Greater Manchester
Integrated Care Partnership Board

Date: 29th September 2023

Subject: GM Health and Care Digital Transformation Strategy 2023-27

Report of: Warren Heppolette, Chief Officer for Strategy & Innovation, NHS
Greater Manchester Integrated Care

Gareth Thomas, Digital Innovation Director, NHS GM and Health
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PURPOSE OF REPORT:

To share the GM Health and Care Digital Transformation Strategy 2023-27.

KEY MESSAGES

- The Strategy is underpinned by the GM Digital Maturity & Investment Framework
  (elements of which have been adopted by NHSE and rolled out to all NHS
  Providers).
- The Strategy has been developed through extensive engagement with system
  representatives and public representative.
- The integrated annual delivery plans are overseen by GM Health and Care Digital
  Transformation Board.

RECOMMENDATIONS:

The Integrated Care Partnership Board are requested to:

- Note the engagement and socialisation completed to date (Appendix 1).
- Note the approach to delivery planning.
- Consider and support the strategy.

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1. BACKGROUND

To deliver on GM's integrated care system strategic plan and support the broader ambition for Greater Manchester to become a world-leading digital city region, we recognise the importance of embracing digital transformation to deliver new models of care, improve outcomes and efficiency.

We have made considerable digital and technological advances – from the acceleration of the Greater Manchester Care Record for all citizens, to the development of a secure data environment (SDE) to support world leading research and planning. But there are still large parts of our system that do not have the basics in place.

A new GM health and care digital transformation strategy has been developed through significant cocreation to outline our ambition to optimise digital approaches, data and technology across all care settings. It includes an assessment of our digital maturity as a system at both foundational and aspirational levels, to inform a framework of 47 digital priority activities to take forward over the next five years. The GM framework is actively used for investment planning and decision making across the system, at organisational and ICS levels.

2. STRATEGY

Extensive engagement (see appendix 1) has been undertaken to develop the GM Health and Care Digital Transformation Strategy, led by Health Innovation Manchester and NHS GM in partnership with Providers.

The strategy sets out 5 ambitions, with 3 layers of activity (to digitise, integrate and innovate):

1. We deliver integrated, coordinated and safe care to citizens
2. We enable staff and services to operate efficiently and productively
3. We empower citizens to manage and their health and care needs
4. We understand population health needs and act upon insights

5. We accelerate research and innovation into practice for the above, as a globally leading centre

The strategy includes the priority digital & data capabilities in each care setting and across care settings. The strategy itself is not a business case or delivery plan but sets the context for delivery plans and business cases as required at the programme level.

3. DELIVERY PLANNING

The strategy sets the context for annual costed delivery plans with programmes targeted at the priority capabilities, with detail of funding sources. The digital transformation delivery plan has been aligned to ICB Join Forward Plan priorities, and is included in the JFP delivery framework.

Delivery plan oversight, assurance and benefits realisation are monitored at a system level by GM Health and Care Digital Transformation Board (DTB).

The 23/24 delivery plan, structured according to the ambitions and priority capabilities defined in the strategy is available upon request via gmdigital@healthinnovationmanchester.com, and an extract is found in appendix 2.

4. RECOMMENDATIONS

a. To note the engagement and socialisation completed to date (appendix 1)
b. To note the approach to delivery planning
c. To consider and support the strategy

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APPENDIX 1 - ENGAGEMENT AND SOCIALISATION

The strategy has been built upon 1,700 digital maturity data points and engagement in care setting 'deep dives' with 250 staff and 250 patients conducted predominantly during 2022, including with system governance groups including:

- GM Health and Care Digital Transformation Board
- Provider CIOs; Provider DoFs
- Primary Care Digital Board
- Locality Primary Care IT Leads
- Locality GP Digital Leads, PCN CDs and managers
- Adult Social Care Digital Steering Committee; Adult Social Care Digital Network
- DASSs
- Social Care providers (including service mangers)
- Local Authority IT & Transformation Leads
- Integrated Pharmacy & Medicines Optimisation Group – Digital
- GM Community Provider Board - and nominated representatives
- Patient & public representatives

In 2023, the learning from the deep dives was brought together into a single strategy, which has been developed and approved by GM Health and Care Digital Transformation Board with socialisation and support gained through the following groups to date:

- GM Digital Delivery Executive, plus additional engagement with
    o Provider CIOs
    o Locality Primary Care IT Leads
    o Adult Social Care Digital Steering Committee
    o Primary Care Digital Board
    o Integrated Pharmacy & Medicines Optimisation Group – Digital
    o Deputy Directors of Place

- Provider CCIOs and CNIOs, NHS GM Clinical Effectiveness Group

- Digital Inclusion Action Network

- HInM Board

- GM Primary Care System Board

- GM Provider Federation Board

- Patient & public representatives (public facing version)

- GM Integrated Care Partnership Board – planned for 29 Sept

Appendix 2 - annual delivery plan extract

Ambition 2: We enable staff and services to operate efficiently and productively

Lead Organisation	Project	Care settings in scope	Pipeline Stage	Digital & Data Capability	Key Dependencies	Cost	Funding source	Funding status	System governance	Major milestones/ deliverables for 23/24	Outcomes (including quantified impact)	Date expected	Anticipated benefits	Date expected	Project Closure
Providers	Electronic Patient Record	Secondary Care and Mental Health	Delivery – Roll out at Scale	TS_11 - EPR for each care setting	Future year funding	(Varies per trust)	NHSE Frontline Digitisation	Funded	DTB	Detailed trust-level milestones	80% Trusts with EPR meeting minimum digital foundation by end 2024	Q2 24/25	Improved Digital Maturity Scores	Q2 24/25	Q2 25/26
Providers / NHS GM	GM Cost Efficiency Opportunities workstream - Digital	All	Qualification	(Multiple)	Resourcing - funding / time	TBC	TBC	TBD	ICB Board	Q2 23/24 Confirm list of priority areas	Focus for provider organisations to focus on to deliver cost efficiencies in Digital	Q4 23/24	Greater efficiency in digital spend cross-providers	Q4 23/24	TBC
	GMCR - RBAC Access Reconfiguration	Primary Care	Delivery - proof of value	DD_3 - Integrated Shared Care Record & Care Plans		Service Resources	N/A	Funded	GMCR COG	Ongoing Service activity	Secure, appropriate access to GMCR	TBD	Improved access to GMCR support patient care	TBD	
	GP IT Futures Retendering	Primary Care	Qualification	TS_11 - EPR for each care setting		£5.2m	GPIT Futures Central allocation	Funded	PCDB	New GPIT Futures Framework needs to be released (was due 31/3/23) All Vision sites must retender by 31/12/23 all others by 31/3/24	Practices on new contracts	Vision Q3 23, EMIS/TPP Q4 23	Practices will have supplier managed clinical systems in line with GPIT Futures requirements	Vision Q3 23, EMIS/TPP Q4 23	
NHS GM	EMIS Spoke Servers	Primary Care	Delivery - rollout at scale	TS_11 - EPR for each care setting		£119K	NHSE DFPC & Primary Care SDF/Revenue	Funded	PCDB	64 servers scheduled to be replaced this FY. 10 completed	All practices will have fit for purpose servers	Q4 23/24	Spoke servers will be fit to support EMIS Practices	Q4 23/24	Q4 23/24
	Telephony uplift	Primary Care	Solutioning	TS_23 - Unified communications		£700K	NHSE DFPC & Primary Care SDF	Funded	PCDB	Complete procurement process to identify approved suppliers	Fit for purpose telephony services	TBD	Users will have fit for purpose telephony services	TBD	TBD
	Migration to Docman (EDT) Connect Service	Secondary Care	Delivery - rollout at scale	TS_9 - Integration Engine		TBC	FTs	TBD	GM CIO's	3 FT On Prem servers remain to be transferred	All DocMan EDT Hubs on Cloud based services	TBD	On prem servers can be closed down. Improved resilience and functionality	TBD	
HInM	GMCR Training and Comms for clinicians	Primary and Secondary Care	Solutioning	DD_3 - Integrated Shared Care Record & Care Plans	TBD	£298,000	HSLI	Funded	GMCR COG	Q2 23/24 - Design and development of content; Q3 23/24 - Reporting on KPI's; Q3 23/24 - Delivery of content; Q3 23/24 - Development of ongoing/future training approaches	- Clinicians have greater awareness and understanding of use of the GMCR. - Greater number of clinicians access and utilise the GMCR. - Increased information sharing across clinical settings and organisational boundaries to inform care.	Q1 24/25	- Staff time saved - less time spent contacting other areas for relevant patient information that could be accessed through the GMCR (staff in which healthcare setting does this impact?) - staff satisfaction	Q2 24/25	Q4 23/24
	ICS Digital Workforce Joint Plan	TBC	Qualification	Strategy		£75,000	NHSE Digital Strategy	Funded	DTB	TBD	TBD	TBD	TBD	TBD	TBD

Quarterly reporting to GM Health & Care Digital Transformation Board from NHS GM, Providers and HInM will include RAG status per project, risks/issues for escalation by exception and benefits realisation reporting as relevant.
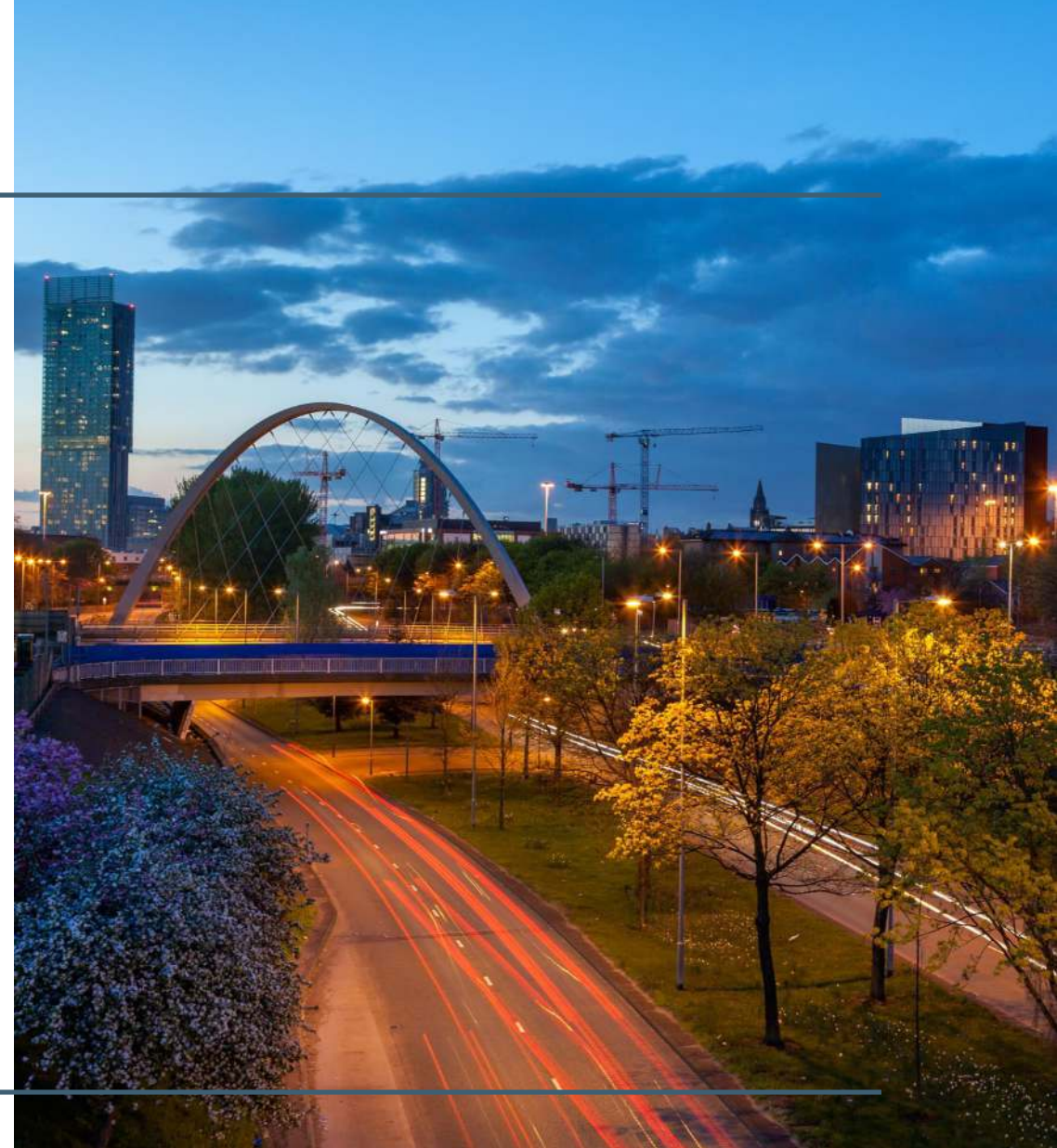
GM Health and Care
Digital Transformation Strategy

2023 - 2027

Contents

Summary

We want Greater Manchester to be a place where everyone can live a good life, growing up, getting on and growing old in a greener, fairer more prosperous city region

Summary

To deliver on Greater Manchester's strategic vision to become a world-leading city region, we need to embrace the digital transformation opportunity across the health and care system.

The health and care system in England is now embracing digital as a powerful driver for transformation, improving care, productivity and experiences. There is increased investment in technologies, talent and skills – there is much more to do to achieve the levels of experience and expectation in other digitally transformed industries.

In Greater Manchester, we are advancing to be a truly digital health and care system with an aspirational learning environment, leveraging the partnerships across academia, with one of the largest life sciences clusters in the country, and across industry. This, powered by the established integrated health and care system (ICS), gives Greater Manchester the ability to envision and drive digital transformation across the health and care system.

We have made considerable digital and technological advances – from the acceleration of the Greater Manchester Care Record for all citizens, to the development of a secure data environment (SDE) to support world leading research and planning.

However, there are many areas of our health and care system which remain paper-based or operate on clunky, outdated systems that are not connected to each other. This impacts on the quality and standard of care and the experience of people using our services. There is an urgent need to get the basics right, alongside our ambition to develop leading-edge approaches.

We have much more to do to see the benefits of the global digital revolution, accelerated by the Covid-19 pandemic, underpinning transformation of health and care services. During the pandemic, our workforce and citizens were forced to react quickly and adopt different, digitally-enabled ways of working, alongside handling extreme clinical and operational pressures. In 2023 – 2027 we must embed digital ways of working to drive benefits for our citizens.

What are our digital transformation ambitions?

1. We deliver **integrated**, **coordinated** and **safe** care to citizens.

2. We enable staff and services to **operate efficiently** and productively.

3. We **empower citizens** to manage their health and care needs.

4. We understand **population health** needs and act upon insights

5. We accelerate **research and innovation into practice**, as a globally leading centre

How will we meet our 5 ambitions?

We developed and rolled out the GM Digital Maturity & Investment Framework in each care setting to understand our current status and next priorities. This strategy presents three layers of activity required - to **digitise**, **integrate** and **innovate**.

INNOVATE

INTEGRATE

DIGITISE
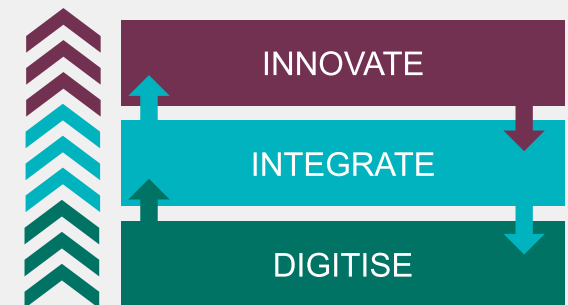
What does this strategy include?

In this strategy, we discuss the **context of Greater Manchester** with its immense opportunities for **effective partnership working.**

Driven by outcomes for citizens, we have set out the GM health and care **digital vision, ambitions and priority capabilities** for a delivery roadmap for 2023 – 2027, in line with the GM Integrated Care Partnership Strategy.

This strategy is developed in **close collaboration with partners** across the Greater Manchester health and care system – with engagement throughout 2022 with leaders, staff and citizens.

On the basis of this engagement we present our ambitions, **underpinned by our methodology** for how we approach digital transformation across GM: getting the basics right with **digitisation** for all services, enabling the **integration** of care and connecting people, and **innovating** to allow new digital approaches and partnerships to flourish.

We are passionate about understanding particular problems faced by staff and citizens, and codesigning solutions with health and care professionals and the public – **solutions that work in practice**. We have learned a lot about the skills and abilities required to deliver sustained digital transformation effectively, and we are focused on wholistic change incorporating **people, process, culture, tools and technology**.

We understand the financial, operational, structural and technical **challenges** to be overcome to deliver transformation within a system under huge pressure.

We recognise that our **workforce have a critical part to play** in digital transformation – from articulating issues and solution codesign through to adoption of digital technologies into daily use. A further digital workforce strategy is to follow in 2023.

We also recognise the **importance of codesigning solutions with staff and citizens** to ensure that our health and care system is **inclusive, accessible and usable** by our population, whatever our cultural background, language or age. A further digital inclusion strategy is to follow in 2023.

We **reflect on the outputs** from our engagement in each care setting and service area, which includes over 1700 data points from **our digital maturity assessment**. Our assessment is focused on **how technology is being used by staff to deliver better care for citizens** and is now being adopted by NHSE across all Providers and ICSs.

We provide context for local organisation strategies and planning, as well as providing the **mechanism for investment prioritisation decisions** at ICS and locality/organisation levels.

Our Context

Greater Manchester is now an Integrated Care System – a partnership of organisations that come together to plan and deliver joined up health and care services, and to improve the lives of people who live and work in GM

Context

Our **Integrated Care Partnership (ICP)** **has a collective vision - we want Greater Manchester to be a place where everyone can live a good life, growing up, getting on and growing old in a greener, fairer more prosperous city region. A GM where everyone:**

- Has a fair opportunity to live a good life
- Experiences high quality care and support where and when they need it
- Has improved health and wellbeing
- Works together to make a difference now and for the future

**In the ICP strategy, this vision is underpinned by six missions:**

1. Strengthening our communities
2. Helping people get into, and stay in, good work
3. The recovery of core NHS and care services
4. Helping people stay well and detecting illness earlier
5. Supporting our workforce and our carers
6. Achieving financial sustainability

There are **multiple inequalities** experienced in Greater Manchester:

GM has some of the
lowest life expectancy
in England

GM population
2.8M
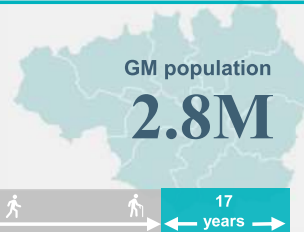
17 years

In some of our localities, the **disparity** between the shortest and longest life expectancy is as big as 17 years.

26%
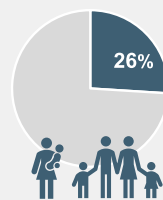
GM is **relatively deprived**
compared to other ICSs in England

Low income levels underpin **high levels of child poverty (26%) in GM**, which is 8% higher than the national rate (**18%**)

Working-age people in GM with
no qualifications
is disproportionately high
9%

The skills deficit reinforces the **predominance of lower value, low pay employment in the city-region** compared to the south of England and GM's international comparators.

There are strong correlations between **employment levels and health conditions**

75% **75%** of the variance in employment rates across the neighbourhoods of GM is **accounted for by health** (correlations for mental and physical ill-health were similar)

10% **Employment rates of people from minority ethnic groups** in GM are **10% below** the average working-age employment rate.

50% **Only half** of GM working-age residents with a **disability** are in employment

We now live in a world where technology is part of our daily lives, from paying bills, to online shopping to keeping up with news – the way we do things has been completely transformed because of digital technology. Most of us are connected through technology most of the time – to each other and to people who provide products and services.

Digital, data and technology have a fundamental role in improving care for everyone to achieve these missions and addressing health inequalities. Sharing data and information is vital to providing integrated, whole person care, helping people stay well and detect illness earlier.

We want to bring this level of digital advancement into our public services to give people greater control over their own health and wellbeing and transform the way in which we engage with services.

What have we done?

Since launching the 2019 GM health and care digital strategy, we have faced and risen to multiple challenges.

We were able to accelerate digital transformation during the COVID pandemic. Whilst COVID-19 had devastating impacts on the citizens and health and care workforce of Greater Manchester, we were able to unblock barriers to delivering patient care. Through new governance models we enabled critical data sharing for the first time across localities and care settings in GM.

We have delivered multiple projects of new digital functionality across GM since 2019, including:
- Data sharing across localities and care settings via the GM Care Record to enable safer and more timely care
- Remote monitoring for people with Covid-19, including symptom tracking in care homes to identify those who need acute care earlier
- Picture archiving communication system to share images
- Covid-19 vaccination booking system

While there are many examples of advances in digital technology in health and care across the UK and in Greater Manchester, things are not good enough. We know that health and care professionals are unable to access or contribute to the same patient record and are often operating across multiple clunky and outdated systems, using sub-standard equipment, which prevents them from being able to enable high quality care and impacts on operational efficiency. We need to digitally transform how people engage with health and care services by bringing in new technologies and using data to provide more accurate and effective care and treatment. We need to enable people to better monitor their own health and plan their care, alongside professionals.

We developed the GM Health and Care Digital Maturity & Investment Framework to gain consistent understanding of current maturity and enable digital investment decisions to be driven by patient outcomes. The digital maturity assessment embedded within our framework is now being rolled out by NHSE across the country.

Deep understanding of the **digital maturity of the organisations in the ICS**

35 **Digital Maturity Assessments** completed by organisations across all care settings

1700 **Digital maturity data points** received

Deep understanding of the **investment required**

Over £40m secured in 2021/22 for **digital transformation**

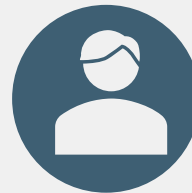**Over £35m** secured in 2022/23 for **digital transformation**

Through our engagement…

…we've listened to over **250 citizens** to understand what matters to them

…we've listened to over **250** **clinical, social care, operational and digital professionals** to understand what matters to them

Advancing our digital health and care system

Greater Manchester has a global reputation as a pioneer and partner of choice. We have led the way in establishing ICSs, and we have learned through GM devolution that it takes time to deliver change and make a difference. We all have a role to play in improving health across the region, and the NHS, wider public services, the VCSE sector and GM citizens will work together to achieve this.

We acknowledge that we are progressing on a journey toward achieving difficult things at pace and scale, with determination to be a healthcare system that truly embraces the use of digital technology in all we do. We have learned a lot about the skills and abilities required to deliver sustained digital transformation effectively, and we are focused on wholistic change incorporating people, process, culture, tools and technology.

Building on the strength of partnership across the city region, we are in a unique position to deliver transformation and improve outcomes for our citizens. However, in order to be a place where everyone can live a good life, growing up, getting on and growing old in a greener, fairer more prosperous city region, we must maximise our capability and capacity through wider partnerships.

In addition to collaboration with wider public services, we must develop the right relationships with the technology industry, to leverage resources and insights, and embed GM as the place for leading-edge tools to be deployed to improve patient care. In order to harness our data assets to deliver real world evidence studies and evidence-based innovations, we also partner closely with academic institutions across the life sciences and evaluation.

Through these partnerships we will move further and faster toward our ambitions. We will cultivate a culture of learning and collaboration, with technology solutions which are flexible to local needs and digital maturity.

Our partners

- Health and Care Providers
- Health Innovation Manchester
- NHS Greater Manchester Integrated Care
- Greater Manchester Combined Authority & Local Authorities
- NHS England
- Higher Education Institutions
- Industry

"

To improve care and outcomes for citizens in Greater Manchester, we must accelerate the development and deployment of digital innovation. There is tremendous potential for Greater Manchester to become a world-leading digital city region. Through close collaboration with citizens and partners across the Greater Manchester health and care system, we have a strategy that will meet our ambitions for digital transformation, leading to enhanced efficiency and integration across services, greater understanding of our population's needs, and improved care for everyone."

Dr Gareth Thomas,
Digital Innovation Director at Health Innovation Manchester
and NHS Greater Manchester Integrated Care

Spotlight: GM wider public sector opportunities

For the GM Health and Care digital transformation strategy to have the greatest impact, it must be enabled through collaborative working with partners across Greater Manchester. It is key to our ambitions that we consider wholistically the needs of citizens and wider determinants of health outcomes.

Through collaborative working with public sector colleagues, we can create a greater impact for citizens – particularly recognising the shared goals in digital inclusion and digitally developed workforce - of empowering individuals to access and benefit from the opportunities digital brings if they want to.

Representatives from health and care work with colleagues in the Greater Manchester Combined Authority and Local Authorities at senior leadership and operational and delivery levels.

The following GMCA Digital Blueprint priorities and strategic enablers are common to this health & care strategy:

Priorities
- Empowering people and communities to thrive
- Building responsible, data driven public services
- Strengthening our position as a global digital influencer

Enablers
- Building digital skills and literacy for life, education, work and business
- Strengthening our Digital Talent Pipeline
- Harnessing academia, testbeds and research

There are many examples to demonstrate the importance of collaborative working across the wider public sector in GM, for example:

The Mayor's Digital Inclusion and Action Network recognises the benefit of working together to share best practice, opportunities and connections. It has a focus on enabling all Young People, Disabled People, and Over 75s to get online safely and benefit from the internet. This is a key enabler for citizens to realise benefits from digitally enabled healthcare too. Applying these priorities will be developed further in the GM Health and Care Digital Inclusion Strategy.

The Early Years Platform has been developed to support Health visiting and Early Years services in order to improve School Readiness in Greater Manchester. With over 40,000 digital assessments now completed, it gives parents, guardians and professionals a mobile solution that replaces paper-based processes, enabling more effective support of families, helping deliver a more joined up child support journey from pre-birth to school age."

As discussed in the **GM Green Plan 2022** and GMCA Digital Blueprint, we know that the impacts of digital technology reach further than patient care, for example into the net zero agenda, particularly with the increase of services delivered virtually.

Our operating environment

Our operating environment presents numerous opportunities and challenges. Our delivery strategy must reflect this to promote partnership working, collaboration and flexible solutions which are consistent with local needs.

Governance

Digital governance and delivery accountability in GM has been significantly developed since 2019 to ensure system-wide representation, with clinical, digital and financial understanding in and ownership of key issues. Transparent, effective and efficient decision making mechanisms at the right levels are critical to shape programmes, provide assurance of delivery, and ensure compliance with technical, clinical safety and data sharing standards. These governance models must be blended with the emerging ICS environment.

Funding model

In a fiscally constrained environment, we are reliant upon annual funding streams that emerge late in the financial year. This significantly limits our ability to plan for and deliver wholescale digital transformation; whilst we are in a strong position to respond to opportunities, we must work with funders to proactively ensure funding cycles support delivery of our strategy.

Supplier management

Most of the technology relied upon in health and social care is supplied by independent companies, with whom our teams work to ensure that the products we buy, and develop with them, are meeting our requirements. We must have robust supplier relationships to ensure value for public monies.

Operating model

Digital transformation is not about adding IT to existing ways of working. Digital transformation is about enabling new ways of working underpinned by digital technology. The technology must be subservient to the ways of working (the operating model), rather than the other way around. This means that our teams are focused on a deep understanding of the current clinical operating models and working with colleagues to redesign the models to better meet the needs of patients and staff (and making sure the technology helps rather than hinders this).

Information Governance

Sharing data responsibly saves lives. It is critical that we govern data in the way that our citizens expect – to ensure access by the right people at the right time to support the best patient care. In GM, we engage with citizens, via public panels and engagement groups, about their data so that everyone can understand how their data is being used, and can make informed decisions about having their data shared. We also engage fully with data controllers as early as possible within our digital transformation projects to ensure the appropriate agreements are put in place – in this way Information Governance becomes an enabler rather than a barrier to better patient care.

Technology

Organisations across GM have variable digital maturity and varied architecture. Interoperability between systems is limited. Our strategy promotes convergence around a limited number of interoperable products where clinically and operationally warranted.

Data Sharing

By analysing de-identified data, we can better review and plan services based on accurate information. It also supports groundbreaking research into new cures and treatments that could save lives here and around the world. Good use of data really does save lives.

There are strict rules about how patient data is used in research to ensure people's information is protected. Researchers are only ever given the minimal amount of information they need to conduct a particular study and a person's name, date of birth and address are removed so they cannot be identified. Citizens can opt-out to their information being shared for reasons beyond their individual care.

Workforce

We have a workforce with variable digital skills, and varied levels of digital clinical leadership and limited capacity in the technical workforce. Training needs must be addressed at all levels.

Developing our workforce matters

Our workforce are our biggest and most precious asset. With ever-evolving technology and expansion of its applications in the planning and delivery of services, our frontline health and care workforce are increasingly dependent on digital skills and confidence to perform their duties. We want to harness technological benefits for staff to improve the quality and safety of care delivery.

We are excited about the new ways of working that our workforce will shape through use of digital technology. We must aim to incorporate the digital mindset into strategic planning and business processes at all levels. Developing further, we must cultivate the learning environment that fosters leaders who scan the horizon, prioritise the use of emerging technology, being able to pivot service provision and models of care for a digital age.

The GM Health & Care Digital Workforce Plan will be developed in 2023, in line with the GMCA's vision to create a critical mass of digital talent, positioning GM as the key place for businesses seeking a digitally-skilled workforce to invest in. It will be codesigned with frontline workers to set out the priorities and approach for empowering and equipping our workforce to embrace digital ways of working and transform care.

Our whole health & care workforce need the skills, knowledge and confidence to use and make the most of digital. We must understand the training needs and support Providers to train all health and care staff to ensure that digital competency requirements for all roles are met. We also must support training of staff wanting to develop their digital, data and technology competencies further.

Digital clinical leadership roles need continued development and growth.

Digital social care leadership roles need appointing and supporting.

Executive ownership of digital is critical for our organisations' ability to own the opportunities presented by digital technology. Understanding the investments in the people and process aspects of transformation as well as the digital technology itself is critical to ensuring delivery of benefits.

Digital, data and technology roles need recruitment and retention strategies, recognising the competition with industry for these posts.

We will set out the responsibilities of the ICB and provider organisations for recruitment and development plans, exploring sharing resources across the ICS, offering career development opportunities.

In order to develop the pipeline of people with the right skills from diverse backgrounds, we will explore partnerships with Further and Higher Education Institutes and Local Authorities.

We want citizens to be able to take part at this pivotal point for digital transformation in the health and care sector, digital, data and technology roles offer the opportunity to impact the lives of hundreds of thousands of people.

Digital inclusion matters

The Greater Manchester Independent Inequalities Commission identified digital access and access to care & support as key drivers of socio-economic inequalities.

While we know that digital tools aren't always the preferred way for citizens to access and navigate health and care services, we are committed to providing digital access channels that are easy to use by all citizens who would want to use them.

When well designed and accessible, digital tools can help improve access to services and address health inequalities. However, it is recognised that in an increasingly digital world, people who are digitally excluded are at risk of worse access to services and poorer health outcomes, deepening inequalities.

There is a close correlation between digital exclusion and social disadvantages including lower income, lower levels of education, and poor housing.

GM has significantly advanced the use of digital approaches across public services, but there are still significant numbers of people who cannot easily access or benefit from digitally-enabled services and tools.

The NHS long term plan makes a commitment to a more concerted and systematic approach to reducing health inequalities and addressing unwarranted variation in care.

We are aligned to the Greater Manchester Strategy which includes a commitment to tackle digital exclusion, with priority being given to Young People, Over 75s and Disabled People.

Digital exclusion in our GM population

43%

16%

23%
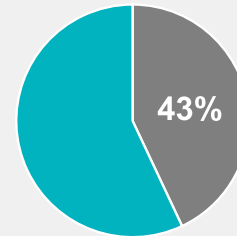
43% of our population are **excluded in some way** for the opportunity that digital brings.
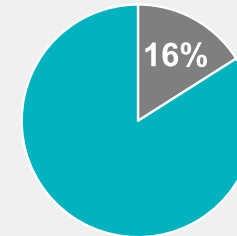
16% of our population are **'non-users' of the internet** - over half of whom are over 60 years of age.
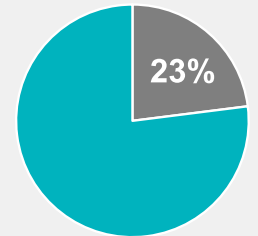
23% of our population are not using digital services because of a **lack of money**

We need to build inclusion into the digital design, delivery and transformation of health and care services.

Using user experience design approaches and working with partners, we will develop a deep understanding of citizen need, clearly define problems and co-design innovative solutions to improve the patient journey, experience and outcomes.

We have already put this approach to the test in some of our key digital programmes including digital transformation of GP practices, the design and development of virtual wards, and the deployment of remote monitoring technologies. But we now need to take this further through all of our digital transformation work across Greater Manchester in partnership with colleagues from across the public sector, industry and voluntary and community organisations.

The GM ICS Digital Inclusion & User-led Design Plan will be developed in 2023.

Our 5 ambitions

In Greater Manchester, digital is a key enabler for improving care and outcomes for citizens. We have engaged in conversations and workshops with over 500 individuals - including clinical, care, operational and digital professionals and citizens across GM. We now have a better understanding of the problems they experience, and the opportunities for digital transformation to help solve these problems.

Our 5 inter-related ambitions have been developed through this engagement:

1 We deliver **integrated**, **coordinated** and **safe** care to citizens.
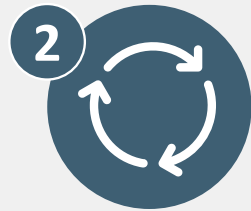
2 We enable staff and services to **operate efficiently** and productively.

3 We **empower citizens** to manage their health and care needs.

4 We understand **population health** needs and act upon insights.

5 We accelerate **research and innovation into practice**, as a globally leading centre

We have listened:

Ambition 1:

What this really means for your care:

As a citizen I want to:
- Feel confident that the people looking after me have access to my medical history
- Feel confident that the people looking after me have access to my preferences and my lifestyle (including cultural) needs
- Feel confident that health and care professionals are making joined up decisions
- Trust that my information is being accessed by health and care professionals to inform my care in a personalised way

Staff want to:

Support transitions of people, information and medicine between care settings – to manage citizens' health and care needs holistically

Use digital technology to solve clinical safety problems

Deliver continuity of care across different members of staff and services, including between care settings

Gain appropriate access to the right information at the right time

1

We deliver **integrated**, **coordinated** and **safe** care to citizens.

Receiving joined-up care from different services and professionals, especially for the growing number of patients with multiple long term conditions

We have listened:

As a citizen I want to:

- Order repeat prescriptions easily
- Obtain referrals on the spot so I don't have to remember to schedule another appointment
- Have my medications available for pick up from my local pharmacy
- Tell my health and care story and needs once, not every time I speak to a new professional

Staff want to:

Use digital and data to address workforce constraints and release capacity

Attract and retain staff, including by maximising time available to deliver care and supporting professional development

Ensure patient safety and reduce adverse events

Equip and empower staff to use digital and data tools to improve the care they can deliver

Ambition 2:

2
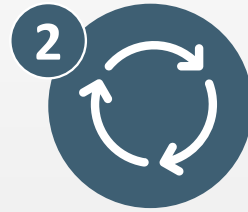
We enable staff and services to **operate efficiently** and productively.

What this really means for your care:

Services that work well, with health and care professionals who enjoy focusing on delivering the best possible care, supported by the power of digital technology

We have listened:

As a citizen I want to:
- Find information and advice that I trust about my condition easily
- Understand the services available to me and how I can access them
- Understand the information I receive digitally
- Communicate with health and care professionals, even if they don't speak my language
- Know what is going to happen next
- Know who to contact when something goes wrong

- Receive care in my home if appropriate
- Maintain my independence
- If I'm at risk for particular conditions, be supported to manage this
- Feel involved in my care
- Feel empowered by accessing information I trust to manage my own conditions and wellbeing
- Feel confident to use technology that supports my care, if I choose to

- Access care from my GP or hospital when I need it
- Exercise choice over how I contact my GP
- Book appointments for times that suit me, quickly and easily
- Access my own health and care record, in one place
- Log into health and care digital systems and apps with one account/password

Staff want to:

Make navigating a complex system easier for citizens

Support patient involvement in care and their experience

Use digital to enhance patient-centred care and interactions

Ambition 3:

3

We **empower citizens** to manage their health and care needs.

What this really means for your care:

Enabling individuals and communities to manage their own physical and mental needs, helping people stay well and maintain their independence at home.

We have listened:

Ambition 4:

What this really means for your care:

As a citizen I want to:

- Know if I'm at risk for a particular condition and receive proactive advice
- Be supported as an individual to improve my health and wellbeing
- Connect with others in my neighbourhood to share what's worked
- Feel that the care and treatment I get is fair and equal, and advances in technology don't exclude me.
- Be assured, as a taxpayer, of minimising waste

Staff want to:

Deliver responsive services that are timely, personalised and appropriate

Collaborate across care providers to promote healthy living and prevention

Systematically identify patients with high levels of need and intervene earlier

4

We understand **population health** needs and act upon insights.

Health and care services that are more proactive in helping you to manage your health and wellbeing, providing more personalised care when it's needed – including detecting illness and intervening earlier.

We have listened:

Ambition 5:

What this really means for your care:

As a citizen I want to:

- Know that services provided via digital channels are safe, confidential and effective
- Benefit from the most advanced and leading-edge care and treatment in the world, including advances in genetic and other personalized medicine, Artificial Intelligence etc
- Know that when my information is being used for research, it is anonymous and benefits the communities where I live
- Be assured that the health and care system is focused on prevention

Staff want to:
Learn from and scale what's worked elsewhere in the locality or in GM

Harness the transformative power of health and care, industry and academia working together to address major challenges and tackle inequalities

5

We accelerate **research and innovation into practice**, as a globally leading centre

Receive leading edge care and treatment personalised to your needs, as well as benefit from digital technologies that support you to have equal access to health and care

Our Method

to understand system needs and agree our priorities

GM digital investment decisions are driven by patient outcomes and focused on increasing digital maturity to meet our ambitions for improved care

Strategic inputs

Our strategy and planning has been based on engagement with GM health and care leaders in each sector, staff and citizens - we've engaged with over 500 people in different care settings, service areas and localities during 2021 – 2022 to understand the problems they face and the solutions they need. In addition, we have taken into account key inputs at local and national levels.

GM inputs

Include:

- GM Health and Care Integrated Care Strategy
- Greater Manchester Strategy
- GM Digital Maturity & Investment Framework
    - 1:1 conversations, digital maturity scores and workshops to agree priorities in each care setting and service area
    - Discovery engagement in our service areas
    - Locality and provider organisation priorities and plans
- Lessons learnt since our last strategy and from our current delivery projects
- GM Green Plan
- GM Combined Authority Digital Blueprint
- GM Data Prospectus

National inputs

Include:

- NHS Long Term Plan
    - including underpinning plans and operational planning guidance
- Integrated Care Systems Guidance
    - building smart digital and data foundations
    - connecting health and care services
    - using digital and data to transform care
    - putting the citizen at the centre of their care
- Hewitt Review: an independent review of integrated care systems
- NHSE Transformation Directorate What Good Looks Like
- NHSE Digital Clinical Safety Strategy
- National service contracts
    - including GP, PCN, Community Pharmacy contractual frameworks

OUR METHOD

Strategic inputs

Understanding our population and the problems experienced

Defining our ambitions and how we can achieve them

Financial baselining

Balanced portfolio for the ICS

Understanding our citizens

We developed personas representative of our diverse GM population. A thorough understanding of our citizen's circumstances, health needs, challenges and opportunities has fed directly into the digital & data capabilities required to transform the experience and outcomes of our citizens.

~35%

Mostly well, with occasional elective intervention

Broadly healthy individual who rarely seeks healthcare but has suffered a specific incident.

Needs to be diagnosed, complete course of treatment and return to normal life.

Opportunity for preventative intervention (e.g. around smoking)

Patient journey

Diagnosis and successful treatment of one new condition; engagement with preventative care

~25%

Family, with young children and wide ranging needs

Low income household with 2-3 children under 5 and limited social support network.

Range of bio/psycho/social needs – e.g. risks relating to school-readiness and childhood obesity, parent with recurrent mild mental health issues, one child with chronic condition such as asthma and/or eczema.

Patient journey

First 1,000 days of youngest child

~10%

Middle-aged, multiple health needs, lifestyle challenges

45-55 year old with a range of lifestyle risks – including smoking and obesity – and long term multi-morbidity (e.g. some of chronic back pain, depression/anxiety, T2 diabetes and/or CHD risks).

Would like support to return to work following a period of unemployment.

Patient journey

One year in the life following a diagnosis of a long term condition

~8%

Elderly, frail and housebound

65-80 year old who is clinically frail, lives in their own home but is largely housebound.

English is not their first language.

The individual is not digitally engaged and apart from a basic mobile phone does not have many devices at home.

Patient journey

Recent bed stay in hospital following a fall, discharged back to primary care.

~% of GM population

Note: Additional personas were used in each care setting

OUR METHOD

Strategic inputs

↓

Understanding our population and the problems experienced

↓

Defining our ambitions and how we can achieve them

↓

Financial baselining

↓

Balanced portfolio for the ICS

> " These new digital services, such as apps and patient portals, will cause considerable stress to patients if not developed properly.
>
> What we need is a few digital functions that are easy to use and focused on making access to services and their delivery much easier for everyone. Then there is potential to have a big impact, improving the wellbeing and quality of life for many."

GM citizen

Meeting our ambitions

Having engaged in conversations and workshops with clinical, operational and digital colleagues and citizens across GM, we have better understood the problems they experience and the opportunities for where digital transformation can help to solve these problems. These problems are detailed at the end of this document. Our 5 ambitions are a direct result of this engagement and feedback from citizens and staff.

1 We deliver **integrated**, **coordinated** and **safe** care to citizens.

2 We enable staff and services to **operate efficiently** and productively.

3 We **empower citizens** to manage their health and care needs.

4 We understand **population health** needs and act upon insights.

5 Through each of these, we accelerate **research and innovation into practice**, as a globally leading centre.

OUR METHOD

Strategic inputs

Understanding our population and the problems experienced

Defining our ambitions and how we can achieve them

Financial baselining

Balanced portfolio for the ICS

Innovate
We will develop and deliver proven innovations, novel technologies and data science approaches to improve health outcomes, address inequalities and design new models of care. This is achieved by fostering collaborative partnerships between health, care, academia and industry.

Integrate
We will deliver person-centred care based on the specific needs of citizens by providing patients, carers and clinicians with access to virtual information where and when they need it. This includes integrating digital tools that join up services, as well as empowering citizens and connecting them with health and care professionals.

Digitise
We will get the basics right for all services and increase efficiency by adopting digital systems, processes and tools, and collecting data to inform better care. This all needs to be delivered to shared standards to support convergence across providers.

Our 47 Digital & Data Capabilities

We have invested significant time to understand the diverse needs of our citizens and describe a set of digital and data capabilities that are required for us to achieve our ambitions - in a language that we can all use, independent of professional background, care setting, service area or locality. Through our engagement in GM, we have identified 47 digital and data capabilities required to meet our ICS digital transformation ambitions, which are grouped into the three layers of activity - digitise, integrate and innovate.

Innovate

New models of care

NHS at Home / Remote Monitoring

Personalised care apps

Understand and predict population health need

Decide and design care interventions

Research data

Innovation hub

Integrate

Integrated shared care record

Care coordination

Eventing: sharing actions and alerts

Integration engine

Internal / external API

Healthcare interoperability standards

Demand led management of capacity & scheduling

System monitoring and transparency

Supply chain automation

Connected Workforce

Robotic process automation

Real time staff, patient, equipment tracking

Multi channel consultations

Targeted, tailored and personalised comms

Digital front door and navigation

AI enabled self help triage

Health record accessed by citizen

Booking appointments across settings of care

Our 47 Digital & Data Capabilities

Digitise

Underpinning digital and data capabilities required for integration and innovation

Data security and governance

Single sign on (SSO)

Security: network & cyber

Identity and access mgmt.

Information governance

Core clinical systems

Electronic Patient Record

Specialist systems

Order comms

Multi-resource scheduling

e-referals

e-prescribing and prescribing

Patient Administration System

Imaging

Laboratory Information Management Systen

Data ecosystem and analytics

Data warehouse & data Lake

Analytics and reporting models and tools

Collecting and managing multisource data

Support services

System for communication (any type)

IT service mgmt.

Asset mgt. & tracking

Digital infrastructure

Unified communications (email, phone, smart device)

Networking (WAN/LAN/WiFi/Beacons)

Minimum standards for computers (PC, Laptop, VID)

Network estates (incl. cloud)

GM's nationally recognised digitally maturity assessment

We proactively developed a digital maturity assessment which gives us deep understanding about the digital maturity of the organisations in the ICS for each of the digital and data capabilities required at organisation and ICS level. We have clear descriptors for each level of digital maturity, with specific examples and tailoring for each care setting to ensure consistent interpretation. Our maturity assessment isn't focused on the technology itself – but on how technology is *being used by staff to deliver better care for citizens*. The assessment, developed in GM, is now being adopted by NHSE across all Providers and ICSs.

We have **over 1700** maturity data points received from **over 40 returns from individual organisations**, including all Provider Trusts and Localities in each care setting. The chart below provides example data from selected capabilities.

Example data

Capability	1	2	3	4	5
Integrated Shared Care record					
Targeted, tailored and personalised communication					
Health record accessed by citizens					
Electronic Patient Record					
Patient Administration System					
Laboratory Information Management System					

Lowest score received — Average score — Highest score received

foundational level   aspirational level
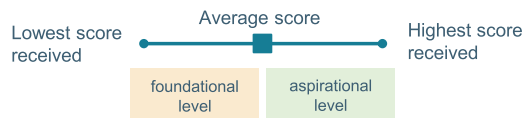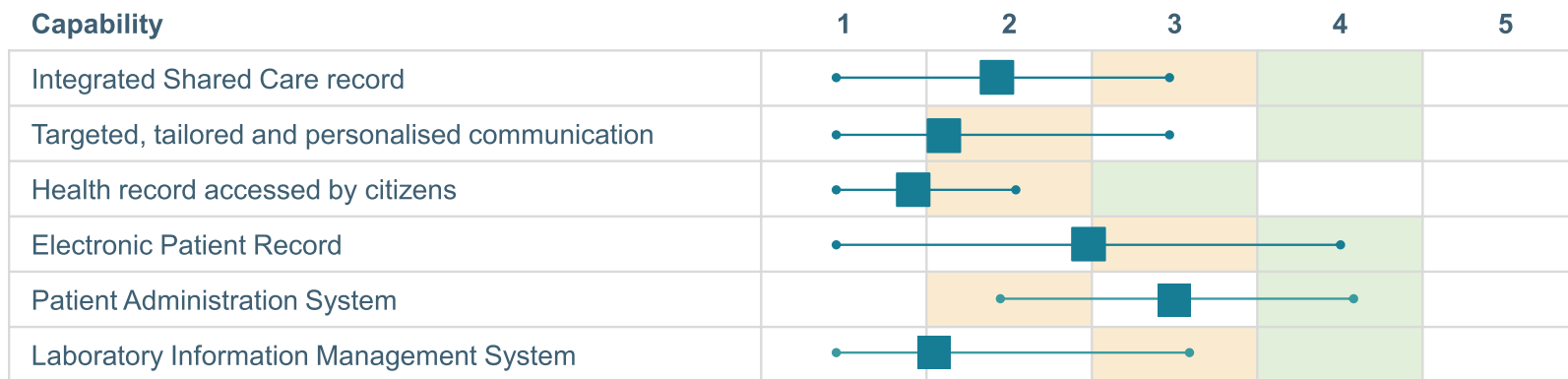
This data is invaluable for understanding where we are as an ICS and individual organisations in a consistent way, and measuring our progress. Organisations and the ICS have defined our priority digital & data capabilities, based on the which capabilities require investment to reach foundational levels, mitigating risk, and which we're ready to invest in to transform care pathways.

OUR METHOD

- Strategic inputs
- Understanding our population and the problems experienced
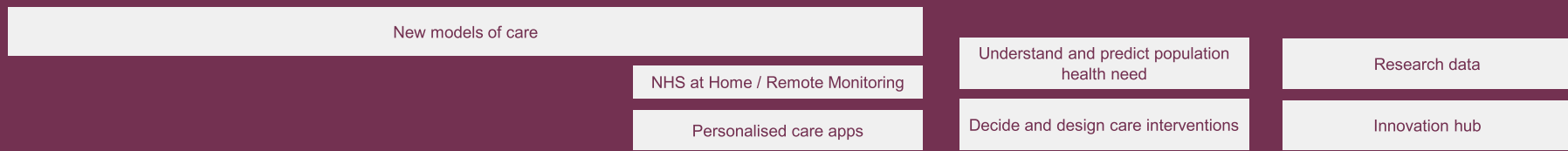- Defining our ambitions and how we can achieve them
- Financial baselining
- Balanced portfolio for the ICS

Digitise

In order to deliver our ambitions, we must digitise.

Digitising is about moving from using paper or manual processes to using information technology (IT) systems.

An example of digitisation is the implementation of an Electronic Patient Record (EPR) within a hospital or a Digital Social Care Record in a care provider.

Our 47 Digital & Data Capabilities

Innovate

Integrate

Digitise

Underpinning digital and data capabilities required for integration and innovation

Data security and governance

- Single sign on (SSO)
- Security: network & cyber
- Identity and access mgmt.
- Information governance

Core clinical systems

- Electronic Patient Record
- Specialist systems
- Order comms
- Multi-resource scheduling
- e-referals
- e-prescribing and prescribing
- Patient Administration System
- Imaging
- Laboratory Information Management Systen

Data ecosystem and analytics

- Data warehouse & data Lake
- Analytics and reporting models and tools
- Collecting and managing multisource data

Support services

- System for communication (any type)
- IT service mgmt.
- Asset mgt. & tracking

Digital infrastructure

- Unified communications (email, phone, smart device)
- Networking (WAN/LAN/WiFi/Beacons)
- Minimum standards for computers (PC, Laptop, VID)
- Network estates (incl. cloud)

Integrate

In order to deliver our ambitions, we must integrate, enabled by integrated digital capabilities.

Integration is about surfacing the right information at the right time to the right people in the right place, to deliver care centred around the individual. This includes integrating digital tools that underpin services as well as connecting citizens with health and care professionals.

As an important example, the GM Care Record is our ICS-wide integrated shared care record, with data visible from all care settings to support day-to-day clinical decision making, key innovations and secondary uses. Having understood the reasons for and barriers to usage, we are now investing to realise the potential of this digital asset, deploying access to Community Pharmacy and independent social care providers - with targeted training across the ICS and technical enhancements for staff in each care setting to use the GM Care Record as the single platform for integrated care planning.

Our 47 Digital & Data Capabilities

Innovate

Integrate

Integrated shared care record	Demand led management of capacity & scheduling	Multi channel consultations
Care coordination	System monitoring and transparency	Targeted, tailored and personalised comms
Eventing: sharing actions and alerts	Supply chain automation	Digital front door and navigation
Integration engine	Connected Workforce	AI enabled self help triage
Internal / external API	Robotic process automation	Health record accessed by citizen
Healthcare interoperability standards	Real time staff, patient, equipment tracking	Booking appointments across settings of care

Digitise

Spotlight: Using data to support integration

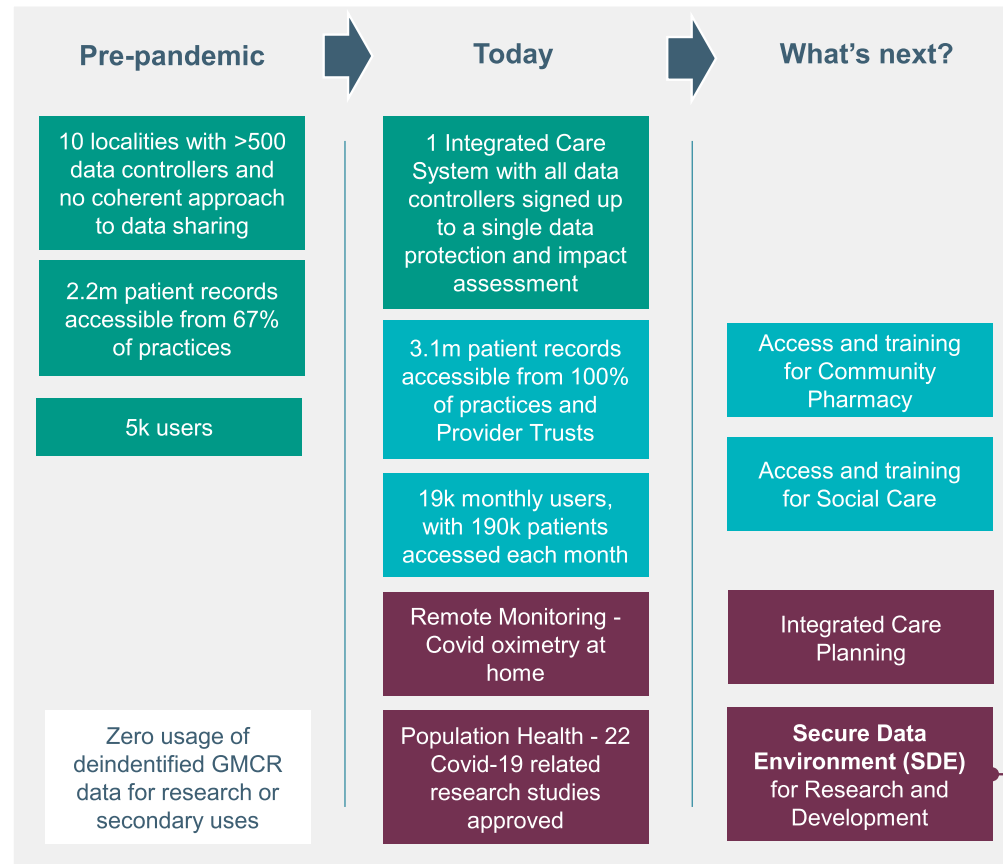| Integrated Shared Care Record: **GM Care Record** | Understand & predict population health needs – via the **GM Secure Data Environment** |

The GM Care Record joins up data from across GM's health and care organisations and gives frontline staff access to vital patient information to enable more informed care for our citizens.

Since its launch, the GMCR is now being accessed by over 19k frontline workers to support the care of over 190k patients each month. It has become a major digital asset for GM, with the potential to support programmes to tackle health inequalities and to transform care in areas such as dementia, frailty, virtual wards and heart failure.

During the pandemic and thanks to close collaboration between the GM clinical-academic community, health and care partners and citizens, 22 COVID-19 related research studies using de-identified data from the GMCR were approved to understand the impact on the communities of Greater Manchester.

All of this activity to support both direct care and research has been underpinned by engagement and strong governance across GM data controllers, providers, commissioners, and central GM bodies, to ensure patient information is used safely and securely.

Pre-pandemic

10 localities with >500 data controllers and no coherent approach to data sharing

2.2m patient records accessible from 67% of practices

5k users

Zero usage of deindentified GMCR data for research or secondary uses

Today

1 Integrated Care System with all data controllers signed up to a single data protection and impact assessment

3.1m patient records accessible from 100% of practices and Provider Trusts

19k monthly users, with 190k patients accessed each month

Remote Monitoring - Covid oximetry at home

Population Health - 22 Covid-19 related research studies approved

What's next?

Access and training for Community Pharmacy

Access and training for Social Care

Integrated Care Planning

Secure Data Environment (SDE) for Research and Development

What is a Secure Data Environment?

SDEs are highly secure computing environments that provide access to health data to use in health and care research. Greater Manchester's SDE is in development, accelerating the sharing of health data to support research and innovation.

Utilising primary care and secondary care data from the GM Care Record, we are developing the SDE and attracting inward investment from life sciences and tech partners. It is supported by significant information governance arrangements (with 500+ data controllers across the city region) and extensive citizen engagement with the public embedded in decision-making.

GM's SDE will provide the infrastructure and analytical tools for artificial intelligence (AI) development, clinical trials, real world studies, translational research, epidemiological studies and health systems research here in GM for the benefit of our citizens.

GM also led on the successful 'Expression of Interest' for the establishment of a North West SDE with a total population of 7.8m. The North West SDE is the only SDE to align to an entire NHS region.

Innovate

To deliver our ambitions, we must innovate, building on the digitised and integrated capabilities, where care settings and places are ready.

We will develop and deploy proven innovations to improve people's health and wellbeing, building partnerships between health, care, academia and industry. Our approach to digital innovation will scan for and deploy key innovations. We will do this on a thematic basis – for example the use of secure multi-source population level data to enable planning and intervention; personalised care informed by genomics; AI to support new care models; wearable technology to monitor clinical status and response.

Health innovation is one of Greater Manchester's frontier industrial sectors. By working at the leading edge of digital transformation we will test and develop new products and services in collaboration with industry that use data and technology to improve standards of care and empower people to have greater control of their own health and wellbeing.

Our 47 Digital & Data Capabilities

Health Innovation Manchester

Through Health Innovation Manchester's innovation pipeline, we will create a dynamic ecosystem where we harness people's creativity to find new solutions, test and refine new digital products and services to either fail fast or demonstrate value, and then scale up proven solutions at pace across Greater Manchester.

We have a large clinical-academic community and four Universities to conduct research and studies into new medicines, tests, treatments, technology and procedures, which is how the NHS continually evolves to provide the best care possible.

Innovate

New models of care

NHS at Home / Remote Monitoring

Personalised care apps

Understand and predict population health need

Decide and design care interventions

Research data

Innovation hub

Integrate

Digitise

Spotlight: Innovate

Design and develop virtual wards across Greater Manchester

Virtual wards are a new model of care designed to provide hospital-level care to people in their own homes or place of residence, enabled by technology.

GM providers are now working together to deliver 1,110 virtual beds across the system using technology to monitor patients' conditions at home, so they don't need to be in hospital.

Not only does this model support the NHS to operate more efficiently, it enables the patient to recovery safely in the comfort of their own home with loved ones, supported by health and care staff.

Patients have said recovering at home has mental health benefits too, with reports of feeling less anxious compared to being on a busy hospital ward.

They have the added reassurance that the technology is monitoring their health and providing regular feedback to clinical teams who can spot signs of deterioration and intervene promptly.

Novel cholesterol lowering drug to help prevent stroke or heart attack

900 GM patients took part in a pioneering study to better understand how a new medication should be effectively administered to patients in a 'real world' setting for maximum results.

Inclisiran is a new cholesterol-lowering injection to treat people with persistently high cholesterol despite standard treatment with statins. It can help prevent stroke or heart attack.

20 GP practices took part in the study which uses research to identify the best ways to speed up adoption and spread across the NHS. It aimed to support reducing the time it takes to bring new medicines into practice to benefit patients.

The study was underpinned by utilising digital technologies to find and recruit potential participants, track the patient journey and provide real-time monitoring.

GM is one of only a few places globally where this sort of digitally-first study is feasible due to its advances in tech, data science, integrated care and academia.

Physical health checks for people with severe mental illness

GP practices in Greater Manchester have implemented a novel point of care testing project to improve physical health checks for people with severe mental illness.

This is traditionally an area with low levels of uptake, with only 25% of eligible people having an annual health check.

In collaboration with a technology partner, GP practices have tested new ways of delivering health checks including health promotion days, lead practice models and greater coordination through primary care networks.

Thanks to the introduction of this novel tech-enabled approach, one primary care network in Oldham is now achieving 60% of eligible patients with a severe mental illness have now received an appropriate health check.

This not only improves their overall access and experience of health care, it identifies risk factors to enable earlier treatment.
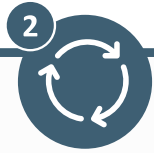
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We deliver **integrated**, **coordinated** and **safe** care to citizens.

2

We enable staff and services to **operate efficiently** and productively.

3

We **empower citizens** to manage their health and care needs.

4

We understand and plan for **population health** needs.

5

We accelerate **research and innovation**, as a global exemplar.

Innovate

New models of care

NHS at Home / Remote Monitoring

Personalised care apps

Understand and predict population health need

Decide and design care interventions

Research data

Innovation hub

Integrate

Integrated shared care record

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Healthcare interoperability standards

Demand led management of capacity & scheduling

System monitoring and transparency

Supply chain automation

Connected Workforce

Robotic process automation

Real time staff, patient, equipment tracking

Multi channel consultations

Targeted, tailored and personalised comms

Digital front door and navigation

AI enabled self help triage

Health record accessed by citizen

Booking appointments across settings of care

Our 47 Digital & Data Capabilities

Digitise

Underpinning digital and data capabilities required for integration and innovation

Data security and governance

Single sign on (SSO)

Security: network & cyber

Identity and access mgmt.

Information governance

Core clinical systems

Electronic Patient Record

Specialist systems

Order comms

Multi-resource scheduling

e-referals

e-prescribing and prescribing

Patient Administration System

Imaging

Laboratory Information Management Systen

Data ecosystem and analytics

Data warehouse & data Lake

Analytics and reporting models and tools

Collecting and managing multisource data

Support services

System for communication (any type)

IT service mgmt.

Asset mgt. & tracking

Digital infrastructure

Unified communications (email, phone, smart device)

Networking (WAN/LAN/WiFi/Beacons)

Minimum standards for computers (PC, Laptop, VID)

Network estates (incl. cloud)

Investment

We understand our digital maturity per capability in individual organisations and care settings, and have identified which capabilities require investment to support providers to improve care. We can now better understand where to invest and how much it will cost – not only to buy the technical systems, but to deliver true transformation taking into account the people, process and cultural changes required that reflects the actual total cost of ownership.

At the GM level, financial baselining helps colleagues in provider organisations to collaborate and agree when funding opportunities arise which organisations are most in need. We can focus upon 'levelling up' organisations and care settings who are less mature, to ensure that we are not exacerbating existing inequalities by investment decisions.

Funding flows and approaches vary in each sector, so we work collaboratively as an ICS to maximise opportunities to secure funding from NHSE and other national and local partners for the places that need it most.

Transformation investment required to improve the maturity of our digital capabilities to reach our goals for next 3 years

Funding secured

£430m

£300m

£70-160m

£29m

£10m

£5m

£2.5m

General Practice & PCNs

Social Care

Secondary Care and Mental Health

Community Care

OUR METHOD

Strategic inputs

↓

Understanding our population and the problems experienced

↓

Defining our ambitions and how we can achieve them

↓

Financial baselining

↓

Balanced portfolio for the ICS

Our Delivery Priorities

Priority capabilities identified…

…in all services in our integrated care system

We have engaged in multiple service areas (including maternity, cancer, elderly, elective and urgent and emergency care) to understand the problems experienced by citizens and staff, and explored the opportunities for improvement which digital can help solve. Across all service areas in our ICS, we have identified these priority capabilities for investment.

Understand and predict population health needs	We want to gain insights on our population health need from historical and current data - to drive action at the commissioning, clinical and organisational levels.
Integrated Shared Care Record	We want to provide frontline staff with access to vital patient information from other care settings, supporting daily decision making and transitions of care.
Health record accessed by citizen	We want to support conditions for self-care and trust by providing citizens with access to their health records and care plans.
Proactive alerts and remote monitoring	With up-to-date single records of citizen personal circumstances and preferences, we want to drive translation or adaptation of all communications.
Integrated Care Planning	Sharing information between care professionals - clinical plans, events, actions and alerts. An ability to drive actions at the interventions to drive action at the clinical, organisational and commissioning levels.

…in our care settings

Engagement in each of our care settings have surfaced priority digital and data capabilities, and focused on those capabilities for which we are below foundational requirements of digital maturity. The priorities differ based on where each care setting is on their digital transformation journey.

General Practice	Secondary Care	Mental Health	Community Care	Social Care
Connected Workforce				
Integrated Shared Care Record				
Digital front door and navigation	Health record accessed by citizen			
Unified comms	Laboratory Information Management System			Information Governance
	Multi-resource scheduling	Analytics and reporting models and tools	Minimum standards for computers	
	Security – Cyber and Network	Networking		
	Electronic Patient Record			Digital Social Care Record

OUR METHOD

- Strategic inputs
- Understanding our population and the problems experienced
- Defining our ambitions and how we can achieve them
- Financial baselining
- Balanced portfolio for the ICS

INNOVATE
INTEGRATE
DIGITISE

Our responsibilities across partners

This approach will enable us to identify common methods and develop shared learning, whilst working across differences in digital maturity to give patient benefit

Within individual Providers

Across the ICS

There are particular strategies, functions and capabilities that are owned and delivered at a Provider level, aligned to local operational models and to current organisational digital maturity.

Our delivery functions, coordinated across partners

*We must coordinate **common functions** across the ICS where appropriate*

There are particular strategies, functions and capabilities that we coordinate at the ICS level, in order to maximise the value for standardisation, efficiency/avoidance of duplication and cost savings – to deliver benefits at scale.

Example Provider strategies

- Digitisation
- Digital product procurements

- Strategy and portfolio management
- Clinical digital leadership
- Technical architecture
- Information Technology engineering and support
- Data architecture
- Data engineering
- Information Governance
- Cyber Security
- Digital clinical safety
- Data quality
- User design
- Supplier and commercial management
- Programme and project management
- Business analysis and business change
- Benefits analysis and management

Example ICS strategies

- Digital workforce
- Digital inclusion
- Health record accessed by citizen

Example functions

- Project management
- Functionality prioritisation
- IT service management

Example Digital & Data Capabilities

- Electronic Patient Record / Digital Social Care Record/ Specialist System implementations

Example functions

- Bid coordination
- Innovation pipeline
- Sharing learning
- Scaling proven technology

Example Digital & Data Capabilities

- Shared Care Record
- Understand and predict population health needs
- New models of care

2023 **2024 - 2025** **2025 - 2026** **2026 - 2027**

Digitally enabled integrated care planning used in further pathways and scale

Integrated, coordinated and safe care

Increased use of shared care record across all care settings

Digital front door to understand available tools in primary care

Shared visibility for appointment booking supported across organisations for some pathways

Remote monitoring of long term conditions supporting patients in some pathways

Activities in all organisations across the ICS are critical to ensure GM achieves these collective ambitions

Improve access to digital skills development for workforce

Increase uptake of Digital Social Care Records by care providers in GM

Improvements to hardware and networking in community and social care

Dashboards in use to support staff and inform patient care

85% Trusts live with EPR meeting MDF core

Patients can contribute to self management through care records

Routine use of healthcare data which is routinely collected through digital tools to inform research and implement findings into service through industry and academic partnerships

60% Trusts live with EPR meeting MDF core

Technology supported virtual ward care to support citizens to get better care at home in some pathways

Operate efficiently and productively

Development of clinical digital leadership roles

Patients able to manage appointments digitally

Patients can access their care records in GM

Health data available in Secure Environment and used to inform Population Health Management

Prescribed digital care tools available to patients in some pathways

Patients contributing to health records in example use cases

Dashboard in use to improve medicine safety

Deploy case finding tools in General Practice

Digitally enabled integrated care planning across organisations tested in exemplar pathways

Legend:
- **DIGITISE**
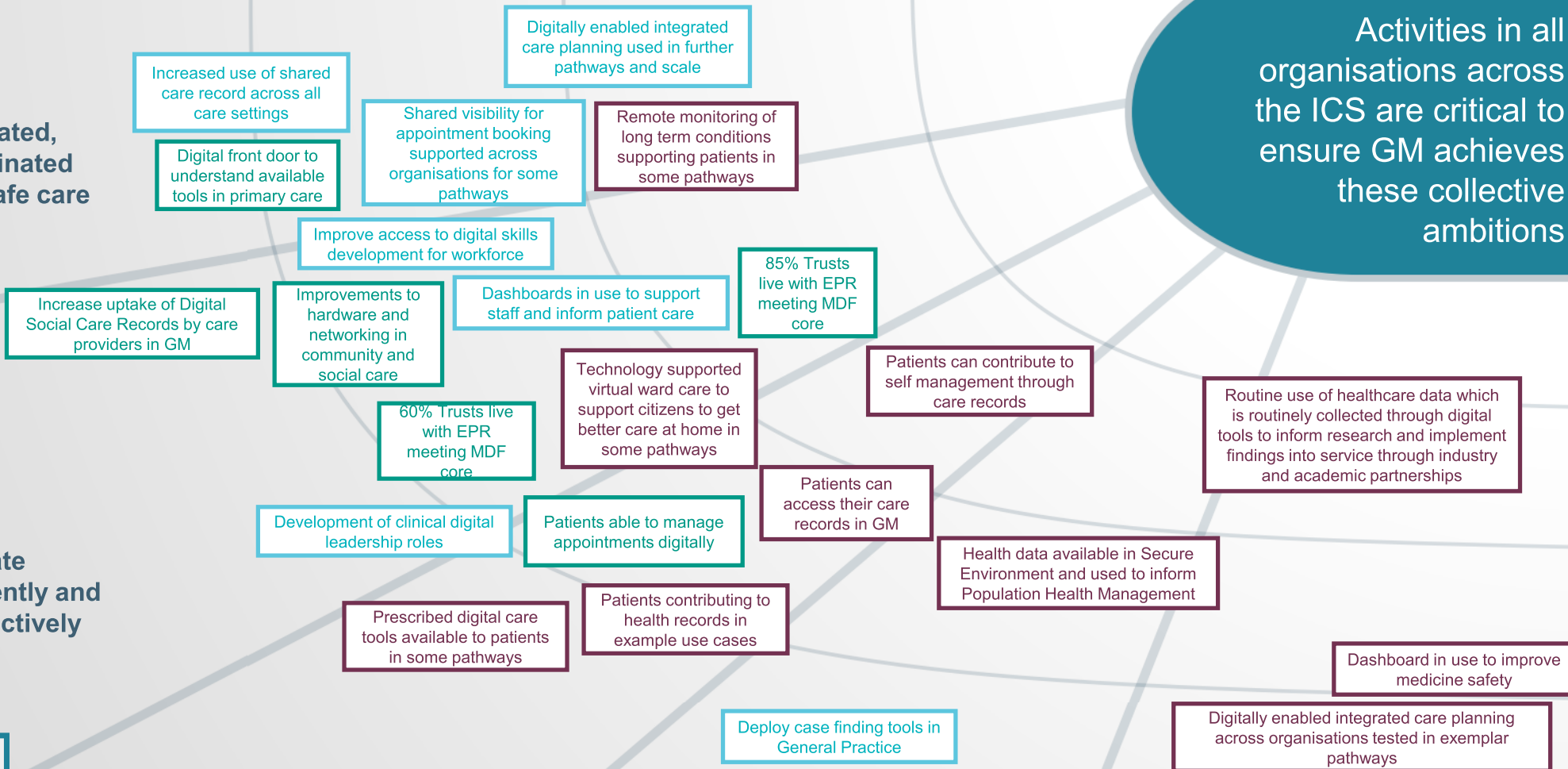- **INTEGRATE**
- **INNOVATE**

Empower citizens

Understand and plan for population health needs

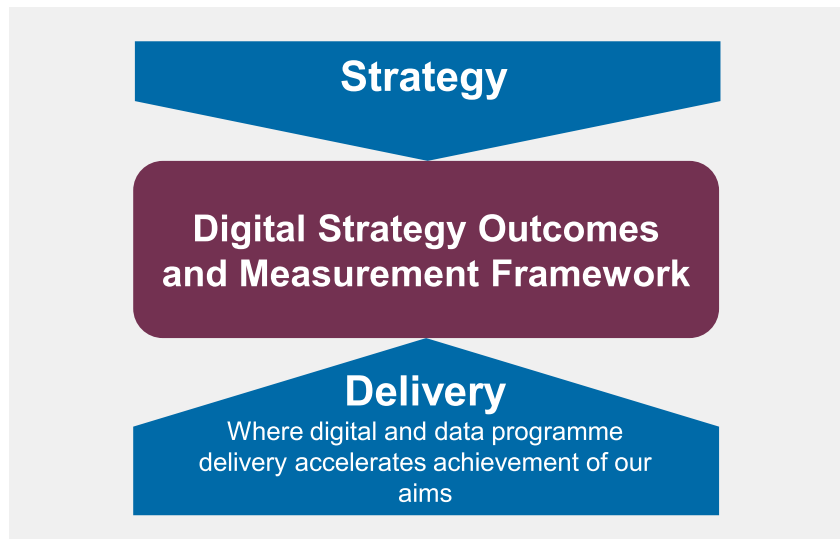**Accelerate research and innovation**

Measuring success & benefits management

This strategy will be supported by a co-developed measurement and outcomes framework that will be used to track progress towards achievement of our priorities and demonstrate accountability and collective ownership for the delivery of our ambitions.

The framework will bring together key outcome measures relating to the five priorities across digitise, integrate and innovate and our overall achieving our digital maturity ambition – together with programme level benefits realisation to demonstrate the contribution of digital to improving outcomes across the city-region.

Alongside measuring progress towards our overall aims the measurement framework will also focus on how we are addressing inequalities.

Strategy

Digital Strategy Outcomes and Measurement Framework

Delivery
Where digital and data programme delivery accelerates achievement of our aims

Benefits management is critical for ensuring that public funds are spent on evidence-based, benefits-led activity, ensuring the greatest possible benefit to citizens and staff.

Benefits management begins during programme definition with the identification of target benefits through performance improvements and then continues to deliver the benefits as an integral part of implementing the required business change.

Health Innovation Manchester has nationally-recognised expertise in benefits management, supporting ICSs through the Innovation Collaborative for Digital Health. The responsibility for benefits management usually sits with the organisation accountable for delivery.

Our benefits classifications are as follows:

Fiscal

- **Cash-releasing benefits** – these are benefits that bring revenue to health and social care bodies or reduce their cost. The latter in such a way that there is a budget reduction related to the benefit.

- **Non-cash releasing benefits** - these are benefits that realise an improved input to output ratio, but do not realise money from budgets, such as doing more with the same funding and a reallocation of existing resources.

Economic

- **Public Benefits** – these are benefits realized outside government to individuals, communities and the national economy and which can be monetised, including economic growth.

Social

- **Quality Benefits** – benefits that have value that can be quantified but not monetized, such as improved outcomes, safety, access, satisfaction or quality of life

- **Qualitative Benefits** – benefits which cannot be quantified or monetized and are often recorded through narrative or case studies

GM Health and Care Digital Governance

GM Integrated Care Joint Planning and Delivery Committee

The Digital Transformation Board is purposed to harness the power of digital technology to improve health outcomes for citizens and transform care, and to strengthen GM's position as a world leader in digital health and innovation.

GM Health and Care Digital Transformation Board

Other strategic ICB and ICS-wide fora, including GMCA

Locality Boards

The Digital Delivery Executive brings together digital representatives as the 'engine room' for the work overseen by the DTB.

GM Health and Care Digital Delivery Executive

Digital Transformation Office

NHS GM data, analytics and intelligence

NHS GM Digital and IT

Provider Digital

Groups in each professional discipline in each care setting
- Clinical and clinical safety
- Finance
- Technical architecture
- Information governance

These professional discipline groups advise on strategy and are consulted to shape and guide delivery programmes.

Delivery programmes & care setting governance, including public representation

Programmes leveraging digital transformation monies are accountable, through defined and representative governance structures, to the DTB as required.

Appendix:
Priorities in each care setting

Primary Care: General Practice (GP)

Background

Practices and Primary Care Networks have been on accelerated journey of deployment of digital tools from the start of the COVID-19 pandemic.

Digitisation in General Practice broadly meets foundational requirements. However, there remain outstanding challenges to optimise the use of the digital technology in practice to meet the above outcomes. This involves a focus on workforce and connecting existing systems to truly integrate care across care settings.

Practices and PCNs are facing more aggregate demand and an increase in non-patient-facing workload. Some have not adapted their ways of working to meet this increased demand, with some reverting to old processes.

Significant business change is required in order to manage demand and capacity efficiently with digital tools, delivering an effective digital 'front door' for patients, alongside traditional routes, into the practice – all to support the best possible experience and outcomes for patients.

Problems for health and care professionals and citizens – providing opportunities for improvement

- Patients understand the benefits that digital can bring, but there is a lack of trust and confidence in digital GP services. Some patients feel forced to use the digital tools and anxious if unable to speak to someone

- There is poor awareness of online services and how to use them.

- There is confusion between GP websites, 3rd party tools and NHS App. Patients struggle due to complicated instructions on websites and 3rd party tools (and for those without English as a first language, online translations can be poor)

- Practice and PCN staff are not always confident or comfortable in using the digital tools.

Priority capabilities

Robotic Process Automation	By automating processes that require reduced human intervention, we capture and interpret data, processing low risk and repetitive transactions in larger volumes more quickly, following defined instructions and criteria. RPA can also support decision making performed by clinicians.
Workforce	Developing the primary care workforce in their digital skills and confidence is critical to transforming patient and staff experiences as well as patient care. We are recruiting and training digital facilitators and digital champions in practices and PCNs.
Integrated Shared Care Record	Realising the potential of the GM Care Record in General Practice is key for providing integrated care. We are providing training for GP staff and deploying access to Community Pharmacy, supporting adoption of the GMCR as the single platform for multi-agency integrated care planning, enabling staff in each care setting to make informed decisions and tailor care appropriately.
Digital front door and navigation	Supporting practices and PCNs to manage their demand by providing consistent and easy-to-navigate access for patients, underpinned by usability and accessibility standards.
Unified Comms	Cloud-based telephony functionality for practices will help them offer a more pragmatic service and facilitating PCN hub delivery both in hours and out of hours.

Secondary Care: Acute and Specialist Services

Background

There are six acute providers across Greater Manchester, with one specialist and two mental health providers. This page is focused on hospital services.

Each Provider has identified its own priority capabilities for investment – which vary by organisation, partly due to differences in digital maturity. The priority capabilities are those for which at least half of our provider organisations are below foundational or are being invested in across most providers.

Hospitals are under significant financial deficits and operational pressures, whilst in recovery from the COVID pandemic.

The complexity and scale of scope for change programmes is huge, impacting hundreds of thousands of staff - requiring senior ownership of problems, solutions and change programmes. Spending and investment is fragmented and often reactive to national calls, rather than well prioritised to maximise the value of spend across the system. There is significant deficit and risk in the system.

Problems for health and care professionals and citizens - providing opportunities for improvement

- Multiple staff members have to collect patient history – the documentation burden is significant with multiple unintegrated systems and patients have to repeat themselves

- Some patients do not need to be seen by A&E and could be directed to specialists sooner

- Patients might not be informed of results

- There is limited coordination of appointment scheduling and patient support

- Information on patient access to out of hours services are not always available

- There can be confusion about what to do when something goes wrong due to speaking with so many professionals

- Staying in hospital after patients could be discharged reduces patient satisfaction and risks infection and deterioration.

Priority capabilities

NHS at Home / Remote Monitoring	Virtual wards are a new model of care designed to provide hospital-level care to people in their own homes or place of residence, enabled by technology.
Integrated Shared Care Record	The GM Care Record (GMCR) provides frontline staff with access to vital patient information from other care settings. GM's approach to optimise clinical delivery across EPR boundaries is through interoperability via the GMCR. Organistions are committed to providing data into the analytics platform through standard APIs.
Health Record Accessed by Citizen	Support conditions for self-care and trust by providing patients with access to their health records, appointments, correspondance and care plans.
Electronic Patient Record (EPR)	In accordance with NHSE requirements, GM Provider Trusts are working towards meeting the Minimum Digital Foundations by the end of 2025, across all their hospital sites.Convergence of EPRs in GM follows convergence of clinical operating models.
Laboratory Information Management System	GM Imaging and Pathology Network overseeing progress in this area to enhance and standardise as far as possible LIMS provision across GM Provider Trusts.
Cyber Security	Trusts are progressing their own Cyber capabilities and forming inter-Provider groups focusing on Cyber

INNOVATE
INTEGRATE
DIGITISE

Secondary Care: Mental Health Services

Background

Mental Health services, for children, young people, adults and the elderly, are delivered across multiple care settings and organisational boundaries. In GM there are 2 Mental Health Provider Trusts; Pennine Care and Greater Manchester Mental Health, which provide Acute and Community Services and the majority of MH services are delivered in Primary care Care delivered in a shared way across care setting and organisational boundaries, with VCSE sector and social care being key partners in delivery of MH services.

Providers have varied levels of core digitisation – both FTs are working towards core minimum digital foundation requirements for EPR and networking infrastructure to support this is a key enabler.

GM have made progress in provision of digital tools to support MH patients deployed within GM. Fundamental risk factors for mental health patients are related to social challenges, and physical health is evidenced to be worse for patients with SMI.

Problems for health and care professionals and citizens - providing opportunities for improvement

- Data flows between care settings and providers is limited, particularly important for services being delivered across ICS boundaries

- Mixed levels of digital literacy

- Sharing of data across organisations and care settings

- Digital maturity impacts what can be delivered

- Transparent pathways for digital innovations, focus on solution rather than problem

- Variable access to care

- Low ability to self manage care

- Citizens want to feel confident that physical and mental health professionals are making joined up decisions about my care and have access to my information

- Availability of skilled workforce is an ongoing challenge as in other care setting

Priority capabilities

Reporting and Analytics Tools	The ability to share information and data across care settings and organisations to support reporting and analytics as well as care
Integrated Shared Care Record	Sharing of information across organisations is a key digital priority, through integrated tools including shared care records. The GM Care Record (GMCR) provides frontline staff with access to vital patient information from other care settings.
Health Record Accessed by Citizen	Support conditions for self-care and trust by providing patients with access to their health records, appointments, correspondance and care plans.

Networking	Improvement of network infrastructure (e.g. WAN/LAN/WIFI) to ensure staff can access live digital systems
Electronic Patient Record	In accordance with NHSE requirements, GM Provider Trusts are working towards meeting the Minimum Digital Foundations by the end of 2025, across all their hospital sites. Data must be structured and accessible.
E-prescribing and dispensing	Electronic management of medications processes, interoperability across care settings

Community Care

Background

Community services are key part of integrated system, encompassing adult and children's services, community nursing, specialist teams, rapid response and therapies. Integrated care that's centred around the individual relies on community provision and the interactions between community and all other settings are crucial for decision making.

Deliver continuity of care across different members of staff and services, including between care settings, is critical for improving the impact and experiences of community care.

Limited historic Provider-led investment and Community-specific national digital funding has resulted in lower digital maturity in community care, even compared to other parts of the same Provider.

Provider organisations are responsible for ensuring that foundational requirements are met, and the priority capabilities highlight key areas for improvement for targeting the core outcomes above across GM. The costs, technical complexity and extent of operational transformation required to deliver these solutions is significant.

Problems for health and care professionals and citizens - providing opportunities for improvement

- Low digital maturity for underlying digital capabilities

- Existing digital tools that are not tailored for use in Community services

- Existing connectivity issues result in staff's lack of visibility to up-to-date records (both within Community and in other care settings)

- Lack of awareness for staff and citizens for referral processes

- Citizens' lack of felt involvement in care

- Citizens and staff being 'stuck' when the technology doesn't work for them – or confused by the possibilities

- Staff's lower levels of digital literacy

Priority capabilities

Integrated Shared Care Record	The GM Care Record (GMCR) provides frontline staff with access to vital patient information from other care settings. GM's approach to optimise clinical delivery across geographical and care setting boundaries is through use of the GMCR.
Workforce	Building digital confidence in this part of our workforce is critical who are constantly mobile and moving around locations.

Computers that meet minimum standards	Reliable and portable devices suitable for staff in line with recognised minimum standards
Networking	Improvement of network infrastructure (e.g. WAN/LAN/WIFI) to ensure staff can access live digital systems
Electronic Patient Records (EPR)	EPRs that are aligned to community requirements (rather than hospital- or primary care-based requirements) including with features which are tailored to needs of community staff, including offline mode, process tailoring, real-time updates or just-in-time lookups

INNOVATE
INTEGRATE
DIGITISE

Social Care

INNOVATE
INTEGRATE
DIGITISE

Background

80% of adult social care provision is provided by ~700 independent providers. Provision comprises a variety of residential based care and support such as care homes, supported living, extra care, nursing homes etc. and care at home. Size, budgets, demographics, infrastructure and ambitions of all these providers will vary.

The market composition amongst the providers (a mix of larger chains and smaller providers) is a challenge to adoption of any change programme. There are also numerous voluntary organisations who play a crucial role within the sector, providing a number of invaluable services and often developing insight and knowledge of individuals far beyond what may be recorded by a provider or Local Authority. Unpaid carers also play a hugely significant role in the provision of care and support across the sector. These individuals are often missed or invisible in care statistics, but without their contribution the social care system would be unmanageably stretched.

Digital maturity of the sector is lower than others, and is dominated by the independent investment decisions made by independent care providers. The sector is under-equipped for capacity and demand management.

Problems for care workers (paid and unpaid) & citizens - providing opportunities for improvement

- Lack of change management capacity and capability in provider organisations

- Lack of system wide view of the individual in the care system, systems and partners operate in silos

- Relationships between individuals are far too often the main determiner of the quality of information shared

- Data flows from health to social care are sporadic in quality

- Lack of trust in digital solutions and information systems prevents effective sharing of information. Consequently, this results in poorly coordinated patterns of care

Priority capabilities

Integrated Shared Care Record	The GM Care Record (GMCR) provides frontline staff with access to vital patient information from other care settings. We must provide access to independent care providers, and particular use cases and approaches are being explored.
Technology enabled care	Digital technology which provides guidance or tracks individuals' symptoms to facilitate self management or inform clinical decision making.

Networking	Investment would lead to updated hardware to provide reliable and portable devices suitable for staff in line with recognised minimum standards, to ensure foundational level of maturity is met
Information Governance	All care providers must have sufficient Information Governance, assured by completion of the national Data Security and Protection Toolkit.
Computers that meet minimum standards	Investment would lead to updated hardware to provide reliable and portable devices suitable for staff in line with recognised minimum standards
Digital Social Care Record	All care providers should be using a digital social care record, rather than paper-based processes.

Pharmacy, across care settings

Background

Pharmacy in GM is made up of three major elements:
- PCN Pharmacy – including Clinical Pharmacists based within practices or across PCNs, delivering core and enhanced services
- Hospital Pharmacy – covering both inpatient and outpatient prescribing, providing pharmaceutical care for patients across both planned and unplanned care
- Community Pharmacy – often situated in high street locations, in neighbourhood centres or supermarkets, providing not only dispensing activity but an increasing range of additional healthy living and public health services

Leaders in the above settings have highlighted the role of digital transformation for optimising efficiency and value from medicine and improving medicines safety and reducing adverse events – in addition to the core ambitions.

The costs, technical complexity and extent of operational transformation required to deliver some of the solutions is significant. Some of the solutions depend on national capabilities, programmes and roadmaps – particularly in relation to medicines data and interoperability standards.

Problems for health and care professionals and citizens - providing opportunities for improvement

- Staff have limited visibility to data for direct care and commissioning purposes, and what is available has to be found in multiple systems

- Staff have to manually re-key in data relating to prescriptions from discharge summaries into EPRs

- Sharing of shared care protocol information is inconsistent and can lead to confusion.

- Copying and administration errors are possible

- Citizens receive disjointed dispensing instructions

- Citizens can't collect medications after discharge from chosen Community Pharmacy

Priority capabilities

Healthcare interoperability standards	Application of emerging national healthcare interoperability standards
Integrated Shared Care Record	Providing access to and training for the GM Care Record in community pharmacy, hospital pharmacy and hospital-based pharmacy.
Care Coordination	Enabling sharing of the shared care protocol document from Secondary Care to Primary Care.
e-prescribing and dispensing	Electronic Prescribing and Medicines Administration with closed loop, drug cupboards and barcoding.

Further
information

Further information

Topic	Contact point
• NHS GM Integrated Care digital delivery portfolio	gmhscp.digitalandit@nhs.net
• General queries, including for the GM digital delivery executive • Health Innovation Manchester digital delivery portfolio • GM Digital Maturity & Investment Framework • ICS Digital Workforce Strategy • ICS Digital Inclusion Strategy	gmdigital@healthinnovationmanchester.com
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