlined approach to procurement and easier choices in technological purchasing (E.g. Provision of licenses) to reduce cost
- Simplified support model for technology and reduced platform running costs





6. Digital Diagnostics Programme

Overview

The Programme and the 6 sub-projects underneath will act as enablers for future interoperability and play a significant strategic element in the Digital space. It is aiming to deliver innovations at a system level and thereby enable the sector to realise an extended set of benefits.

What will the Digital Diagnostics Programme look like?

Through Digital developments in pathology services we will improve the quality and safety of services to patients and enhance working practices for staff. This will not only deliver improved outcomes, but will also facilitate research and training and thereby enable the sector to realise an extended set of benefits.

It is now well recognized that Digital pathology infrastructure offers the flexibility required in the face of a crisis such as the Covid pandemic ("Digital pathology in the time of corona", J Clin Pathol 2020). Increase in funding, staffing, or infrastructure in individual laboratories and organisations alone cannot provide a sustainable solution - incorporation of innovations at a system level have become a necessity.

Anticipated Benefits

The aim is to enable NHS clinicians and laboratories in North Central London (NCL) to use Digital pathology to deliver the benefits described above. The key objectives are in line with the four principles outlined in the Secretary of State's (SoS) technology vision:

- User need,
- Privacy & Security
- · Interoperability, and
- Openness and inclusion.

Openness and inclusion are central principles to all healthcare strategies. We aim to ensure that all patients in NCL benefit from consistent processes wherever they live. Digital Pathology, combined with the LIMs and Interoperability programme set out next, will enable greater pan London working which will have benefits for patients across London and will help ensure equity of outcomes.

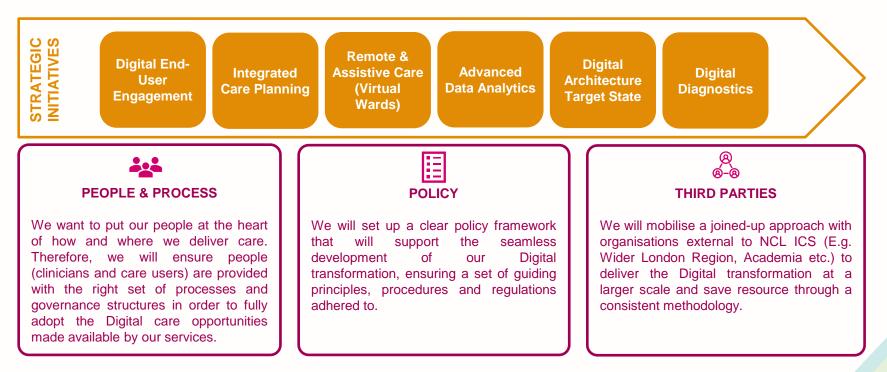
Digital Enablers to assist the delivery our Digital Strategy



Our Digital Enablers are the tools that will drive the Digital transformation and deliver our Digital Strategy Refresh

The Digital enablers set out in this strategy are the tools that will drive the Digital transformation of the NCL ICS by bringing the proposed strategic initiatives closer to the reality and making it possible to successfully implement them.

We have split the Digital Enablers across three different areas to deliver the strategy.





How are we going to deliver our Digital ambitions?

NCL ICS Digital 3-Phased Approach



Our Digital journey towards our goals will not be linear: the indicative transformation roadmap will be structured around 3 main phases of a goal-driven delivery

The Digital strategic initiatives set out in this strategy refresh seek to enhance and accelerate the System's capacity to adopt and implement critical Digital capabilities. The indicative transformation roadmap over the first years of delivery comprises three phases with the main focus being on **Phase 1** and **Phase 2** as they are illustrating the immediate actions, we need to undertake towards achieving the targeted future state.



• **Phase 1** focuses on laying the foundations for Digital transformation by scoping the requirements and identifying initial costs of the initiatives.

• Phase 2 focuses on testing the technologies identified through Phase 1 and embedding learnings to refine the approach. Phase 3 focuses on rolling out and scaling up the use of technologies across the ICS. Focus will intensify on driving ever grater operational effectiveness with the new Digital capabilities.

NCL ICS Strategic Digital Initiatives: 3-Phased Approach



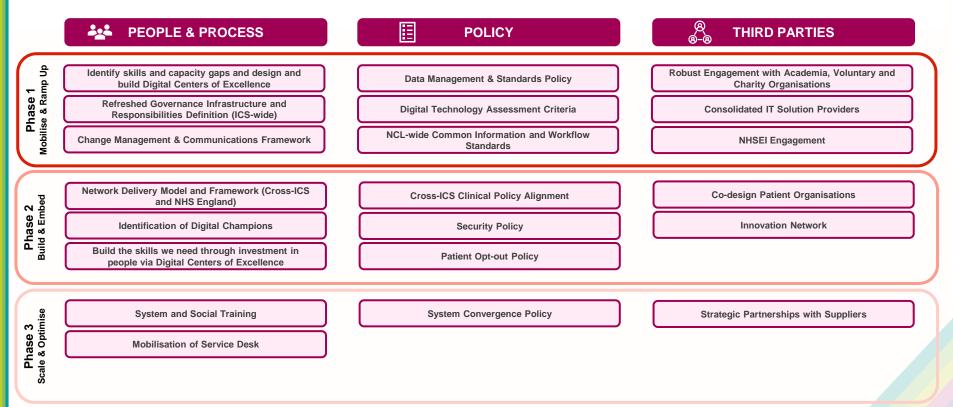
Phase	Phase 1: Mobilise and Ramp Up (0-9 Months)	Phase 2: Build and Embed (9 Months – 3 Years)	Phase 3: Scale and Optimise (3+ Years)
Digital End- User Engagement	In this phase we want to engage with academia, charities and voluntary communities that can help us research our end-user requirements. We also need to review and validate previously tested use cases in order to be able to develop a full Business Case for Person Held Record (PHR), present it at the NCL ICS Digital Board and eventually, confirm programme scope and funding. Based on these outcomes, we will be able to proceed with accordingly planning and analysing anticipated risks for Phase 2.	to identify our target population to commence rollout via a pilot and begin benefits tracking. To enable this, we will need to procure and build the PHR platform (depending on the business approval decision) and mobilise a framework for continuous	target population and will therefore have the opportunity to evaluate the outcomes of the pilot and inform our next steps. This will help us improve and make sure the pilot platform is
Integrated Care Planning	In this phase we want to set up an NCL ICS cross-organisation working group responsible for Integrated Care Planning. This will enable us to commence an as-is assessment of current care pathways across the whole NCL ICS and review good practices of Digitalised clinical pathways (e.g. Royal Free). This will be fundamental for the final decision on which pathway(s) to pilot the integration and the development of a business case.	of the pilot pathway(s). This will enable us to define the 'to-be' care pathway state and Digitalise accordingly (using Royal Free as an example). After this, we will be able to commence rollout of	integrated pathways to the wider NCL ICS and across a set of broader integrated care pathways. If the pilot pathway integration proves to be successful, we will commence discussions with
Remote & Assistive Care	In this phase we will need to develop the first batch of use cases with focus on high-acuity and long-term conditions. Based on this we will be able to develop a set of requirements for the Remote & Assistive Care pilot. Running a Digital Technology Assessment Criteria (DTAC) and a Data Protection Impact Assessment (DPIA) as well as setting up a list of standards for operation procedures (SOP) for clinical teams will get us ready to move to the Build Phase (Phase 2).	to commence procuring and setting up the pilot group of capabilities for the Remote and Assistive Care. Once this is completed, we will have to develop a clear training path for all parties involved – clinicians, patients and staff. After this we will	achieved through the pilot - based on this we will be able to kick off new iterations of the process in order to roll out Remote & Assistive Care in other areas. The end-to-end completion of
Advanced Data Analytics	In this phase we want to set up an NCL ICS Working Group for Advanced Data Analytics and develop set of requirements and use cases for the platform. Undertaking public consultations with controllers and patients will be fundamental for this Phase so that we can proceed with setting up the proper Information Governance (IG). We will need to also agree on the scope of the platform in order to be able to develop a Business Case and secure funding for this initiative. Based on these outcomes, we will be able to proceed with accordingly planning and analysing anticipated risks for Phase 2.	now explore the current market and procure an analytics platform. After this, we will need to develop the platform and accordingly set up functional data flows. Here we will need to prioritise areas where data quality needs to be improved making sure the right evaluation is set in place. Once we have agreed on the evaluation	different platforms (e.g., making sure LCR and HEI are functionally connected to the Advanced Data Analytics Platform and can consume, and display data sourced from there). We will be able to upskill the analytics and the platform used at NCL ICS
Digital Target Architecture State	In this phase we want to secure the right level of engagement from the leadership and confirm senior sponsorship. Then we will need to set up the a governance and a working group responsible for the adoption of this initiative. We will need to define and document the as-is Digital architecture across NCL ICS in order to identify any gaps between the organisations and propose a group of organisations for the pilot project. This will help us engage with them in order to understand the requirements and define the target & transition state in order to apply for funding.	architecture, we will be able to roll out the architecture life cycle using TOGAF as leading architecture methodology and plan the	benefits delivered by the standardisation of our Digital architecture and data environments in order to commence a
Digital Diagnostics Programme	The 3-Phased Approach for the Digital Diagnostics Programme is underway.		

NCL ICS Digital Enablers



We will develop a set of Digital Enablers across the three phases to support the implementation of the Strategic Initiatives

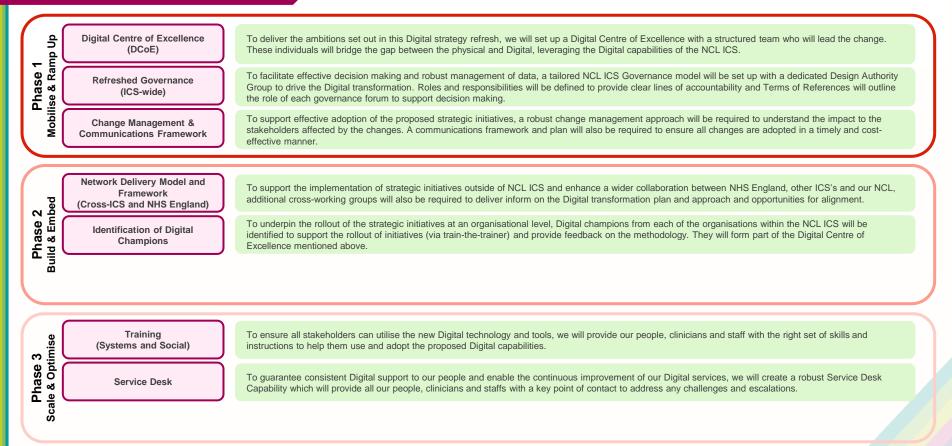
The Digital Enablers have been split by phase according to the aims and outcomes we want to achieve, considering them as instrumental for the successful completion of the respective phase they have been mapped to. However, if we are unable to complete some of the Digital enablers in a particular phase, this would not impact our ability to transition into the next. We will adopt an agile approach to Digital enablement delivery.



People & Process Enablers Summary



PEOPLE & PROCESS



Policy Enablers Summary



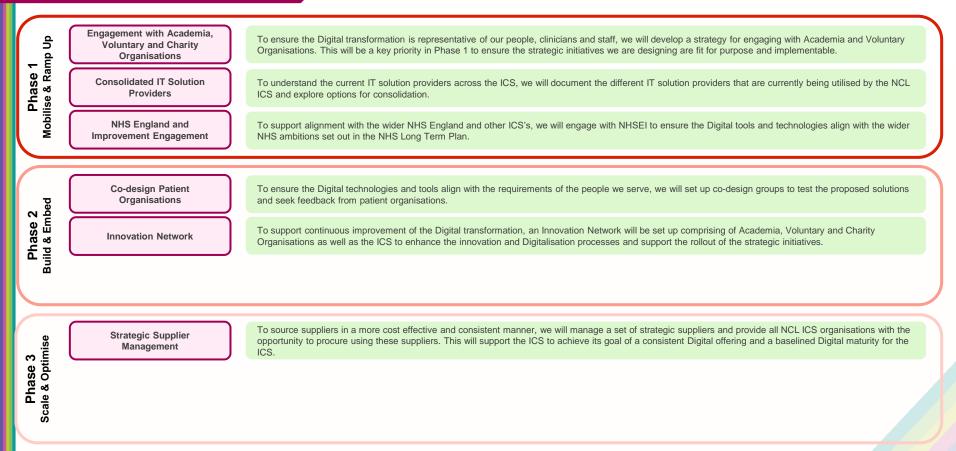
POLICY

1 mp Up	Data Management & Standards Policy	To ensure the effective storage of data in trusted data management systems and compliance with national and NHS England data standards and processes, we will develop data management and standards policies that will also allow for interoperability between oganisations within our ICS and wider (third parties, NHS England).
hase se & Ra	Digital Technology Assessment Criteria (DTAC)	To ensure the Digital Technology Assessment Criteria for health and social care (DTAC) is adhered to, we will align with DTAC to ensure that the Digital health tools we propose to use meet our clinical safety, data protection, technical security, interoperability and usability and accessibility standards.
P Mobilis	NCL ICS-wide Common Information and Workflow Standards	To support the integration of Digital transformation and consistency across the ICS, we will develop a document which contains standards that relate to the processing of information as per the Health and Care Social Act 2012.
2 bed	Clinical Policy Alignment	To ensure clinical input and decisions are included as part of the Digital transformation, we will review and update the central policy for clinical workflows using support evidence-based clinical agreements between organisations with each represented.
ase & Em	Security Policy	To protect the information contained on our assets and Digital technologies, we will develop/update a security policy that outlines how we will protect the information stored. This will be even more important given the sensitive data information that is shared.
Ph Build	Patient Opt-out Policy	To ensure the people we serve have the ability and right to object to the information stored on the Digital technologies, we will develop a patient 'opt-out' service with a clear and easy-to-follow approach. By doing this we will enable the people we serve to feel safe with the personal data process by us.
e 3 ptimise	System Convergence Policy	To support a consistent system approach for NCL ICS's organisations, we will develop a system convergence policy that articulates how separate systems will be able to contribute data and information in a consistent manner.
Phase Scale & Opt		

Third Parties Enablers Summary

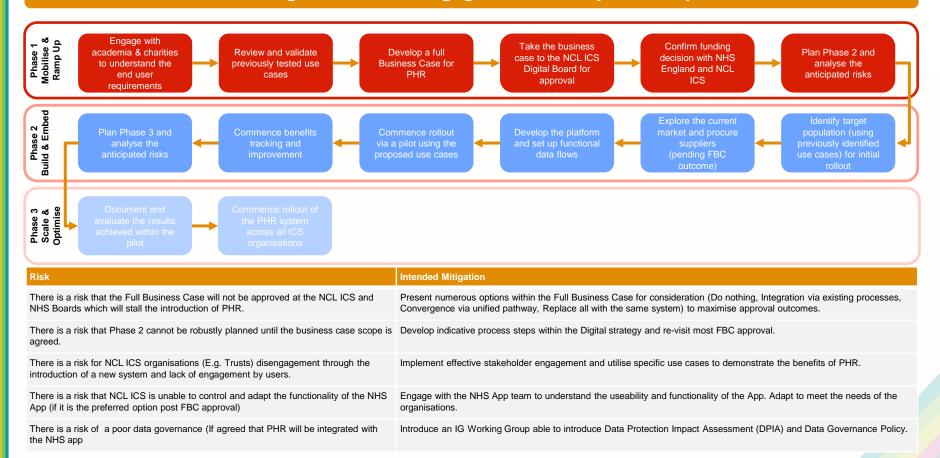


THIRD PARTIES



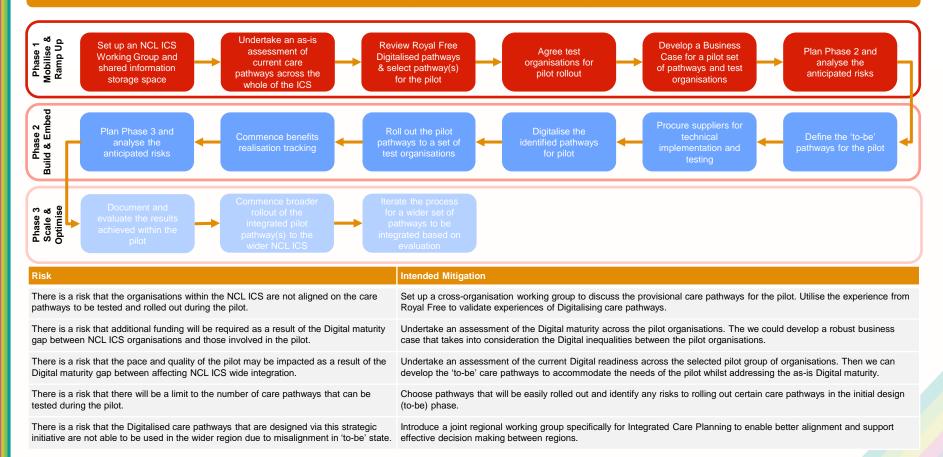


1. Digital End-User Engagement Delivery Roadmap



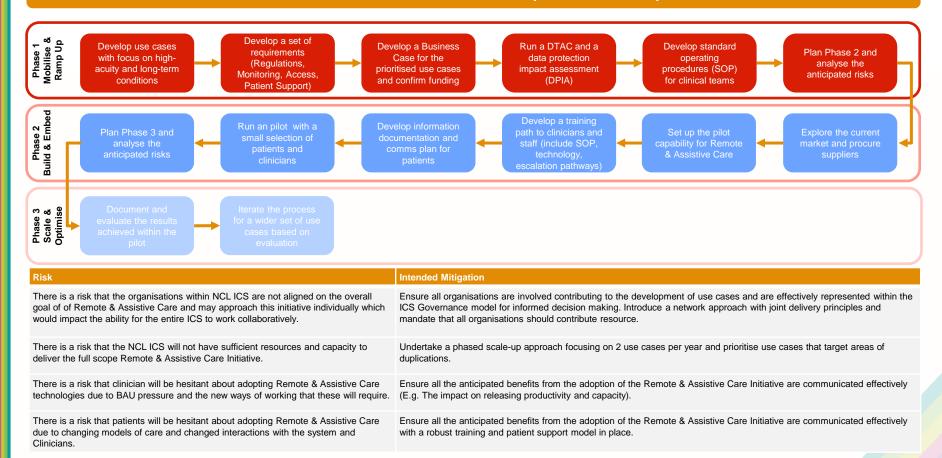


2. Integrated Care Planning



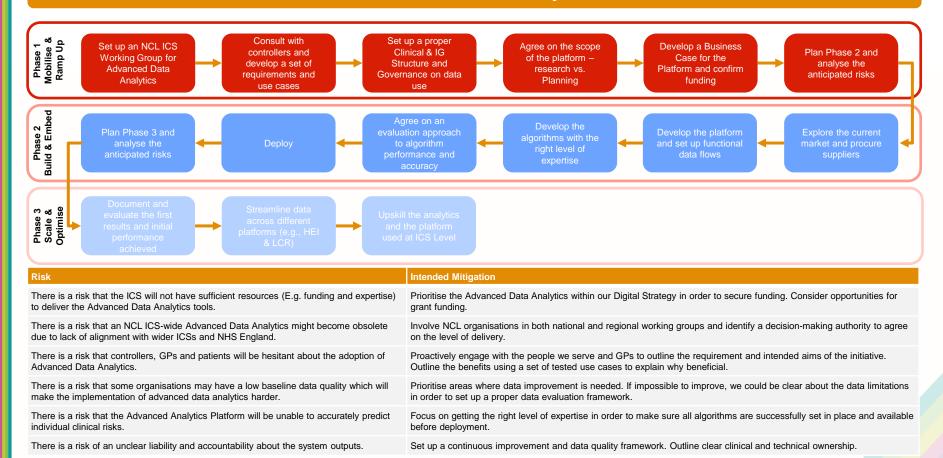


3. Remote & Assistive Care (Virtual Wards)



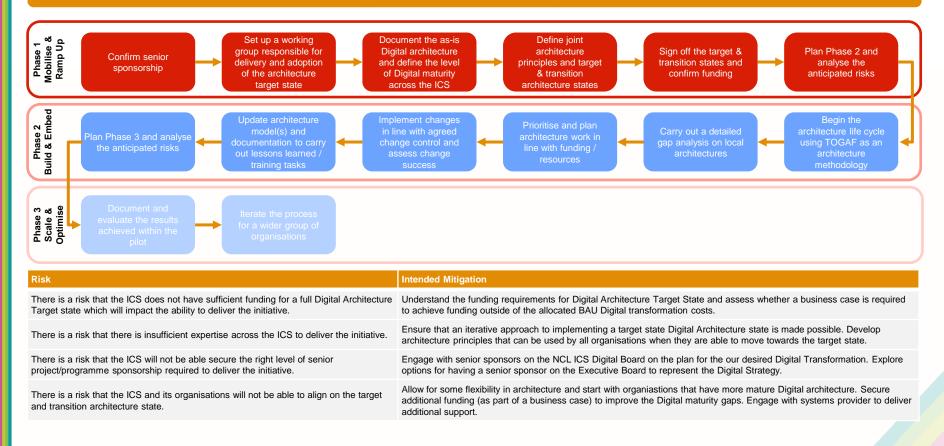


4. Advanced Data Analytics



12345 🚸 North Central London Integrated Care System

5. Digital Architecture Target State





How much will this cost?



How much will it all cost?

The estimates below draw on significant work that was done in late 2021 as part of the Delivering Digital Together (DDT) initiative to estimate the total investment required over 5-years to uplift Digital Maturity and invest in cross-system Digitisation. This strategy focusses on a 3-year window. The tables below look at the funding requirements over 3 years, focussed on "levelling up" so just the investment that was identified as "essential" and maturity investment into Mental Health, Community, Specialist Hospitals and Primary Care. Capital will be available to systems for three years from 2022/23, to support Digitisation of Acute, Mental Health, ambulance and Community services. £250m will initially be allocated to systems for 2022/23 while they develop their Digital investment plans.

- DDT identified a total investment requirement of £180m over 5 years
- The 3-year funding requirement for "essential" investments and levelling up (i.e this Digital Strategy) is £133m
- The ICS Business Cases and leadership team are already planned therefore the unplanned requirement is £117m over 3 years

Funding Requirement (DDT)	Investment (£m) (Capital & Revenue)	Investment Window	
Digital Maturity Levelling Up (Mental Health, Community, Specialist, Primary Care)	£37m	3 years	Unplanned,
System-wide integration & maturity (ICB) (Identified as essential in DDT)	£80m	3 years	unfunded
Total for unplanned and unfunded costs	£117m	3 years	
London Care Record & HealtheIntent (Business Case currently with Governance)	£10m	3 years	Planned, business case
Governance, Leadership and Collaboration (Team and costs in current plans)	£5m	3 years	pending
Total for planned costs	£117m	3 years	
Estimated total investment*	£133m	3 years	

*Table assumes the planned LCR (HIE) & HealtheIntent Business Cases and current leadership team as "funded" although the Business Case is not yet formally approved.

What is achievable?

- This estimation of investment required represents an investment of £39m new funding per year (broadly across the whole system).
- We could make material progress against the delivery of the 5 Digital Initiatives incrementally, adopting integrated disciplinary teams (Clinical, Operational, Digital).
- We need to build a Strategic Outline Business Case and complete detailed planning. We will allocate £35k per month from July 2022 onwards to maintain a small initial mobilisation team.
- The investment profile below represents an ICS programme of roughly the same size as the London Care Record (formerly known as HIE) and HealtheIntent Programmes and can run alongside.

Funding Requirement (DDT)	Year 1 (£m)	Year 2 (£m)	Year 3 (£m)
Digital Maturity Levelling Up (Across organisations) (Mental Health, Community, Specialist, Primary Care)	£4m	£4m	£4m
System-wide integration & maturity (ICB) (Identified as essential in DDT)	£4m	£4m	£4m

*This is in addition to funding already planned for London Care Record (HIE) and HealtheIntent.



What is next?

Immediate Next Steps



We want to achieve approval of the Digital Strategy Refresh in September 2022 with the intention of commencing the delivery plans from this date

1	Socialise the Digital Strategy Refresh with Stakeholders engaged in the Workshop
2	Present the Digital Strategy Refresh to the NCL ICB Digital Board for input and final approval in mid-September
3	Update the Digital Strategy Refresh with any feedback and comments from NCL ICB Digital Board and Workshop attendees
4	Present the Digital Strategy Refresh to the wider NCL ICB Executive Board for official sign-off
5	Confirm funding allowance for the Digital Strategy Refresh with the NCL ICB Executive Board
6	Identify a core team who will mobilise and drive the Digital Strategy Refresh
7	Clarify a new ICB Digital Governance Structure to support delivery of Digital transformation
8	Share the Digital Strategy Refresh with the wider ICS Digital resources (in other organisations)