

INNOVATION THE COLLABORATION 2018-2019 IMPACT REPORT

DISCOVER | DEVELOP | DEPLOY





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FOREWORD

Over the last 12 months we have delivered a huge portfolio of ground-breaking innovation programmes that are changing the lives of local people for the better. We have strengthened our position as a trusted partner to our stakeholders, and enhanced the cityregion's profile as a destination of choice for life science innovators.

Despite only being established in October 2017, Health Innovation Manchester has already had a big impact on the system. This has been made possible by Greater Manchester's exceptional clinical, academic, public and industry assets, and their inherent tendency towards innovation and partnership working. Few of the initiatives highlighted in this impact report would have been possible without our partners.

Our growing track record of delivery has been acknowledged by our stakeholders who have committed to providing additional resources to allow us to augment our national programmes with more local programmes aligned to local priorities.

In 2018/2019 our active innovation portfolio included around 90 health and social care innovation projects delivered in partnership with providers, commissioners, industry, and academia, all geared towards improving patient outcomes. These range from our work to become the first city in the UK to eliminate Hepatitis C by 2025, to improving care for people with Chronic Obstructive Pulmonary Disease (COPD) – the 5th biggest killer in the UK, and reducing the rates of maternal deaths, stillbirths, neonatal deaths and brain injuries that occur during or soon

Many of these will projects will continue into 2019/2020 as we support wider adoption and spread across all our localities.

We have also continued to work closely with industry to take forward some truly pioneering initiatives to improve the health and wellbeing of our population. We have done this by capitalising on our devolved system and leveraging new data capabilities and expertise in emerging fields such as precision health and digital.

Some of this work is being driven by a landmark strategic partnership with the Association of British Pharmaceutical Industry (ABPI), the success of which led us to adopting a similar approach in 2018 with the Association of British HealthTech Industries (ABHI). This is recalibrating the NHS relationship with industry, moving it from one of customer-supplier to one of

Professor Ben Bridgewater

Chief Executive Officer **Health Innovation Manchester**

partnership. This in turn is enabling us to expedite the adoption and spread of innovation aligned to the system's priorities, attract inward investment and extract increased value for money on behalf of the health and social care system from existing and new

Of equal importance has been our approach to collaboration with industry and life sciences SMEs. The support provided by the Innovation Nexus and the growing number of companies that we are working with is contributing to significant economic growth and activity across the city-region's life sciences sector.

The city-regions reputation as a destination of choice for innovators is growing. As a result we are attracting substantial interest and investment from around the world including major global players; most notably QIAGEN who are developing a world-leading genomics campus in Manchester which will create hundreds of jobs and add valuable assets to the local economy. This in turn will help secure additional inward investment from the life sciences industry, creating a virtuous cycle of growth that increases the wealth and health of our local economy and our citizens.

Digital transformation has been a particular focus for the year and is now part of the fabric of how we do things. The vast majority of our innovation projects have either a digital, tech or data science element. We were successful this year in becoming one of 10 digital innovation test sites, transforming care for people with heart failure through digital tech and data science. We are aspiring to transform health and care through digital innovation and to help position Greater Manchester as the most digitally advanced city in Europe. This will continue to drive our business strategy into the next year.

Health Innovation Manchester is at the beginning of a lengthy and complex journey and while we can be proud of the impact we have had in such a short space of time, there is still much to be done. Particularly in terms of delivering even more rapid and sustained adoption of proven innovations, and working closely with system partners to ensure health and care policies are completely aligned with the wider public services reform agenda.

This will be a key area of focus in 2019/2020 as we work towards our bold ambition to become a recognised international leader in accelerating innovation that transforms citizens' health and wellbeing.

Rowena Burns

Chair

Health Innovation Manchester

Formed in

One of 6 academic health science centres (AHSC)

science networks (AHSN)

Morethan organisations

Focused on healthcare innovation, industry engagement, académic partnerships and directlyemployed digital transformation

citizens live in **Greater Manchester**

10 neighbouring localities

Poorhealth outcomes

Lower than average life expectancy



The University of Manchester, University of Salford, Manchester Metropolitan University, University of Bolton

5 Business aims

- Ensure a constant innovation pipeline into health and social care.
- Prioritise and monitor innovations that meet the needs of Greater Manchester.
- Accelerate delivery of innovation into health, care and wellness.
- Amplify existing academic and industry value propositions.
- Influence national and international policy.



£6.6bn

devolved health and social care budget since 2016

The NHS and councils areunitedtohelppeople to start well, live well and age well

Diverse innovation portfolio

national innovation programmes

local GM innovation programmes

More than 80 projects in flight across the city region

health and care systems supported by the Utilisation Management Unit

As an academic health science and innovation system, Health Innovation Manchester is at the forefront of transforming the health and wellbeing of Greater Manchester's 2.8 million citizens.

Health Innovation Manchester was formed in October 2017 by bringing together the former Greater Manchester academic health science network (GM AHSN) and Manchester academic health science centre (MAHSC) under a single umbrella, augmented with all four Greater Manchester universities and research active Foundation Trusts and commissioners to become the city-regions academic health science and innovation system.

Here in Greater Manchester, we have the unique ability to deliver innovation into frontline care at pace and scale thanks to our £6bn devolved health and social care system, exceptional digital assets and ambitions, world-class academic and research capability and thriving industry partnerships.

We work alongside the Greater Manchester Health and Social Care Partnership and Greater Manchester Combined Authority to improve services, population health and unlock economic potential to create jobs, growth and prosperity.

Our collective ambition is to make Greater Manchester one of the best places in the world to grow up, get on and grow old.

Despite having one of the fastest growing economies in the country, people here die younger than those in other parts of England. Cardiovascular and respiratory illnesses mean people become ill at a younger age and live with their illness longer than in other parts of the country. Our growing number of older people often have many long-term health issues to manage.

Therefore, Health Innovation Manchester has a pivotal role in bringing forward a constant flow of targeted innovations and putting them through an effective but streamlined evaluation process to establish proof of value and replicability enabling them to be adopted at pace and scale across the city-region.

We do this by harnessing the assets of our world-leading researchers, fostering partnerships with industry and supporting our NHS and social care providers to adopt innovation, such as through digital technology, changes to practice or optimising medication.

Promoting Greater Manchester on a national and international stage is also a core part of our business, building on our reputation as a pioneering city-region to attract inward investment and capitalise on innovation import and export opportunities.

Although we are an organisation which directly employs people, we also represent research and innovation agencies working across Greater Manchester. The success of Health Innovation Manchester is intertwined with the success of our partners, so we work as one system. As a reflection of this, the Health Innovation Manchester Board is made up of leaders from health and social care, academia, research and industry. This ensures we have system-wide buy in of our strategy and plans.

The Board is underpinned by two main committees – the Innovation Prioritisation and Monitoring Committee, as well as the Research and Education Committee. These committees also include nominated representatives from across Greater Manchester to ensure we have the agreement and commitment from all. This supports quicker decision making and speeds up the innovation pathway.

We receive national funding from NHS England, Office of Life Sciences and NHS Improvement as part of our academic health science network licence and attract considerable investment due to our academic health science centre status. We also receive funding from our Greater Manchester system partners.



1,500
anticipated
new jobs created
adding almost £150m to Greater
Manchester's economy over
the next decade as a result
of a partnership with QIAGEN.



Strategic partnerships

with pharma and healthtech

£9.5m

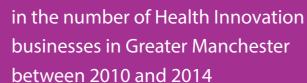
leveraged funds from companies who have received support from Health Innovation Manchester



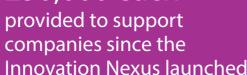
GVA £5.1bn from health and social care

Around
3,400 people
employed within 240 businesses
working in health innovation
sector in Greater Manchester
(2014)

Around 6.7% rise



45 grants of up to £50,000 each



INDUSTRY PARTNERSHIPS

A vibrant life sciences industry is important in ensuring that we have access to the best treatments available to improve the health and wellbeing of our citizens, as well as growing the local and national economy.

The UK benefits from one of the world's largest and most productive life science sectors renowned for its creativity and exceptional research base. It is understandably one of the Government's priority areas for economic growth as well as a key component of Greater Manchester's Local Industrial Strategy - developed in response to the Government's UK Industrial Strategy and Life Sciences Sector Deal.

We have a burgeoning and diverse life sciences sector. It includes pharmaceutical, medical technology and digital companies who employ thousands of people, represent a corner stone of the local economy, and provides a rich vein of innovative products and services with the potential to change people's lives for the better.

Health Innovation Manchester engages with the full spectrum of the life sciences industry, targeting innovations that align to the needs of the Greater Manchester's health and social care system.

In 2018/2019 we continued to build on our relationship with the Association of British Pharmaceutical Industries (ABPI) to initiate and deliver ground-breaking programmes and raise the profile of Greater Manchester as a destination of choice for life sciences industry on an international stage. This was driven by the Greater Manchester Pharmaceutical Industry Group who progressed 16 active projects including scaling up of proven innovations and establishing feasibility. In 2018/2019 21% of local projects were directly related to the ABPI Memorandum of Understanding with 29% of our 174 enquiries and proposals coming from ABPI members.

Following the success of our partnership with the ABPI, in 2018 a similar approach was adopted with the Association of British HealthTech Industries (ABHI) to fuel the development of medical technology innovation programmes.

Throughout the year we also embedded and tested key mechanisms for joined-up decision-making including the innovation Prioritisation and Monitoring committee who met four times throughout the year and have progressed seven innovations through the system.

Recognising that SMEs are a source of some amazing innovations but require a different level of support to global organisations, we continued to invest in this area.

Over 2018/2019 our Innovation Nexus considered around 174 innovation and worked with 130 businesses to enable them to test and trial innovations, develop propositions that resonate with commissioners, providers and patients, grow their business and reach the right decision-makers.

In addition, we delivered a range of programmes such as Momentum funding which targeted at innovators with potential digital solutions in the mental health and community area, and a Regional Digital Health Accelerator focused on identifying innovations that relieve high pressure on services and empower patients to manage their health.



INDUSTRY PARTNERSHIPS HIGHLIGHTS

- Distributed upwards of £263,000 funding to support market ready or almost market ready products and services through our 'Momentum' funding call to accelerate innovations that align to the priorities of the Greater Manchester and Eastern Cheshire healthcare system.
- Provided assistance and support to over 130 industry innovators (20% increase compared to 2017/18) via our Innovation Nexus; providing information, access and support to develop, test, and deliver innovative products and services in collaboration with the health and social care commissioners and providers
- Health Innovation Manchester and the Association of British Pharmaceutical Industry (ABPI) continued to work in partnership to drive a pioneering programme of activity across medicines optimisation, value-based payments new treatments and approaches in specific disease areas. In addition to being shortlisted in the HSJ Partnership Awards for NHS collaboration with the pharmaceutical industry, we jointly delivered a pop-up university at NHS England's Health and Care Expo to share best practice for successful collaboration.
- Established a ground-breaking partnership between Greater
 Manchester's academic, NHS and industry organisations and global diagnostics firm QIAGEN to create a world-leading precision health campus in the heart of the Oxford Road Corridor. This joint initiative will create and support up to 1,500 jobs adding almost £150m to Manchester's economy over a decade. This will bring fast-tracked real health benefits to Greater Manchester residents, and

- ultimately people nationally and internationally, through access to new tests and targeted treatments developed through pioneering research.
- Engaged with upwards of 40 companies through the European Regional Development Fund (ERDF), helping to create 21 new jobs, launch 5 products and leverage £3.5m in additional funding
- 104 companies attended one our education and training programmes including masterclasses and our STEP INto Health programme which is designed to help companies improve their product pitch and increase their chances of procurement and success in the life sciences
- Signed Memorandum of Understandings (MoU) with:
- Association of British Healthtech Industries (ABHI). Articulating how the health technology industry will partner the region to create a site for developing treatments of the future and support Manchester's health technology sector,
- US investment and strategic advisory firm Briovation; paving the way for additional investment funding, entrepreneurial programmes, and innovation export and importopportunities between the city-region and the lucrative US market.



63 companies

attended a range of masterclasses over 2018/2019

130 companies supported through the Innovation Nexus in 2018/2019 resulting in:

- Increased turnover at 12 companies
- 13 new products introduced
- Product improvements across 12 companies
- A direct increase in sales/profit reported at 9 companies



pharmaceutical companies

are engaged across multiple programmes in partnership with Health Innovation

Manchester

42 SMEs

supported through a European Regional Development Fund programme delivered in partnership with the Innovation Agency creating 31 jobs and supporting the launch of 5 new products. 41 companies benefited from Health Innovation

benefited from Health Innovation Manchester's STEP INto Health courses in 2018/2019

7 Innovation grants totalling £263,949

awarded to companies in 2018/2019 through Health Innovation Manchester's Momentum Fund



It's two years since Greater Manchester signed the UK's first Memorandum of Understanding (MoU) with the Pharmaceutical Industry to work towards becoming the safest and most effective place to receive medicines in the world and cement the region's position on the global research map.

Greater Manchester's medicines expenditure is £831m per annum (14% of GM NHS spend) and is rising. There is also wide variation in care across the region, some of which can be attributed to differences in commissioning decisions, custom, practice, and patient choice. In addition, adverse drug reactions account for 5-8% of hospital admissions and there is £15m in avoidable medicines wastage.

Greater Manchester's ambition is to be the safest and most effective place to receive medicines in the world in order to improve outcomes, secure best value for money from its medicines budget, and cement its position on the global research and development map. The gap between where we are, and our ambition is huge and cannot be achieved without the input and expertise of the pharmaceutical industry

The MoU underpinned the creation of the Greater Manchester Pharmaceutical Industry Group to improve the use and safety of medicines and capitalise on the unique data and information capabilities of the NHS to discover, develop and deploy new medicines and treatments.

This is contributing to recalibrating the NHS' relationship with the pharmaceutical industry, moving it away from a traditional customer-supplier to one of collaboration with risk-sharing and co-production of solutions in partnership with their competitors and the NHS. At the same time, it's helping shift the mindset of NHS staff and patients towards viewing industry as part of the solution to creating a sustainable world-class health system.

In 2018/2019 the Greater Manchester Pharmaceutical Industry Group initiated and delivered 16 pharmaceutical related programmes across numerous priority areas ranging from the elimination of Hepatitis C and the Implementation of a new holistic approach to COPD management, to outcomes based pricing for mental health medicines.

In addition to the benefits to patients and organisations within the system derived from individual programmes. At a strategic level the resulting relationships are changing the game for the city-region. The strengthened relationships are significantly influencing pharmaceutical companies' decision-making in terms of where to invest their resources, with almost 30% of the innovation proposals from the 174 enquiries received in 2018/2019 coming from members of the ABPI.



Through a Health Innovation Manchester Funding programme, Manchester based Microbiosensor were awarded £50,000 to enable them to test their innovative TripleCheck device designed to identify potentially fatal infection in kidney dialysis patients being treated using peritoneal dialysis therapy (PD) and acts as an early warning system for peritonitis infection

PD is the lowest cost and least lifestyle compromising form of renal dialysis; however, less than 10% of patients on renal replacement therapy are on PD. Recurrent infections are a major cause of failure, and patients are required to identify possible symptoms of infection themselves.

Symptoms are not specific or detectable until an infection has become well-established and this can lead to a delay in time to diagnosis and treatment. The device aims to overcome this by plugging into existing PD waste fluid tubing, detecting bacteria and flagging an emerging infection before symptoms present, via a colour change in a readout window.

Due in part to the Energise funding, Microbiosensor Ltd were able to complete a pilot clinical investigation of the device at the Manchester University NHS Foundation Trust (MFT) renal centre, and the advice from Health Innovation Manchester throughout the pilot clinical trial helped Microbiosensor de-risk its technology and improve its understanding of clinical trial management at a major NHS trust.

Following the success of the pilot clinical investigation Microbiosensor subsequently secured a £1.4million investment from the Northern Powerhouse Investment Fund (managed by Maven Capital Partners) and the Greater Manchester and Cheshire Fund (managed by Catapult Ventures) to support the company through its final product development stages.

Gordon Barker, CEO of Microbiosensor Ltd, said:

"The funding from Health Innovation Manchester helped Microbiosensor Ltd improve its understanding of clinical trial management at an NHS trust and strengthen the design of a subsequent study. It has made a significant contribution to our efforts to bring our medical device technology to market."

Health Innovation Manchester ensure that patient and public voices are at the heart of research and innovation across the entire translational pathway. Our Public Experience Group (PEG) continues to be an invaluable resource that enables us to deliver programmes and projects which are grounded in the lived experience.

PEG involvement around utilising NHS data has helped Inform the work of the Local Health and Care Record Exemplar (LHCRE); providing a patient perspective which has shaped wider national conversations and dialogue in GM. This focused particularly on potential uses of primary and secondary data.

LOCAL HEALTH & CARE RECORD EXEMPLAR

APR

ACCESS TO DATA

Provided a public perspective on improved access to data. This also informedtheunderstanding of patients' ambitions around how improved access points to our own health care data can promote better health and care outcomes for patients, andinformedconversations in GM that were looking at

Contributed to informing, shaping and feeding back on the Health Innovation Manchester business strategy.

HINM STRATEGY

MAY

DETECTING AND



programmes and provided insight on how to reach out to and work with diverse local communities including ideas on new approaches and methods to demonstrate the impact of public involvement. This was reflected in the bid.

Reviewed proposed work

APPLIED RESEARCH **COLLABORATIONS BID** (ARC)



Reviewed and provided feedback on Health Innovation Manchester's project assessment form (PAF) which is used with innovators to inform resource investment decisions around specific innovation and innovation programmes.

PROJECT ASSESSMENT **MECHANISM**

AUG



Through their Participation in a discussion group, PEG members provided a public and patient perspective around generating insights from data. This included exploring ethical issues such as the public perspective on mass prescribing of statins and ways in which the NHS could improve communication with patients.



DEC

DIAGNOSING DEMENTIA Provided a public perspective on dementia awareness and the possible impacts of the early detection around mild cognitive impairment. This included particular insight into the the possible uses of data. needs of the South Asian community.

DEMENTIA UNITED CONSORTIUM

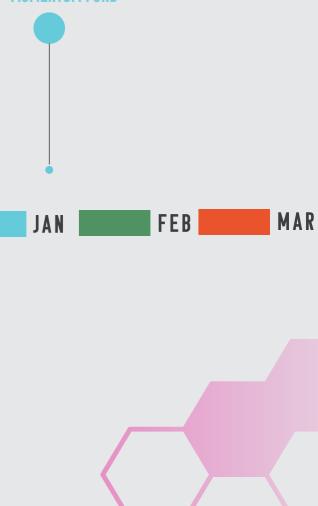
Opportunity to feedback on the Lived Experience Barometer (a way to measure quality of life for people living with dementia) and Health Innovation Manchester's planned approach to the programme.

THE DECIDE PROJECT

Participated in a discussion group informing the direction of 'The Decide Project' and an application to Health Innovation Manchester for project management support. They also highlighted where the model could be applied in other areas of health and care.

PEG reviewed applications and actively contributed to shortlisting and deciding recipients of Momentum innovation funding. They provided a public and patient perspective to the process and innovations that were submitted.

MOMENTUM FUND



In the UK,

digital health employs over

10,000) people,

generating £1.2bn in turnover



Digital innovation

Digital innovation hub to support big data projects



an increase of 11%

£7.5m

national investment to deliver a shared care record for GM

WHAT IS DIGITAL HEALTH?

Digital health involves using technology to improve citizens' health and wellbeing. It is an emerging and growing sector that encompasses the use of a broad range of disruptive technologies ranging from wearable devices and mobile health apps, to implantable sensors, artificial intelligence, robotics and electronic records.

The possible benefits of digital health are incredible. It can empower patients to improve their lifestyles and manage their long-term conditions better, reducing the need for GP and hospital appointments and admissions, it can help clinicians identify illnesses in patients sooner so that treatments can be administered earlier, it can enable less invasive treatments and treatment closer to home, and it can aid the discovery and development of new treatments.

Digital health not only offers the potential for citizens to live healthier lives for longer, it could enable significant cost reductions for health and social care services.



The global market for digital health was estimated to be worth £70bn in 2016 and is expected to almost double to £150bn by 2020

Over 20 applications

secured from Health Data Research UK to deliver an innovative heart failure project

£338,000

for Greater Manchester's Regional Digital Health Accelerator with 4 accepted onto the programme



can easily access the services they need 24/7 via the touch of a button on their smart phone. Many people already use a range of different digital tools and self-management technologies to monitor their health lifestyle and wellbeing but in most cases this information sit-

DIGITAL DISRUPTORS

Digital technology is transforming all areas of our lives

every day from banking, to travel and retail, where people

and self-management technologies to monitor their health, lifestyle and wellbeing but in most cases this information sits in different places and doesn't connect with public services. In Greater Manchester, we are now working on developing new technologies that could join this information up and provide greater control to local people.

By building digitally-enhanced public services across Greater Manchester, we will enhance care, improve services and save lives. It will empower people to manage their health and care through secure online access to professionals, personalised information, digital tools and advice that helps them to better manage their conditions, care and support services.

Health Innovation Manchester is working with partners to develop projects that will use data and technology to transform care for citizens and modify how services operate.

By establishing Greater Manchester as a digital innovation hub, we will test and develop new products and services that use data and technology to empower people to have greater control of their own health and wellbeing, improve standards of care and deliver benefits to both the health system and industry partners. This will be backed up by a robust approach to clearly defining the problem we are trying to solve through digital technology

However the technology is only one part of the equation. People capabilities, processes and culture are equally as important as the technology in its own right. Through mature governance systems and delegated financial authority we have control of the operating model and business model making Greater Manchester a great place to develop, evaluate and scale new business models.

Our approach will not just use traditional data from hospitals and primary care, which is known to be limited in terms of what is collected and very variable with respect to data quality. We are collecting data specifically from patients (for example in the HDRUK programme highlighted on page 16), which will help us to care for them better, facilitate our ability to refine their care pathways, and allow recruitment into the right clinical trials.

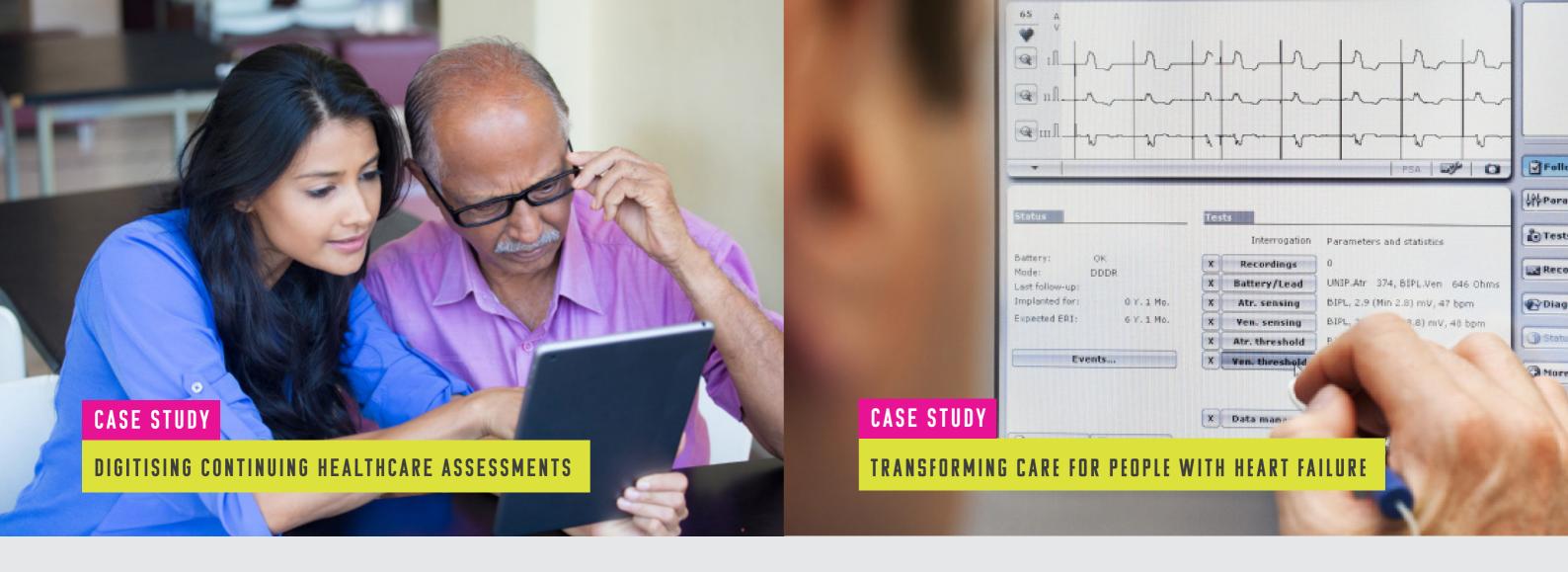
We are developing partnerships with the global pharmaceutical and med-tech industries to develop this hub, as well as technology providers, who we will work with to generate the platforms required to deliver this vision. Our academics working across the four universities in Greater Manchester will enhance the services provided to patients through the generation of better insights and new digital approaches to patient care.

DIGITAL DISRUPTORS HIGHLIGHTS

- The Greater Manchester Regional Digital Accelerator attracted record numbers of applications in 2018/2019 with 4 successfully selected to participate in the programme. Successful applicants include;
 - A 24/7 digital system giving people with autism, a mental health condition or learning difficulty access to detailed personalised support from their smartphone.
 - A med-tech company with a mission to improve healthcare outcomes by turning the smartphone into a regulatory approved clinical device
 - A clinically safe, clinically aware secure scheduling system for managing community devices and its workforce.
 - An app that helps health and social care professionals deliver standardised care and effective falls risk management.

The programme will enable these companies to engage clinical and healthcare expertise and NHS procurement support, as well as gain a better understand the health system and its needs, develop their business models, and refine their propositions.

- Awarded £338,000 from Health Data Research UK to deliver an innovative heart failure project in partnership with Manchester University NHS Foundation Trust, The University of Manchester, global medical devices company Medtronic and clinical trials specialists North West EHealth. The project will see around 1,000 patients with heart failure across Greater Manchester monitored by a new digitally-enhanced service that will use data from their existing implantable devices to transform care and better meet their needs.
- In 2018 Greater Manchester was successfully awarded £7.5m by NHS England to become a Local Health and Care Record Exemplar (LHCRE) in order to establish an integrated health and care record across the population.



Med-tech company IEG4's software innovation is improving quality and productivity in Continuing Healthcare (CHC) teams by eliminating paper assessments and automating the workflow and communication to speed up decisions around eligibility.

The cloud-based software solution is accessible by different stakeholders involved in the delivery and management of the CHC assessment process. It increases data transparency and speeds up decisions about eligibility whilst reducing administration effort and time wasted on non-value adding activity.

In a 2017 investigation, The National Audit Office found that the NHS CHC assessment process was prone to many delays impacting on patients, carers and their families. The CHC assessment process is often manually intensive and requires activities to be co-ordinated across multiple organisations. Across England, only 70% of assessments were completed in 28 days compared to the NHS target of 80%, despite two years of NHS focus on improving the CHC service. Professionals also reported being frustrated with the paper-based process leading to issues with the quality of assessment. This has resulted in patients being poorly served and with commissioners ultimately bearing the costs through the inefficiencies associated with Continuing Healthcare.

As CHC case numbers continue to rise and the service will need digital transformation to cope. NHS England has created a strategic improvement programme for CHC which is underpinned by digitisation.

IEG4, in collaboration with The Innovation Agency, successfully applied for funding through the Small Business Research Initiative (SBRI) initiative to develop a digital solution for CHC. Working with the five Cheshire and Wirral CCGs, IEG4 have implemented a digital platform across all stakeholders involved in CHC assessments.

Approximately 4,000 referrals have now been assessed though CHC2DST across Cheshire – In Q3 2018/19, 86% of these happened within 28 days, ahead of the national targets. More efficient process and decision making has freed up considerable clinical time (13 hours per referral) allowing for more value added work to be delivered for patients and families rather than just managing the process.

In Greater Manchester, IEG4 are working with Health Innovation Manchester and the GM Continuing Healthcare Collective to explore the potential quality benefits and cost saving from implementation across the Greater Manchester commissioning landscape.

Around 1,000 patients with heart failure across Greater Manchester will be monitored by a new digitally-enhanced service that will use data from existing implantable devices to transform care and better meet their needs.

In January 2019 Health Data Research UK (HDR UK) earmarked a share of £3 million Government funding to Greater Manchester following a UK-wide competition as part of the government's modern Industrial Strategy, which aims to tackle the big societal and industrial challenges of today such as an ageing population.

The £338,000 awarded to Greater Manchester has enabled Health Innovation Manchester, Manchester University NHS Foundation Trust, the University of Manchester, global medical devices company Medtronic and clinical trials specialists North West EHealth to move forward on an innovative heart failure project.

Heart failure means that the heart is unable to pump blood around the body properly, usually because it has become too weak or stiff, and requires intervention such as medication, a medical device or surgery. In one year alone, 4,330 admissions to hospitals in Greater Manchester were related to heart failure, with treatment costing more than £17 million. However, by better understanding and supporting the patient to manage their condition this could be much less.

The new digital innovation project builds on the existing heart failure and device service at Manchester Heart Centre within Manchester Royal Infirmary. Around 1,000 Greater Manchester patients already have an implantable device such as a pacemaker or defibrillator which captures information about their health. As part of the project, the clinical team are working closely with Medtronic, the company which provides the devices, to use the data to try and detect signs of deterioration earlier and to transform care for the patient.



the number of previously unknown Atrial Fibrillation patients diagnosed in Greater Manchester through the AF detect, protect, perfect programme

147 people

have completed the ESCAPE-pain programme are habilitation programme for people with chronic joint pain that integrates core recommendations around selfmanagement, coping strategies as well as undertaking exercise



practices in

Greater Manchester

have now adopted pincer/SMASH, a pharmacist-ledinformationtechnology based interventions for medicines optimisation in primary care which aims to prevent prescribing errors

patients

have received extra support taking their prescribed medicines through the TCAM programme to avoid the 30-70% increased risk of adverse effects linked to unintentional changes to their treatment or errors following transfer of care

patients



400

AF devices

deployed across GP practices and community services

Innovations

have been reviewed by the Innovation Monitoring and prioritisation committee in 2018 / 2019 with 9 progressing.

76% of eligible mothers in pre-term labour

offered magnesium sulphate treatmenttoreducethechance of their baby developing cerebral palsy

Per dose, treatment costs

Reduction of risk of their baby developing cerebral palsy

The continued development and deployment of innovation is essential to improving quality and length of life for citizens, as well as creating a sustainable health and social care system in the face of significant public health issues and rising costs. But, despite the importance of innovation, it can take on average of 17 years for a great idea to scale within the healthcare service so that it is available for all patients and clinicians who want to use or benefit from it.

In Greater Manchester, Health and social care devolution has enabled the city-region to adopt a system-wide view of the most pressing health and social care needs, agreeing shared priorities and streamlining processes to enable faster decisionmaking. Within this unique approach Health Innovation Manchester plays a vital leadership role in this system supporting the identification and deployment on innovation across all localities.

In addition to delivering the suite of national programmes that all Academic Health Science Networks are working to adopt and spread across England, Health Innovation Manchester proactively engage industry innovators to seek innovations that align to the city-regions priorities. These opportunities are triaged through an established committee which includes representation from across the entire health and social care system for decision-making, and subsequently leads the process of obtaining proof of value (where required) and supports deployment across health and social care organisations.

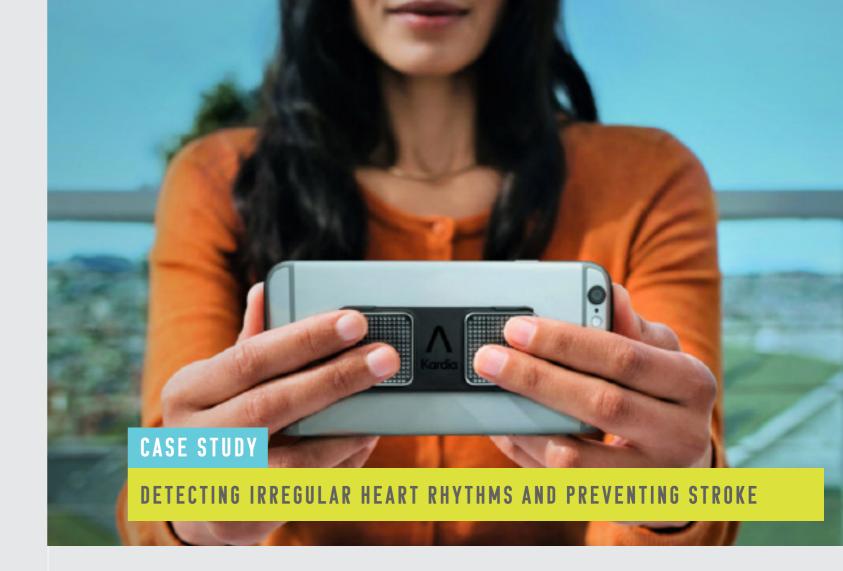
In 2018/2019 we initiated and delivered around 90 health and social care innovation projects in partnership with providers, commissioners, industry, and academia geared towards improving local people's health and wellbeing. These included using new technology and devices, digital products and tools, optimising medication and modifying practice.

Projects spanned a variety of health and care areas including maternity, cardiovascular, cancer, respiratory, mental health and frailty, as well as cross-cutting themes such as patient safety, medicines and precision health.

HEALTH AND CARE CATALYSTS HIGHLIGHTS

- Delivered eight learning system events with our Greater Manchester and Eastern Cheshire Patient Safety Collaborative on subjects including maternity and neonatal safety, deteriorating patients, nurturing a safety culture and improving sepsis care. Events have been attended by hundreds of delegates from across the system including NHS, care homes and community providers, who have taken their learning into improvement projects.
- Worked with Academy Award-winning animation studio Aardman, healthcare company GSK and iWantGreatCare (iWGC) to launch an animation focused on raising awareness of COPD. The animation has been viewed over 10,000 times across all channels.
- The Rainbow Clinic at St Mary's, a specialist antenatal service for families who are going through a pregnancy after previously experiencing a stillbirth, has now cared for more than 700 families, helped to reduce the stillbirth rate by 34% and delivered 20% cheaper than routine antenatal care for this group of women.
- Worked with the Greater Manchester Health and Social Care Partnership and the Dementia Industry Group to create an Early Detection and Diagnostic Framework which will raise awareness of dementia, empower people to detect the early symptoms and enable people to get a diagnosis and access to support sooner.
- Through the PReCePT project (Prevention of Cerebral Palsy in Pre Term Labour), which is one of seven national projects selected for adoption and spread by the AHSN Network, we have increased the take-up of magnesium sulphate from 58% to 76% for eligible mothers in pre-term labour, helping to prevent babies potentially developing cerebral palsy.

- 340 Alivecor devices have been distributed to 9
 GM localities. 2072 readings have been taken to
 date identifying 153 patients with AF. We have
 also begun an innovative project with Cheshire
 Fire and Rescue Service and NHS Eastern
 Cheshire Clinical Commissioning Group (CCG)
 to improve the detection of Atrial Fibrillation
 by providing firefighters with detection devices
 that can be used during Safe and Well visits in
 the community.
- Patients leaving hospital in Salford are now offered extra support taking their prescribed medicines through the launch of the Transfer of Care Around Medicines project. An electronic pharmacy referral system which allows pharmacists to arrange consultation with patients leaving hospital to ensure their medications are reviewed and they have the support they need. The project aims to reduce re-admittance to hospital.
- We secured more than 6,000 licences my COPD licences which are being deployed across seven localities and offered to patients as part of their COPD care. myCOPD is a web-based application providing education, pulmonary rehabilitation and disease management tailored to the individual user. It aims to educate and empower patients to take more control of their own care, helping to bring improvements in inhaler use and compliance with other treatments.
- Launched the Psoriasis Rapid Access Clinic in Salford, which empowers patients to better manage their condition with improved access to education and personalised treatment. The clinic, which is a research study in collaboration with The University of Manchester, is now seeing its first patients.



A pioneering approach to improve detection of Atrial Fibrillation (AF) launched in Oldham as a group of mums are using a potentially-lifesaving mobile heart monitor to test those in their community and beyond.

Health Innovation Manchester has provided the Women's CHAI (Care, Help and Inspire) Project with AliveCor Kardia mobile electrocardiogram (ECG) devices, a credit card-sized device which can detect AF, an irregular heart rhythm, in just 30 seconds.

AF is the most common heart rhythm disorder and is a common contributing factor for stroke. In AF, the heart's upper chambers contract randomly and sometimes so fast that the heart muscle cannot relax properly between contractions. This reduces the heart's efficiency and performance.

The ladies from CHAI have received training to use the devices from Health Innovation Manchester and are undertaking tests within the Oldham community.

Najma Khalid, founder of Women's CHAI Project, said: "Before taking part in the training with Health Innovation Manchester, we didn't really know anything about AF or why it was such a serious condition.

"Our ladies have now been empowered with knowledge about AF and the ability to raise awareness and test people, particularly among the South Asian community who may not feel engaged with healthcare services and are at higher risk of having a stroke."

She added that since taking part in the training and receiving the devices, the CHAI ladies have been busy testing family members, friends and members of the community with several potential undiagnosed AF patients discovered and referred to their GP.

Najma continued: "The device is simple to use, and we've had lots of enthusiasm about the testing so far. We're keen to use it to test people at events throughout Oldham and through visits to other community groups and organisations. "The test is so quick and it is great to know that you could potentially be saving someone's life in 30 seconds."

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Greater Manchester is aiming to be "the best place to live with dementia in the world" and Health Innovation Manchester is committed to supporting work towards this vision.

It is estimated that there are currently over 30,000 people living with dementia in Greater Manchester with the city region spending £270 million a year treating and caring for people with dementia.

With an ageing population and rising numbers of people being diagnosed with dementia, it is one of the greatest health challenges facing the country and Greater Manchester and ambitious plans to raise awareness of dementia and improve care for people within Greater Manchester are being supported by those living with dementia.

Alan Mills, from Rochdale, was diagnosed with early onset Alzheimer's four years ago and said he supports the idea of raising awareness in Greater Manchester. He has shared his story and insights with Health Innovation Manchester to ensure the voice of patients, the public and carers are reflected in our work.

The 66-year-old said: "I noticed something was different when I couldn't remember things I'd always known. But it was more than that I couldn't remember them, things had just disappeared, and it didn't matter how hard I tried to remember them, they just didn't come back.

"I'd heard that swimming was good for your health and wanted to give it a go. I got down to the pool, even remembered a coin for the locker, and got into the water. But once I was in, I couldn't remember how to swim at all. I stayed in the water for 10 minutes, just to save embarrassment, before I left. And I've not been swimming since."

He added that he can no longer remember how to tie a tie, despite wearing one all of his working life, and has experienced issues with his speech.

"When I was diagnosed, I didn't believe it and I didn't know how to act or what to do next. I tried to take it calmly, but I felt the same as everyone else does when you're given a terminal diagnosis – why me?"

Alan added that he wants to see those diagnosed with dementia given support and help to ensure the best possible experience as soon as they are diagnosed. This includes providing more education to the public about spotting the signs of dementia and using stories like his to explain what it is like to live with dementia.

"I think it's important that people with dementia are given a voice and are able to share their experiences to help raise awareness and educate the public."

Alan has joined representatives from Health Innovation Manchester, Greater Manchester Health and Social Care Partnership and the Dementia Industry Group at a summit discussing plans for a new Dementia Early Detection and Diagnostic Framework. The new framework aims to create a seamless patient journey through the system, from awareness raising and detection through to diagnosis and management, where people are empowered to spot the early signs of the disease and seek support.

Health Innovation Manchester is bringing together resources from the NHS, social care and pharmaceutical industry to ensure that every person with COPD has access to equitable, high quality care

COPD can be a frightening and isolating disease. It primarily affects people aged over 45, is not fully reversible and is characterised by a chronic, slowly progressive decline in lung function.

The cost of managing COPD-related hospital admissions and medications for Greater Manchester is around £73 million each year, with further indirect costs estimated to be as much as £1.8 billion. In fact, the city-region has the second highest admission rates for COPD in England, poor outcomes and unwanted variation between GP Practices and localities.

Too often within the current system, patients are diagnosed late and not enough time is dedicated to education or self-management support. Overall, we are using too many high-cost therapies and not promoting enough the best and most cost-effective treatments such as pulmonary rehabilitation, smoking cessation and flu vaccination.

As part of a new pilot feedback project "Rate My Inhaler" currently running in Greater Manchester (part of a wider COPD programme), and in order to encourage other patients to have their say on their care, Health Innovation Manchester teamed up with GSK and iWantGreatCare (iWGC), the world's largest independent patient feedback platform to engage patients living with COPD.

The service offers patients the chance to rate and review not only the care they received from their clinicians, but for the first time, review their prescribed COPD maintenance inhalers.

The ambition is to ensure that patients have a voice to inform their health system, in turn leading to greater patient participation in how their care is provided in Manchester.

COPD PATIENTS IN GREATER MANCHESTER GET THE AARDMAN TREATMENT IN NEW ANIMATION



Produced by Aardman, The Academy® Award-winning studio, who created "Wallace & Gromit", "Shaun the Sheep" and "Creature Comforts" the video sees animated cats, squirrels and pigeons sharing their experiences of living with and treating Chronic Obstructive Pulmonary Disorder (COPD) in Greater Manchester. The content which is based on testimonials collected from real patients and clinicians resulted in a very unique film to raise awareness of COPD and give patients a voice and chance to improve care for the next patient.

The film sees COPD patients discuss their symptoms, their experience of living with the condition and why it is important for patients to have a voice in their care – all while animated as a variety of animals and pets.

IMPROVING QUALITY AND SAFETY WITHIN HEALTH AND SOCIAL CARE SYSTEMS

The only NHS owned clinically led analytics service. We blend clinical and analytical expertise to deliver sustainable improvements to patient flow, patient experience and patient outcomes.

£800,000
in revenue generated by the Utilisation Management Unit in 2018/2019



Around

400
Greater Manchester
Leaders receive UM
analytical reports
on a daily basis





80% of GM CCG's benefit from Utilisation Management services



Clinical pathways reviewed in 2018/2019

90%
of UM
Customers
are from
within
Greater Manchester

15%
average
improvement
in patient
satisfaction
across the sites that have
undertaken a 100% Challenge

24% average improvement in

improvement in performance against the 4hr standard on sites that have undertaken a 100% Challenge

UTILISATION MANAGEMENT

Changing population demographics, increasing demand on NHS services and rising costs of health and social care means pressure on care systems has never been greater. Working with commissioners and providers across Manchester, the wider UK and internationally, the Utilisation Management Unit help clients unlock the power of their health data to drive sustainable cost-effective improvements that benefit patients, staff, and the wider system within the context of this challenging environment.

They work with health and social care systems and its organisations to interpret and utilise performance data to facilitate strategic, tactical and operational changes to improve patient outcomes, patient experience, and patient flow across their system (particularly urgent care).

Health Innovation Manchester's Utilisation
Management Unit is the only clinically-led analytics
service owned and operated by the NHS. Capitalising
on a wealth of pioneering analysis and reporting
methods they blend clinical and analytical expertise
to identify possible issues and address them
promptly, providing actionable recommendations
that will enhance patient care in reality.

The Utilisation Management Unit is a paid for service that provide bespoke strategic services that support service redesign, system improvement, and forward planning.

UTILISATION MANAGEMENT HIGHLIGHTS

- Delivered the '100% Challenge" event at 2 hospital trusts to improve performance against the 4-hour Accident and Emergency target for waiting times. Average results from organisations that participate in the event include a 24 % improvement in Emergency Departments against the target as well as a 15% improvement in patient satisfaction.
- Capitalised on the unique blend of clinical and analytical expertise within the Utilisation Management Team to provide support to national and local innovation programmes being delivered by Health Innovation Manchester.
- Worked closely with Greater Manchester
 Health and Social Care Partnership to support
 innovations in the delivery of urgent and
 emergency care across Manchester.
- Invested in Tableau (dashboard software) to enhance the Utilisation Managament Units ability to analyse health system data

"The UM Unit has provided insightful and evidence-based expertise, support and analysis to aid genuine improvement and sustainability in our emergency access pathways, hospital and system-wide patient flow and transfers and associated operational performance particularly for Emergency Access (4 hours) and Delayed Transfers of Care (DTOC). The UM Unit is a class outfit providing support which is carefully calibrated to be both constructively challenging but supportive and always focused on patients and their outcomes as well as staff experience".

Tony McDonald Deputy Director of Operations East Lancashire Hospitals NHS Trust





CASE STUDY

EMERGENCY DEPARTMENT ATTENDANCE AND ADMISSION AVOIDANCE

The Utilisation Management Team have delivered 100% challenge events with numerous trusts: a unique package that involves providing hospital-specific data analysts and clinical support to rapidly improve performance towards the 95% standard for emergency departments.

Following a detailed data analysis of Trust data using predictive analysis and activity modelling to highlight key areas for improvement the Utilisation Management Team work on-site to run a 3-day rapid improvement challenge over consecutive days to:

- Test the steps, resources and behaviours necessary to deliver consistently high performance as measured by the Emergency Department (ED) 4-hour standard.
- Improve patient safety by increasing the hospital performance towards the 4-hour standard.
- Facilitate care at the right time in the right place.
- Identifyobstructionstopatientflowwithinthehealth and social care system and to work collaboratively with Trust staff to remove these quickly and safely.
- Test new ways of working without the need for formal 'case for change' proposals.

The 100% Challenge event provides trusts with data outcomes, knowledge, skills and recommendations which can continue to be implemented at no extra cost and with no increase in staffing levels (using data efficiently and intelligently can release financial

efficiencies). The transformation in services and data knowledge the Utilisation Management Unit provide also allows for better processes, giving staff time to ensure earlier diagnosis and treatment. The 100% challenge has yielded significant quantitative and qualitative improvements across all Trusts who commission the activity including:

- An average of 24% improvement in performance against the 4hr standard
- · Reduction in ambulance turnaround times
- 15% improvement in patient satisfaction across the sites.
- Improved staff satisfaction.
- · Increased in the numbers of discharges.
- Decreases in re-attendances and re-admissions.
- Decreased trolley waits.
- Improved patient flow and bed management.
- · Reduced lengths of stay.

"This is the happiest I have been at the end of shift in 5 years".

Anonymous feedback from a Trust member of staff following a 100% challenge.

In 2017 the Utilisation Management Clinical Review team conducted a 'live' clinical review pathway on behalf of a commissioner, reviewing the potential of emergency department (ED) attendance and admission avoidance for the over 65 years of age group, with a view to identifying potential gaps in service provision which could lead to avoidable attendances and admissions to ED.

The objective of this clinical review was to identify gaps in community service provision for patients aged 65 years and over leading to avoidable attendances and/or admissionsatan Emergency Department (ED). Following meetings with the commissioner to review their data, priorities and determine the scope, it was agreed that the review would focus on:

- Whether there was an alternative service available in the community (If no alternative service was available in the community, what service(s) would have been needed to keep the patient at home).
- Whether any existing services were in place
- Whether an existing service provision failed to prevent the attendance at ED and if so, the reasons for the failure

The clinical review team based themselves within the Emergency Department to collect and collate qualitative and quantitative data, talking to 300 patients to understand the services, processes and their experience which provided a valuable patient narrative. On completion of the review and analysis of the quantitative and qualitative data the Utilisation Management Team

provided feedback to the commissioner highlighting gaps alongside service re-design solutions and potential new service provision to address the issues including:

- · Developing the ambulatory care pathway
- Considerations of alternatives to transfer to hospital for the ambulance service
- Implementing community interventions concerning the top 5 presenting complaints at hospital, e.g. fall services, musculoskeletal pain, difficulty in breathing and minor injuries
- Proactive screening of patients with chronic cardiac disease and respiratory disease and ensuring optimisation of medication for these patients
- Rapid access for patients with chronic cardiac disease and respiratory disease during time of exacerbation

The commissioners accepted the findings and are currently undertaking the recommended actions. A further review of the same clinical pathway has been recently undertaken to evaluate the actions taken to redesign and improve the clinical pathway,

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research domains

repair, women and children's, cardiovascular, cancer, mental health,





For every £1 invested in Rainbow Clinic, £6 of value was derived for parents and staff

100%

of Greater Manchester **NHS Foundation Trusts and Clinical Commissioning Groups** are now research ready

£220,000

awarded to 5 research projects through the Wellcome Trust iTPA to fund studies in order to move research projects along the translational pathway.

3 days reduction in length of stay

in hospital for patients undergoing high-risk elective major surgeries that participate in ERAS+

Home to



The University of Manchester, University of Salford, Manchester Metropolitan University, University of Bolton

Over the past 4 years we have invested over

in domain

research projects £125,000

awarded to 7 individuals through the Wellcome Trust iTPA Access to Expertise programme which enables recipients to access appropriate expertise to help unblock specific bottlenecks associated with translational research

2,500+

visitors to the Health Innovation Manchester online research hub in the last 6 months

have benefited from



GROUNDBREAKING RESEARCHERS

Health Innovation Manchester is one of only six academic health science centres (AHSCs) in England, designated to research new treatments and improve health education and patient care.

There are significant advantages to ensuring that Greater Manchester and the wider UK continues to be world leaders in life sciences research rather than rely on adopting discoveries from elsewhere. Not only does research enable the development of the treatments of tomorrow, it can benefit patients being treated now. We know for example that patients entered into clinical trials will do better, and that research-rich clinical environments produce better outcomes for patients.

Life sciences research is also a key component of Greater Manchester's economy; driven by the city-regions four universities (Bolton, Manchester Metropolitan, Salford and the University of Manchester), numerous private sector organisations, private-public sector alliances, NHS Foundation Trusts, and Clinical Commissioning Groups. Their expertise underpins the ability for innovators to discover, develop, and prove the effectiveness of new treatments and pathways.

In 2018/2019 we continued to work collaboratively with the system to leverage Greater Manchester's exceptional research assets alongside those of industry to deliver a thriving programme of research activities across six domains of research excellence – cancer, cardiovascular disease, inflammation and repair, women and children, mental health and population health. This is driven by our status as one of only six Academic Health Science Centre's (MAHSC) in England.

We have begun a process to define the aims and objectives of the domains over the next five years, engaging clinical and academic stakeholders across the system. Looking to next year, we will have a new neuroscience domain, with population health forming the cross-cutting themes of digital health and applied health research.

Research conducted across these domains has already led to the introduction of some truly pioneering initiatives. This includes the Rainbow Clinic, a specialist service for women and their families during a subsequent pregnancy following a stillbirth or perinatal death, and the Psoriasis Rapid Access Clinic which focuses on proactive psoriasis care, rapid personalised treatment and educating patients in order to empower them to take care of their own condition.

By harnessing our world-leading research activity to address health inequalities and working more closely with frontline clinicians, Health Innovation Manchester is delivering major benefits for our 2.8m citizens. Through our devolved health and social care system we are supporting researchers to accelerate discoveries through into routine clinical practice and ultimately improve health outcomes in Greater Manchester and beyond.

GROUNDBREAKING RESEARCHERS HIGHLIGHTS

- Health Innovation Manchester in partnership with The University of Manchester launched a 'Translation@Manchester' initiative to overcome barriers to translational research across Greater Manchester by bringing together a network of support, facilities and expertise to make the pathway to translation quicker and
- £125,000 awarded to 7 individuals through the Access to Expertise programme which enables recipients to access appropriate expertise to help unblock specific bottlenecks associated with translational research
- £220,000 awarded to 5 research projects to fund studies in order to move research projects along the translational pathway.
- Over 2500 visitors to the Health Innovation Manchester online research hub in the past 6
- Established the Research and Education Committee (a sub-committee of the HInM Board) which includes senior leadership from across higher education and research infrastructure
- provide the strategic leadership of research and its translation ensuring that Greater Manchester positions itself to successfully attract major research and innovation funding,
- provide the strategic leadership to establishing Greater Manchester as the 'Education City(Ed City)', and;
- ensure there is a constant pipeline of translational research feeding our innovation programmes for subsequent deployment across Greater Manchester.

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Becoming pregnant again after a stillbirth is an incredibly daunting prospect for women and families, often characterised by the fear of repeating the experience.

Women who have had a stillbirth are at increased risk of complications in subsequent pregnancies, including stillbirth, pre-eclampsia, placental abruption and low birthweight. It is also associated with increased psychological, emotional and social challenges.

The Rainbow Clinic, at Saint Mary's Hospital, is a specialist service that supports women and their families during a subsequent pregnancy following a stillbirth or perinatal death. It cares for families from the time of the postnatal appointment onwards and

into a subsequent pregnancy. It engages with women early, ensuring they are on the right treatment, making any necessary referrals and providing more detailed ultrasound scanning.

The additional tests and continuity of care, provided by a small team of specialist doctors and midwives, result in improved outcomes for the baby as well as improved psychological wellbeing for parent and better use of NHS resources. So far, the Rainbow Clinic has cared for approximately 700 families.

A retrospective case control study that reviewed the clinical outcomes for women with a history of stillbirth found that clinical outcomes were improved following the establishment of Rainbow Clinic.

There was a reduction in NICU admission (9% vs 14%) and subsequent stillbirth (0% vs 2%). For every £1 invested in Rainbow Clinic, £6 of value was derived for parents and staff. This included improved education for staff and reduced psychological morbidity for parents.

Health Innovation Manchester are supporting the scale-up across Greater Manchester maternity units, aiming to reduce the rates of maternal deaths, stillbirths, neonatal deaths and brain injuries that occur during or soon after birth by 20% by 2020 and by 50% by 2030. The charity Tommy's is also giving additional financial support as validation of the clinical progress to ensure scale and spread of the project.

PATIENT STORY

Victoria Ashcroft says she can't thank Manchester's Rainbow Clinic enough for helping her have the family she had always wanted. Victoria attended the Rainbow Clinic at Saint Mary's in 2016 when she became pregnant again 12 weeks after her son Archie was tragically born still.

"When I found out that I was pregnant for the second time I was absolutely elated and absolutely petrified at the same time. I lost my first baby at 37 weeks and initially we weren't sure why. My pregnancy had been very low risk and he had grown well but we later discovered that

I had a very small placenta and it had abrupted."

Anxious about her second pregnancy, Victoria heard about the clinic and the specialist support they offer and knew that she wanted to attend as part of her care plan. Victoria travelled to Manchester's Rainbow Clinic where she was offered specialist placenta scans, currently not available at her local hospital in Macclesfield, as well as emotional support for her and the rest of her family during her pregnancy.

"The Rainbow Clinic was amazing as they were able to offer a specialist placenta scan and could tell me, at 24 weeks in my second pregnancy, that my placenta was the same size as it had been at 37 weeks in my first pregnancy," Victoria continued. "It was fantastic to know that my placenta was growing much more normally as the pregnancy progressed.

"The staff at the Rainbow Clinic were also fantastic in offering emotional support during the second pregnancy. The anxiety never left me during my pregnancy but having an expert in placentas and stillbirths telling me that everything is OK is the best anyone can hope for. It doesn't take that risk away, because every pregnancy has risk, but it reassures you that you're going to get to take a healthy baby home."

Victoria and her partner James were delighted when they welcomed a baby daughter, Ella, on 1 August 2017 following a healthy pregnancy.

"Ella was born at Macclesfield hospital by a very calm and planned C-section. We had amazing care from the team at the hospital and I want to credit them for how they supported us."

"We have now just celebrated Ella's first birthday. She is the most chilled-out, happy little soul, although she isn't a fan of sleeping. I can't thank the Rainbow Clinic enough for helping us have the family we wanted."

family we wanted._"



PATIENT STORY

Becca Darwent-Black believes the Psoriasis Rapid Access Clinic will be "life-changing" for those recently diagnosed with the disease.

Becca (35), from Levenshulme, was just 14 when she was diagnosed with psoriasis and has been hospitalised on three occasions following serious flareups which left her unable to walk.

The marketing executive, who has tried a variety of treatments to help her manage the condition, said: "Psoriasis doesn't just affect your skin, it affects the way you feel every day.

"When you have a flare-up, you stop socialising and can't wear the clothes you want or even sleep due to the pain sometimes. It can take you to very dark places.

"The rapid access clinic is a brilliant idea and I honestly believe it would have helped me if I'd been able to access information and treatment earlier in my diagnosis.

"Having the information, you need and knowing where to turn is vital and I honestly believe it will be life-changing for those diagnosed with psoriasis." Psoriasis is a long-term autoimmune disease which is characterised by red, flaky, crusty patches of skin. It can be a painful, disfiguring and disabling disease which affects not only a person's skin but potentially also their mental health and wellbeing.

The lifelong condition affects up to 80,000 people in Greater Manchester and is mainly treated in the community through GPs, pharmacists or self-management. On average a patient has psoriasis for eight years by the time they are reviewed by a dermatology specialist, according to national statistics.

The Psoriasis Rapid Access Clinic, which launched in Salford, provides newly-diagnosed patients with a complete and specialist assessment of their psoriasis and education about how to best manage the disease.

The Psoriasis Rapid Access Clinic is a research study in collaboration with The University of Manchester, Salford Royal NHS Foundation Trust (Part of Northern Care Alliance NHS Group) and funded by Health Innovation Manchester. It is initially running within a community practice in Salford with patients who have recently been diagnosed with psoriasis. Care is delivered by a specialist team including dermatology consultant, a health psychologist and a dermatology nurse.

The clinic focuses on proactive psoriasis care, personalised treatment and educating patients to empower them to take care of their own condition. Patients receive information about psoriasis including lifestyle factors which can increase the risk of flare-ups, practical advice about using creams and details of the treatments available.

Blood samples collected as part of the clinic will also enable research to test for genomic factors with an aim of developing better and more personalised care in the future.

FINANCIAL POSITION 2018/2019

	2018/2019 £′000s	2017/2018 £'000s
INCOME	10,197	6,885
EXPENDITURE		
Health and Implementation	2,611	856
Informatics	422	454
Industry and Wealth	1,665	1,086
Utilisation Management	791	1,233
Research and Development	489	529
Research Domains	774	639
Corporate	3,445	1,943
TOTAL EXPENDITURE	10,196	6,740
NET SURPLUS	1	125



MEET THE HEALTH INNOVATION MANCHESTER BOARD



Health Innovation Manchester



Partnerships

Richard Topliss

Company









Executive, Manchester Science

Non Executive Director Chair, Manchester Growth







Anthony Hassall Chief Accountable Officer, NHS Salford Clinical Commissioning Group



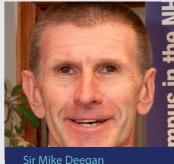
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Roger Spencer Chief Executive Christie NHS Foundation Trust, Chair of Clinical Research Network



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Sir Mike Deegan Chief Executive, Manchester University NHS **Foundation Trust**



Chief Executive, Salford Royal NHS Foundation Trust and Pennine Acute Hospitals NHS



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Jeffery Schryer Chair, NHS Bury Clinical Commissioning Group



Eamonn Boylan Chief Executive, Greater Manchester Combined Authority

We would like to thank Johnny Lundgren, Dr Kiran Patel and Ian Greer for their contribution to Health Innovation Manchester during their time on our board. We would also like to wish David Dalton all the best in retirement following 20 + years in the role of Chief Executive of Salford Royal NHS Foundation Trust



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