

Digital and Innovation Strategy

2023 - 2028



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Glossary

- **AHSN:** Academic Health and Science network. Our AHSN is called Health Innovation Manchester (HInM).
- **AI:** Artificial Intelligence.
- **C&M:** Cheshire and Merseyside Cancer Alliance.
- **EPR:** Electronic Patient Record – used interchangeably with EHR electronic health record. Each NHS organisation has its own EPR to manage the records of patients under their care.
- **GM:** Greater Manchester - The Greater Manchester Cancer Alliance covers the footprint of Greater Manchester ICS and patient flows from neighbouring alliances, chiefly East Cheshire and Mid Cheshire.
- **GMCR:** Greater Manchester Care record – a central repository of care plans, test results, medications, history and correspondence etc, to support cancer care across organisations and in the community.
- **HEE:** Health Education England.
- **HInM:** Health Innovation Manchester – our Academic Health Science Network, Working at the forefront of healthcare innovation to discover, develop & deploy new healthcare solutions at pace & scale.
- **ICS:** Integrated Care System and ICB Integrated Care Board. – The core purposes of the GM ICS are:
a) to improve outcomes in population health and healthcare
b) to tackle inequalities in outcomes, experience and access
c) to enhance productivity and value for money
d) to help the NHS support broader social and economic development.
- **L&C:** Lancashire and South Cumbria Cancer Alliance.
- **MAHSC:** Manchester Academic Health Science Centre
- **NICE:** National Institute for Clinical Excellence – NICE ensure health interventions are both effective and affordable.
- **NIHR:** National Institute for Health Research.
- **PID:** Project Initiation Document.
- **PSFU:** Personalised Stratified Follow-up – a system to ensure each patient has tailored follow up investigations, and assessments after treatment, accessible by the patient, hospital and community.
- **SDE:** Secure Data Environment - provides approved researchers with access to essential linked, de-identified health data.
- **SQD:** Single Queue Diagnostics – A system to coordinate investigations along a care pathway involving multiple organisations, minimising delays and inequalities in access to patient investigations.
- **WGLL:** What Good Looks Like – a NHS framework for digital transformation with Citizen empowerment at its centre.

Foreword

There is an ever increasing need in the NHS and Cancer to tap into digital and innovation solutions more than ever before.

This Digital and Innovation Strategy focusses on harnessing latest technologies and empowering our staff working with partners across cancer pathways delivering evidence driven improvements with the patient at the heart of everything we do.

This five year plan will embed a digital and innovative culture to ensure our core activities as a Cancer Alliance remain fit for the future, and most importantly enable us to continue to deliver the best services for our patients.



Dave Shackley,
Clinical Director.



Claire O'Rourke,
Managing Director.



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Digital & Innovation Clinical Lead.





Executive Summary

As a Cancer Alliance we want more people than ever to reduce their risk of developing cancer. Within both primary and secondary care we want to improve survival outcomes, experiences through earlier diagnosis, access to better treatment and support people to live well with and beyond cancer. This can be influenced through empowering our workforce and providing personalised care for all our population.

In addition, digital technologies can be a catalyst to service and workforce improvement transforming the way we deliver cancer care. The aim of this strategy is to promote these innovations, supporting our teams and partners to evaluate and pilot potential solutions, providing leadership on key digital projects, and enhancing our use of data for research and clinical outcomes.

Our patients are central to our purpose and our patient representatives have highlighted the areas that are important to them throughout their care. As a Cancer Alliance we work closely with all delivery partners and help align and coordinate activities to join up our cancer care functions, consolidate our clinical systems where appropriate, and support primary care, community and trust initiatives to integrate the flow of information along the patient journey.

This strategy sets out our objectives through our **vision, strategic aims**, set of **missions** and **priorities** with enablement of digital and innovation throughout.

Vision

To maximise the opportunities of digital and innovation to enhance patient cancer care, provide earlier diagnosis, deliver the best patient experience, improve our clinical outcomes and empower and support our workforce.

Strategic Aims

To promote innovation in local and regional cancer services working with our pathway boards, NHS and industry partners.

To support the needs of the patient focusing on patient experience, digital inclusion, equity of access and equality of outcome.

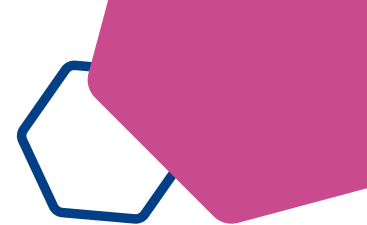
To lead GM digital initiatives that drive cancer early diagnosis and service improvement; address inequalities and improve clinical outcome.

Mission Summary

This strategy has seven cross-cutting missions which align with our core cancer programme objectives. Each mission has an associated set of priorities, longer term objectives, detailed mission success criteria and dependencies.

1. Ensure the patient, carer and workforce needs are central to digital and innovation plans and develop a patient and carer charter.
2. Maximise opportunities for funding and piloting of innovative solutions for cancer services in collaboration with our partners and industry.
3. Provide leadership and support for key GM strategic digital projects aligned to national and Cancer Alliance objectives and ambitions.
4. Promote and develop the collaborative use of real world data to support cancer research and clinical outcomes.
5. Enhance our capabilities to monitor cancer performance, pathway and project indicators, measures of inequality, progress with early cancer diagnosis and service improvement.
6. Work in collaboration with national and regional partners to promote and share best practice in digital and innovation.
7. Provide effective oversight and governance of the digital and innovation programme, maintaining safe, solid and secure foundations.





Missions in Practice

Patients & Carers



What does this mean to me?

We will ensure the views of patients and carers are central to our mission to provide you with the best patient care and experience.

We will ensure you know how and when to access services and enable you to access and contribute to your health and care record to keep you informed and actively involved throughout your diagnosis, treatment and after care.

Patients & Carers



What does this mean to me?

We will support your innovative and digital ideas to improve patient care and make providing care more seamless and efficient.

We will work with those providing your healthcare systems to help streamline referral processes and ensure you have access to your patients' electronic records and patient reported outcomes.

We will seek to identify, enhance and implement innovative solutions for education and training for you.

Patients & Carers



What does this mean to me?

We will work in collaboration with our NHS and industry partners to be at the forefront of digital and innovative cancer care.

We will work with the integrated care system and partners to help transform how digital and innovation in cancer care through our strategic cancer projects, pathway boards and patient groups.





Strategic Context

Greater Manchester Cancer Alliance

Greater Manchester Cancer Alliance is one of 21 Cancer Alliances in England, and is the Cancer Programme of the GreaterManchester Integrated Care System.

Our Cancer Alliance brings together clinical and managerial leaders from all hospital trusts and other health and social care organisations from across the entire GM System, alongside user involvement representatives and other partners, to transform the diagnosis, treatment and care for cancer patients in our area.

Cancer Alliances are a key delivery arm of the [NHS Cancer Programme](#) and is tasked with delivering the [NHS Long Term Plan](#) for Cancer including targets on early diagnosis and improved cancer survival. The annual objectives are set out in the NHS operational planning guidance.

We also collaborate with the thriving research bodies in Greater Manchester, including The Manchester Cancer Research Centre, the Cancer Research UK Manchester Institute, The University of Manchester, Health Innovation Manchester and leading research trusts including The Christie.

National Digital Policy Directives

The [What Good Looks Like \(WGLL\)](#) framework describes how arrangements across a whole ICS, including all its constituent organisations can be used to accelerate digital and data transformation. WGLL is included in the ICS design framework, the NHS Operational Planning and Contracting Guidance and A Plan for Digital Health and Social Care.

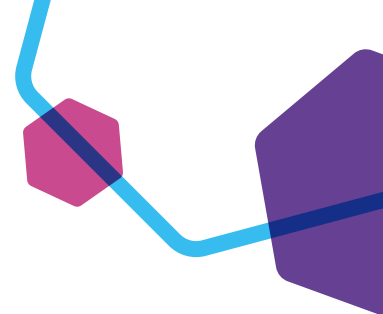
The [Data Saves Lives](#) strategy released in 2022 provides design principles for architecting and integrating systems used for clinical data outcomes and research, and strategies for accessing data through Trusted Research Environments and the NHS App. It builds the [Goldacre Review](#) on how we could make better, safer use of health data for research and analysis.

The [plan for digital health and social care](#) collates existing digital strategies, plans and guidance into one single action plan. It is aimed at health and social care leaders across the system, and industry partners to help them plan for the future - Equipping the system digitally for better care, supporting independent healthy lives, accelerating adoption of proven tech and aligning oversight with accelerating digital transformation

Programme Alignment

The following matrix will be used by the board to help enable digital and innovation alignment between the current operational planning guidance objectives and the cross-cutting missions. The list of current projects is not exhaustive.

	LTP Ambitions	Cancer Waiting Times inc FDS Backlog reduction	Increase Stage 1 & 2 Diagnosis to 75% by 2028	Increase survival, 2750 more patients in GM living with cancer beyond 5 yrs (28 > 28)	Be fully integrated with the NHS GM (ICS)	All projects will have reducing health inequalities as a core principle, as referenced in the GM Tackling Health Inequality Strategy in Cancer, and monitored through the Equality Impact Assessment process.
Mission	Mission Summary	Operational Delivery and faster Diagnosis	Early Diagnosis and Prevention	Personalised Care and Treatment	Structure	
Patient, Carer & Workforce Empowerment	1. Ensure the patient, carer and workforce needs are central to digital and innovation plans and develop a patient and carer charter.	EPR Patient Portals, SQD patient portal Utilisation of the digital staff passport.	HS & GP system Apps AccuRX patient reminders Digital education solutions including the integration of the eportfolio and primary care passport	PSFU patient portal ePROM and risk stratification direct to clinician	NHS App gateway to services. Strategic GM Patient portals	
Innovate	2. Maximise opportunities for funding and piloting of innovative solutions for cancer services in collaboration with our partners and industry.	AI Pathology for Breast & Colorectal, eDerma for skin WoundPad,	GP Clinical Decision Support Tools, Patient Trial Inclusivity, Accendo HrC Liquid Biopsy, Drive recovery through primary care and DES (Mastalgia pathway, tele-dermatology)	Digital exercise prescription, VineHealth, MyChristie-MyHealth, Social prescribing, Virtual Reality in surgical planning	Joint HInM GM Cancer Innovation pipeline. Digital education solutions.	
Digital Projects	3. Provide leadership and support for key GM strategic digital projects aligned to national and Cancer Alliance objectives.	Single Queue Diagnostics SQD,	Gateway C, Qure.AI CXR, Kieron Medical AI breast screening Lung Health Checks, ID Liver	PSFUGenomics integration LIMSEPaCCS Care Plans Digital Remote Monitoring System	Procurement plan of GM Cancer system/s for PSFU, SQFD, MDT platform. Digital enablement to support MDT reform. Wider rollout of the ePortfolio platform for the non-medical workforce	
RWD evaluations & outcomes	4. Promote and develop the collaborative use of real world data to support cancer research and clinical outcomes.	MDT outcomes data collection,	eDerma pathpoint	COSD, Prehab and EMBRaCE wearables, GAAD Liver	Gm Tableau TRE analytics platform	
Cancer Performance	5. Enhance our capabilities to monitor cancer performance, pathway and project indicators, measures of inequality and service improvement.	Further GM diagnostic imaging dataset, GM Cancer PTL	Primary care and screening uptake and analytics; Trajectory and data for 75% stage 1 and 2 by 2028	31/62/108 metrics GM Cancer PTL PSFU data	GMCR analytics and operational planning tools	
Collaborate & Share	6. Work in collaboration with national and regional partners to promote and share best practice in digital and innovation.		Cytosponge, Galleri, Colon Capsule Endoscopy, GM Innovation in Early Diagnosis	SQD Qure.AI	NHS App ePROMS GMCR Workforce digitisation.	
Governance	7. Provide effective oversight and governance of the digital and innovation programme, maintaining safe, solid and secure foundations	GM Cancer Board. PACS Imaging & Pathology Networks,	GM Cancer Early Diagnosis Programme Board, Cancer Board and SMT. Primary Care Board (GM)	PSFU Governance Board to be set up	MCR Steering Group, Clinical safety & IG CDC / RDC programme.	



Building the Strategy

Working in Collaboration - The Digital and Innovation Strategy has been developed through consultation within our Cancer Alliance and with our partners represented on our Digital & Innovation and GM Cancer Board. We would like to thank Health Innovation Manchester (HInM) and MacMillan Cancer Support for their ongoing support with our joint innovation programme. We work closely with The Christie as our Cancer Centre and have sought to align our digital and data strategies by working with The Christie Chief Information Officer (CIO) and digital clinical leads.

Our strategic digital systems project incorporating Personalised Stratified Follow-up (PSFU), Single Queue Diagnostics (SQD), and Multidisciplinary Team meetings (MDT) builds on the recommendation of commissioned reports through McKinsey and Channel 3 consulting in partnership with HInM.

In developing the strategy we have reviewed our current priorities and objectives, engaging with our Board members, senior management team, clinical leaders forum, clinical outcomes steering group, innovation steering group, research and service user patient representative group.



Digital and Innovation Strategic Partners



Patients & Carers

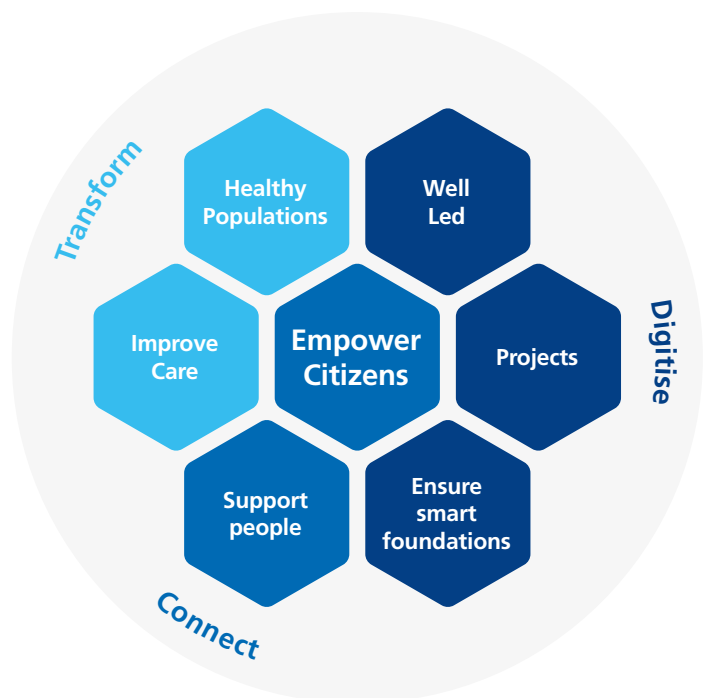
We are committed to ensuring that the voices of people affected by cancer are at the heart of service improvements. Our patient representatives help ensure our priorities are inclusive of their needs and will improve the wellbeing, care and experience for all.

- Empowerment and control back to me.
- Earlier and Faster diagnosis and more timely treatments.
- A digital interconnected patient information system with patient access.
- Improved and speedier patient communications.



The national What Good Looks Like Framework has “Empower Citizens” as it’s centre. We will work with our integrated care system (ICS) to:

- Develop a single, coherent ICS-wide strategy for citizen engagement and citizen-facing digital services that is led by and has been co-designed with citizens.
- Make consistent, ICS-wide use of national tools and services (NHS.uk, NHS login and the NHS App), supplemented by local digital services that provide a consistent and coherent user experience.
- Ensure a system-wide approach to the use of digital communication tools to enable self-service pathways such as self triage, referral, condition management, advice and guidance.
- Ensure a system-wide approach for people to access and contribute to their health and care data.
- Have a clear ICS digital inclusion strategy, incorporating initiatives to ensure digitally disempowered communities are better able to access and take advantage of digital opportunities.
- Ensure and monitor a consistent citizen offer by ICS organisations.
- Take an ICS-wide approach to access to care plans, test results, medications, history, correspondence, appointment management, screening alerts and tools.



Mission 1

Ensure the patient, carer and workforce needs are central to digital and innovation plans and develop a patient and carer charter.

<p>Mission parameters</p> <ul style="list-style-type: none"> ✓ Engage with our patient and carer representatives to ensure the patient needs are paramount. ✓ Work with our ICS to ensure an inclusive digital population offer across ICS organisations ✓ Have a clear ICS digital inclusion strategy. ✓ Alignment with the Workforce and Education Strategy ✓ Consider the digitally disempowered and how we can work towards bridging those gaps. 	<p>Why</p> <ul style="list-style-type: none"> • The Cancer Alliance is committed to ensuring that the voices of people affected by cancer are at the heart of service improvements. • We have an active user involvement programme with patient representatives on all cancer and project boards. • The NHS Long Term Plan for Cancer states that “where appropriate every person diagnosed with cancer will have access to personalised care, including needs assessment, a care plan and health and wellbeing information and support.” • The ‘What good looks like framework’ WGLL puts patient empowerment as central to the framework objectives. • Workforce and education improvements are pivotal in driving innovation forward for the benefits of the patient. 	
<p>Mission success criteria</p>		
<p>Priority</p>	<p>Within 2 years</p>	<p>Within 5 years</p>
<p>Ensure the priorities of our patient representatives are central to our missions through development of a patient charter.</p>	<p>Ensure the patient charter is considered in all GM digital and innovation projects and plans</p>	<p>Support GM cancer digital objectives that help meet LTP objectives for personalised care</p>
<p>Work collaboratively with workforce and education programme to support workforce digitisation.</p>	<p>Improve digital literacy of the workforce</p>	<p>Expand the remit of the Cancer Academy to incorporate patient and carer education.</p>
<p>Empower the population and workforce through enhanced digital communications, education and patient portals, accessibility standards and digital inclusion.</p>	<p>Implement clinical portals Increase uptake of GP and secondary care (appointment reminder) messaging projects. Achieve > 75% use of NHS App Engage with the ICS on a digital inclusion strategy.</p>	<p>Deliver Alliance objectives through digital projects including GMCR, ePaaCS, PSFU, ePROMS and incorporation of genomics markers for personalised care.</p>
<p>Indicative Initiatives</p> <ul style="list-style-type: none"> - Patient charter - Use of NHSapp as a gateway to patient services - Markers of digital inclusion - Cancer Academy 	<p>Considerations</p> <ul style="list-style-type: none"> - There are a number of competing products in this area which will require consolidation of integration to meet the strategic aims. 	
<p>Responsibility / Accountability</p>		
<p>Programme Directors of Workforce and Education, Personalised Care. Director of Early Diagnosis and Commissioning. Digital and Innovation Clinical Lead. Associate Director. Patient Representative Leads.</p>		

Mission 2

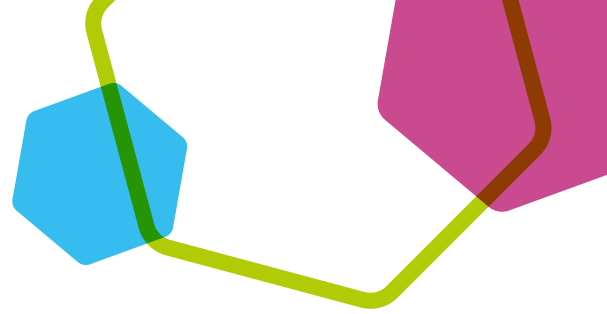
Maximise opportunities for piloting of innovative solutions for cancer services in collaboration with our partners and industry.

<p>Mission parameters</p> <ul style="list-style-type: none"> • Strategic alignment with NHS and Industrial partners. • Transparency across the system, • Co-ordination and collaboration of innovative working within: <ul style="list-style-type: none"> ✓ NHS & Primary Care ✓ Artificial Intelligence ✓ Research / Patient Trials ✓ Education & Workforce 	<p>Why</p> <ul style="list-style-type: none"> • Our Cancer system needs to embrace innovative change in order to overcome the challenges within our patient population. GM is evidenced as encompassing some of the most socially and economic deprived localities. Our waiting lists continue to increase. We have a ageing and growing population with complexities of multimorbidity. • Our workforce is limited therefore we need to investigate innovative opportunities to maximise the resource we have and educate efficiently. • Financial challenges are more pronounced with COVID-19 recovery, and turbulent political & environmental pressures. 	
<p>Mission success criteria</p>		
<p>Priority</p>	<p>Within 2 years</p>	<p>Within 5 years</p>
<p>Work in partnership with a range of partners across the health and care system, industry, and academia to maximise opportunities for collaboration and funding.</p>	<p>NHS England Innovation Cancer, NIHR, Health Education England (HEE); AHSN's, Charities, Universities, and Small Business Research Initiative (SBRI).</p>	<p>NHSE, Pharmaceutical Industries, Artificial Intelligence Organisations. Health Economics.</p>
<p>Supporting Innovators: coordinated approaches to identify, investigate and spread innovations that directly respond to NHS needs,. Support innovators and their journey through the health and care system.</p>	<p>Lung, Breast, Colorectal Cancer Pathways. Early Diagnosis Programme Board and Primary Care. Research opportunities. Local GM cancer Innovation.</p>	<p>All Cancer Pathway Boards and project groups requiring support.</p>
<p>Cross-cutting priorities:</p>	<p>Clinical decision support tools, digital and artificial intelligence; patient safety; diversity and inclusion; patient and public involvement and codesign; workforce and education,</p>	<p>Personalised care combined with Health and Wellbeing: support / repository linked to existing systems.</p>
<p>All our innovation projects will have reducing health inequalities as a core principle, as referenced in the GM Tackling Health Inequality Strategy in Cancer, and monitored through the Equality Impact Assessment process.</p>		
<p>Indicative Initiatives</p> <ul style="list-style-type: none"> - Digital Dashboard Roadmap - Innovation Framework & Guidance - Solutioning - Real world Evaluations 	<p>Considerations</p> <ul style="list-style-type: none"> - Digital Technology Assessment Criteria - AHSN Triage processes - NICE evidence standards NHS Innovation Service - Health & Social Care DPS 	
<p>Responsibility / Accountability</p>		
<p>Innovation Programme Lead Digital and Innovation Clinical Lead Programme Director of Transformation Programme Director for Personalised Care</p>		

Mission 3

Provide leadership and support for key GM strategic digital projects aligned to national and Cancer Alliance objectives and ambitions.

<p>Mission parameters</p> <ul style="list-style-type: none"> ✓ Lead on system level procurement of system to coordinate cancer care ✓ Ensure GM strategic aims and objectives and integration are considered at project initiation ✓ Support key projects and monitor risks through the Digital & Innovation Project Board 	<p>Why</p> <ul style="list-style-type: none"> • Our Cancer system needs core clinical systems that support cross enterprise workflows and effective sequencing and communication to meet the objectives of the faster diagnosis framework and best times pathways.. • We need to maximise the benefits of existing systems, including innovative technologies Artificial Intelligence AI and addressing inequality in access for electronic referrals and tracking • Local trust systems and strategies may not fully take into account the needs of the wider system, clinicians and patients at other trusts 	
<p>Mission success criteria</p>		
<p>Priority</p>	<p>Within 2 years</p>	<p>Within 5 years</p>
<p>Procure GM platform/s capable of supporting cancer projects such as PSFU, SQD and MDT workflows</p>	<p>Increase adoption of the current digital platform for PSFU and SQD In parallel develop the business case and undertake procurement to identify preferred supplier.</p>	<p>Establish systems considering PSFU and SQD. Digital enablement to support MDT reform.</p>
<p>Expand use and functionality of strategic GM clinical systems and projects</p>	<p>Expand use of GM Care Record Include East Cheshire, C&L within GM PACS imaging. Deploy Digital pathology for MDTs Pilot AI for CXR imaging and breast & colorectal pathology. Fully implement Clinical Decision Support Tools (CDST).</p>	<p>Embed AI in routine clinical practice. Embed digital solution to requesting, processing and sharing genomics test results across GM.</p>
<p>Support workforce and education digital projects</p>	<p>Support utilisation of the NHSE digital staff passport to support cross-site working. Continue to enhance education offers through the Cancer Academy Digital Hub in collaboration with MAHSC, Gateway C & School of Oncology (Education Collaborative).</p>	<p>Workforce digitisation through education. ePortfolio; CPD, appraisals for the non-medical workforce - linked in with the Primary Care passport and in development social care passport.</p>
<p>All our digital projects will have reducing health inequalities as a core principle, as referenced in the GM Tackling Health Inequality Strategy in Cancer, and monitored through the Equality Impact Assessment process.</p>		
<p>Indicative Initiatives</p> <ul style="list-style-type: none"> - Establishment Procurement Board - Individual project KPIs - Project highlight reports 	<p>Considerations</p> <ul style="list-style-type: none"> - Implementation of digital projects beyond the initial pilot need to consider total cost of ownership, funding and support over a longer period typically 5-10 years. 	
<p>Responsibility / Accountability</p>		
<p>Programme Directors of Workforce and Education and Personalised Care Directors of Performance, Early Diagnosis and Commissioning Digital and Innovation Clinical Lead</p>		



Mission 4

Promote and develop the collaborative use of real world data to support cancer research and clinical outcomes.

<p>Mission parameters</p> <ul style="list-style-type: none"> ✓ Collaborate with the ICS and Trusts to align real world data plans and initiatives ✓ Educate our clinical outcomes and pathway leads in clinical outcomes, sources of information and analytics ✓ Develop the strategy for engagement with clinicians and analytics staff ✓ Alignment with Faster Diagnosis, Operational Performance and Treatment Variation Programme Board 	<p>Why</p> <ul style="list-style-type: none"> • It is recognised that we need local solutions alongside national care data to maximise our opportunities for improving Cancer Research and Clinical Outcomes. • Clinical Outcomes are measurable changes in health, function or quality of life that result from providing care to patients. • The generation of data as part of the everyday clinical practice, provides us with the ability to measure the quality of the care provided and its subsequent outcomes. • Our challenge is the maximise the potential of data collected ensuring high data quality and providing access to secure data environment (SDE) for clinicians and analytics to benchmark clinical outcomes • We need to invest in our staff and infrastructure capabilities 	
<p>Mission success criteria</p>		
Priority	Within 2 years	Within 5 years
Establish a GM clinical outcomes data group to prioritise and coordinate the use of real world data initiatives	Develop a clinical outcomes strategy and programme of work Identify resources and any investment requires to deliver the objectives	Support and deliver business cases to increase our RWD capabilities
Engage with clinical pathways and project leads to identify core datasets including PCNs / GPs (data users), with an ongoing process of consultation and revision and analytics	Establish core metrics for all pathways including clinical outcome measures, KPIs, PROMS & PREMS Develop model for evaluating impact of PSFU (capacity & financially) using GM and Trust outcome data	Develop dashboards and data reports to support Pathway Board and SMT functions
Support strategy for secure data environments SDE and analytical platforms to support operational performance, clinical audit and research	Enhance the current GM platform tableau to include clinical outcome metrics Develop a GM TRE for data from real time monitoring devices providing access to key outcome measures	Produce research outputs and publications based on RWD datasets and outcomes. Understanding the patient demographics for trial participation (i.e. NIHR Portfolio studies) LIVE data - Matching / Offer / Participation
<p>All our ambitions will have reducing health inequalities as a core principle, as referenced in the GM Tackling Health Inequality Strategy in Cancer, and monitored through the Equality Impact Assessment process.</p>		
<p>Indicative Initiatives</p> <ul style="list-style-type: none"> - CM COG membership and terms of reference - Identification of data users - Training courses completed - Generation of dashboards and reports to support real world data evaluations. 	<p>Considerations</p> <ul style="list-style-type: none"> - Access to national data submissions including COSD - Alignment with ICS data strategy - Collaboration with the Christie clinical outcomes unit 	
<p>Responsibility / Accountability</p>		
<p>Clinical Outcomes Clinical Lead, SRO - Director of Performance, Early Diagnosis and Commissioning, Digital and Innovation Clinical Lead, Business Intelligence Manager, GM Cancer Clinical Lead for Research</p>		



Mission 5

Enhance our capabilities to monitor cancer performance, pathway and project indicators, measures of inequality, progress with early cancer diagnosis and service improvement.

<p>Mission parameters through Digital and Data enablement:</p> <ul style="list-style-type: none"> ✓ Establish and maintain GM wide datasets to enable monitoring of cancer performance and inequalities ✓ Embed performance and inequalities metrics in Cancer Boards and project governance ✓ Combining cancer, PTL, inequalities and diagnostics datasets to enhance reporting capability 	<p>Why</p> <ul style="list-style-type: none"> • Cancer performance metrics demonstrate how Greater Manchester is performing against national standards of care • Detailed metrics can help identify inequalities in cancer provision and drive service improvement. • The pandemic has put unprecedented pressure on NHS services and waiting times, driving the need for recovery in performance to pre-pandemic levels and beyond. • New Faster Diagnosis standards and accelerated best timed pathways require more granular monitoring of performance to achieve the targets 	
<p>Mission success criteria</p>		
<p>Priority</p>	<p>Within 2 years</p>	<p>Within 5 years</p>
<p>Enhance digital capabilities to bring together new data streams (including screening and staging data) and improve operational performance.</p>	<p>Enable analysis and interpretation of new data stream data by Trust, PCN and GP practice.</p> <p>Develop the technical / digital specification to enable a single diagnostic booking system to be implemented in GM (SQD), procure and implement</p> <p>Facilitate solutions to support digitally enhanced work programmes – AI pilots, shared radiology reporting etc.</p>	
<p>Developing digital solutions to bring together complex data from differing sources</p>	<p>Support the digital solutions to amalgamate Diagnostic Imaging Data Set (DID's) and Cancer Patient Tracking List data (PTL).</p> <p>Support the continued focus on health inequalities providing digital capabilities to bring together data outside of health care to inform health inequalities and pathway improvement focus.</p>	
<p>Enhance the ability to pilot and test new technology to improve early diagnosis and operational performance.</p>	<p>Facilitate digital solutions to effectively collect and report on new data items collected in improvement work programmes.</p> <p>Lead and support system and Trust level analysis of cancer waiting times disaggregated by ethnicity and deprivation to understand and address any variation among different patient groups.</p>	
<p>Indicative Initiatives</p> <ul style="list-style-type: none"> - Cancer performance reports to Board - National and region cancer performance submissions - Project benefits realisation reports - Live dashboard monitoring tools 	<p>Considerations</p> <ul style="list-style-type: none"> - Disparate trust cancer reporting systems, Somerset, EPIC, CWP - Resourcing of data and analytics teams to meet the demand - Incorporation of targeted performance into Pathway Boards 	
<p>Responsibility / Accountability</p>		
<p>Directors of Performance, Early Diagnosis and Commissioning, Digital and Innovation Clinical Lead, Business Intelligence Manager</p>		



Mission 6

Work in collaboration with national and regional partners to promote and share best practice in digital and innovation.

Mission parameters through Digital and Data enablement: <ul style="list-style-type: none"> ✓ Continue to be at the forefront in adopting new innovative technologies promoted by national team ✓ Showcase our innovations ✓ Collaborate with National Partners in Research, Workforce and Education. 		Why <ul style="list-style-type: none"> • There are 21 Cancer Alliances working to innovate and support their local populations. Sharing best practice provides an opportunity for other alliances to cascade benefits and lessons learned, improve education, maximising adoption and benefits for patients, carers, workforce and the NHS. • Some projects require collaboration across regional borders, and the Christie cancer centre in GM covering a footprint including C&M with 27% referrals from outside of GM.
Mission success criteria		
Priority	Within 2 years	Within 5 years
Continue work with the NHS England, NHS National Innovation Team, Cancer Alliances, Charities, Academic Health Science Networks and MAHSC to be at the forefront of innovation.	Deliver the national projects on Cytosponge, NHS - Galleri and Colon Capsule Endoscopy. Additionally consider communications around “fit for population” and engagement to improve uptake. Work with our partners to submit successful bids for new national funded projects	Work collaboratively with consortiums such as the ICB, National and Locals teams to utilise digital platforms to promote / implement inclusive recruitment and best practice to increase applicant accessibility, and to further diversify the cancer workforce.
Collaborate with the ICB and HInM on developing an ICS digital strategy to help ensure alignment of strategic objectives and priorities	Align GM Cancer strategic projects within the wider GM digital strategy and plan.	
Showcase key collaborative digital and innovation projects at conferences, regional and national meetings	Invite national and regional representatives to the GM Cancer conference and awards. Present outcomes of key projects including AI, projects, early diagnosis decision support, SQD, PSFU, TLHC at regional & national meetings	
Indicative Initiatives <ul style="list-style-type: none"> - Dissemination of the GM Cancer Digital Strategy - Development of ICS digital Strategy - Participation in national and regional conferences and meetings 		
Responsibility / Accountability		
Digital and Innovation Clinical Lead Director of Early Diagnosis and Commissioning Senior Programme Lead for Education. GM Cancer Clinical Lead for Research		

Mission 7

Provide effective oversight and governance of the digital and innovation programme, maintaining safe, solid and secure foundations.

Mission parameters <ul style="list-style-type: none"> ✓ Ensure we have the appropriate leadership and expertise to support the digital and innovation programme ✓ Ensure projects are appropriately funded and resourced to achieve their objectives ✓ Prioritise programme activities where required. 		Why <ul style="list-style-type: none"> • Adoption of digital & innovation is a complex process requiring expert support through the regulatory process throughout procurement and implementation. • The system needs to prioritise resource and budgets to those projects and innovations that are most likely to succeed and meet the objectives of the system. • Collaboration is essential as the alliance has no employed digital PM or services management • Projects must plan for transition to a business-as-usual BAU model on completion to ensure the benefits are maintained 	
Mission success criteria			
Priority	Within 2 years	Within 5 years	
Provide assurance and oversight of cancer digital and innovation strategy and programme through the multidisciplinary Digital & Innovation board.	Align board programme to the digital strategy objectives and missions. Benchmark out progress against transformation directorate WGLL framework.		
Ensure projects are set up effectively, have governed EIA's, provide regular updates and routes of escalation to the GM Cancer Board and relevant GM ICS Boards.	Establish TOR, board and PID for procurement of a GM cancer system covering PSFU, SQD and MDT workflows.		
Support governance boards of wider GM projects and initiatives that are important to meeting cancer objectives.	Provide representation on GMCR clinical & operational group, GM Imaging systems board, PACS, digital pathology and LIMS projects and CDC digital programme.		
Indicative Initiatives <ul style="list-style-type: none"> - Digital & innovation board TOR, attendance and actions - Programme and project highlight reports - Business cases prepared 	Considerations <ul style="list-style-type: none"> - The alliance is dependent on the partner organisations including the Christie and HInM for digital and procurement expertise 		
Responsibility / Accountability			
Medical Director Digital and Innovation Clinical Lead Provider Trust Chief Information Officer / Chief Clinical Information Officer			

Governance

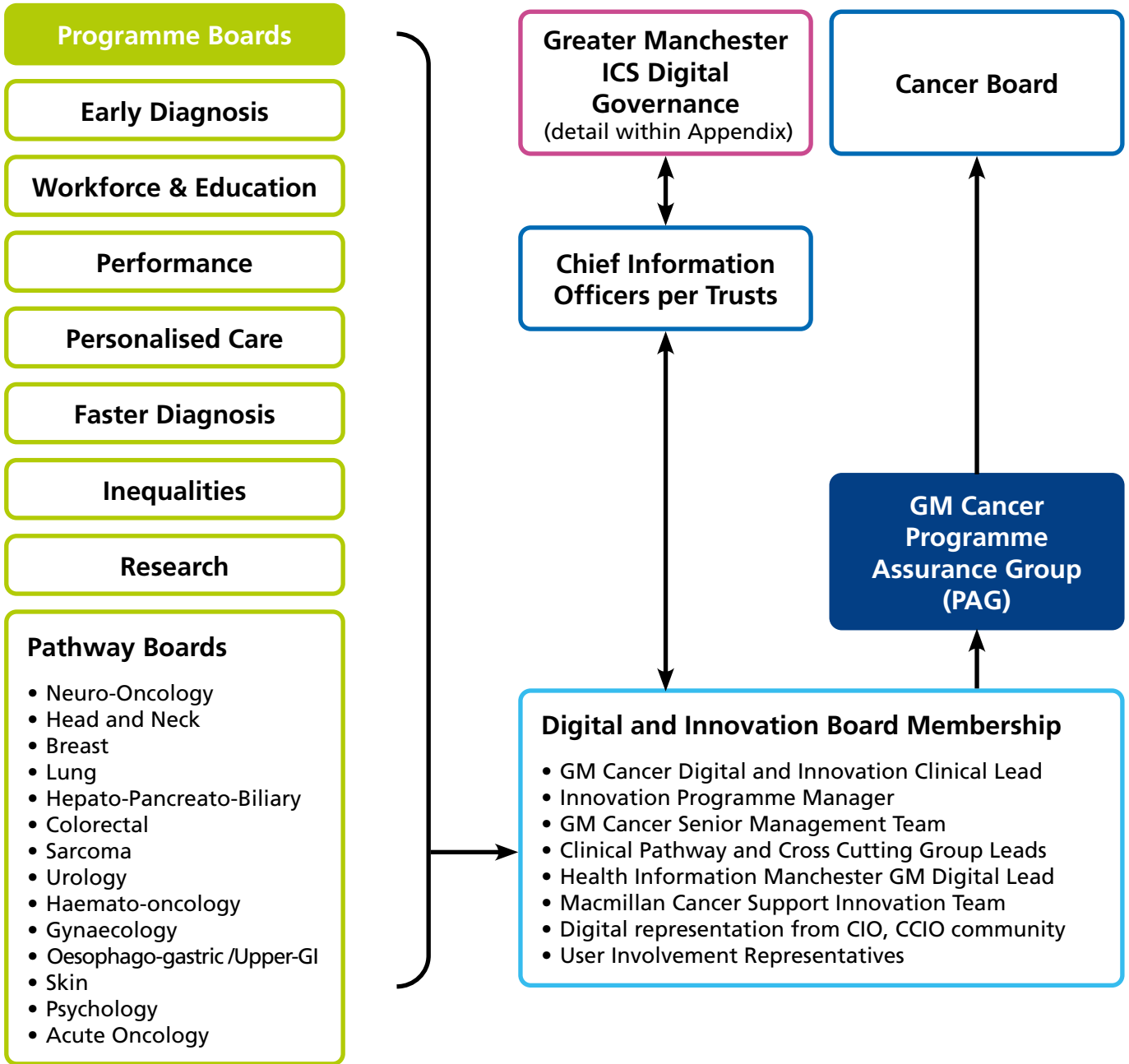
The Greater Manchester Cancer Digital & Innovation Board - The purpose of the board is to provide oversight on the digital and innovation aspects of the cancer programme, this may or may not include programmes of work that are directly owned by the Senior Management Team (SMT) of GM Cancer which are also governed through the SMT Programme Assurance Group (PAG). The board will help review and prioritise digital and innovation projects and assist in the adoption of best practice to ensure delivery of the transformation and benefits.

Objectives & Responsibilities

1. Provide oversight on the project elements of the GM cancer programme as detailed in the digital dashboard and tracker.
2. Showcase and raise awareness of projects and initiatives relevant to the GM Cancer digital and innovation transformation programme.
3. Review new project proposals and indicative prioritisation to align with the GM cancer programme priorities and objectives.
4. Advise on aspects relating to other strategic work streams across Greater Manchester, including Health and Social care Partnership, Health Innovation Manchester and Macmillan Cancer Support supporting the ICS structure.
5. Ensure projects follow best practice through setting out clear benefits, scope, cost, timescale, dependencies and project initiation documents PIDs.
6. Review the programme risk register for deviation from the project objectives, key milestones and timelines, including mitigations, and recommended escalations to the related programme boards.
7. Identify any actions (with timelines and owners) to be taken in order to mitigate significant risks within the programme.
8. Advise on aspects of project governance including procurement, Clinical safety and information governance related matters.
9. Help ensure projects plan for transition to business as usual advising on requirement for commissioning, procurement, and business cases
10. Review project budget/spend in line with PIDs and project milestones.
11. Ensure that user involvement and governance arrangements are embedded.



Structure





Programme Funding

Targeted Investment in Digital and Innovation

Our strategy and governance aim to maximise the opportunities to fund our innovation programme, and ensure our projects are appropriately managed and financed to deliver the projected benefits and efficiencies.

Our Clinical Lead for Digital and Innovation and Programme Manager are funded in partnership with GM Cancer Alliance, Heath Innovation Manchester and Macmillan Cancer Support. We work closely with the national innovation team to bring forward innovations through funded initiatives including the Small Business Research Initiative (SBRI), as well as charitable funding and through industry.

As a Cancer Alliance, we channel the Cancer Programme place based funding and targeted funding for innovation through our Senior Management Team and Programme Directors to ensure they align with our Cancer programme objectives and Operational Planning Guidance. It is the responsibility of the Cancer Programme Directors to deliver the digital and innovation objectives within their portfolio and report through their normal governance routes.

Investment in our long-term strategic digital projects will be made through business cases in partnership with our integrated care system ICS, provider trusts and localities. We will ensure our procurement processes are fair and transparent through the board governance, NHS guidance and legal.





References

1. Evidence standards framework for digital health technologies ([nice.org.uk](https://www.nice.org.uk)) [2018]
2. NHS Long Term Plan > Cancer [2019]
3. Our strategy - NHS Digital [2021]
4. What Good Looks Like Framework [2021]
5. NHS Cancer Programme [2022]
6. National Data Strategy [2022]
7. Digital Technology Assessment Criteria (DTAC)
8. Better, broader, safer: using health data for research and analysis (Goldacre Review) [2022]
9. Data Saves Live: reshaping health and social care with data [2022]
10. A plan for digital health and social care [2022]



Appendix

National Policies

The following appendices are included within the draft strategy for ease of reference.

The current ICS digital governance structures in development.

The independent commissioned reviews from McKinsey and Channel 3 have considered the synergies and recommend convergence on a common system to support cross enterprise cancer workflows.

We have highlighted areas of the What Good Looks Like framework where the Cancer Alliance can work with the ICS to support the strategic aims of the system as a whole.



ICS Digital Governance

The Greater Manchester ICS Digital Governance structures are being formed to support ICS wide digital investment and transformation

HinM

Digital Transformation (GM system focus)

Functional components

- Pan-GM digital strategy and portfolio management,
- Whole system investment prioritisation
- Digital inclusion strategy
- Digital solutioning and delivery
- Strategic product development for major ICS level digital assets (eg GM Care Record).
- Ensure standards of digital innovation activities - digital, clinical and patient safety
- Shape digital culture and build capabilities across the system
- Bid management
- Benefits realisation and evaluation from digital activities
- Secondary uses of data for research and innovation
- System digital governance and innovation pipeline management
- Strategic industry partnerships
- IG (innovation and transformation)

Provider digital

PFB, Primary Care, Social Care

Functional components

- Digital maturity assessment and improvement
- Digital investment prioritisation
- Pan-provider digital activities
- Pan- provider digital infrastructure programmes
- Social care digital plan and investment priorities
- Mental health digital plan and investment priorities
- UEC digital plan and investment priorities
- Elective digital plan and investment priorities
- Cancer digital plan and investment priorities
- Clinical support services • Vulnerable services
- Individual provider digital requirements and activities (systems, cyber, IG)

ICS Digital Governance

The Greater Manchester ICS Digital Governance structures are being formed to support ICS wide digital investment and transformation

NHS GM

Data, analytics, intelligence

Functional components

- Analytics infrastructure & systems
- Manage ICS data assets
- Data governance
- Data management - linked data asset •
- Analytics and data science
- Population health management platform
- Intelligence strategy and support
- System performance and sit reps
- Data quality
- Data and Analytical Workforce development
- NHSE National Federated Data Platform and Chief Data and Analytics Officer interface

Integrated Care Digital and IT (corporate and IT system integration)

Functional components

- ICS IT service integrator across multiple providers - to run and operate system IT assets, supported by an IT strategy and roadmap
- Provide NHS GM Integrated Care organisation Corporate IT (5 localities and GM-level)
- Provide GP IT services (8 localities)
- ICB workforce digital capabilities development
- ICB workforce digital inclusion
- Corporate information governance. data protection
- Live operations performance management
- Ensure standards — digital, clinical and patient safety (of live operations)
- Service design, transition and management of operational digital assets (post initial go live and into BAU)
- ICB cyber security requirement
- Primary Care digital plan and investment priorities implementation

Commission Reviews

Channel 3 Commission

In January 2022, the Greater Manchester Cancer Alliance Digital Transformation Board approved a paper Strategic Investment in Cancer Digital Systems. The paper proposed that strategic alignment in the delivery of key projects and systems could provide a scalable solution meet the objective of integrating cancer care for all patients in Greater Manchester throughout their cancer journey.

- Personalised Stratified Follow-up (PSFU)
- Single Queue Diagnostics (SQD)
- MDT reform

GM Cancer Digital Transformation Board membership, Guy Lucchi, (Director of Digital at Health Innovation Manchester HInM) and Alistair Read-Pearson (CIO at the Christie), recommended that the digital consultancy firm Channel 3 were commissioned to assess the options and mechanisms for investing in these 3 strategic projects.

Due to potential overlap between SQD and providing a single queue mechanism for referrals to the new Community Diagnostics Hubs (CDH), Channel 3 were asked to include in scope a generic model of the CDH referral process to ensure alignment between these projects.

The intention was also to build on the previous commission by McKinsey which recommended a single cancer record for Manchester to replace the current fragmented trust-based Somerset Cancer records.

The resultant scope was defined as:

1. Investigate the desirability and viability of creating a Single Diagnostic Queue which would enable demand for testing across several pathways and processes to be met in a more efficient way.
2. Advise as to how a single cancer record could be created for patients across Greater Manchester, per the recent McKinsey recommendation.
3. Advise on a technical platform to support Patient Stratified Follow-Up for cancer patients across GM

The final draft report summarised the output of 40+ interviews over the last 8 weeks, synthesised with a comprehensive document review and group discussions.



Commission Reviews

Channel 3 concluded:

“There are a number of common needs across the SQD, Cancer Record and Follow Up requirements that would suggest that a single technical solution for these would have benefit.”

Some of these are:

- The ability to support a single cancer service across GM care settings, whether that relates to diagnostic tests, cancer tracking, and reporting, MDTs or patient follow ups
- The need for workflow and patient pathway management
- The ability for clinicians to be able to access and update the complete patient cancer record irrespective of organisational boundaries
- The ability for a patient to be able to interact with their record

There are effectively two options to build the single platform, but key to these is not only the ability to centralise data and processes, but also the capability to provide cross care setting workflow and patient pathway management.

If no implementation were already taking place in GM, then it would be recommended to undertake a more detailed review of the requirements, existing GMCR solutions, and a procurement exercise for all of the components of the solution to determine the best option for GM Single Cancer platform.

However, the Infoflex solution has been contracted to provide the PSFU, Treatment Summary and Patient Portal functionality across GM and this is being rolled out. This work should enable integration between individual Trusts and the central GM Infoflex solution. In addition to supporting PSFU, this integration will provide the technical foundation to also implement a single diagnostic queue and single cancer record in Infoflex if desired.

Given the above, it is recommended that GM completes the PSFU implementation. However, as the current Infoflex contract only covers PSFU, GM would need to run a formal procurement to assess options and determine the suitability of Infoflex, or another solution, for the Single Cancer Platform.

In addition to any solution providing the single cancer platform, the solution should also be scalable to support the needs of other services, particularly in relation to single queue diagnostics and offering the ability to support CDCs.

Key to the successful implementation of any solution across GM will be effective programme governance, stakeholder alignment and appropriate resource to undertake the necessary planning, implementation and optimisation of the chosen solution.

Digital Data

Data saves lives

Our strategy to reshape health and care with data

National data strategy drivers: Use data:
For the direct care of individuals
Improve population health through the **proactive targeting** of service
For the planning and **improvement of service**
For research and innovation that will power new medical treatments

Integrated care systems
Improving population health
Tackling **unequal outcomes** and access
Enhancing **productivity and value** for money
Supporting broader **social and economic benefit**

A summary of the Goldacre Review recommendations (‘Better, broader, safer: using health data for research and analysis’)



Platforms and security

1. Build trust by taking concrete action on **privacy and transparency**
2. Acknowledge the **shortcomings** of current privacy management
3. Build a small number of **Trusted Research Environments** (TREs) to be the norm for analysis of patient records
4. Use TREs to create faster **access rules and processes**
5. Map all current bulk flows of **pseudonymised NI-Is GP data**; then shut these down
6. Use TREs to drive **modern, efficient, open, collaborative approaches** to data science



Modern, open working methods for NHS data

7. Promote and resource **“Reproducible Analytical Pipelines”** best practices (RAP)
8. Ensure code for data curation and analysis paid for by the **state is shared openly**
9. **Open, competitive funds** should be available for developers working on health data
10. **Bridge the gap** between health research and software development through training
11. Note that **“open code”** is different to “open data”



Data Curation and Knowledge Management

12. Stop **duplicative** and varied approaches to data curation
13. Have **systematic curation**, devoted teams, shared working practices, shared code, shared tools, and shared documentation; driven by open competitive funding
14. Use **TREs to impose standards** on how commonly used datasets are stored and curated
15. Create an **open online library for NHS data curation** code, validity tests, and technical documentation with dedicated appropriately-skilled staff



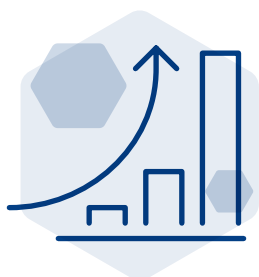
NHS Data Analysts

16. Create an **NHS Analyst Service** modelled on the Government Economic Service and Statistical Service
17. Make **Reproducible Analytical Pipelines (RAP) standard**
18. Create an **Open College** for NHS Analysts training
19. Recognise the value of **knowledge management**
20. Seek expert help, but ensure code and documentation is **openly available** to all
21. Train leaders to be **good customers** of data teams



Governance

22. **Rationalise approvals**, e.g., de-duplicate to one application form for all data access
23. Have a **frank public conversation** about commercial use of NHS data, after privacy issues have been addressed (TREs in use)
24. Develop clear rules around the use of NHS data for **performance management**
25. Have one organisation acting as **national Data Controller** or an “approvals pool”, instead of the thousands of independent data controllers

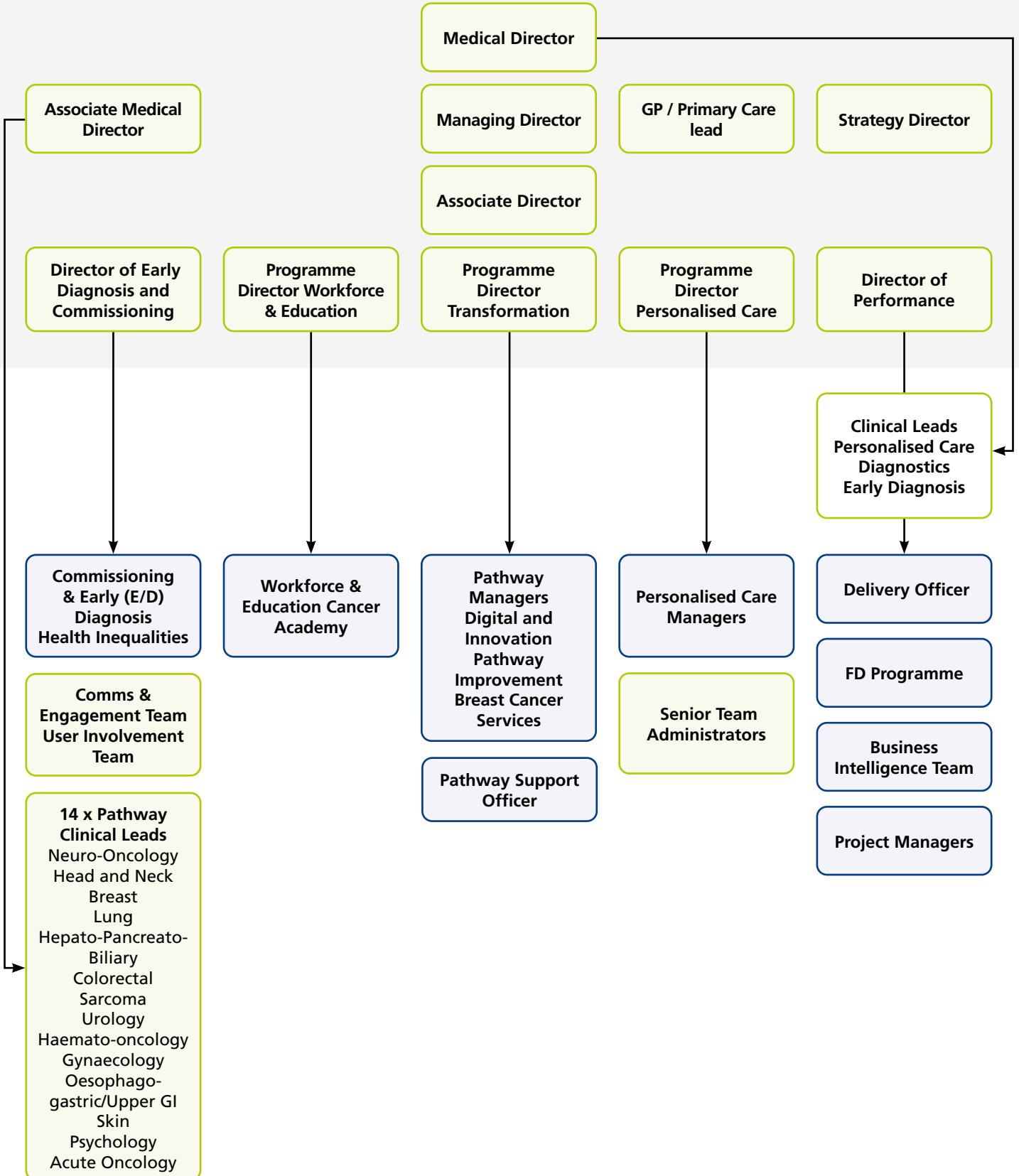


Approaches and strategy

26. Create very **senior strategic leadership roles** for developers, data architects and data scientists
27. Build impatiently, but **incrementally**
28. Identify a range of **“data pioneer”** groups from key sectors
29. Build THE capacity by avoiding **commissioning closed, black box data projects / “experiments”** from which little can be learned
30. Resource platforms with those focused on **facilitating great analysis**

Organigram

Senior Management Team (SMT)





Greater Manchester
Cancer Alliance