



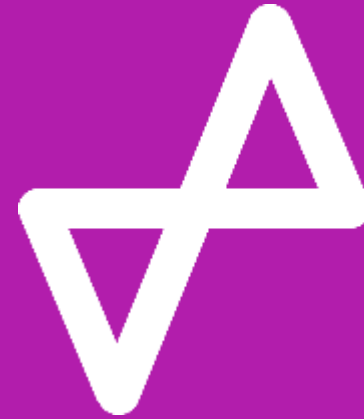
Health  
Innovation  
Manchester

# Innovation with impact

HInM strategy - 2024/25 to  
2027/28



Health Innovation Manchester's vision is to be world leading in improving the lives of local people, transforming care and boosting the economy through innovation.



Health  
Innovation  
**Manchester**





# We are Health Innovation Manchester

Health Innovation Manchester is a place-based innovation organisation.

Since formation in 2017, we have evolved and integrated our operating model and method for how we deploy innovation to deliver demonstrable impact and benefits to local people, system partners and industry.

The four key elements to success are our approach to integrated governance, blending capabilities, industry partnerships and an unrelenting focus on method.

## Integrated governance

Whilst we are an NHS hosted organisation, we report to an independent Board comprising the highest-level city region leadership from the NHS, GM universities, the GM Combined Authority, local authorities and influential non-executive directors from global life sciences and medtech industries.

## Integrated capabilities

HInM comprises the GM Health Innovation Network (formally AHSN), the Manchester Academic Health Science Centre, the NIHR Applied Research Collaborative and the GM NHS city region digital transformation office.

Whilst recognising their distinct accountabilities, we integrate the components to deliver our mission through blended innovation activities and driving collaboration across GM partners.



## Industry partnerships

Greater Manchester's past, present and future is based on compelling partnerships with industry.

We recognise that major innovation supply chain opportunities for health and life sciences are coming from the pharma, biotech and digital industries.

We focus on partnership with industry to accelerate their product lifecycle management process and thereby deliver benefit to industry, as well as accelerated benefits to local people and the health economy.

## Unrelenting focus on method

We recognise that reliable delivery of innovation at pace and scale has been a challenge for healthcare systems across the world.

To drive forward our approach in Greater Manchester, we have ensured that we place data and digital approaches at the heart of everything we do, and developed an enhanced innovation method overseen by robust assurance and measurement of impact at the centre of our operating model.



# Health Innovation Manchester plan on a page

## Our vision

Health Innovation Manchester's vision is to be world leading in improving the lives of local people, transforming care and boosting the economy through innovation.

### Impact 1:

Improve lives and outcomes for GM people by addressing the priority drivers of population health.

### Impact 2:

Support a safe and sustainable GM health and care system through deployment of innovation at scale.

### Impact 3:

Boost jobs and economic growth for the GM city-region through industry collaboration and partnerships.

### Objective 1:

Address high priority drivers of population health by deploying proven innovations at scale, with a major focus on primary and secondary prevention.

### Objective 2:

Establish GM as a global learning market for accelerated access to novel innovations at scale

### Objective 3:

Optimise digital and data products and services to understand the population, define their needs and develop new models and pathways.

### Objective 4:

Work with partners to enhance the GM system's capacity and capability to deliver health innovation and demonstrate impact.

**Key enablers:** GM Care Record, Secure Data Environment, digital transformation, industry partnerships, academic partnerships, system engagement (with commissioners, providers, patients, carers, the voluntary sector and local places), user-led design.

**Foundations:** OKR framework, HInM people and OD plan, innovation pipeline, innovation culture, benefits measurement



## Strategic objective 1

Address high priority drivers of population health by deploying proven innovations at scale, with a major focus on primary and secondary prevention

### What does this mean?

- Discover, develop, deploy innovation aligned to most significant priorities and ability to deliver ROI in 3 years
- Major mission on cardiovascular disease
- Broader cardio-renal-metabolic portfolio
- Respiratory disease deployment projects
- Discover/develop for mental health
- Deliver the national HIN activities

## Strategic objective 2

Establish GM as a global learning market for accelerated access to novel innovations at scale

### What does this mean?

- Improve GM's position as a global city-region for health innovation
- Develop a multi-industry consortium approach with a shared ambition
- Land more clinical trials, real world studies and early value assessments of novel products and therapies
- Attract inward investment and increase Innovate UK grant awards
- Work with academic partners and NIHR bodies



### Strategic objective 3

Optimise digital and data products and services to understand the population, define their needs and develop new models and pathways

#### What does this mean?

- Digital and data will continue to underpin everything we do
- Continue to grow and enhance the GM Care Record for direct care and research, including optimising cohort finding
- Mobilise a full SDE service and attract investment
- Digital industry partnerships to support a shift towards prevention and secondary prevention
- Understand the art of the possible in AI automatic and next generation computing

### Strategic objective 4

Work with partners to enhance the GM system's capacity and capability to deliver health innovation and demonstrate impact

#### What does this mean?

- Help the system to become better at adopting innovation and improving handover to 'business as usual'
- Increase capacity and capability for research and innovation across the system
- Continue to improve our own method and approach to deliver impact
- Deploy the HInM People Plan
- Develop and deploy the outcomes and key results OKR framework across the business



# The power of the GM SDE for research and innovation

## Understand your population

- Population Segmentation & Risk Stratification
- Cohort Identification
- Benchmarking
- Opportunity Identification
- Sensitivity analysis and prioritisation
- Predictive Analytics & Impact Modelling



## Define their needs

- Cohort engagement and co-creation
- Elicitation & problem definition
- Root cause analysis - upstream intervention
- Establish theory of change; define outputs, outcomes, impacts
- Set ambition / targets



## Change the way you do and pay for things

- Deep partnership
- Identify evidence-based interventions
- Agile methodology
- Operating model transformation
- Oversight and risk management
- Value based payment models



## Monitor and Learn

- Measurement, monitoring, evaluation, visualisation
- Effective risk management
- Continuous improvement
- Fail fast decision making
- Decommission legacy models



# The GM secure data environment

Sub-national SDE's for R&D provide unique technical and analytical capabilities to support a range of use cases

By providing secure access to linked longitudinal patient data, the GM SDE for R&D will support research and development throughout the entire innovation lifecycle.

Use cases span from early discovery, through to deployment at scale, into continued operational evaluation



**AI/Algorithm Development**  
Testing, training & validation



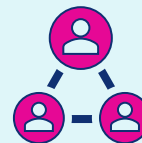
**Clinical Trial Activity**  
Feasibility, recruitment, efficacy through short & long term trial follow-up



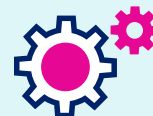
**Real World Studies**  
Safety, effectiveness, cost-effectiveness and health economics



**Translational Research**  
Academic discovery and implementation of discovery into practice



**Epidemiological Studies**  
Large cohorts for population health research



**Health Systems Research**  
Evaluation of systems or processes, operational and applied research



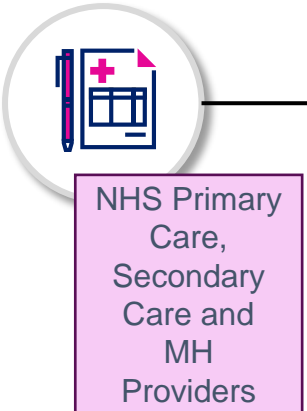
Source data

GM (only) ICS digital & data assets

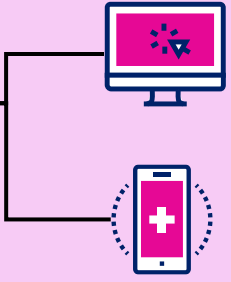
Interface

Users

Purposes for access

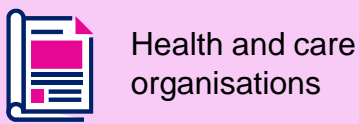
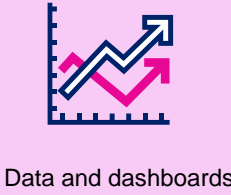


GMCR



- Direct care**
- informing clinical decision making
  - care planning
  - data quality and audit
- Patient held record** (local solution to be integrated to NHS App)
- viewing and contributing to own record

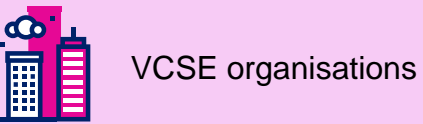
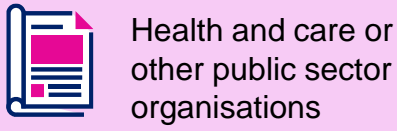
GM ADSP



- Direct care**
- identifying high risk patients and address inequalities
- Planning**
- population health - identifying high risk cohorts and addressing inequalities
  - understanding patient journeys and clinical pathways to inform commissioning

Remit of GM Data Access Committee

A lens defined and agreed within the application, onto deidentified data within the SDE (with virtual walls around it)



- Research and development**
- AI/Algorithm Development
  - Clinical Trial Activity
  - Real World Studies
  - Translational Research
  - Epidemiological Studies
  - Health Systems Research

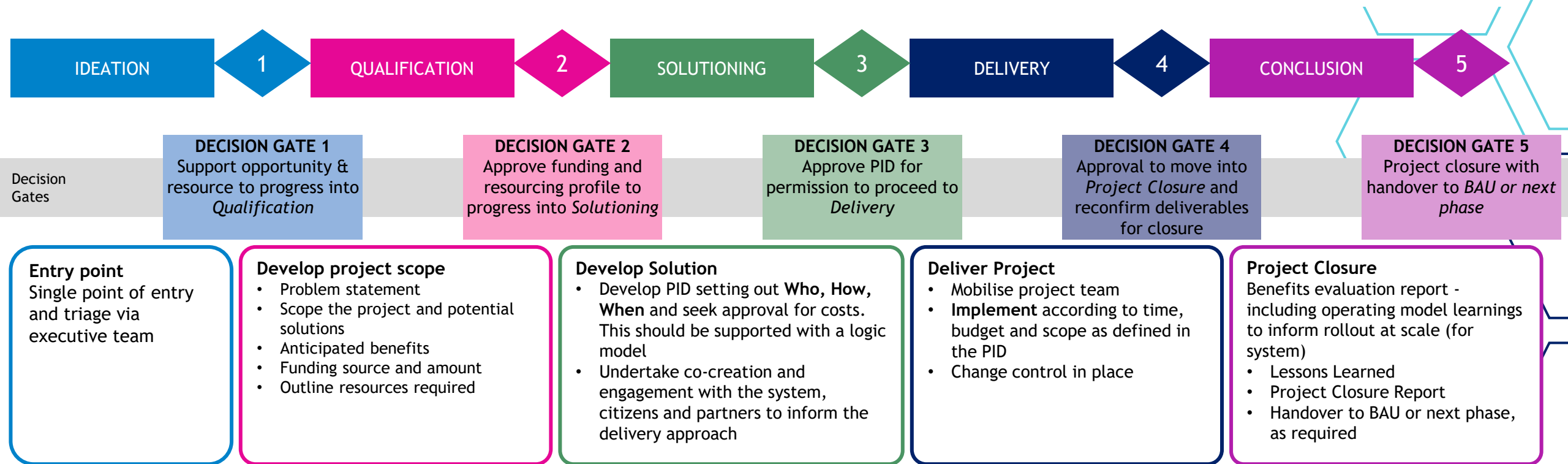
Remit of GM SDE applications review group



# HInM'S delivery is underpinned by a rigorous method

Delivery of our innovation activities is underpinned by our robust innovation pipeline method and approach, taking best practice from the tech industry and applying that into practice. This ensures an appropriate level of accountability and decision making, robust governance and assurance, and drives up delivery standards and effectiveness, as well as builds in benefits realisation from the beginning.

We adapt our approach according to the problems we are solving and solutions we are deploying, and have developed a critical set of capabilities and assets that we utilise as part of our overall offer back to the health and care system, academia and industry. It is our blend of in-depth healthcare, industry, digital, academia and engagement expertise that adds value to our partners.





# Demonstrating our impact - embedding the logic model approach

	Outputs (Year1)	Outcomes (Years 2-3)	Impacts (Years 3+)
	<i>Measurable/quantifiable results or deliverables from the intervention</i>	<i>What the programme and initiative lead to Short/medium term consequences</i>	<i>Longer term changes in wider contextual factors/issues</i>
FISCAL	<ul style="list-style-type: none"><li>• Shared understanding of population health costs, service capacity and demand, and ROI from intervention</li><li>• ADSP and SDE platforms fully operational, with a commercial model</li><li>• Increased leveraged funding and resources from industry and Government agencies</li></ul>	<ul style="list-style-type: none"><li>• Increased clinical trials and real world studies</li><li>• Faster access to new products, diagnosis and treatment</li><li>• Optimisation of new medicines and therapeutics</li><li>• Increased efficiency and effectiveness of care models, pathways and services</li><li>• Increased academic grants</li></ul>	<ul style="list-style-type: none"><li>• Health and care cost reduction</li><li>• Admission avoidance</li><li>• Reduced length of stay</li><li>• Optimising clinical capacity for direct care</li><li>• Reduction in demand for care</li></ul>
SOCIETAL	<ul style="list-style-type: none"><li>• Clear evidence base for intervention</li><li>• Structured deployment method</li><li>• Cohort finding and risk stratification</li><li>• Blueprint care models and new clinical guidelines</li><li>• Demonstrable relational improvements, system capacity and capability to deliver research and innovation</li></ul>	<ul style="list-style-type: none"><li>• Improved standard, reduced unwarranted variation</li><li>• Targeted intervention and precision medicine</li><li>• Deployment of proven innovation and technology at scale</li><li>• Enhanced expertise in health economics, analytics, AI, predictive modelling</li><li>• Increased clinical standards</li><li>• Academic publications</li></ul>	<ul style="list-style-type: none"><li>• Improved health outcomes</li><li>• Improved care and treatment</li><li>• Improved patient outcomes and experience</li><li>• Improved quality of care</li><li>• Equity of access and care across the system</li><li>• Better management of long-term conditions and disease progression, including self-management</li></ul>
ECONOMIC	<ul style="list-style-type: none"><li>• Deeper understanding of productivity loss against key drivers of population health</li></ul>	<ul style="list-style-type: none"><li>• Increased inward investment</li><li>• Increased foreign direct investment</li><li>• Increased productivity and employment</li><li>• Jobs creation</li></ul>	<ul style="list-style-type: none"><li>• Economic growth</li><li>• Growth in highly skilled jobs</li><li>• Growth in GVA from health innovation</li><li>• Accelerated market access for industry</li></ul>



# Innovation portfolio 24/25





# Population health priority innovation projects

## Cardiovascular disease

CVD health economic analysis

Strategic industry partnerships programme

Lipids - point of care testing, medicines optimisation (including Inclisiran)

National familial hypercholesterolemia, and blood pressure optimisation

Novel diagnostics for heart failure - risk calculator (discovery)

Chest Pain - PoC Troponin testing (discovery)

GMCR heart failure care plan and patient held app

Inequalities programme

## Cardio-renal-metabolic

Obesity discovery and reimagine programme

Obesity tier 3 digital and therapies transformation (pending)

Obesity GLP1 real world study (pending)

Chronic Kidney Disease

National CKD project

Optimising Diabetes in GM (ODIN)

Early detection of liver disease - ID Liver

## Respiratory

Remote Spirometry - community diagnostics (PoV)

Lung cancer screening - underserved communities

Improving respiratory outcomes in primary care

## Mental health

Research and innovation discovery project

Underpinned by the GMCR and SDE



# Priority industry and digital innovation projects

## GM Care Record

Optimising the GMCR at the point of care (% increase TBC)

Increasing data feeds, data access and improving quality

GMCR product development - integrated care plans

PoV for dementia and heart failure

PoV for personal held record

System-wide deployment of integrated care plans (TBC)

Dementia, heart failure, end of life, frailty

## Secure Data Environment

SDE programme development

Progression of 'alpha' service and academic and industry projects

Development of the beta service

GM SDE live service mobilisation

North West SDE programme

## Industry partnerships

Strategic industry partnerships programme

GM health innovation accelerator year 2 delivery

Commercial model for the GM Secure Data Environment

SME engagement programme

## Other digital projects

Digital first primary care

Digital workforce

Digital inclusion

NHS at Home at scale (TBC)



# Academic partnerships

## MAHSC operations

### MAHSC operations

Research domains x 7

Translation of research into the HInM pipeline

Mid-term review priorities - clinical research capacity building, commercialisation of academic assets, data science

Cross-system bid coordination

Academic access to the GM Secure Data Environment

## NIHR infrastructure engagement

Greater Manchester NIHR oversight committee

NIHR Applied Research Collaboration

NIHR Biomedical Research Centre

NIHR Clinical Research Networks

NIHR Clinical Research Facilities

NIHR Patient Safety Research Collaboration

NIHR Health Tech Research Centre for Emergency and Acute Care

## GM HEI engagement

University of Manchester

Manchester Metropolitan University

University of Salford

University of Bolton



# Impact case studies





# Enhancing the GM Care Record to inform better patient care

The GM Care Record (GMCR) provides frontline staff with access to vital and up to date information from across GP practices, hospitals and other care providers so they can make better decisions about what care and treatment needs to be provided.

The aim of the GMCR project was to increase clinical use of the GMCR by 20%, to support frontline staff to deliver care and reduce the amount of time spent tracking down important information or repeatedly asking patients.



## Key outputs

- Launched new digital care plans for dementia and heart failure - proof of value in Tameside and Glossop
- Launched the My GM Care app for patients to be able to view and contribute to their own care
- Increased access to information with new data feeds and granting access to community pharmacies



## Key outcomes

- The GMCR is now used by more than 21,000 frontline staff to support 270,000 patient episodes each month. We have seen a 21% increase in users accessing the GMCR from 22/23 to 23/24.
- 4 condition specific digital care plans have been developed and deployed in proof of value localities, with over 2,900 plans now completed
- My GM Care app launched to 13,000 residents in Tameside. Over 700 downloads on first day and over 400 patient contributions daily



## Key impacts

Time saving of £10m each year based on current usage rates



# Increasing access to novel therapies for people with high cholesterol

The prevalence of cardiovascular disease in Greater Manchester is disproportionately higher than the rest of the country.

The aim of this project was to optimise the lipids pathway across Greater Manchester, including the targeted deployment of medicines and novel therapies to reduce cholesterol in high-risk groups - delivered through primary care, taking a population health approach.



## Key outputs

- Published codesigned clinical pathways and training materials to aid medication reviews
- Developed digital tools to support cohort finding and track delivery in real time
- Mobilised a primary care delivery model with a blueprint approach
- Tracked patient outcomes through the GM Care Record, with an inequalities lens



## Key outcomes

- Identified an eligible cohort of 18,904 people for medication reviews and potentially novel therapies
- Enrolled 170 general practices in the primary care delivery model
- Number of new medication orders placed: 4,964 (July 22- March 24)
- 1,179 people have received access to novel therapies, which is approximately 6% of the eligible population at that time



## Key impacts

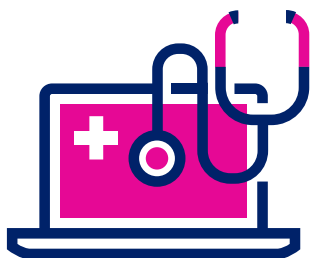
- In very high-risk patients a novel medication has been shown to further reduce LDL cholesterol by 44%
- Novel therapies used alongside standard treatment has the potential to prevent approx. 80 heart attacks and stroke over 5 years in GM and save the NHS at least £2 million - based on modelling a cohort of 5000 patients.



# Deploying virtual wards across Greater Manchester

Virtual wards are a new transformational model of care intended to provide acute care and support to patients in their own homes enabled by technology, as an alternative to a hospital stay.

The aim of the project was to design a model for virtual wards across Greater Manchester and support providers to deploy it across the system to deliver 1095 virtual ward beds by March 2024.



## Key outputs

- Published a GM virtual wards blueprint based on a standard network model across providers to achieve economies of scale
- Codesigned standard clinical pathways, definitions and data sets to encourage common standards
- Launched an insight-driven communications campaign to raise awareness of virtual wards across the system and to the public
- Completed a HInM benefits analysis and UoM-led independent evaluation



## Key outcomes

- Over 12 months, GM trusts reported delivering more than 1000 virtual ward beds, running at an average of 74% occupancy - this is a tripling of the bed occupancy.
- Through this same period, GM virtual wards supported 33,000 patients, saving 96,000 hospital bed days.
- Whilst the reported costs of a general hospital ward bed are £536 a day, provider reported costs of virtual ward bed days in GM average £133 a day.



## Key impacts (estimated)

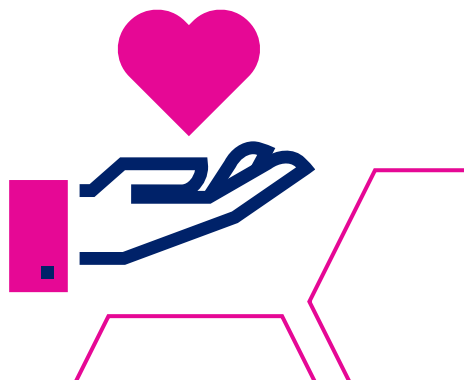
- Avoided ambulance conveyance - 11,000
- Avoided hospital admissions - 16,000
- A&E attendances avoided - 28,000
- The potential net saving to the system is estimated to be £13.8 million compared to traditional hospital care models (compared to the cost of a hospital stay).



# Understanding the obesity pathway across Greater Manchester

Obesity is a complex chronic condition with close association with the major drivers of population health including heart disease, stroke and diabetes.

The aim of the project was to deepen understanding of the total cost of obesity to the GM system, the current status of weight management and obesity services provision, as well as the potential impact of introducing alternative models of care and novel medicines.



## Key outputs

- Completed a detailed report on service mapping of weight management provision across GM, from tier 1 to 4
- Developed a health economic analysis on the full costs of obesity to the GM system
- Reimagined how tier 3 provision could optimise new technologies and novel medicines, modelling capacity and demand costs
- Developed a public attitudes and experiences report of peoples' lived experience and barriers to accessing care and support.



## Key outcomes

- Obesity costs the GM system £3.2bn per year in direct health and care costs and wider productivity losses
- Around 1 in 4 adults in GM live with obesity - (27.1%), and £5297 is the average cost per person living with obesity.
- Demand for services is outstripping capacity - 17,313 referrals to T3 (10.1% eligible population), and only 28% go on to enrol in the service.
- Waiting times for services - 12 months for T3, 18 months for T4
- Stigma and language are real barriers for patients seeking care and treatment.



## Key impacts (potential)

- Reducing obesity prevalence could have an economic impact of up to £440m - predominately realised by improving productivity.
- Reimagine tier 3 services optimising digital technology and novel medicines for eligible cohorts - promoting increased equity of access and outcomes



Thank you



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