Health Innovation Manchester

Innovation Impact Report

2022 - 2023

Contents

Foreword

From Chair and Chief Executive

During the last year, as the world began to recover from the COVID-19 pandemic, the scale of inequalities deepened, and the cost-of-living crisis took hold, 2022/23 was a challenging year for all health and care systems. The NHS and social care sector are facing severe performance difficulties, with the environment particularly challenging in GM due to the length and depth of the pandemic and the scale of inequalities across our communities. As a consequence, health and care requires innovation more than ever, but innovation is difficult to progress, not least due to the ongoing operational pressures.

The NHS has undertaken a major restructuring with statutory implementation of integrated care systems which should improve conditions for innovation in the future. The life sciences policy landscape has also changed with emergence of the life sciences missions and efforts to ensure that the UK remains a life sciences superpower post-Brexit.

Against this context, Health Innovation Manchester (HInM) has delivered against all its key commissions from NHS England and the Office of Life Sciences through 2022/23. Key highlights include:

a) Strong delivery against all national AHSN requirements across our various commissions including delivery to the requirements of NHS England and Office of Life Sciences commissions.
b) Success in the Manchester Biomedical Research Centre bid, which has been awarded £59.1m over five years, a significant uplift on the previous settlement
c) Been successful in securing a grant from Innovate UK and industry investment for a circa £20m innovation accelerator programme.
d) We have led on the design and development of a GM approach for virtual wards, which is now currently delivering >400 virtual beds across the system.
e) We have continued to grow use of GM Care Record by around 25% in year to 19,000 users and 190,000 patient consultations per month, and driven academic outputs from the GM Care Record (3 publications, 42 studies in the pipeline overall).
f) We have led the successful wave 1 NHS England Secure Data Environment bid process for GM and the wider NW region, securing £11m over three years.
g) Overall we have led on successful bids through 2022/23 to leverage over £100m of investment into the GM system.

Within this impact report, we highlight through data, case studies and expert opinion how we are delivering a diverse programme of work to transform care pathways and support service improvements.

Through our three-year business plan, 'Leading with Delivery', our ambition in making Greater Manchester a leading region to attract and deploy new innovations continues to grow. As we look forward to 2023-24 and beyond, we will continue to work closely with our partners to focus and deploy innovations at scale that will make the biggest difference to the health, wealth and wellbeing of our citizens.

Rowena Burns
Chair
Health Innovation Manchester

Professor Ben Bridgewater
Chief Executive Officer
Health Innovation Manchester

At a glance

We are Health Innovation Manchester

About Health Innovation Manchester

Health Innovation Manchester, now in its 6th year, continues to work on behalf of GM health and care and academic system partners to discover, develop and deploy innovation aligned to the needs of GM citizens, as well as supporting economic development across the city region.

Since our creation we have evolved significantly, bringing together our Academic Health Science Network (AHSN) and Academic Health Science Centre (AHSC) functions, adding in translational research capabilities through the NIHR Applied Research Collaboration GM (ARC-GM) and supplementing this with a major focus on digital, including hosting the GM ICS digital transformation office.

HInM harnesses these capabilities, alongside digital and industry expertise, through an innovation pipeline and delivery method to accelerate at scale, with projects directly aligned to Greater Manchester's transformation priorities.

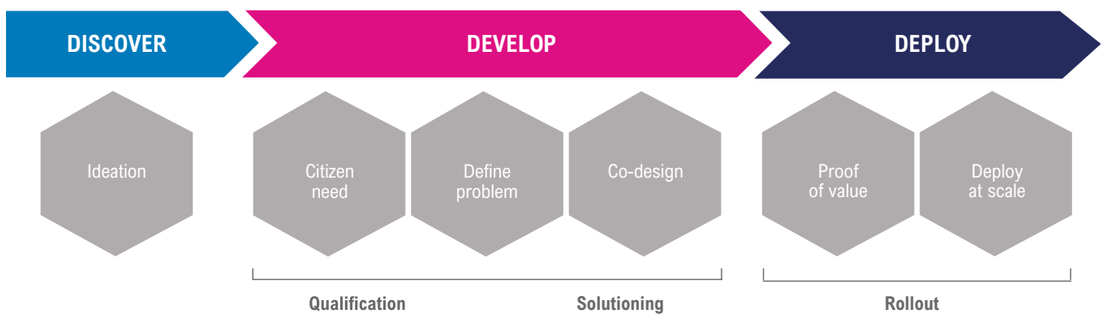
We are currently working under our 2021-24 business plan **'Leading with Delivery'** that describes our business objectives and the products and services we provide to deliver those objectives.

We are Health Innovation Manchester

Our mission is to become a recognised international leader in accelerating innovation that transforms the health and wellbeing of our citizens. We work with innovators to discover, develop and deploy new solutions, harnessing the transformative power of health and care, industry and academia working together to address major challenges and tackle inequalities.

Our method and approach

Through our pipeline approach to innovation, we will continue to evolve our method to develop a deeper understanding of the needs of citizens and co-design innovative solutions with our partners. These are deployed at scale and lead to transformation of care pathways and citizen outcomes.



Our Priorities

Deliver innovation at scale to improve health outcomes, whilst respecting the challenges in the NHS.

Maximise the leverage of national and GM funding through grants raised and industry resources.

Address underlying inequalities.

Deliver a balanced portfolio across the discover, develop, deploy pipeline.

Ensure that we utilise the benefits realisation framework.

Increase our contribution to economic development in GM.

Our Key Strategic Themes:

We have developed a framework against which we will align our delivery portfolio and resources with our innovation activity segmented into five strategic themes:

Research and Academia: Operation of the academic health science centre, fostering academic partnerships, ARC- GM delivery and delivery of research domain-led projects.

Digital Transformation: Delivering ICS digital transformation accountabilities, digital solution design and delivery, system coordination and engagement, GMCR product development and delivery, strategic supplier management, ensuring compliance with digital standards.

Strategy and Design: Understanding current models and pathways, reimaging new models of care, conducting clinical reviews, developing system strategies, undertaking digital maturity reviews, developing and coordinating bids, designing and coordinating governance and system engagement.

Innovation Development and Deployment: Deployment of innovation into practice using a range of capabilities including project management, business analysis, system engagement, public and clinical engagement, communications, evaluation and benefits realisation.

Industry and Partnerships: Developing and delivering an industry strategy to maximise local benefits from industry capability and capacities, including partnerships with global and UK life sciences, med tech, digital and SMEs.

Our impact

DIGITAL TRANSFORMATION

GM CARE RECORD

Over **190,000** patient records accessed by **19,000** frontline staff each month

GM HOSPITAL AT HOME / VIRTUAL WARDS

£9.8m funding allocation to deliver over **1000** virtual beds by April 2024

Currently delivering **>400** virtual beds across GM

ANNUAL PHYSICAL HEALTH CHECKS FOR PEOPLE WITH SEVERE MENTAL ILLNESS

70% of the SMI population in Denton, Audenshaw and Droylsden PCN received annual checks through a 'one stop shop' monthly clinic, compared to 19% in 2020.

DIGITAL FIRST PRIMARY CARE - A NATIONAL INITIATIVE TO IMPROVE ACCESS TO GENERAL PRACTICE

23 Primary Care Digital Facilitators in post to improve access to general practice through the Digital First Primary Care programme

RESEARCH AND ACADEMIA

MAHSC

16 outstanding NHS clinicians and researchers named MAHSC Honorary Clinical Chairs 2022

MANCHESTER BIOMEDICAL RESEARCH CENTRE BID

National Institute for Health and Care Research (NIHR) Manchester Biomedical Research Centre (BRC) received a

£59.1 million award

the largest single research award given by the NIHR to the city region.

NIHR APPLIED RESEARCH COLLABORATION GREATER MANCHESTER (ARC-GM)

9 Rapid Evidence Syntheses

93 active research projects

48 publications

38 studentships

Our impact

INDUSTRY PARTNERSHIPS

STARRS-GM

Delivered in **27** GP Practices in **7** localities in Greater Manchester

Reviewed over **1000** patients to optimise care and management for patients with asthma

SUPPORTING OUR INDUSTRY INNOVATORS

277 companies supported

HEALTH INNOVATION ACCELERATOR

Multi-million pound health innovation accelerator announced, focusing on rapidly improving the diagnosis and treatment of disease across the **2.8m** GM population

INNOVATION DEVELOPMENT AND DEPLOYMENT

PATIENT SAFETY COLLABORATIVE

21 national projects supported across 2022/23

5 programmes to identify and spread safer care initiatives: 1) Managing Deterioration, 2) Maternity and Neonatal, 3) Medicines Safety, 4) System Safety, 5) Mental Health

900+ GM health and social care members of staff have benefited from training and learning provided by the PSC

EARLY INTERVENTION EATING DISORDERS

First Episode Rapid Early Intervention for Eating Disorders (FREED) model successfully rolled out across **4** regions across GM

IMPROVING DIAGNOSIS OF ADHD

Reduction of **153** days for children in GM to get assessed for ADHD, with a **32.6%** reduction in costs to health services.

PREVENTING AND SUPPORTING THE MANAGEMENT OF CVD

78% of Primary Care Networks in Greater Manchester have adopted the new NICE-endorsed lipid management pathway.

502,332 patients across Greater Manchester have been prescribed lipid-regulating drugs over the last 12 months

RAPID UPTAKE PRODUCTS ADOPTION AND SPREAD

79% increase in total FeNO tests done helping more effective diagnosis of patients in GM suspected of having asthma.

In the North-West, **1000** more patients received an Asthma Biologic through the RUP programme

Digital Transformation

Delivering digital transformation across Greater Manchester's Integrated Care System including digital solutioning, design, delivery and coordinating the rollout of new digital programmes across the health and care system.

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WELCOME TO OUR NEW DIGITAL DIRECTOR: DR GARETH THOMAS

Gareth Thomas, Deputy National Chief Clinical Information Officer at NHS England, joined the Greater Manchester health and care system in 2023 as Digital Innovation Director. He joined as part of a joint appointment between Health Innovation Manchester and NHS Greater Manchester Integrated Care.

Gareth is leading the city region's health and care digital transformation strategy and delivery of high priority activity, working with partners across all care settings to optimise digital transformation and the delivery of tech enabled new models of care. Accelerating the development and deployment of digital innovation is a top priority for the Greater Manchester system in addressing some of system's major challenges.

Gareth's previous role was as Deputy National Chief Clinical Information Officer (CCIO) within the Transformation Directorate at NHS England, where he brought clinical leadership to national policy, strategy, systems liaison, and workforce development initiatives. He is a Consultant in Intensive Care Medicine and Anaesthesia, and worked as Clinical Director at Salford Royal NHS Foundation Trust. Prior to his national role he was the Group Chief Clinical Information Officer at the Northern Care Alliance NHS Foundation Trust.

Commenting on his appointment Gareth said:

> "The role of Digital Innovation Director brings the opportunity to work with providers and frontline teams within Greater Manchester, ensuring that funding and innovations are prioritised to bring the greatest impact upon the health, wealth and wellbeing of our 2.8 million citizens.
> I am passionate about the role of digital technology to reimagine, redesign and transform health and care services for patients and users, and am looking forward to applying this within Greater Manchester, where I live and have worked for the last 25 years."

Gareth Thomas
Deputy National Chief Clinical Information Officer

The GM Care Record

A major GM digital asset for health and care

GM CARE RECORD IN NUMBERS

3.1 million
patient records

Data includes information from:

443
GP Practices in GM (100%)

All NHS Trusts (including acute and mental health), Community, Social Care, Specialist Service (inc. The Christie, NWAS)

Accessed by **19k** users with over **190k** patient records accessed each month

25% growth in **12** months

More than 19k frontline staff are using the GM Care Record to access critical patient information of 190k patients each month to support their direct care - a growth of 25% in the last year. Not only is the GM Care Record providing more informed care and treatment for the 2.8m citizens of Greater Manchester, but it is becoming a major digital asset for the city-region that is helping to transform care pathways and deliver more intelligence on the health and care needs of the population.

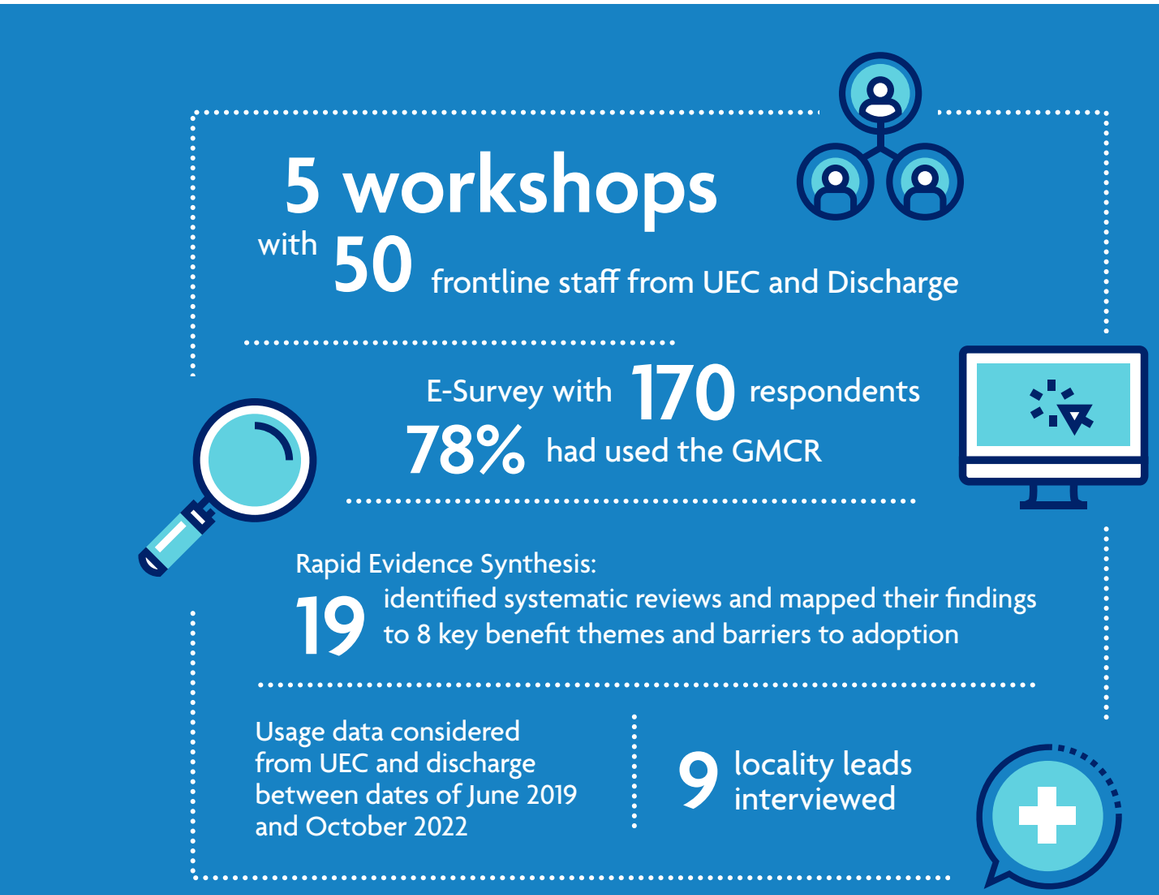
In the past year, HInM has continued to develop the GM Care Record, taking it beyond the basic ability to share information, to supporting innovation, research and the transformation of care and citizen outcomes. It has now become one of the core digital building blocks to support the continued development of the ICS in Greater Manchester.

Transformation of care pathways

As well as informing care and treatment on the frontline, the care record is now being used to support the transformation of care pathways through new use case development, including virtual wards, heart failure, dementia and frailty. Further work is taking place across Greater Manchester to test, adopt and spread these use cases in 2023.

Realising the potential of the GM Care Record in secondary care

Another significant piece of work completed this year was a dedicated programme of work looking at realising the potential of the GM Care Record particularly in urgent and emergency care and the discharge of patients.



Through a Rapid Evidence Synthesis from NIHR ARC-GM, analysis of usage data and data feeds, workshops and surveys with frontline staff, and in-depth discussions with locality leads, we've developed a series of findings and recommendations that will help develop the GM Care Record to make sure it meets the future needs of our staff and patients.

The findings included:

- Staff that currently access the GMCR find it easy and intuitive to use, particularly those that access through single sign on (SSO).
- However, this can be impacted by poor system performance. Staff also don't know who to report issues to.
- There's limited access to training and some staff reported not knowing how to access the GMCR.
- Staff find the GMCR a useful tool to inform direct care and usage is growing. However, data feeds are not complete and key content is sometimes missing that can impact on its usefulness.
- When past care and treatment information was present it saved time. Past medical history, medications, care plans, test results and allergies were mentioned as key information items.
- The GMCR sometimes enabled alternative management plans that have meant additional tests were not needed and admission to hospital avoided. Having a clear medication history was reported to increase prescribing safety.

"The GMCR is used across all consultations in emergency medicine. It works and does exactly what it says on the tin".
ED Consultant in Emergency Medicine, Royal Oldham Hospital

"The GMCR is beneficial where a patient has dementia etc. and has no collateral. Records are more accurate than patient recall".
Trainee Doctor, MRI

"I use it for every patient I see. It's an excellent system".
Emergency Medicine Consultant, Salford Royal

As a result of these findings, a series of recommendations has been made for the future of the GMCR including:

- Provision of GM wide standardised training and support offer to run alongside a staff communications campaign.
- Complete all data feeds including pathology and radiology and improve sharing of clinical documents across GM.
- To further understand usage data and organisation/ sites where the use of the GMCR could be increased.
- Increase the adoption and use of care plans inc. EPaCCs, Dementia/Frailty and Heart failure Understand system performance issues and clairfy support infrastructure

The programme consists of two initial phases: understand & re-imagine. These are the first two of three phases of Health Innovation Manchester's innovation methodology, the final stage being "implement". A prioritised list of recommendations will be presented to future decision-making meetings including the Digital Transformation Board, the GMCR Clinical and Operational Group and GM Chief Information Officers for consideration and approval.

Download and read the full report >

GREATER MANCHESTER'S SECURE DATA ENVIRONMENT

Greater Manchester, as part of a collaborative across the North-West, has received funding from NHS England to begin the development of a sub-national Secure Data Environment for Research & Development. SDE's are intended to enable NHS data to be safely and securely accessed by researchers for population health research.

Secure Data Environments (formerly known as "Trusted Research Environments") are highly secure computing environments that provide remote access to health data for approved researchers to use in health and care research that can save and improve lives. SDE's put virtual walls around data to ensure that users can only access data for which they are approved and provide secure access to analytical and statistical tools for conducting research. The GM Care Record (GMCR) will be one of the datasets that can be analysed through the SDE.

Throughout the COVID-19 pandemic, sharing of data into the GMCR accelerated significantly and was used to successfully deliver several research studies into the impact of COVID-19 on the Greater Manchester population by deploying a tactical "Trusted Research Environment".

Since then, significant progress has been made to agree information governance arrangements across GM for the continued usage of this data for non-COVID purposes, including a single Joint Controller Agreement and pan-ICS Data Sharing Agreements signed by all data controllers. This has the potential for the SDE to answer deeper questions about the region's health and care beyond the pandemic.

Bradley Quinn, Associate Director of Insight at Health Innovation Manchester, said:

> **"I'm incredibly excited to share the news about the funding secured for the North-West SDE for Research and Development, a population of over 7m, across an entire NHS region. This is the start of something big, but also in many ways a continuation of the great work we have delivered, and will continue to, here in GM. We're looking forward to working with our colleagues in Cheshire and Merseyside ICB and Lancashire and South Cumbria ICB to build a solution for collaboration across boundaries, and deliver high-impact R&D in the North."**

Work is underway in Greater Manchester to identify the "lighthouse" studies or use cases that will first make use of the SDE and to prove its value to the GM health and care system. Permission for this use of patient information is also being sort through the NHS Health Research Authority's Confidentiality Advisory Group with further developments of this to be announced later 2023.

HOSPITAL AT HOME IN GREATER MANCHESTER

The NHS is increasingly introducing Hospital at Home, sometimes known as virtual wards, to support people at the place they call home, including care homes. This service allows patients to get the care they need at home safely and conveniently, rather than being in hospital.

Delivering integrated care in the community, and particularly in people's homes, plays a significant role in the vision for everyone across Greater Manchester to live a good life in a greener, fairer and more prosperous city region.

The roll out and expansion of Hospital at Home and virtual wards is supported by a growing and developing evidence base that demonstrates benefits for patients, staff and systems. The option for patients stay in the comfort of their own home, whilst being closely monitored by hospital staff, can lead to faster recovery and improved mental wellbeing. It can also give patients greater independence and empower them to work alongside clinicians and carers to manage their condition.

Read more about virtual wards and implications for the care of older people through a Rapid Evidence Synthesis, led by researchers from NIHR ARC-GM >

Norman G, Bennett P, Vardy E R L C. Virtual wards: a rapid evidence synthesis and implications for the care of older people. Age and Ageing. (2023) https://doi.org/10.1093/ageing/afac319

Hospital at Home is one of Greater Manchester's top priorities. We have led on the design and development on a GM approach for virtual wards, securing a £9.8m funding allocation, which is now currently delivering >400 virtual beds across the system, with an ambition to reach over 1000 virtual beds by April 2024.

User-led design

The level of transformational change required to implement this sort of new model of care effectively should not be underestimated. Only through close collaboration with staff, patients and their families and carers, can GM Hospital at Home become a successful and well-established service across Greater Manchester.

Laura Rooney, Director of Strategy at Health Innovation Manchester, provided her unique perspective on the evolution of this service. She highlighted the importance of building user experiences and insights into the design and development of virtual wards to ensure it is fit for purpose.

> **"Virtual wards need to be designed inclusively to ensure they promote equity of access, improve outcomes, support a positive patient experience and do not deepen inequalities in communities."**

To assist with the roll out and expansion of virtual wards across Greater Manchester, Health Innovation Manchester are launching a communications campaign to raise increase awareness, understanding and trust in this new service.

The GM Hospital at Home campaign will give a simple overview of the Hospital at Home service, and provide clear information and resources for patients, families, carers and staff around how the service works. Find out more at **gmhospitalathome.co.uk.**

Next steps

The service is currently being used to support patients with acute respiratory conditions and those living with frailty. The service is looking to expand to include other conditions where use of technology can enhance patient care, such as end of life care, and patients with heart conditions. Greater Manchester will also look to expand the virtual wards beyond adults to also include children and young people.

As of March 2023, GM delivered **467** virtual ward beds, supporting around **400** patients each week

The average length of stay is around **7** days, equating to a conservative estimate of **1960** bed days saved each week

If GM delivers the targeted **1095** virtual ward beds, it would lead to an additional **223,745** beds per year for the system

TRANSFORMING ANNUAL PHYSICAL HEALTH CHECKS FOR PEOPLE WITH SEVERE MENTAL ILLNESS

Life-changing work by teams in Greater Manchester's 66 primary care networks (PCNs) and supported by Health Innovation Manchester means that people with a serious mental illness (SMI) are increasingly able to access important annual physical health checks using digital point of care testing devices.

Around 25,000 people in Greater Manchester live with a severe mental illness like schizophrenia or bipolar affective disorder. Statistically, people living with a SMI experience poorer health compared to the general population and are likely to die 15 to 20 years earlier. Nationally, it's estimated two thirds of these deaths are caused by factors including preventable physical illness like diabetes, and socio-economic inequalities like unemployment, and could be avoided.

Annual physical health checks are crucial in detecting signs of preventable disease and involve a minimum of six elements: blood glucose, blood lipid, blood pressure, body mass index (BMI), alcohol status and smoking status.

Health Innovation Manchester has deployed digital point of care testing devices across the 66 PCNs in Greater Manchester allowing rapid testing and support in identifying and treating physical health issues. A number of different models of care have also been developed depending on the needs of each PCN and its patients.

At a 'one stop shop' monthly clinic in Denton, Audenshaw and Droylsden (DAD) PCN, the percentage of its SMI population receiving annual checks has risen from 19 per cent in 2020 to 70 per cent in 2023. The DAD team offer all the checks in the same appointment in a community setting, using a digitally-enabled innovation using point of care testing alongside other services including mental health, pharmacy, wellbeing and social prescribing support. The aim is to harness every possible opportunity to support the attendee at the time of their appointment and into the future.

GP Dr Vinny Khunger, Clinical Lead at Health Innovation Manchester Academic Health Science Network (HInM AHSN), said:

> **"People living with severe mental illness often die earlier than the background population because of unmet physical healthcare needs like high blood pressure, undiagnosed diabetes or high cardiovascular risk.**
>
> **Initial indications suggest a big improvement in full health check uptake across Greater Manchester since we launched this project. We are continuing to see the development of PCN-based approaches that are starting to reduce unwarranted variation within localities."**

DAD service user Ruby said:

> **"The blood checks I had done were very quick and easy and the longest test result took seven minutes, so by the time I'd gone round and met everyone else, the medical practitioner could tell me that my bloods were fine and there was no risk of diabetes. That really puts you at ease."**

DIGITAL FIRST PRIMARY CARE

Primary Care is the front door to the NHS and one of the most dynamic and innovative parts of the health service. The way we access general practice is changing and much of this change is being enabled by the availability of new digital technologies. It means that patients have more ways to contact their GP practice, requests can be processed differently, and patients may be offered consultations in a variety of formats. This offers patient choice and convenience and breaks the 50-year-old '10-minute appointment' model.

The Digital First Primary Care (DFPC) Programme is part of a national initiative to improve access to general practice. Maximising the use and adoption of digital technology is a key aspect of the 5-year primary care system plan – the Greater Manchester Primary Care Blueprint.

The Greater Manchester Integrated Care Partnership is coordinating the regional DFPC Programme to support general practice on a journey of digital transformation to:

- Improve patient access to GP services enabling patients to have better access to their health information and promote prevention and self-care
- Improve staff ways of working
- Optimise capacity management in general practices and Primary Care Networks (PCNs)

The £4 million programme is in partnership with Health Innovation Manchester and the Greater Manchester Primary Care Provider Board (PCB), one of the first primary care collaboratives in England.

Since 2021, the programme continues to understand the evolving digital landscape within general practice, this insight informs how change and improvements can improve citizen access and capacity management.
The programme has adopted a phased approach:

- Understand – Understand the current digital landscape and identify issues, best practice and patient experience.
- Reimagine – Design 'what good looks like' for using digital tools effectively and identify areas for improvement, based on insights from the Understand phase.
- Implement – Identify priorities and codesign a delivery plan with localities, support change and adoption through training and communications and to support practices implement improvements. The programme is currently in the implementation phase and is aligned with the national GP improvement programme launched in June 2023.

Key highlights during 2022/23 included:

- Primary care digital teams in localities:
  - Supporting practices on local digital transformation initiatives
  - Providing advice and guidance to practices about how they can meet website standards
  - Involved in enhancing the national website evaluation tool as part of the website improvement project.
- Delivering a proof of value pilot (the Lighthouse Project) and providing learnings, best practice and a toolkit for general practice and PCNs
- Extending the deployment of Primary Care Digital First Facilitators to support business change in general practices and PCNs
- Delivering training and learning to Digital Facilitators through the Academy
- Improving connectivity and closer alignment with NHS GM and NHSE through strengthened programme governance arrangements
- Developing programme messaging aligned to national and regional communications

DIGITAL FIRST PRIMARY CARE IN NUMBERS

23 Primary Care Digital Facilitators in post to support change from the ground up across Greater Manchester, collectively they have achieved the following:

111 practice website audits conducted across Greater Manchester (step 1 of the website improvement project)

11 training and learning support sessions held for Primary Care Digital Facilitators via the Digital First Academy

286 1-2-1 sessions held by Primary Care Digital Facilitators to support localities

47 lunch and learn sessions and webinars have been conducted to help spread learning and share success.

Digital First Primary Care Projects

Over the next 12 months, the priority projects in scope will focus on supporting primary care transform digital access in order to improve patient experience and access so patients get the right advice at the right time in the most efficient way possible.

Improving practice website

NHS App

Support Cloud based telephony

Triage and digital care navigation

Virtual contacts

Innovation Development and Deployment

Development and deployment of innovation into practice using a range of capabilities including project management, business analysis, system engagement, public and clinical engagement, communications, evaluation and benefits realisation.

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PSC IMPACT

900+ GM health and social care members of staff working across the five focus programme areas have benefited from training and learning

22 events facilitated by the team with 700+ attendees to share learning, skills, and knowledge

Over 1/3 of NHS staff involved in our programmes reported improved confidence and experience of providing care

28 case studies and blogs highlighting clinician and patient experiences

MANAGING DETERIORATION

366 care home staff trained to use a managing deterioration tool

8 case studies highlighting different models of managing deterioration

2 network events

MATERNITY AND NEONATAL

10 fewer cases of cerebral palsy due to administration of magnesium sulphate in maternal labour

6 babies surviving by being born in the right place for their needs

40 babies surviving through administration of antenatal steroids

10 babies surviving through optimal cord management

Co-delivered **6** North West regional optimisation shared learning events

MEDICINES SAFETY

3 workshops delivered

SYSTEM SAFETY

87 staff trained with new skills and knowledge

MENTAL HEALTH

48 staff trained with new skills and knowledge

4 learning events delivered

PATIENT SAFETY COLLABORATIVE

England's 15 Patient Safety Collaboratives (PSCs) play an essential role in identifying and spreading safer care initiatives from within the NHS and industry, ensuring these are shared and implemented throughout the health and care system.

PSCs are funded and nationally coordinated by NHS England and NHS Improvement and hosted locally by the Academic Health Science Networks (AHSNs). Health Innovation Manchester plays an essential role in identifying and spreading safer care initiatives through the Greater Manchester and Eastern Cheshire Patient Safety Collaborative.

The PSC team at Health Innovation Manchester have been delivering a range of projects to support the adoption and spread of proven innovations into health and care services, improving service efficiency, clinical practice and patient outcomes.

Managing Deterioration

Approximately 400,000 people live in care homes across England and a significant portion of these live with frailty and have complex care needs. **The Framework for Enhanced Health in Care Homes (EHCH) (Version 2)** set out a plan to improve the quality of care for residents in care homes. One area of improvement identified was the capability of care home staff to monitor physical deterioration in residents and the supporting systems to enable escalation and appropriate care management. Early warning tools can help identify deterioration quicker and empower carers to escalate this to the appropriate service.

The Managing Deterioration Safety Improvement Programme (ManDetSIP) aims to reduce deterioration associated with harm by improving the prevention, escalation, and response to physical deterioration through better system co-ordination and as part of safe and reliable pathways across health and social care by June 2023. In GM, the Programme team aimed to support at least 60% of care homes to adopt RESTORE2 Mini and to plan and embed escalation approaches in their services.

Key updates and achievements

- 2 Managing Deterioration Network Events attended by over 80 people that facilitated the sharing of learning and different implementation approaches from across GM.
- Training delivered to over 360 individuals across 56 care homes, whilst empowering localities to encourage and track training through the provision of online training resources and an adoption audit tool.
- Developing and publishing a Change Pack to support localities and care homes to continue to adopt the tools, learn from others, and access training materials.
- Sharing learnings from across GM by capturing 8 case studies which illustrate how teams have implemented tools to manage deterioration.

Case study: Through training provided by the Managing Deterioration Safety Improvement Programme, read how staff in one care home have been identifying deterioration in residents quicker, leading to a decrease in hospital admissions for their residents. **Click for more >**

Read more on how we are supporting the reduction of deterioration in care homes >

Maternity and Neonatal

The Maternity and Neonatal Safety Improvement Programme's (MatNeoSIP) aim is to support the national ambition of reducing the rates of maternal and neonatal deaths, stillbirths, and brain injuries by 50% and the rate of preterm births from 8% to 6% by 2025.

As part of this national programme to improve the quality and safety of maternity and neonatal units, the HInM PSC team has been supporting the Greater Manchester and Eastern Cheshire Local Maternity and Neonatal System (GMEC LMNS) to:

- 1) improve the optimisation and stabilisation of the preterm infant, by implementing and embedding 7 key 'bundle element' interventions in at least 65% of maternity and neonatal providers by March 2023
- 2) improve the early recognition and management of deterioration in women and babies, through the implementation of the Maternity Early Warning Score (MEWS) and Newborn Early Warning Track and Trigger (NEWTT2) tools that will be embedded in a Prevent Identify Escalate Response (PIER) pathway for managing deterioration and support. To ensure both the national MEWS and NEWTT2 is implemented safely in a range of clinical settings, HInM are supporting a phased approach to testing and implementation.

All the MatNeoSIP work undertaken is based on improvement methodology and safety science principles, with an awareness and focus also on the potential inequalities within the varied demographics across Greater Manchester and Eastern Cheshire.

Key updates and achievements

- The new national maternity data dashboard clearly shows the improvement and adoption of new practice in both elements of the MatNeoSIP workstreams, with an uptake in the number of interventions being delivered.
- The HInM PSC team has worked and supported the GMEC LMNS to improve on every Optimisation intervention in 2022-23, with the LMNS recognised by NHSE as the most improved in total interventions given nationally.
- HInM have worked collaboratively with the North West Neonatal Operational Delivery Network (NWNODN) and the Innovation Agency (IA) to co-deliver 6 North West regional Optimisation shared learning events.
- HInM continue to work closely with local and national partners to deliver our MatNeo improvement programme, including Maternity Voices Partnership (MVP), the Parents Advisory Group (PAG), Spoons, BadgerNet, the British Association for Perinatal Medicine (BAPM), National Neonatal Audit Programme (NNAP), and wider system stakeholders.

Read more around how HInM are supporting improvements in the quality and safety of maternity and neonatal units >

Medicines Safety

Opioids are a highly effective class of analgesics (medicines designed to relieve pain) and, when used carefully, are of great benefit to many people living with pain. However, in the case of chronic non-cancer pain, when the source of long-term pain does not have a cause that can be treated, opioids can do more harm than good, particularly when used at higher doses.

The Medicines Safety Improvement Programme (MedSIP) aims to address the most important causes of severe harm associated with these medicines, most of which have been known about for years but continue to challenge our health and care systems. The key national programme ambition is to reduce harm from opioid medicines by reducing high dose prescribing for non-cancer pain by 50%, by March 2024. HInM are contributing to this ambition by working with stakeholders across GM to support the development of tools, resources, and training that support clinicians to work with patients to reduce opioid use safely and effectively.

Key updates and achievements

- Holding a MedSIP system engagement workshop, attended by over 30 key stakeholders from across GM, including Heads of Medicines Optimisation, Lead pharmacists, Social Prescribing Leads, and those with lived experience. Stakeholders shared best practice, identified barriers and enablers within the system, and agreed opportunities to support and amplify existing pathways and innovations.
- Establishing and supporting 2 place-based multidisciplinary working groups: the Manchester Pain Collaborative (focusing on patient information and GP training) and the Salford Medicines Working Group (focusing on primary care clinician resources and PCN/ Link Worker training); the outputs of this work will be included in the GM Opioids Reduction Resources Hub to be hosted by the ICS Greater Manchester Medicines Management Group (GMMMG).
- Finalising plans for a Pain Management Education Session for Social Prescribers; this interactive session is designed to increase knowledge of chronic pain, and how to better support people with their pain management needs.
- Developing plans to support an NIHR funded project to develop an eTAPER tool through an experience-based co-design approach. The tool will support the safe prescribing and reduction of opiate medications by helping to identify NHS patients that have been prescribed opiates, within 30 days of surgery, and provide Health Care Professionals with guidance on how patients can be safely reduced and tapered off opiates.

Lisa shares her experiences of living with pain. Watch here >

Read more around our work in medicines safety >

System Safety

The System Safety workstream aims to create optimal conditions for patient safety improvement across health and integrated care systems. In addition to supporting effective patient safety networking between stakeholders at Regional and Integrated Care System and Board level, key deliverables of 2022-23 include supporting the ICB as they transition acute and independent service providers to the new Patient Safety Incident Response Framework (PSIRF), a replacement for the Serious Incident Framework.

Key updates and achievements

HInM has worked with providers and stakeholders, including Quality and Safety leads, Chief Nurses, Patient Safety Specialists, Patient Safety Partners, Associate Directors for Quality, Midwives, clinicians, clinical and non-clinical networks, and external stakeholders. In 2022-23 HInM have programme managed, produced, and delivered:

- Training webinars, focusing on involvement, mapping tools, stakeholder engagement, PPIE and health inequalities. Sharing these on the FuturesNHS platform for local, regional, and national use.
- Input to the Integrated Care Board level to inform and develop the implementation approach for PSIRF in NHS GM.
- Collaborated regionally on events with NHSE, the North-West Coast Innovation Agency and Aqua
- Inputted nationally via the Patient Safety Lead who is a national co-lead for the AHSN PSC in this System Safety Improvement Programme.

Read more around our work in System Safety >

Mental Health

The national Mental Health Safety Improvement Programme aims to reduce restrictive practice by 25% in eligible inpatient mental health and learning disability wards. Restrictive practice refers to any act which involves restricting a person, including physical restraint, the use of rapid tranquillisation, or the use of a seclusion room.

Key updates and achievements

- The PSC, Advancing Quality Alliance (Aqua) and National Collaborating Centre for Mental Health (NCCMH) have continued to support the development of competencies and skills of individuals across Trusts to sustain quality improvement activities.
- Across the 9 wards engaged in the programme in Greater Manchester in 2022/23, we have seen a 65.2% reduction in all restrictive practice.
- Horizon (Pennine Care) have seen the greatest improvement in England.
- HInM are continuing to support our 9 participating wards to reduce restrictive practice through regular face to face and virtual coaching sessions.
- HInM held 4 learning events in 22/23 to provide shared learning across the region, impacting 48 staff to change their knowledge, skills and confidence on reducing restrictive practice.

Read more around our work in Mental Health >

AHSN NATIONAL PROGRAMMES

Health Innovation Manchester is one of England's 15 Academic Health Science Networks (AHSNs). The AHSNs were established by NHS England in 2013 to spread innovation at pace and scale – improving health and generating economic growth.

Health Innovation Manchester is working with national partners on a range of projects to support adoption and spread of proven innovations into health and care services, improving service efficiency, clinical practice and patient outcomes.

1. Early Intervention Eating Disorders

Eating disorders cause serious physical and mental health problems which can last decades and lead to significant disruption for young adults and their families. The AHSN Network have been supporting mental health teams across England to accelerate diagnosis and treatment of eating disorders for young people.

The **First Episode Rapid Early Intervention for Eating Disorders** (FREED) model provides rapid access to high-quality care for people in the early stages of illness when treatment is most likely to be effective. FREED candidates are contacted for an engagement call within 48 hours, initial consultation within two weeks with treatment beginning as soon as two weeks later.

As part of a nationwide roll-out of the FREED model supported by NHS England and Improvement, Health Innovation Manchester has been supporting the roll-out of the FREED model within Greater Manchester. In Stockport, **Oakwood Psychology Services,** Stockport's NHS adult community eating disorder service launched the new programme in November 2022 to provide rapid access to support for young adults aged 18-25 with an eating disorder in Stockport. By the end of 2022, the service in Stockport was completing around 7 FREED pathway assessments per month, showing a stable launch to the service meeting the stated targets for time to assessment and treatment for young persons living with an eating disorder. This follows on from similarly successful launches in Heywood, Middleton & Rochdale, Salford, and Manchester.

Throughout the programme, Health Innovation Manchester has supported the local system with business case development, recruitment, training and enhancing shared learning opportunities. The programme concluded at the end of March 2023. With the FREED service now successfully rolled out across 4 regions, colleagues at GMMH are working to complete the establishment of FREED in Wigan, Oldham, and Bury, to provide even wider coverage for young people in need across GM.

2. Improving Diagnosis of ADHD

Attention deficit hyperactivity disorder (ADHD) is a behavioural disorder that includes symptoms such as inattentiveness, hyperactivity and impulsiveness and affects around 5% of school-aged children worldwide. In the UK children can wait on average 18 months from their first appointment to receiving a formal ADHD diagnosis and the annual cost of ADHD assessments to the NHS is estimated at around £23m.

Working in partnership with the national AHSN Network since April 2020, Health Innovation Manchester has been instrumental in the rollout of the FOCUS ADHD initiative QbTest format to improve the outcomes for children with ADHD in Greater Manchester. In pilot testing QbTest demonstrated a reduction in time to assessment by an average of 153 days, with a 32.6% reduction in costs to health services.

As part of the Focus ADHD National Programme, Health Innovation Manchester, alongside the other 14 Academic Health Science Networks across England are supporting clinical services to improve their ADHD assessment pathway with the implementation of QbTest.

The Focus ADHD programme can have a positive impact on young people and families by reducing the number of appointments needed for clinical diagnosis, meaning that clinicians can see more patients. The new pathway can also generate increased clinical confidence and understanding while increasing efficiencies for the service.

To date, the key benefit for HInM is the uptake and implementation of ADHD QbTest measuring processes across a total of 15 services within 5 trusts in GM, with over 5,500 assessments of children aged under 18 since the start of the programme. The re-opening of services and the commencement of regular assessments following the first and second wave COVID-19 pandemic and national lockdown across the UK has also been a major success for the national AHSN initiative. The HInM team also produced a comprehensive snapshot review of the progress of QbTest implementation, testing, and recovery since COVID-19 across the various trusts in GM.

With QbTest strongly embedded within mental health trusts in GM, HInM and the AHSN network are working to hand over to a business-as-usual format for continued improved ADHD outcomes across the region.

Qbtech
Transforming healthcare

3. Preventing and supporting the management of cardiovascular disease (CVD)

CVD, such as heart disease and stroke, is a leading cause of death in the UK. High blood pressure and cholesterol are significant risk factors for CVD, and evidence suggests that improving the detection and access to effective treatment will have significant benefits and lower the risk of CVD.

The biggest area where the NHS can save lives over the next 10 years is in reducing the incidence of cardiovascular disease (CVD), through targeted approaches to reduce the widening of health inequalities.

As highlighted in the Greater Manchester Cardiovascular Prevention Plan, improving cardiovascular health and reducing cardiovascular mortality is now a priority for Greater Manchester, including secondary prevention of lipids.

Health Innovation Manchester is working on a wide programme of work with partners at a local and national level to improve care and outcomes for people with cardiovascular disease (CVD).

Lipid management and familial hypercholesterolemia

The AHSN Network programme aims to improve the management of cholesterol, increase the detection of those with Familial Hypercholesterolaemia and optimise the use of all medicines for patients on the cholesterol (lipid) management pathway.

Health Innovation Manchester has been working with NHS trusts and primary care services across Greater Manchester to improve the offer to people with known or previously unknown high risk of cardiovascular disease, to ensure their blood cholesterol levels are understood and that the patient receives the appropriate treatment along the pathway.

Working in partnership with the Accelerated Access Collaborative (AAC) Rapid Uptake Products (RUP) lipid management programme, the AHSN Network are working to improve patient access to appropriate medicines on the lipids management pathway, with a focus on secondary prevention and including novel therapies.

A range of resources for healthcare professionals have been developed for CVD prevention and lipid management, including:

- Greater Manchester Medicines Management Group (GMMMG)-approved Greater Manchester lipid pathway, which provides guidance for lipid management for primary and secondary prevention of CVD.
- Educational materials on lipid management for the secondary prevention of CVD, including guidance on how to identify high-risk people requiring lipid optimisation for secondary prevention of CVD.
- Educational materials, support and information for inclisiran, an injection-based lipid treatment to reduce LDL cholesterol, which has been approved by NICE and listed as Green by GMMMG

As of March 2023,

- 78% of Primary Care Networks in Greater Manchester have adopted the new NICE-endorsed lipid management pathway.
- 502,332 patients across Greater Manchester have been prescribed lipid-regulating drugs over the last 12 months
- All Primary Care Networks across Greater Manchester are now focused on optimising cholesterol management for those patients at highest risk, including patients who have previously had a cardiovascular event
- Numerous lipid management education events have been held with GPs, practice managers, nurses and other primary care health and care professionals, including over 300 registrants for the HInM ‘Managing Cholesterol in Greater Manchester’ event held in February 2023.

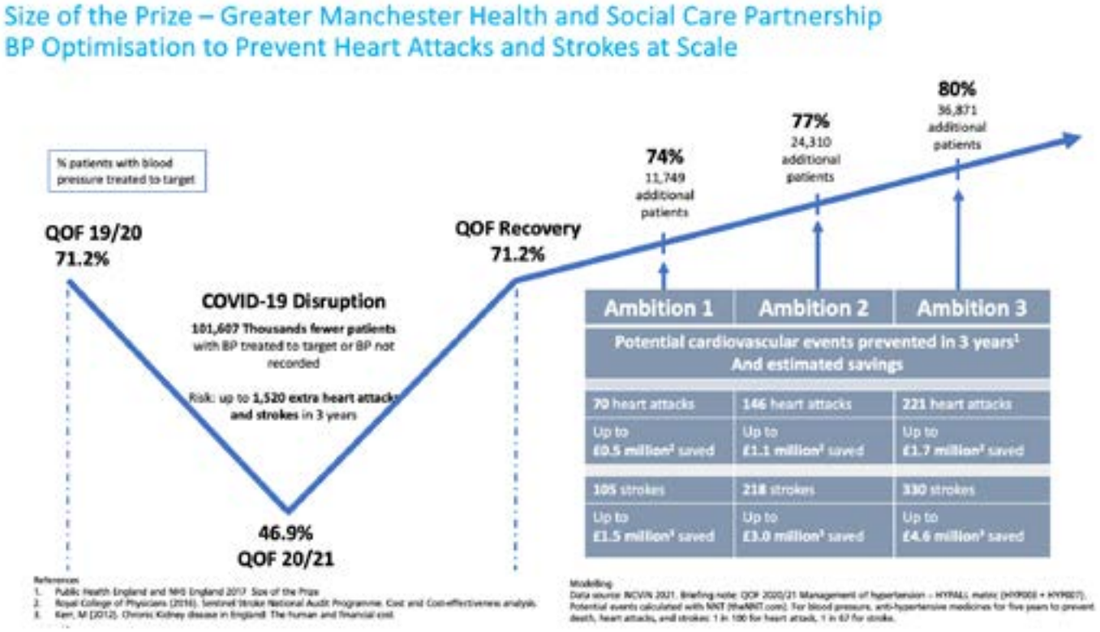
Blood pressure optimisation

The AHSN Network Blood Pressure Optimisation Programme was initiated in 2022. The overall aim of the Programme is to improve patient care and outcomes by effectively diagnosing and treating patients with hypertension. It is looking to achieve this by reducing the risk for heart attacks and strokes occurring, reducing the risk of admissions and re-admissions associated with cardiovascular disease, and reducing inequalities by incorporating 'Core20PLUS5' approach to both management of patients in targeted populations with hypertension and case finding people who may also be at risk of hypertension.

A key element of the programme is to improve the identification of hypertension through increased blood pressure testing where patients do not have a recent reading recorded. The programme also aims to maximise the intervention and treatment of those people who have a high blood pressure recorded, ensuring that they access medication and are managed effectively.

Across Greater Manchester (GM) there are an estimated 215,000 people with undiagnosed hypertension, a further 123,000 are diagnosed but not treated to the NICE targets for a clinic blood pressure reading.

The COVID 19 pandemic disrupted both Blood Pressure and Health Checks and this programme is trying to help practices not just to restore the QOF figures to what they were pre-pandemic, but to improve on them. The aim of this work is to prevent heart attacks and strokes at scale. The graphic below shows the current position in Greater Manchester and what could be achieved over 3 years.



NHS GM has identified Hypertension as high priority and formed the GM Recovery and Prevention Oversight Group (POG). The POG recommended the establishment of a Hypertension Task and Finish group which was established in October 2022 with 12 organisations from across Primary and Secondary Care and 37 individuals forming the core membership.

During 22-23 HInM engaged with all PCNs across Greater Manchester and East Cheshire to share resources developed by UCLPartners that support the adoption of the search tools which segment patient populations according to risk. HInM worked in partnership with NHS GM Shared Services Data Quality Service Lead who installed the UCLP search tools into the Quality folders within Primary Care Systems enabling access for each practice to begin focussing on those with the highest risk.

Some members of the Hypertension Task and Finish group formed a subgroup to develop a GM Hypertension Medication Pathway. The full membership of the Task and Finish Group was consulted with on the proposed pathway. The final version was presented to Greater Manchester's strategic Clinical Effectiveness Group for ratification and approval.

The GM Hypertension Pathway will be launched in August 2023 for GM system adoption and aims to simplify the medication pathway (whilst remaining compatible with NICE guidelines), incorporate Community Pharmacy, and enable quicker Blood Pressure control with less steps and fewer side effects.

Work also commenced on a Hypertension Toolkit which will support practitioners in delivering the desired outcomes of this programme of work and GM CVD prevention plan.

Whilst still early in the programme delivery, the impact of the programme is already becoming evident. QOF data in December 2022 showed that in Greater Manchester 62% of people with known hypertension were treated to target. Whilst this figure is an improvement on the midyear position of 46.9% we have further to go to reach the target set for 23/24 by NHS England Priorities and Operational Guidance of 77% and the GM ultimate target of 80%.

Living with cardiovascular disease – Muz's story

Back in 2011, Muz was suffering from a period of fatigue and tiredness. After being referred by his GP, clinicians found his blood LDL-cholesterol levels were very high. High LDL-cholesterol- levels can lead to problems such as CVD including heart attacks and strokes. Muz was put on statin treatment in 2011-2012, followed by the addition of ezetimibe in 2017-2018, to try and lower his blood cholesterol.

"I was taking my medication religiously, I was just following what my doctors were telling me, but at the same time the baseline blood tests were not going down – I mean even in some of my appointments when the doctor checked the results they were gradually creeping up, so it was quite worrying and stressful."

Muz's cholesterol levels remained high for a number of years, and in early 2022, he suffered a brain stroke. To help prevent any further cardiovascular events, also known as secondary prevention of CVD, Muz was now eligible for a new treatment to reduce his blood cholesterol levels.

It took Muz a further three months to finally receive his new treatment due to workload pressures within the NHS, and a lack of awareness by the medical professionals and pharmacies about the new pathway for treatment of CVD.

"I was living in fear after having that stroke. My cholesterol level were still very high, and those three months were quite dark and stressful for me and my family."

Fast forward to early 2023: Muz is on the new treatment pathway for CVD and is seeing a reduction in his blood cholesterol levels. He has felt more energetic, motivated, and feels empowered to take control of his CVD.

Muz's story is a reminder of the importance of managing cholesterol in high risk patients, and optimising access and use of medicines for patients on the cholesterol management pathway.

4. Rapid uptake products adoption and spread

The Rapid Uptake Products (RUP) programme was designed to support stronger adoption and spread of proven innovations. It identified and supported products with NICE approval that support the NHS Long Term Plan's key clinical priorities but have lower than expected uptake to date.

The Rapid Uptake Products (RUP) 2020/22 programme built on the successes of the 2019/20 RUPs programme, with themes selected via an open, staged, selection process.

Lipid Management: High Intensity Statins, Ezetimibe and PCSK9 inhibitors:

The Rapid Uptake Product (RUP) for lipid management is a novel, NICE-approved clinical pathway. This innovation aims to improve a person's lipid profile, by reducing cholesterol concentration in blood by treating patients with the right medicine for them. There are three treatment pathways available: high intensity statins (HIST), ezetimibe, and PCSK9 inhibitors (continued from 2019/20). Read more about our work in **CVD prevention and lipid management**.

Measuring fractional exhaled nitric oxide (FeNO) concentration in asthma - NIOX VERO and NObreath:

Over 5.4 million people in the UK suffer from asthma with the NHS spending £1.1 billion on asthma annually. 90% of this cost goes directly on asthma medication including the excessive prescription of steroid inhalers. 30% of patients currently diagnosed with asthma are suspected to have been misdiagnosed.

FeNO testing is a method that assists with the diagnosis of asthma by measuring fractional exhaled nitric oxide (FeNO) in the breath of patients suspected of having asthma. The aim of this innovation will be to improve patient care and outcomes by more effective diagnosis of patients suspected of having asthma.

Impact:

Prior to the launch of the national FeNO RUP programme, 9940 FeNO tests had been undertaken in primary care in GM. As at 31 March 2023, that increased by 2600 FeNO tests being undertaken, totalling 12,540. That is a 79% increase in total tests done benefitting a further 729 patients in GM. It is now estimated that 53% of PCNs in England have access to FeNO testing at the end of March 2023. For GM that means a further 38 machines have been deployed in primary care which is an increase of 48% prior to the launch of the RUP programme.

Nationally, 4964 hours of training were delivered through the two national HEE FeNO training modules. We have successfully deployed FeNO testing into community pharmacy within Greater Manchester and we are now blue-printing our model to inform future roll out.

Asthma Biologics for treating severe asthma - Reslizumab, Benralizumab, Mepolizumab and Omalizumab

Severe asthma (eosinophilic severe asthma) does not respond to standard treatment alone and requires more intensive therapies to better control symptoms and prevent asthma attacks and hospitalisations.

Asthma biologics can transform patient lives by reducing asthma attacks, asthma-related hospital admissions and long-term side effects of other treatments such as oral steroids. The aim of this innovation will be to improve patient care and outcomes by improving access to biologics for people with severe asthma. The programme focuses on optimising pathways that help with the early identification of people with uncontrolled asthma, appropriate referral of patients needing further specialist input and supporting patients to self-administer their asthma biologic at home.

Impact:

Over the period of the RUP from April 2021 to March 2023, 290 more patients received an asthma biologic in GM which exceeded our national trajectory to 103%. That's 7% of the national total.

Regionally in the North-West, 1000 more patients received an Asthma Biologic through the RUP programme and GM's contribution was 29% of the total.

Next steps

Both suppliers, Niox (formerly Circassia) and Bedfont (distributed by Intermedical), have worked with the national FeNO programme, to develop a 3-year loan deal to primary care across England.

This leaves a legacy ambition from both suppliers to continue to improve access to faster and more effective diagnosis through FeNO testing. These offers have been circulated to the system and we will continue to provide minimal support in terms of making supplier introductions when required.

Sunil Thacker, Director at Thacker's Pharmacy in Wythenshawe, said:

> "FeNO has been invaluable for me with my asthma reviews. Patients understand the importance of the steroid inhaler with education around the FeNO result and seeing a drop in value for the follow up, instils confidence with both the patient and the healthcare professional in understanding the appropriateness of the steroid inhaler strength being used. Long term if we could continue to use FeNO for the relevant asthma patients, a quick consultation and FeNO reading whilst picking up their asthma medication would reiterate how the patient's asthma control is. I can see this model working elsewhere as long as the health care professional is upskilled to confidently provide information about the result."

Cath Barrow, Senior Programme Development Lead at Health Innovation Manchester, said:

> "There has been steady progress made across the two RUPs resulting in exceeded trajectories. These were very much interlinked with the STARRS-GM project and being able to test FeNO in community pharmacy has allowed us to test this model and blue-print for the future."

5. Polypharmacy: Getting the balance right

The care of patients with multi-morbidities (multiple medical conditions) is one of the greatest challenges now faced by the health service, as it can create overly complex health care for some of the most vulnerable in society.

The Polypharmacy Programme aims to support local systems and primary care to identify patients at potential risk of harm and support better conversations about medicines by promoting shared decision making - where clinicians and patients are equal partners in agreeing which medicines are important to treatment and life goals alike and which are not. HInM is supporting the GM system to address problematic polypharmacy through the 3 Pillars: population health management, education and training, and public behaviour change.

Key updates and achievements

- Hosting 3 Communities of Practice that covered topics such as Structured Medication Reviews, Frailty, and Polypharmacy.
- Enabling clinicians to identify high risk polypharmacy patients to prioritise for structured medication reviews by using the index of multiple deprivation inequalities map and the NHS BSA Polypharmacy Comparators.
- Supporting 11 GM Pharmacists to register for the national Action Learning Sets training sessions that upskill local clinicians to tackle problematic polypharmacy and lead local quality improvement projects.
- Identifying 2 GM pharmacists to undertake additional training and become an accredited polypharmacy Action Learning Set trainer.
- Working with GM citizens to review and identify preferred patient behaviour change interventions for further local testing and to contribute to the national and international evidence base.

Russ shares his experiences of polypharmacy as a carer. Watch here >

Read more around our work in Polypharmacy. >

INNOVATION FOR HEALTHCARE INEQUALITIES PROGRAMME (InHIP)

The Innovation for Healthcare Inequalities Programme (InHIP) addresses local healthcare inequalities experienced by deprived and other under-served populations. Health Innovation Manchester, alongside expertise from Secondary Care partners and other community organisations in Greater Manchester, are working with local communities to identify, address and minimise healthcare inequalities through projects to improve access to the latest health technologies and medicines.

As part of this, an innovative six-month pilot has launched at the Royal Oldham Hospital (ROH), with the aim of transforming services for children and young people living with asthma and related conditions as well as reduce avoidable harms caused by smoking or second-hand smoke inside the home.

According to data captured as part of the Asthma friendly schools' pilot, conducted by NHS England, the UK has one of the highest prevalence, emergency admission and death rates for childhood asthma in Europe. In Greater Manchester, 6,482 children and young people (0-19 years) attended A&E due to asthma and 1,346 were admitted to hospital between January 2022 and January 2023 alone.

Introduced in February this year, the pilot takes a whole-household approach to asthma intervention, working with ROH Children's and Paediatric Observation and Assessment Unit to help identify children and young people admitted to hospital with asthma or respiratory illnesses, who smoke or live in a household that smokes.

As part of the pilot, patients are offered Fractional Exhaled Nitric Oxide (FeNO) testing on the ward to monitor inflammation of the lungs and offered advice and nicotine replacement therapy as well as support helping them to be smoke-free and ultimately become healthier as a result.

Continued support is provided for the patient, with a repeat FeNO test offered in a community-based setting as part of a follow-up asthma consultation. If the child or young person's asthma is determined to be uncontrolled, if appropriate, a referral onto the Asthma Biologics pathway will be considered to assess whether they are eligible for biologic therapy medication.

The InHIP programme is a unique collaboration between the Accelerated Access Collaborative (AAC), NHS England's National Healthcare Inequalities Improvement Programme and the Academic Health Science Network (AHSN) and delivered in partnership with integrated care systems (ICSs).

Dr Tracey Vell MBE, Medical Director at Health Innovation Manchester, said:

> **"This is a perfect example of making every contact in the NHS count and whilst we have citizens engaging with the health service, we must tackle the wider determinants of health and prevent future ill health. In Greater Manchester we must start with those identified to be in the most need. Often citizens present only with their children, and we take every opportunity to offer health advice."**

Next steps:

Health Innovation Manchester will continue to work with NHS Greater Manchester to collate insights from community groups within Oldham over the coming weeks.

We want to gain a clear understanding of what children, young people and families with lived experience know about the effects of smoking and other environmental factors on their asthma and what resources they would find useful to help them manage their asthma better and widen their understanding. This is a true co-production and co-design piece which aims to positively impact asthma management in children and young people.

Through a series of workshops and focus-groups, a suite of co-produced learning resources will be created to provide communities with a greater understanding and knowledge of asthma exacerbations, asthma treatment and management to improve their asthma health.

Work is currently ongoing, and results will be shared alongside a collaborative insight report and communications campaign.

Research and academia

Operation of the academic health science centre, fostering academic partnerships, NIHR ARC-GM delivery and delivery of research domain-led projects.

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MANCHESTER ACADEMIC HEALTH SCIENCE CENTRE (MAHSC)

Academic Health Science Centres (AHSCs) are designated by NHS England and the National Institute for Health and Care Research (NIHR) for demonstrating excellence in health research, health education and patient care.

The AHSCs are regional partnerships bringing together expertise from universities and NHS organisations. Also, working with local partners including local authorities and industry, they improve health and care services by translating early scientific research and discoveries into benefits for patients and communities.

Manchester Academic Health Science Centre (MAHSC), part of Health Innovation Manchester, is one of only eight academic health science centres in England – and the only one in the North West.

MAHSC builds on established collaborations between the leading research and teaching of Greater Manchester's universities and our NHS Greater Manchester Integrated Care (NHS GM). This includes:

- Doing excellent research that delivers outcomes for patients
- Growing Greater Manchester's healthcare strengths through excellent education
- Utilising its integrated clinical and social data

The MAHSC discovery and translation strategy is delivered by seven domains, each led by academics and clinicians, overseen by Chief Executives from partner NHS Trusts. The domains are:

- Applied Health and Care Research (joint initiative with the Applied Research Collaboration Greater Manchester)
- Cancer
- Cardiovascular & Diabetes
- Inflammation & Repair
- Mental Health
- Neuroscience
- Women & Children

Research projects undertaken via MAHSC and GM's other research bodies are pulled through HInM's innovation pathway to provide a rich pipeline of evidence-based innovations that can be deployed at pace and scale. It means we can make real fast-tracked improvements to the health of local people and beyond.

MAHSC has been officially redesignated up to 2025. During the past year, we passed the mid-point of the current designation. This came at a time when there had been several developments locally and nationally that presented an opportunity to take stock and potentially evolve how the AHSC operates. This will involve close consultation with our local stakeholders.

Read more >

16 outstanding NHS clinicians and researchers named MAHSC Honorary Clinical Chairs 2022

The MAHSC Honorary Clinical Chairs are awarded on an annual basis by The University of Manchester's Faculty of Biology, Medicine and Health Promotions Committee. They are awarded to individuals from across GM who have made a major contribution to their clinical specialty, including excellence in research and education.

In 2022, MAHSC announced 16 outstanding individuals as Honorary Clinical Chairs. There are now over 80 MAHSC Honorary Clinical Chairs.

At the time, Professor Peter Clayton, Health Innovation Manchester's then Chief Academic Officer, said:

> **"My congratulations go to our 16 new MAHSC Honorary Clinical Chairs on their appointment. Each new MAHSC Honorary Clinical Chair has made outstanding contributions within their field that exemplify the values of an Academic Health Science Centre: exceptional health and care research, education and patient care."**

Read more >

NIHR Infrastructure Bids

NIHR Manchester Biomedical Research Centre (BRC) Bid

In October 2022, GM was awarded its largest ever research funding to tackle health inequalities and drive health improvements across the city region.

The National Institute for Health and Care Research (NIHR) Manchester Biomedical Research Centre (BRC) received a £59.1 million award – the largest single research award given by the NIHR to the city region.

This funding will be used to translate its scientific discoveries into new treatments, diagnostic tests, and medical technologies to improve patients' lives in GM, and beyond, over the next five years.

NIHR CRF (£15.5m) over five years

Clinical Research Facilities (CRFs) support the delivery of early translational and experimental medicine research studies, including early-phase clinical trials. They provide dedicated purpose-built facilities in the NHS specifically for the delivery of high-intensity research that requires dedicated space, facilities and specialist expertise.

The Manchester CRF comprises four dedicated experimental medicine research units at The Christie NHS Foundation Trust, Manchester Royal Infirmary, Royal Manchester Children's Hospital and Wythenshawe Hospital.

A renewal bid in 2021/2022 was successful – this resulted in a ~25% funding uplift and will bring the Northern Care Alliance NHS Foundation Trust (Salford Royal) into the partnership.

NIHR Patient Safety Research Collaborations (£4.9m) over five years

Patient Safety Research Collaborations (PSRCs) conduct and support research to investigate ways to improve the safety, quality and effectiveness of the services that the NHS provides to its patients.

The GM PSRC was successfully renewed for the period 2023-2028, extending the partnership to the East Midlands.

ACADEMIC PARTNERSHIPS

Alongside bespoke pieces of work conducted between NHS, Industry and Academic Partners, Strategic Initiatives undertaken on behalf of the Health Innovation Manchester Academic Partnerships Group have been facilitated by the Academic Partnerships team with representatives from the four Greater Manchester HEIs in the following areas:

(i) Applied Health and Care Research
(ii) MPhil/PhD Shared Supervision
(iii) Opportunities to collaborate with industry via ERDF R&I Health Accelerator.

Applied Health and Care Research

Following a virtual roundtable discussion in September 2021, that included discussions on cross-organisational collaborations that complemented the work of the NIHR Applied Research Collaboration Greater Manchester (ARC-GM), the potential creation of a MAHSC Applied Health and Care Domain and the identification of associated funding to support pump-priming projects similar to the other domains, a 'Task and Finish' group, with equal representation from all 4 HEIs, was convened to further develop these discussions.

The group agreed that the MAHSC Applied Health and Care Research Domain would be complementary to the work of the NIHR ARC-GM and existing MAHSC domains. Following discussions, a MAHSC Applied Health and Care Research Group has been formed, to drive applied health and care research activity, in line with the MAHSC vision to 'amplify the discovery and development of our best innovations and, through integration within HInM, and deploy them at pace and scale to improve health outcomes regionally, nationally and internationally, whilst upskilling our workforce and generating economic return for our city region'.

The first meeting of the MAHSC Applied Health and Care Research Group Steering Group convened on 27th February 2023. The next steps for the group include development of a funding call to fund cross-discipline, multi-institution, research-led projects that have potential to generate health and social care impact and benefits to service-users, patients, and carers.

MPhil/PhD Shared Supervision

A programme of joint MPhil or PhD studentships would be an excellent opportunity to further strengthen relationships across our four GM universities.

A small working group was convened to discuss this initiative, with representation from all four universities.

The group agreed that a formal route towards developing an MPhil/Joint PhD would be beneficial, as opposed to a more informal arrangement. From the discussion a "shared supervision" model seemed to be a pragmatic route forward, initially with a small cohort of 4 MPhil/PhD students, with each HEI having 1 MPhil/PhD student each. The institution of the primary supervisor would determine where the student would be registered and where the degree would be awarded. The student would be expected to spend time at each HEI, perhaps attend courses and have access to facilities.

The group are engaging in internal discussions to ensure compliance with existing regulations, in addition to assessing deeper institutional appetite. They are providing feedback on key priority themes which could have the potential for cross-collaboration, including areas of strength, potential areas for collaboration and areas that each HEI would benefit from working in complementarity with another HEI.

Opportunities to collaborate with industry via ERDF R&I Health Accelerator Programme

Read more here >

NIHR APPLIED RESEARCH COLLABORATION GREATER MANCHESTER (NIHR ARC-GM)

As one of 15 NIHR Applied Research Collaborations (ARCs) across England, the NIHR Applied Research Collaboration Greater Manchester (ARC-GM) was created to support applied health and care research that responds to, and meets, the needs of local populations and local health and care systems in Greater Manchester.

Since 2019, the NIHR ARC-GM has cultivated strong partnerships with the NHS, councils, patients and the public, the third sector, industry and universities across the region. By working collaboratively, we can produce world-class research that is relevant, useful and applicable to local service needs and affects policy and practice within Greater Manchester and beyond.

Read more about NIHR ARC-GM >

Case study 1: Health and Care Inequalities in the North of England

NIHR ARC-GM have produced a portfolio of reports in collaboration with the NIHR ARC North East and North Cumbria, ARC Yorkshire and Humber and ARC North West Coast and the Northern Health Science Alliance (NHSA). These continue to highlight the health inequalities facing the North of England.

A further paper published in ***Health and Place***[1] added further evidence of the unequal impact that deprivation has on COVID-19 mortality, with the recently published book ***Northern Exposure***[2] detailing the health impacts and economic outcomes, that the COVID-19 pandemic caused within the North. This work was featured at January's **Convention of the North 2023** meeting, and the **"Convention of the North - Powering Britain's Future"** report, with Leaders from across the North outlining a clear set of ideas to unlock and deliver the region's potential.

In collaboration with the NHSA, Dr Luke Munford (Deputy Lead for Economic Sustainability within NIHR ARC-GM), has been appointed as an Academic Director for the newly launched **Health Equity North** - this is a virtual institute focused on place-based solutions to public health problems and health inequalities across the North of England. The institute will produce annual updates of health in the North to help and challenge local and national policy makers in their efforts to reduce regional inequalities.

Read more: Growing divide in regional health inequalities exposed >

Read more: Health inequalities and regional productivity by Dr Luke Munford and Prof. Clare Bambra >

Case study 2. Rapid Evidence Synthesis: Supporting Innovation Adoption in the UK Health and Care system

NIHR ARC-GM developed a **Rapid Evidence Synthesis (RES) approach**, now published in ***Systematic Reviews***[3], to provide rapid evidence assessments to support adoption decision-making. This RES approach has been integrated within the innovation pipeline of Health Innovation Manchester (endorsed by the AHSN Network) and the **MFT Innovation Hub.**

The RES approach uses transparent methods to balance the use of robust techniques with short timelines. It draws on evidence synthesis methods including the ***GRADE Evidence to Decision framework***[4] to provide rapid assessments of the existing evidence and its relevance to support the adoption, and/or implementation of innovations in the health and care system.

NIHR ARC-GM worked closely with Health Innovation Manchester and local system partners to develop the RES approach, and to refine and develop the way RES are structured, disseminated and discussed with partners. NIHR ARC-GM have completed 25 RES since 2019, undertaking nine throughout 2022-23.

One of the key RES NIHR ARC-GM undertook this year, **Virtual wards: implications for the care of older people,** was used to summarise the various models of virtual wards and the existing evidence base, to support the GM approaches. This was also published in ***Age and Ageing***[5] which has been shared, discussed and well received by the GM Programme board, the AHSN Network & NHS England's Assistant Director for Virtual Wards, along with contributing to the **British Geriatrics Society position statement.**

> **"The RES was a key foundational element for the development of GM virtual wards. Understanding the current research evidence about quality, safety, effectiveness and critically patient outcomes enabled the GM system to incorporate this new understanding into their models and operational plans."**
>
> Chief Nurse, supporting the GM Virtual Ward Programme Board

Case study 3. The Effect of GM Devolution on Health

The devolution deal which granted Greater Manchester increased control over a range of public services, including health and social care, has been linked to a positive impact on life expectancy in a study by NIHR ARC-GM and The University of Manchester researchers.

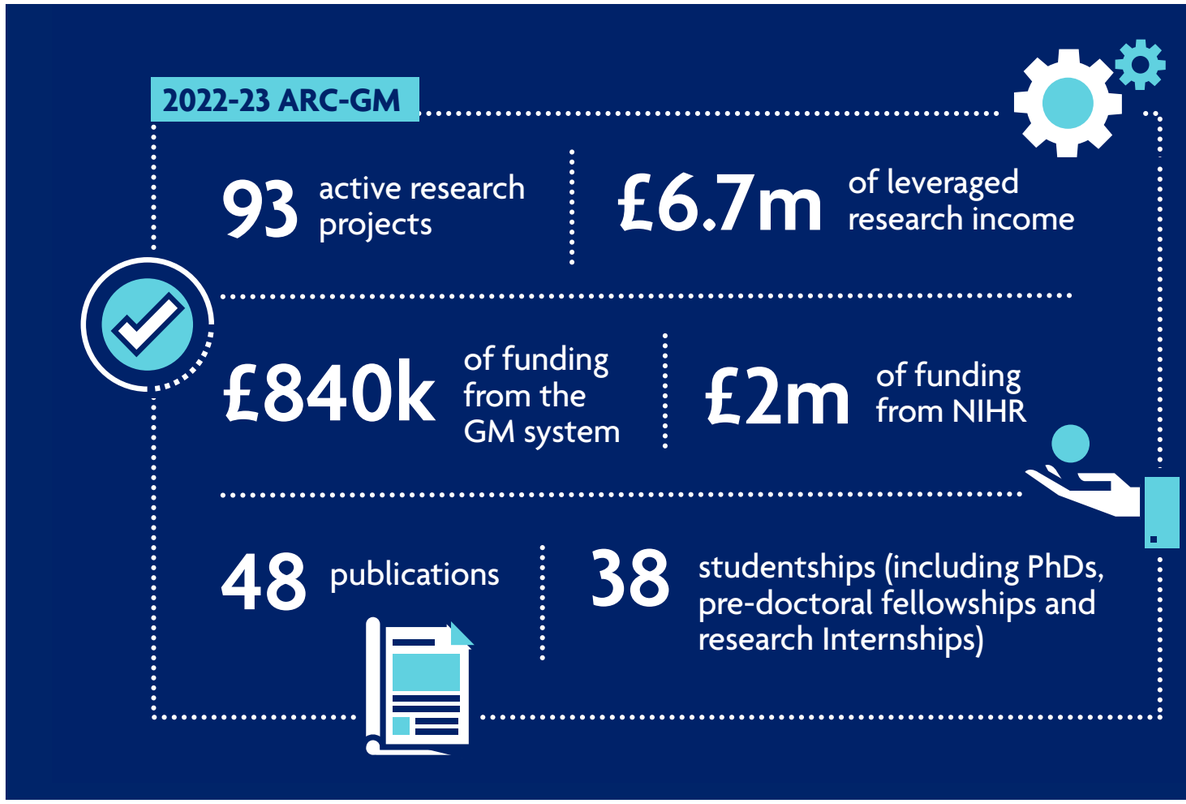
The Health Foundation funded study, published in ***The Lancet Public Health***[6], estimated the impact of devolution on the population stratified by sex, local authority, income deprivation, and life expectancy compared to the rest of England, excluding London.

It showed the benefits linked to devolution on life expectancy were felt in the most deprived local authorities where there was poorer health, suggesting a narrowing of inequality. It is the first study to provide robust evidence of the impact on population health of devolution in England and the findings have important implications for future policy.

Study links devolution in GM to modest improvement in life expectancy. Read more >

Understanding the impact of devolution in GM on health: read the blog by Hugh Alderwick, Director of Policy at The Health Foundation >

> **"We provide the first robust evidence on the impact of devolution in England on population health, focusing on changes occurring in Greater Manchester. The study shows modest improvements in life expectancy in Greater Manchester compared to comparable areas in the rest of the country from the introduction of devolution until the start of the COVID-19 pandemic in 2020, using a robust statistical method."**
>
> Dr Philip Britteon, lead author and Research Fellow at The University of Manchester & NIHR ARC-GM



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6. Britteon P, Fatimah A, Lau Y-S, Anselmi L, Turner A, Gillibrand S, Wilson P, Checkland K & Sutton M., The Impact of Devolution on Health: A Synthetic Control Analysis of Greater Manchester in England. Lancet Public Health. 2022; 7: e844–52 https://doi.org/10.1016/S2468-2667(22)00198-0

Industry partnerships

Developing and delivering an industry strategy to maximise local benefits from industry capability and capacities, including partnerships with global and UK life sciences, med tech, digital and SMEs.

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CASE-FINDING FOR PATIENTS AT RISK OF DEMENTIA

A collaborative effort involving Health Innovation Manchester, Linus Health, and several GP practices and Primary Care Networks in Greater Manchester, the project aims to implement targeted case-finding of cognitive impairment, focusing on early detection and intervention to delay the onset of dementia and reduce its severity. By adopting a proactive approach, the project seeks to shift from a reactive system to an upstream strategy that identifies patients in the early stages of cognitive decline.

Dementia poses a significant health challenge in Greater Manchester, affecting patients and their families while imposing substantial costs on the healthcare system. It is estimated that the annual cost of health and social care for people with dementia in the region amounts to £270 million. The current system primarily addresses dementia once symptoms are apparent, resulting in higher costs and increased reliance on dementia care services.

Linus Health offers a digital cognitive assessment platform that enables targeted case-finding in primary care settings. The case-finding process will be facilitated through the GM Care Record Business Intelligence (BI) platform, providing participating practices with a dashboard displaying a list of patients who meet specific search criteria.

By implementing targeted case-finding and early intervention for cognitive impairment, the project strives to improve outcomes for individuals at risk of dementia, enhance their quality of life, and reduce the burden on the healthcare system. Through collaborative efforts and the adoption of innovative digital tools, this project paves the way for a more proactive and cost-effective approach to dementia care in Greater Manchester.

TRANSFORMING ASTHMA CARE AND OUTCOMES IN GM

Health Innovation Manchester has collaborated with industry and pharmaceutical partners to pilot a project to transform the diagnosis and management of asthma patients across Greater Manchester.

The STARRS-GM project has been delivered in 27 GP Practices in seven localities in Greater Manchester, and to date has reviewed over 1000 patients. Through the LungHealth software, patients are provided with a sophisticated and thorough guided review that is controlled and monitored by clinicians and healthcare professionals, making for more optimal asthma care and management.

Health Innovation Manchester has a joint working agreement with AstraZeneca and is working through the Standardised Asthma Review and Reduction in SABA model in Greater Manchester (STARRS-GM) using LungHealth software, via National Services for Health Improvement (NSHI).

The Challenge:

Asthma is a common condition in which the airways in the lungs become inflamed. This can lead to symptoms such as breathlessness, coughing and wheezing. It affects more than 5.4 million people in the UK, including around 200,000 people in Greater Manchester.

There is currently no cure, but there are treatments that can help keep the symptoms under control. People with asthma are usually prescribed “preventer” inhalers to treat airway inflammation and ‘reliever’ inhalers to temporarily relieve symptoms by relaxing airway muscle.

Objectives:

The STARRS-GM project aims to improve the outcomes for people living with asthma in the region through proactive identification and reviews with high-risk patients to optimise their asthma management. This includes:

- High quality, consistent, AI-guided asthma consultations through the LungHealth software
- A focus on high-risk patients (those over-reliant on SABA or on high dose inhaled corticosteroid therapy (ICS)
- Education for health care professionals and patients
- Consultant-led multi-disciplinary team (MDT) and streamlined referrals to specialist services.

The project will also utilise two products to improve the diagnosis, treatment and management of asthma. Both innovations are part of Accelerated Access Collaborative’s Rapid Uptake Products Programme, which identified and supports acceleration into the NHS products with NICE approval that support the NHS Long Term Plan’s key clinical priorities:

- Fractional exhaled nitric oxide (FeNO) testing. A point of care test to measure type two inflammation in airways, which augments and supports the accuracy of asthma diagnosis.
- Biologics for treating severe asthma

Impact:

Over 1000 patients in Greater Manchester have received asthma reviews through the LungHealth platform; helping to improve asthma diagnosis and management through the SABA model.

Of the 1,429 patients that have been reviewed through the LungHealth software, 1,225 were reviewed remotely, either by a mobile telephone or a video device - 826 (57.8%) by telephone, 399 (27.9%) by videocall, 204 (14.3%) face to face.

A large portion of the patients reviewed have gone on to receive a Personalised Asthma Action Plan (PAAP) as part of their care, helping to monitor and manage their asthma more efficiently. As part of these plans, appropriate patients have been referred to specialist services after streamlined assessments, helping to connect the care services available across Greater Manchester health and care system.

A large portion of these reviews have shown that dry powder inhalers have been increasingly prescribed as an alternative to aerosol inhalers, which not only provides a more optimal option of treatment for many patients, but also helps to reduce the overall carbon footprint of asthma devices in Greater Manchester. 283 people who were previously exclusively on MDI inhalers were successfully transitioned to DPI exclusively, and a carbon footprint reduction of 95% has been seen in this group of patients.

FeNO testing saw a considerable increase in the numbers of patients tested through the additional supply of FeNO machines delivered through the STARRS-GM project, along with improved referrals through the structured asthma reviews; only two FeNO tests had been carried out at the start of the project, which increased to 202 tests by the end of the project.

Professor Ben Bridgewater, Chief Executive at Health Innovation Manchester, said:

> **“It is a pleasure to be able to work in partnership with industry once again to improve the experience of care for patients in Greater Manchester. The use of this technology will allow those who suffer with this common condition to better manage and review their health. This type of partnership work is exactly what we at Health Innovation Manchester see as a top priority. By utilising the expertise of industry in collaboration with our local health and care system, we can work to improve patient pathways, equality and access to treatments whilst boosting environmental sustainability”**

Tom Keith-Roach, President at AstraZeneca, said:

> **“Core to our strategy at AstraZeneca is our focus on developing sustainable NHS partnerships, in areas of highest healthcare deprivation, to help improve outcomes for patients with long term conditions. Our ambition to reduce asthma attacks is a key focus area, and so we are delighted to partner with Health Innovation Manchester through the STARRS-GM project, which aims to improve asthma outcomes in Greater Manchester to optimise asthma management in high-risk patients”**

SUPPORTING OUR INDUSTRY INNOVATORS

Health Innovation Manchester has once again worked with a wealth of talent over the last twelve months from across the life sciences sector and has been successful in targeting innovations that align with the needs of Greater Manchester's health and social care system.

Through our Innovation Nexus portal and through a wide range of commercial support programmes including the R&I Health Accelerator programme, Health Innovation Manchester's help for SMEs and industry partners has aided the development of new products, technologies and innovative solutions that are ready for deployment.

The Health Innovation Manchester team of advisors brings together expertise across all aspects of working with the NHS and innovation, from trials, evaluation and market needs analysis to procurement and adoption.

Richard Deed, Associate Commercial Director – Industry, said:

> **"It has been another significant year for Greater Manchester's health and social care system, and for the Health Innovation Manchester commercial team. The metrics speak for themselves, over 250 companies received support during 2022/2023, a number which has been increasing year-on-year. With support from the entire organisation and from our partners in research and academia, we are proving once again that Manchester is a great environment to nurture innovations and fast-track solutions into our NHS."**

To find out more about how we work with innovators, please visit our Innovation Nexus portal >

OUR IMPACT IN 2022-23

277 companies supported across the financial year 2022/2023

11 horizon scan activities carried out including the following activity:

1. Acute Oncology
2. Motor neurone disease
3. 3D Printing
4. Mixed Reality in a Day (MRIAD) – VR

13 RWE supported including:

BBL Protect, KUPPD, Balance, Darvis Ltd, Linus Brain Health project, VisioPharm

12 innovations supported to be introduced into clinical/ commercial settings including:

MyHappyMind- Further Spread across GM and in a total 49 schools and 14 nurseries (63 sites in total)

Balance App (a menopause management focussed app) has been purchased by corporate organisations as a commercial product.

Phagenesis (treatment for neurogenic dysphagia) is being used in a total of 22 sites - 4 of which are in Greater Manchester region.

Sleepio and Daylight: Newly diagnosed cancer patients in Greater Manchester can now access free, safe, and instant mental health treatment, to help with insomnia and anxiety from the comfort of their own home. Sleepio (for poor sleep and insomnia) & Daylight (for worry and anxiety). This has come through a partnership between HInM, Macmillan Cancer Support and Big Health.

Microbiosensor: a new rapid diagnosis technology to detect bacterial infection in percutaneous dialysis patients

GM ERDF 40 companies supported

GM R&I 65 companies actively enrolled and supported

Cheshire Health Matters 36 supported

STEP Into Healthcare:

6 cohorts **40** companies supported

our two-day bespoke educational programme that provides innovators and businesses with an understanding of the NHS landscape, how to develop their value proposition and approach the NHS - 6 cohorts, 40 companies supported

Greater Manchester Cancer Alliance Partnership

£2.6m

£2.6m leveraged in to address the needs of the GM system with regards to its cancer services with Louise Lawrence leading in this role as GM CA partnership manager.

Case studies:

Sarah Denis Studio Ltd (Kuppd)

Kuppd is a service which provides more choice for those who have been affected by mastectomy or lumpectomy. They create fashion forward, sustainable 3D printed external breast prostheses, using 3D mapping. Kuppd collects data that enables a prosthesis to be printed and perfectly fit the patient's chest wall curve.

So far, Kuppd has had support from Health Innovation Manchester though the R&I Health Accelerator, and through a Follow-On Innovation Voucher Award. The award has supported work with Manchester Fashion Institute and Print City at Manchester Metropolitan University to design, prototype, and gain participant feedback.

Sarah Cordery, Founder of Kuppd, said: "At Kuppd our mission is to help bridge the difficult period after breast surgery with comfortable intimates that make you look and feel great. The funding received through ERDF and Health Innovation Manchester is being used for external breast prosthesis prototype refinement and participant advisory focus groups in collaboration with Print City and Manchester Fashion Institute. This will help provide proof of concept for the product and support further investment."

Balance

The Balance menopause app was created by Dr Louise Newson to make menopause support inclusive and accessible to everyone. It is tailored for perimenopausal and menopausal people to improve their knowledge around the menopause. It can also be used by health professionals in the treatment pathway to reach a quick diagnosis through using a health report.

The app provides general information, resources and activities to the public, patients or clinicians allowing people to self-manage their condition by monitoring symptoms and behaviour change techniques.

Balance has received support from Health Innovation Manchester via the R&I Health Accelerator and has also had support through the Follow-On Innovation Voucher Awards. The Follow-on voucher allowed Balance to explore the added value of implementing the app within the current care pathway and service provision working with three primary care networks.

Gaele Lalahy, Chief Operating Officer at balance, said: "We are absolutely thrilled to be a successful awardee of the ERDF R&I Accelerator. The funding is enabling us to understand the added value of using the balance menopause app in Manchester primary care pathways. We believe that it will make significant financial savings across the system, free-up scarce resources and allow women to not only better manage their menopausal symptoms but also access the right care and treatment in a timely way."

HEALTH INNOVATION ACCELERATOR

Greater Manchester health and care partners, in collaboration with academia and industry, announced the launch of a new multi-million pound health innovation accelerator focused on rapidly improving the diagnosis and treatment of disease across the 2.8m GM population.

The **Government have invested £100 million** to accelerate the growth of three high-potential innovation clusters: Glasgow, Greater Manchester, and the West Midlands. The investment will ensure they become major, globally competitive centres for research and innovation.

As part of a two-year programme, **Greater Manchester will launch innovative projects** in sectors where it has existing research strengths, including advanced materials, artificial intelligence (AI), diagnostics, and net zero. It will focus on tackling some of the most challenging disease areas through early diagnosis using novel approaches and holistic treatment aligned to people's specific needs. It is hoped this will help to save more lives and improve health outcomes for people at high risk or living in the most disadvantaged communities.

The health accelerator will focus on enhanced diagnostics and genomics, delivered through a partnership between Health Innovation Manchester, **Manchester University NHS Foundation Trust**, and **The University of Manchester.**

Further significant investment has also been leveraged through partnerships with businesses in life sciences, digital and creative industries, which is a testament to the strength of Greater Manchester's partnerships with industry.

The following projects will be funded as part of the GM health accelerator programme:

- **DEVOTE – Development and Validation of Technology for Time Critical Genomic Testing:** By linking academic, healthcare and industry experts to address challenges, this project aims to bring new rapid genomics testing solutions to market that will improve patient outcomes and address wider healthcare issues such as drug reactions, strokes and pain relief. As part of this project, PALOH (Pharmacogenetics to Avoid Loss of Hearing) aims to use rapid genotyping to prevent the hearing loss of babies who have a gene variant that can be triggered by receiving an antibiotic used to treat neonatal sepsis.

- **Detecting EARLY Heart Failure in Greater Manchester (EARLY-HF):** Heart failure affects 1-2% of the adult population and tends to be diagnosed too late. The project aims to evaluate a prognostic model for predicting those at high risk of heart failure in ethnically diverse and socioeconomically deprived populations.

- **Redesigning liver care pathways:** Building on expertise developed through ID LIVER, this project aims develop novel algorithms for risk prediction, early detection and prognostication, to detect liver disease earlier in the community, lessen health inequality, and improve public awareness of liver disease risk.

- **Chronic Kidney Disease (CKD) Risk Stratification:** Diabetes is now the leading cause of kidney failure, therefore early detection and diagnosis of CKD is particularly important in people with diabetes to initiate preventative interventions that slow progression. The project aims to establish and quantify the usability and user acceptance of the Gendius CKD Screening Prioritiser (CSP) within primary care and at scale using the GM Care Record, to improve patient treatment experiences and enable faster access to treatment.

- **Integrating Real-Time POCT into Lipids Management:** There are approximately 7,000 people who have had a cardiovascular disease (CVD) event with unmanaged cholesterol in GM. There is a need to accelerate patient lipid reviews across GM and address the backlog in caseload management. Through data insight, this project aims to target communities with the poorest CVD health and reduce CVD risk.

- **Remote Spirometry ADA:** Current spirometry offerings across GM are unable to satisfy demand, and there are an estimated 70,000 people waiting for spirometry to support diagnosis and care. This project aims to test the viability of alternative delivery of spirometry services via remote provision.

- **Lung Health Check:** Lung Cancer is the leading cause of cancer death, and incidence is much higher in more deprived communities. The Lung Health Checks offer mobile screening to improve screening uptake and reach underserved communities. This project will build on the lung health checks to take research to underserved communities, increase recruitment to clinical trials, and facilitate new commercial partnerships to assess novel diagnostic blood tests.

- **Pre-Hospital Diagnosis of Acute Coronary Syndromes:** Manchester has one of the worst rates of premature death from cardiovascular disease in the country. Research has shown that it is possible to accurately spot heart attacks in the ambulance with a decision aid (T-MACS) & a near-patient troponin test. The project will pilot these new technologies, and if successful the new technology could ensure more rapid responses for those who need them, while giving safe and early reassurance to others.

Each project will be underpinned by a shared ethos to reduce inequalities, forge new relationships with communities, and drive productivity through innovative collaborations with business and industry, as well building on assets already in existence within the GM system.

HInM support services

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Making Projects Happen

People Plan

To support HInM's drive for innovation and deliver improved citizen outcomes, our People Plan is collaboratively designed to help us attract, retain and grow all of our people here at HInM.

To support and inform the initial co-development of the People Plan, themes were explored to identify key areas of strength and opportunity for development, with a view to create a shared understanding of our starting point in January 2023. The views of our people set the basis of the Plan and started the conversation.

The 4 key themes that provided the starting point were:

Ways of Working - Flexible & hybrid working options to ensure work/ life balance
Healthy and Sustainable HInM - Safety to share and protected thinking and planning time
Belonging - Feeling valued & recognised for individual contribution and as part of the team
Leadership - More engagement and connection with teams across the organisation

Our People Plan has been created through conversation with our staff, our people. The promise and commitments provided in the pillars of our Plan demonstrate what we can achieve together.

Assurance and Programme Management Office (APMO)

The APMO ensure teams are provided with the right information that allows proper decision making to ensure projects are managed effectively. The APMO team achieve this by establishing and implementing best practices and governance, while maintaining standards related to project management, planning and execution.

The APMO team oversee the HInM portfolio across all areas, working closely with project teams and programme directors to keep track of projects according to time, budget and scope, report on project activities and oversee the risk and change management processes. They provide assurance when a project is ready to move through the decision gate into the next stage of the delivery pipeline.

By providing assurance on the accuracy and consistency of project planning and reporting, the APMO team can ensure we are managing our projects efficiently and effectively.

Looking back

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April 2022

April 2022
Funding announced for three late-stage innovation projects that will aid improvements in mental health services

More info >

June 2022
New report maps the challenge of type 2 diabetes in Greater Manchester

More info >

July 2022
16 outstanding NHS clinicians and researchers named as MAHSC Honorary Clinical Chairs for 2022

More info >

August 2022
STEP INto Healthcare provides intensive support for SMEs and workshops with leading industry experts.

More info >

September 2022
We hosted our first Polypharmacy Community of Practice

More info >

October 2022
More than 140,000 patients each month are now accessed through the GM Care Record

More info >

October 2022
We hosted our first PSIRF Learning Session

More info >

October 2022
We sponsored two places on a digital health course at The University of Manchester

More info >

October 2022
Greater Manchester was awarded its largest ever research funding of £59.1 million

More info >

October 2022
Heath Innovation Manchester turned 5

More info >

November 2022
Patients share their experiences of switching to a greener inhaler & helping towrads a zero carbon Greater Manchester

More info >

December 2022
New pathway launched for secondary prevention of CVD in Greater Manchester

More info >

January 2023
Primary Care partnership launches cognitive impairment case-finding for patients at risk of dementia across Greater Manchester

More info >

January 2023
New collaboration between AHSNs and NIOX® to improve access to faster and more effective asthma diagnosis

More info >

January 2023
Dr. Gareth Thomas joins the Greater Manchester health and care system as Digital Innovation Director

More info >

February 2023
Five companies awarded up to £20,000 of funding through the R&I Health Accelerator

More info >

February 2023
Professor Steven Myint, Dr. Mark Chakravarty and Steve Oldfield CB join the HInM Board

More info >

February 2023
Greater Manchester chosen to develop a regional Secure Data Environment (SDE) for health and care

More info >

February 2023
We welcomed the HETT North conference to Manchester

More info >

March 2023
Seventeen new Fellows join the NHS Innovation Accelerator programme

More info >

March 2023
Greater Manchester secures multi-million investment to improve the diagnosis and treatment of disease to save more lives

More info >

March 2023
Event series to celebrate MAHSC Honorary Clinical Chairs in Greater Manchester

More info >

March 2023
National Innovation Collaborative hosted a national event on digital health

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April 2023

Looking forward

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LOOKING FORWARD

As we move into 2023/24, the final year of our 3-year business strategy '**Leading with Delivery**', we have considered the changing context, system challenges and population health challenges to identify five high priority areas for delivery for the year ahead.

1

Health Innovation Accelerator - This multi-million pound programme will deliver novel diagnostics in cardiovascular, respiratory and liver disease, specifically addressing communities most at need. The programme will drive better access to care and improve clinical outcomes for local people, as well as increasing impact from GM academic activities and creating new market opportunities for local industry partners.

2

Digital – Through the GM Care Record optimisation and development of the Secure Data Environment (SDE), we will accelerate our activities to maximise the benefits from the platform both by focus on increasing uptake, as well as driving product development aligned to clinical need and system priorities.

3

Deployment of proven innovations - Alongside the ICB and system partners, we will be deploying innovations at scale based on proven solutions that meet key system challenges, population health needs and contribute to tackling inequalities.

4

Strategic industry partnerships - We will continue to execute on our industry strategy to enrich our pipeline of proven innovations, secure additional resource for local innovation deployment, and bring benefits to industry which will encourage further investment and collaboration.

5

Academic partnerships - We will continue to progress integration and optimisation of our underlying university and NHS research assets so that we can further enrich our innovation pipeline for the future and achieve greater local impact from investment to the GM academic infrastructure.

In addition, in 23/24 Health Innovation Manchester and the wider AHSN Network will work with its commissioners and partners to learn from and overcome traditional barriers to innovation to ensure that the benefits of innovation are fully realised. Through this work, we will:

- articulate a set of priority signals that provide strategic direction to agencies and industry involved in invention, innovation, and improvement.
- direct discovery and translational work that aligns with the major challenges facing our health and care systems.
- identify and bring together the levers supporting scaled adoption into coherent multi-agency adoption support plans so that delivery systems have the best possible chance of making adoption happen.

Through this we aim to realise more of the benefits available for citizens/patients, health economies, innovators, and the wider economic development and, tackle inequalities of access, experience, and outcomes.

Finance

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2022-23 Results	2022-23 £'000	2021-22 £'000
Income	**16,323**	**17,243**
Expenditure		
Health and Implementation	3,449	3,629
Informatics	3,027	3,531
Industry and Wealth	1,967	1,925
Utilisation Management	1,384	1,105
Research and Development	3,081	3,007
Research Domains	834	827
Programme Management	2,580	3,206
Total expenditure	**16,322**	**17,230**
Net surplus	**1**	**13**

Dedicated to our friend and colleague, Simon Hammond.

Health
Innovation
Manchester

We are Health Innovation Manchester

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