

# North West London Digital, Data and Technology Transformation Plan

July 2021

# The exam question: 'What digital and data capability does the NW London ICS need'

- This overview of the digital, data and technology plan for the NWL Integrated Care System was submitted at the end of July and will now go through further iterations in the light of:
  - Feedback from NWL stakeholders
  - National Guidance (see below)
  - Regional feedback
  - Calibration against other London ICS Digital Transformation Plans
- National guidance was released at the end of August covering:
  - What Good Looks Like
  - Who Pays for What
  - The Unified Technology Fund

# Development of the plan

This plan has been developed based on:

- Lessons learnt from the pandemic, the collaborative working across the ICS, and the digital capability required to support it
- The need to prepare for future waves of the pandemic and to deal with the backlog of care
- The commitment to provide the best health outcomes for the population of NW London
- The ICS Transformation Plan and programme strategies
- Frameworks for digital transformation provided by national NHS leadership
- Discussions with service users, including workshops about digital inclusion and exclusion

ICS Leadership is asked to support this plan, which will continue to evolve in line with the changing clinical and operational needs of the ICS.

# Introduction

This Digital, Data and Technology Transformation Plan sets out how the ICS can provide the digital enablement required by our staff and patients to realise the ambitions of the ICS Transformation Plan, learning from the experiences during Covid and supporting the post-Covid recovery.

Digital technology has for some time been a critical enabler for the delivery of health and care. Paper records have been replaced by digital clinical systems in almost every care setting. Digital messages and documents are essential for safe and efficient transfers of care between settings. And citizens increasingly wish to use technology to interact with the health and care system.

Covid gave us a new imperative to treat patients remotely to avoid the risk of infection, which has greatly increased our reliance on digital technology. And it demonstrated the dependency on data to manage supply and demand across the ICS.

The Covid pandemic has also highlighted health inequalities. We can use digital technology to increase inclusion. We need to support and encourage people to access digital routes and ensure that there are always ways for everyone to access services.

# Our previous achievements...

## ICT Infrastructure

- The rapid transition to remote working and the shift from face-to-face to virtual consultations
- Enabling intensive care patients to communicate with their families

## Digital Records

- Digital care records in almost all care settings
- Our two global digital exemplar acute trusts share their electronic patient record system, with a plan for the other two to join

## Data Sharing

- Health Information Exchange has gone live and gives the potential for pan-London data sharing
- Our work on data protection is an exemplar for England

## Patient Engagement

- NW London Care Information Exchange is the largest personal health record in the country
- Digital-first consultations in all care settings

## Integrated Care

- Single ICS patient tracking list (PTL) for capacity management
- Work on the end to end patient pathway - progress towards a single platform for advice and guidance

## Population Health

- Our Whole Systems Integrated Care platform is at the forefront of population health management
- It provided data for ICS capacity management during the pandemic

## Innovation

- CW Innovation tests and scales innovations
- NW London is a leader in remote monitoring
- Brent is a Digital Accelerator for Primary Care Digital First
- A range of partnerships

# Drivers of change

## ICS transformation plan

Vision: to improve life expectancy and quality of life, reduce inequalities and achieve health outcomes on a par with the best global cities

- Improving outcomes in population health and health care
- Tackling inequalities in outcomes, experience and access
- Enhancing productivity and value for money
- Helping the NHS support broader economic and social development

## NHSX strategy

National Digital Transformation Plan

- **Digitise:** level up NHS and social care services to ensure they have a core level of infrastructure, digitisation and skills
- **Connect:** join services together through technology, allowing providers to share information and take a shared approach to procurement and implementation
- **Transform:** using a digitised, interoperable, connected health and care system to deliver services more effectively and productively, and with the citizen at the centre

## Covid

Capitalise on the new digital solutions we developed

- Being prepared for further surges of Covid
- Dealing with the accumulated backlog of care
- New technology was implemented and adopted very quickly in response to the pandemic
- We now need to consolidate, strengthen and capitalise on those advances, and move ahead with that agile approach

# Drivers of change

## Demands of our citizens

Citizens increasingly wish to use technology to interact with the health and care system, because of its greater convenience and efficiency

- 80% of Londoners believe it is vital we look at new ways to manage our health, including using high-quality health apps (Source: Orcha survey)
- Currently there are different systems and apps citizens can use to access their health records, interact with care providers to book appointments and attend virtual consultations, and view documents such as test results. These systems need to converge.

## Digital Inclusion

The Covid pandemic has also highlighted health inequalities

- Digital technology can be used to increase inclusion and access to services, and we need to make sure that those who are not able to access services via digital means are not left behind.
- Access to services in future should operate on a digital first principle, with a focus on digital inclusion, whilst providing non-digital options wherever needed.

## One London

Shared care records across London are important to NW London – 16% of our acute activity takes place outside NWL, 9% of acute activity is for patients from other ICS

- The One London programme has three levels:
- Level 1 – shared records for clinicians across London via Cerner Health Information Exchange
- Level 2 – shared data for London, via Discovery Data Service
- Level 3 – shared Personal Health Record to include records for a citizen from across all London care settings

# Our ambition

Digital data and technology help our people provide great care for our patients and communities by giving them easy access to the information they need for clinical decision making, wherever they are.

Our patients and service users have digital options for interacting with our services – with a non-digital option always available.

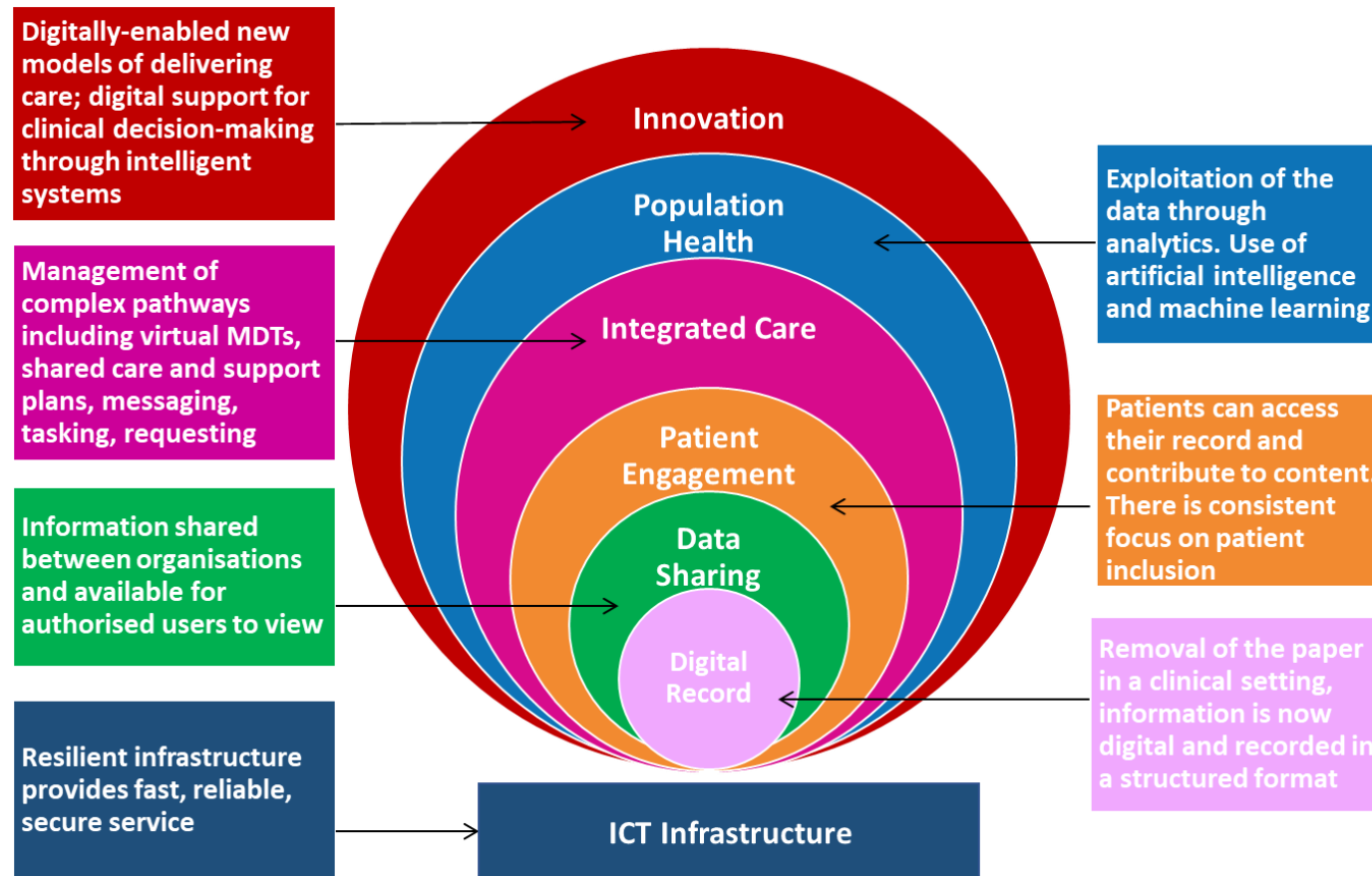
Collaborative working across the ICS is made easier though having the right technology.





# Our collective approach

We want leaders across the ICS to sign up to this approach.



# The outcomes

Delivering the Digital, data and technology transformation plan will enable significant improvement in all four areas of the quadruple aim.



# What do we want to achieve?

We want North West London to be known as a centre for excellence in the use of digital, data and technology for helping our citizens stay healthier for longer.

## What will it feel like for our patients and service users?

- I can choose how I want to get the care and treatment I need including digital if it suits me.
- I can see my health and care records on my computer, my phone or my tablet.
- I can access information about my health and care in North West London via the NHS app
- I am in control of my appointments with health and care professionals.
- I know that my health and care professionals can see information about me from the NHS and social care.
- I can get involved in clinical research if I want to.

## What will it feel like for our staff?

- I can get all the information I need about my patients and service users through the electronic patient record system that I use every day.
- I can use digital tools to collaborate with colleagues from other care settings.
- I have the skills and knowledge that I need to make use of digital, data and technology.
- I can give my patients and service users options in the way they receive care.
- I have more flexibility in the way I choose to work.
- I can use population health data to inform the decisions I make about treatment and care.

# 2021/22 Focus areas mapped to our framework

		Resilient infrastructure	Digital record	Data sharing	Patient engagement	Integrated care	Population health	Innovation
1.	Managing patient flow and making best use of capacity					✓	✓	✓
2.	End to End Patient pathway a) Virtual consultations b) Advice and Guidance c) Remote Monitoring				✓	✓	✓	✓
3.	Digital first primary care				✓	✓	✓	✓
4.	Increase digital inclusion			✓	✓	✓	✓	✓
5.	Shared patient records across London			✓	✓	✓	✓	
6.	Rationalising clinical systems a) Roll out Cerner to LNW and THH b) Develop plans for primary care, community and Mental Health	✓	✓	✓				
7.	Resilient infrastructure	✓	✓	✓	✓	✓	✓	✓

# Focus area 1: Patient flow and capacity

Provide innovative digital and data tools, including visualisation, across the ICS that enable us to:

- Better plan for peaks and troughs in demand
- Deploy our capacity flexibly across the ICS in response to changing demand

## Manage patient flow and make best use of capacity

Why we need to do it	The Covid pandemic highlighted the need to be able to monitor system capacity and demand and manage patient flows to make optimum use of resources. To support the recovery from Covid, the ICS needs better digital and data tools to continue to manage this process.
What we will do in 2021/22	<ul style="list-style-type: none"><li>• Analyse current landscape – ICS requirements, data available, tools for reporting and analysis</li><li>• Market review – consider alternatives to existing data and tools, identify Business Case for any investment required</li><li>• Confirm target architecture (feed into ICS Data Strategy) and seek funding</li><li>• Develop implementation plans and report on progress</li><li>• Deliver Patient Tracking List as soon as possible.</li></ul>
What we will do in 2022/23 and subsequent years	Deliver and continuously develop the digital and data tools needed to meet demand and capacity management requirements
Impact on service users and staff	<ul style="list-style-type: none"><li>• ICS leadership will have the tools needed to identify capacity issues and direct patient flows in the most efficient ways</li><li>• Service management will have better information to support data-driven decision-making</li><li>• Support reductions in waiting times for patients where possible</li></ul>
How we will measure success	<ul style="list-style-type: none"><li>• Delivery of the tools agreed with ICS leadership</li><li>• Success of efforts to manage and reduce waiting lists</li></ul>

# Focus area 2: End-to-end pathway

Integrate care and improve population health and patient engagement through:

- Develop a strategic solution for virtual consultations
- Implement a single system for advice and guidance
- Demonstrating the case for remote monitoring in improving outcomes

## Support the end-to-end patient pathway: virtual consultations, specialist opinion, remote monitoring

Why we need to do it	<ul style="list-style-type: none"><li>• During Covid, face-to-face patient consultations were replaced with virtual consultations. This will continue to be a requirement. Currently systems provide different experiences for service users, making them more difficult to use.</li><li>• Recovering from Covid will require efficient use of specialist provider resources. A unified approach to accessing advice and guidance can provide an efficient way to transmit, process, and enter advice given in clinical records and measure requests – feeding into capacity and demand management.</li><li>• Remote monitoring enables patient vital signs to be reviewed by clinical teams. During Covid this approach was adopted in Primary Care Hubs to help avoid hospital admissions, and in Acute Virtual Wards to enable safe early discharge of inpatients</li></ul>
What we will do in 2021/22	<ul style="list-style-type: none"><li>• Procure a strategic replacement for the current virtual consultation solutions.</li><li>• Deploy a tactical advice and guidance solution in acute trusts and GP practices. Agree requirements for a long-term strategic solution.</li><li>• Extend remote monitoring to a defined set of conditions and scenarios. Develop a business case for wider deployment, if evaluation supports this.</li></ul>
What we will do in 2022/23 and subsequent years	Identify and implement strategic solutions for video consultation and advice and guidance. Deploy remote monitoring in long-term condition pathways if the business case justifies this investment.
Impact on service users and staff	Consistently good clinician and patient experience for virtual consultations. GPs will be able to receive specialist opinion within an agreed response time. Patients will be safely managed at home, avoiding hospital visits, and will be better able to self-manage.
How we will measure success	Usage, patient and staff satisfaction with the technology, reduction in face-to-face referrals while maintaining clinical outcomes, formal evaluation.

# Focus area 3: Digital first primary care

Support GP practices and Primary Care Networks to improve population health through innovative approaches to digitally enabled online consultations, remote long term condition management, and social prescribing

## Deliver on the Digital First Primary Care programme

Why we need to do it	The nationally funded NWL Digital First Programme aims to: enable and encourage digital innovation across primary care; drive digital innovation through accelerator initiatives; rapidly evaluate digital solutions and innovation pilots; share lessons learnt from those that have trialled digital solutions; support implementation, sharing and scaling best practice.
What we will do in 2021/22	<ul style="list-style-type: none"><li>• Online Consultations: review use of the e-Consult tool and feed into re-procurement</li><li>• PCNs: work with primary care to optimise the use of digital tools, such as remote monitoring in care homes to support the Directed Enhanced Service, and titration for hypertension</li><li>• Social Prescribing: provide digital tools such as support directory and case management</li><li>• Digital Inclusion: trial the use of new patient-facing digital tools to reduce exclusion</li><li>• Workforce: initial deployment of new approaches to train and support staff</li></ul>
What we will do in 2022/23 and subsequent years	This programme is funded by NHSE from year to year; priorities for 2022/23 will be confirmed during the latter part of 2021/22
Impact on service users and staff	<ul style="list-style-type: none"><li>• Better digital tools for staff, which they are better equipped to exploit for patient care</li><li>• More accessible and effective tools for patients to interact with primary care</li></ul>
How we will measure success	<ul style="list-style-type: none"><li>• Evaluation of each programme work stream in terms of uptake and efficacy</li></ul>

# Focus area 4 : Increase digital inclusion

Use digital technology to increase inclusion and access to services

Support and encourage people to access digital tools

Ensure that there are always ways for everyone to access service

## Increase digital inclusion

Why we need to do it	The Covid pandemic gave us a new imperative to treat patients remotely to avoid the risk of infection, which has greatly increased our reliance on digital technology. We can use digital technology to increase inclusion and access to services. As a community we will have to invest to help people with the devices, connectivity, skills and motivation to engage digitally with the health and care system.
What we will do in 2021/22	<ul style="list-style-type: none"><li>• Create a framework to ensure digital devices are made available to vulnerable groups of people</li><li>• Identify the impact and risks associated with digital solutions for people with long term conditions who are unable to use specific technologies</li><li>• Ensure care pathways provide a non-digital route to access services (e.g. by phone or face to face) alongside the digital routes</li><li>• Provide training to targeted groups of people to enhance confidence and skills to access health and care services online with the help of a network of Digital Champions in each borough</li><li>• Hold health and care organisations accountable for providing digital solutions that are accessible to everyone in their care pathways and local communities</li></ul>
What we will do in 2022/23 and subsequent years	<ul style="list-style-type: none"><li>• Evaluate the success of the programme in 2021/22 in reducing digital exclusion</li><li>• Continue to invest in proven effective ways to increase digital inclusion</li></ul>
Impact on service users and staff	<ul style="list-style-type: none"><li>• Service users will be able to engage more fully with their health and care through digital tools</li><li>• Those unable or unwilling to use digital tools will have access that is just as good, via non-digital channels</li></ul>
How we will measure success	<ul style="list-style-type: none"><li>• Increase in the number of people using digital health and care tools successfully</li><li>• Reduction in the proportion of the population who do not feel able or comfortable in using digital tools</li></ul>



# Focus area 5: Shared records across London

Enable data sharing to support integrated care across London by giving clinicians relevant information from any digital record in London

Broaden data sharing and analysis through Discovery Data Service and WSIC

Engage patients through access to their own Personal Health Record

## Shared patient records across London – OneLondon programme

Why we need to do it	<ul style="list-style-type: none"><li>• Shared records between care settings are required to support the ICS aim for patient-centred, cross-organisation, multi-disciplinary integrated care pathways</li><li>• The OneLondon programme, led by NHSE London, has a strategy to share patient information to support direct patient care across all care settings, across all five London ICS</li><li>• Shared care records across London are particularly important to NW London – 16% of our acute activity takes place outside NWL, 9% of acute activity is for patients from other ICS</li></ul>
What we will do in 2021/22	<ul style="list-style-type: none"><li>• Complete interfaces from clinical systems in all NW London care settings into Level 1, 2 and 3</li><li>• Communicate the availability of these new tools to our clinicians, and help them start to exploit the information now available into their pathways</li></ul>
What we will do in 2022/23 and subsequent years	<ul style="list-style-type: none"><li>• Ongoing development and exploitation of the pan-London tools to support integrated care, including education and pathway transformation as appropriate</li></ul>
Impact on service users and staff	<ul style="list-style-type: none"><li>• Clinicians will be able to see details of treatment delivered outside NW London in HIE</li><li>• Patients will be able to see details of healthcare outside NW London in CIE</li><li>• The ICS will have access to more information on activity delivered outside NW London</li></ul>
How we will measure success	<ul style="list-style-type: none"><li>• Achievement of the published milestones for Level 1, 2 and 3</li><li>• Evaluation of the clinical impact of access to the additional information</li></ul>

# Focus area 6: Rationalise clinical systems

We aim to rationalise our clinical systems landscape to:

- Standardise and improve ICT infrastructure
- Remove paper and digitise records, reducing cost and improving patient safety
- Enable low friction **data sharing**, improving patient care and patient and staff experience

## Rationalise clinical systems

Why we need to do it	<p>Roll out the Cerner Electronic patient record to LNW and THH to enable them to:</p> <ul style="list-style-type: none"><li>• Record clinical interactions digitally (some records are currently still on paper)</li><li>• Support transfers of care with digital messages</li><li>• Share records with other staff and patients</li><li>• Measure and report on activity more efficiently</li><li>• Feed into population health data to drive decision making</li></ul> <p>A shared system will help acute trusts work together to manage patient flow across the system. Better for patients, and better for staff.</p> <p>Review options to rationalise clinical systems across primary care, community and mental health</p>
What we will do in 2021/22	<ul style="list-style-type: none"><li>• Complete the early phases of the Cerner implementation project</li><li>• Develop an ICS-wide clinical systems strategy covering all care settings</li></ul>
What we will do in 2022/23 and subsequent years	<ul style="list-style-type: none"><li>• The Cerner implementation is a very complex implementation and full deployment will be spread over a number of years</li><li>• The clinical systems strategy will be a long term strategy that will require investment</li></ul>
Impact on service users and staff	<ul style="list-style-type: none"><li>• Services will be run more efficiently and safely</li><li>• Patients will be able to view their own records via CIE</li><li>• Hospital clinicians will use digital systems rather than paper (e.g. prescribing)</li><li>• GPs will receive information digitally rather than on paper (e.g. prescription advice)</li><li>• We will deliver a consistently good electronic patient record across all care settings</li></ul>
How we will measure success	<ul style="list-style-type: none"><li>• Clinical services successfully migrated to Cerner</li><li>• Adoption of the system</li><li>• Clinical system strategy implemented delivering good clinician and patient experience</li></ul>

# Focus area 7: Resilient infrastructure

This is the foundation for our digital data and technology objectives

Our strategic ambition is to provide ICT infrastructure that gives staff access to digital records from wherever they are working – enabling remote, flexible and agile working

In the short term we need to level up our organisations to modern levels of security to ensure our systems are protected

## Resilient infrastructure – ensure sufficient investment to maintain patient safety and address cyber security risk

Why we need to do it

- A resilient infrastructure provides the fundamental platform for fast, reliable, secure clinical systems, and protects health and care organisations from external cyber risks
- NW London's ICT infrastructure works adequately, but some organisations have had inadequate funds to invest in modern systems and security, with resulting "digital debt"
- We managed the transition to more remote working at the start of Covid (with NHSE funding) but some of the technology was implemented at very short notice, and needs to be reprocured and improved – many different technical solutions are deployed across the ICS
- An effective remote working infrastructure will reduce our need for buildings

What we will do in 2021/22

- Assess investment required to modernise infrastructure and cyber security, develop Business Cases, understand funding options and initiate the modernisation programme
- Review the ICT architecture of ICS organisations and develop a convergence plan, to support multi-disciplinary working across sites, rationalise systems and reduce overall costs

What we will do in 2022/23 and subsequent years

- Seek business case approval for infrastructure convergence and start implementation

Impact on service users and staff

- Staff will be able to access systems wherever their jobs require them to work – rather than having to travel back to the office

How we will measure success

- Achievement of the milestones in the modernisation and convergence programmes

# Summary of the plan (1/2)

	2021/22	2022/23 and onwards
ICT Infrastructure	<ul style="list-style-type: none"> <li>• Bring all organisations up to modern cyber security standards</li> <li>• Architecture and Business Case to manage technical debt and converge ICS infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing investment in infrastructure, cyber security and convergence</li> </ul>
Digital Records	<ul style="list-style-type: none"> <li>• Continue acute Cerner single domain programme</li> <li>• Repro cure GP Primary Care systems</li> <li>• Assess opportunity for convergence of clinical systems in acute specialities, community and mental health</li> </ul>	<ul style="list-style-type: none"> <li>• Complete acute Cerner single domain programme</li> <li>• Rationalise other clinical systems: specialist acute systems, community and mental health systems</li> <li>• Ongoing investment in digital skills of staff</li> </ul>
Data Sharing	<ul style="list-style-type: none"> <li>• One London Levels 1, 2 and 3: implement sharing from all clinical systems across the ICS</li> </ul>	<ul style="list-style-type: none"> <li>• One London Levels 1, 2 and 3: transform integrated clinical services using shared records</li> </ul>
Patient Engagement	<ul style="list-style-type: none"> <li>• End to end patient pathway: confirm strategic requirements for virtual consultations; replace current e-consultation and video consultation products across primary and secondary care</li> <li>• End to end patient pathway and Digital First: scale up remote monitoring</li> <li>• Expand One London Level 3 (Care Information Exchange) to a larger patient cohort</li> <li>• Develop plans and secure funding for Digital Inclusion</li> </ul>	<ul style="list-style-type: none"> <li>• Deploy strategic virtual consultations solution</li> <li>• Deploy remote monitoring as part of long-term condition pathways, if justified by evidence</li> <li>• One London Level 3: new patient-centric pathways exploiting Care Information Exchange (e.g. Patient Initiated Follow Up)</li> <li>• Convergence of patient-facing apps and systems</li> <li>• Implement</li> </ul>

# Summary of the plan (2/2)

	2021/22	2022/23 and onwards
Integrated Care	<ul style="list-style-type: none"> <li>• End to end patient pathway: implement tactical Advice &amp; Guidance solution (Vantage Rego) across ICS; confirm strategic requirements for A&amp;G and Referrals</li> <li>• Invest in One London Level 2 (WSIC) – ICS Patient Tracking List for supply and demand management</li> </ul>	<ul style="list-style-type: none"> <li>• Implement strategic A&amp;G and Referrals solution</li> <li>• Exploit One London Level 1 capabilities for integrated care</li> </ul>
Population Health	<ul style="list-style-type: none"> <li>• Invest in One London Level 2 (WSIC) – platform, data, analytical tools</li> <li>• Develop ICS Data Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Implement ICS Data Strategy</li> <li>• Educate staff in data-driven decision making and tools</li> </ul>
Innovation	<ul style="list-style-type: none"> <li>• Remote Monitoring to wider cohort</li> <li>• Evaluate deployments and develop business case at population level if justified</li> <li>• Develop plan for consolidation and convergence of back office and corporate systems</li> </ul>	<ul style="list-style-type: none"> <li>• Population level remote monitoring for LTCs</li> <li>• Seek partnerships for innovation</li> <li>• Implement back office and corporate systems consolidation</li> </ul>

# Overseeing delivery of the plan

The NW London Digital, Data and Technology Plan is the responsibility of the CEO-led **Digital Transformation Board**, reporting into the ICS Executive and sitting alongside the other ICS-wide programmes.

Clinical and digital leadership of the Plan is provided by the **Digital Transformation Forum**, reporting into the Digital Transformation Board, managing the relationship between the ICS and digital leadership in NHSEI, NHSX and One London, and overseeing the detailed work via:

- **Digital, Data and Technology Steering Groups** in each care setting – Acute, Primary Care and Community/Mental Health
- **Governing groups for technical and enabling workstreams:** New Systems and Technical Change Board, Information Governance Board, Data and Analytics Board, Digital Inclusion Steering Group
- **Steering groups** for individual programme work streams.