



NIHR Applied Research
Collaboration Greater
Manchester

Our story so far

Our partners

We are proud to work with a wide range of partners across Greater Manchester and beyond.

Greater Manchester co-funding partners:

Manchester University NHS Foundation Trust
Northern Care Alliance NHS Foundation Trust
The Christie NHS Foundation Trust
Pennine Care NHS Foundation Trust
Greater Manchester Mental Health NHS Foundation Trust
North West Ambulance Service NHS Trust
Health Innovation Manchester (on behalf of the GM health and care system)
The University of Manchester
NHS Greater Manchester Integrated Care

FOREWORD

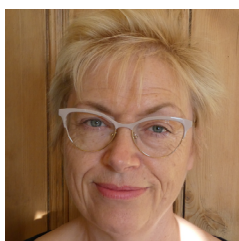
It gives me huge pleasure to write the Foreword to this brief review of some of the achievements from the first three years of the NIHR Applied Research Collaboration Greater Manchester (ARC-GM). I can't help but look back to 2017, when we began to design the ARC, building on the legacy of the two NIHR-funded Collaborations for Leadership in Applied Health Research and Care (CLAHRCs) which ran from 2008.

We were able to re-think the shape of the ARC because there was an absolute requirement to demonstrate how our themes were responding to local need; we had our strong relationships with the health and care system in Greater Manchester to build on, which facilitated the co-creation of the plan, and we had our world-leading researchers. The challenge was to design a piece of research infrastructure to support a programme of research that would deliver actionable research findings and remain relevant over at least five years. It was a lot of fun. We wanted the topics, or themes, to be broad and inclusive and likely to resonate nationally and internationally. We also wanted to work in areas where we already had world-leading researchers.

Our five research themes: Digital Health, Economic Sustainability, Healthy Ageing, Mental Health and Organising Care were complemented by two cross-cutting themes, Evaluation and Implementation Science; all except Organising Care being new themes for this ARC. It is a testament to the huge team who helped build the ARC that these themes still feel right. Importantly, none of our research happens in a theme silo – every project involves at least two themes and all of our work involves patients, the public or service users as well as system partners in some level of co-production. Our Public and Community Involvement and Engagement (PCIE) team does a huge amount of work to ensure we listen to the people and communities of Greater Manchester and bring them with us, and our Capacity Building team works to ensure that we enhance the capacity of Greater Manchester to do more, even better research in the future.

Of course, one can only plan so much and nobody could have foreseen that just 6 months into our existence, the world would experience a global pandemic that confined us to our homes and computers for many, many months and necessitated some big shifts in our research plans. Some of our COVID-19 response research is laid out in this document.

I am enormously proud to lead ARC-GM; I am having the most fun of my career, working with a stellar team of people who are committed to making a difference and I hope you enjoy reading some of the highlights!



Professor Dame Nicky Cullum DBE, FMedSci
Professor of Nursing and Director, NIHR Applied Research Collaboration Greater Manchester

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OUR VISION

It's our vision to improve the health and care of patients and the public in Greater Manchester.

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

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

WE DO THIS BY:

- Generating new knowledge and insights that enable advances in research, improved decision making and new ways of doing research.
- Translating ideas into new products or services and evaluating the impact.
- Influencing policy and other stakeholders by providing the evidence to inform government reviews, the commissioning of services or changes to health and care guidelines.
- Stimulating new research funding or partnerships by working together with partners to leverage more research funding into the region.
- Developing human capacity to do and use research by providing opportunities for health and care staff to develop their academic careers and providing the training needed to use research in practice.

OUR APPROACH



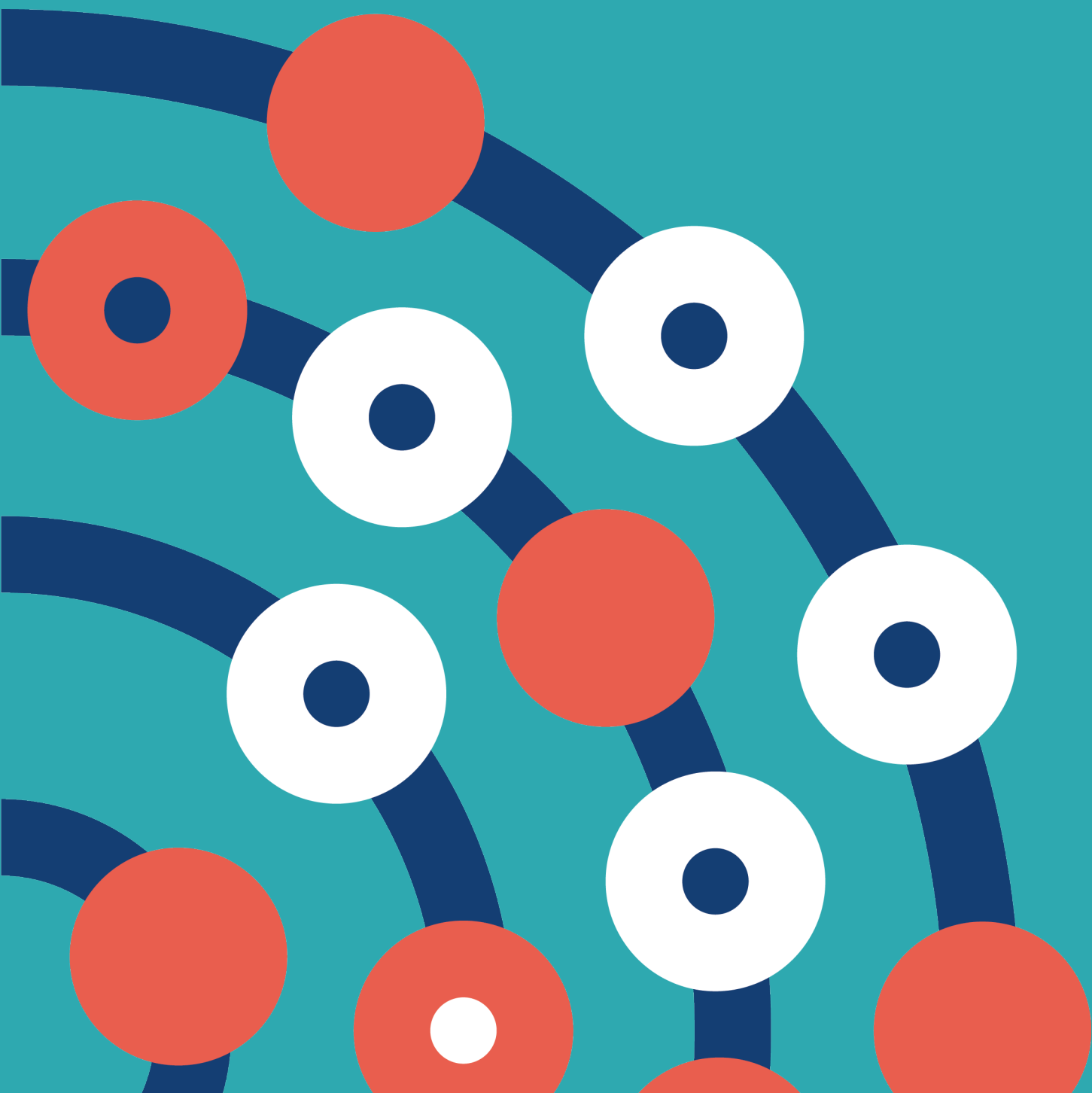
We are led by Greater Manchester health and care priorities...
working with health and care partners to address their priorities

We co-produce...
applied health and care research projects with stakeholders and the people of Greater Manchester

We collaborate...
with other ARCs, researchers, universities, health and care organisations, industry, the public and communities of Greater Manchester and the voluntary, charity and social enterprise sector

We have expertise...
in applied health and care research methods and approaches

MAKING A DIFFERENCE IN GREATER MANCHESTER



OUR COLLABORATIONS

- We have established the ARC-GM Stakeholder Forum with six-monthly meetings, attended by our member organisations including partner NHS trusts; social care and public health representatives and members of the public.
- We have set up a Public and Community Involvement and Engagement (PCIE) Panel (involving 15 members of the public) with Health Innovation Manchester. We have also established a Greater Manchester PCIE Forum with 98 members from 67 organisations with PCIE leads (staff and public) from Greater Manchester organisations and the voluntary, charity and social enterprise sector (VCSE).
- We have convened a Young Persons' Advisory Group and have held a number of community events including Connecting Communities; Addressing Health Inequalities Workshop with the VCSE sector and Hidden Live, which were all co-developed with our panel members.

OUR CO-PRODUCED RESEARCH

- We continue to study the impact of Greater Manchester Devolution – ARC-GM researchers and colleagues at The University of Manchester published a paper in *The Lancet Public Health*¹ that links devolution in Greater Manchester

to a modest improvement in life expectancy. The paper has received national and local media coverage.

- During the COVID-19 pandemic we were responsive to our stakeholders' rapidly changing priorities and provided relevant and actionable research to support decision making. Key exemplars include:
 - A study of the Community Experiences in Greater Manchester during the COVID-19 pandemic and of inequalities in the COVID-19 Vaccination Programme².
 - The Cities Changing Diabetes Programme which identified populations in Greater Manchester where diabetes is under-diagnosed^{3,4}.
 - Evaluation of a digital COVID-19 tracking tool for care homes in Greater Manchester^{5,6}.
- We have strengthened our portfolio of public health and social care research, working with frontline practitioners and through the NHS GM Integrated Care Population Health Board, the Manchester Marmot Health Inequalities Group and the Greater Manchester Combined Authority, particularly through the Greater Manchester Falls Collaborative and the Greater Manchester Ageing Hub.
- All our themes have multiple examples of co-produced and relevant applied research, being delivered to agreed milestones, with strong links to frontline health and care stakeholders, voluntary sector organisations and the diverse communities of Greater Manchester.

Warren Heppollette

Chief Officer for Strategy & Innovation
at NHS Greater Manchester Integrated Care

NHS Greater Manchester Integrated Care has worked closely with the ARC-GM over several years – first as the GM Health and Social Care Partnership and now as the statutory Integrated Care System for Greater Manchester.

Our experience of working with the ARC-GM team has been wholly positive. The team has consistently demonstrated its ability to adapt its approach to the strategic challenges that the GM system is facing. The range of expertise within the team has been of great benefit to the health and care system. The team has been able to offer rapid research and innovative solutions to complex problems. The products that the team produces are always practical, and relate to those challenges at the forefront of our thinking, with the rationale clearly described.

I have every confidence that our relationship will continue to grow and that we will accelerate our work to improve population health outcomes for all Greater Manchester residents.

DEVELOPING CAPACITY TO DO AND USE RESEARCH

- We have 15 funded PhD students, including six in collaboration with The Dunhill Medical Trust and the NIHR Older People and Frailty Policy Research Unit. We have supported 19 people on Pre-doctoral Fellowships and 27 Research Interns for health and care staff from our member organisations.



- We have delivered training 'From Practice to Paper' in implementation and evaluation to frontline NHS staff at Manchester University NHS Foundation Trust with planned roll out to other sites. We have delivered a research methods course to voluntary and charity sector stakeholders and have secured funding to offer research internships to three service users/carers.
- We are the national ARC leads for Economics and lead the cross ARC Artificial Intelligence working group. We also co-lead the ARC Healthy Ageing, Dementia and Frailty National Priority Research Programme Consortia with ARC Wessex, ARC Yorkshire and Humber, and ARC South West Peninsula.
- Findings from co-produced research are being implemented into practice; exemplars include the FaLLs EXercise (FLEXI) Implementation study, and the evaluation of a hospital-based, domestic violence advisor service in Wroughtington, Wigan and Leigh (WWL) NHS Foundation Trust.

STIMULATING NEW RESEARCH FUNDING OR PARTNERSHIPS

- Researchers from ARC-GM led a successful application to NIHR for a third national rapid service evaluation centre - Greater Manchester Rapid Service Evaluation Team: REVAL-GM. This ~£2m 5-year centre award commenced in August 2022 and is working closely with ARC-GM.
- All themes have secured major external funding awards, these include funding from NIHR, research charities and industry. Since October 2019 we have been awarded 45 competitive external research grants across our seven themes.

INFLUENCING POLICY AND OTHER STAKEHOLDERS

- The findings⁷ from our Citizens' Juries on data sharing in a pandemic were extensively cited in the Goldacre and Morley review '*Better, Broader, Safer: Using Health Data for Research and Analysis*'⁸ commissioned by DHSC to sit alongside and inform the NHS Data Strategy.
- In collaboration with The Northern Health Science Alliance (NHS), Northern ARCs, the N8 Research Partnership; NIHR Public Health Research (PHR) Programme, The All-Parliamentary Party Group (APPG) for Left-Behind Neighbourhoods and others, we have completed four separate pieces of research to understand the impact of the COVID-19 pandemic on health and productivity in the North.
- Our Implementation Science theme has been working with the NHS Accelerated Access Collaboration (NHS AAC) on the evaluation of the real-world delivery of an injectable cholesterol lowering drug (Inclisiran) in primary care. There has been a series of iterative feedback loops with NHS ACC; NHS England and the AHSN network to support real-time policy decision making and refinement of national implementation strategies. An early insights report⁹ has been produced and shared with the AHSN Network, Novartis UK and NHS AAC.

Rev Charles Kwaku-Odoi
Chief Officer of the Caribbean and African Health Network (CAHN)

The Greater Manchester Voluntary, Community, and Social Enterprise (VCSE) Leadership Group which represents over 17,000 organisations across the region is delighted to be collaborating with the NIHR Applied Research Collaboration Greater Manchester (ARC-GM) to ensure that the lived experience of local people influence and shape research now and in the future.

The team's excellent world-leading research looks to benefit local Greater Manchester residents, and that is why there is overwhelming engagement, involvement and support for the ARC-GM team.



OUR RESEARCH IN NUMBERS

From October 2019 to December 2022.



£23m



in additional research funding (on top of ARC-GM funding) leveraged for Greater Manchester



100

applied health
and care projects
co-developed
with our partners

120



collaboration partnerships

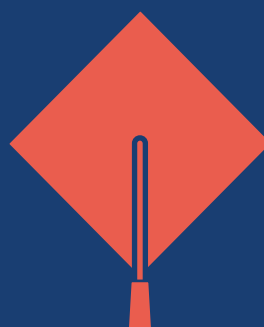
Sumaira Naseem Public Contributor

I have been involved with ARC-GM from the beginning, advising on the application for funding and throughout the setup stages. I was also consulted and helped to co-design the strategy for Patient and Public Involvement & Engagement. As an experienced member of the ARC-GM Public Panel, I take pride in sharing my expertise.

In meetings of the Digital Health Investigators my role as public contributor is valued and has led to the establishment of a permanent and dedicated agenda item for public contributions. I also participate in the stakeholder group. I was given multiple opportunities and support to provide my perspectives of living with health conditions, voluntary work and activism. I intend to continue this balanced critical friendship in order to voice the wishes and needs of citizens in health research.

19

pre-doctoral
fellowships
for nurses,
midwives
and allied
health
professionals



15

PhD Studentships

Funding for ARC-GM research projects
from October 2019 to December 2022.

£6.1m



from NIHR for Applied Health and Care Research in Greater Manchester

£400k

NIHR ARC Priority Research Programmes

£2.5m

from Greater Manchester Health and Care Organisations

£1.3m

from The University of Manchester



£1.1m

from other organisations
(e.g., industry, charities)

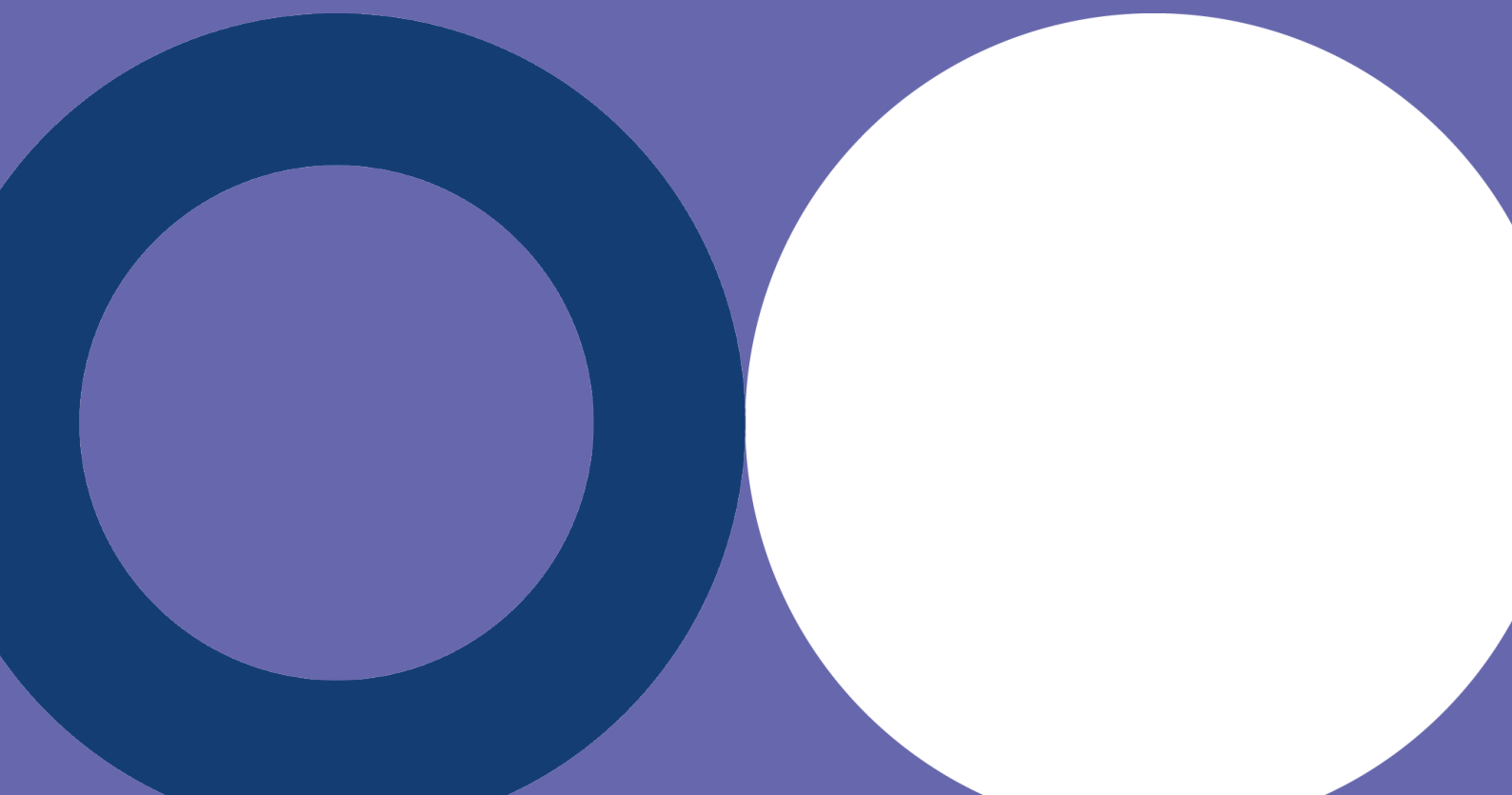


Prof Ben Bridgewater
Chief Executive of Health Innovation
Manchester

“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.

The NIHR ARC-GM, sit very much at the middle of this, working with Health Innovation Manchester and the Greater Manchester system to address the many challenges and inequalities affecting the region and beyond. The applied research expertise from the NIHR ARC-GM team helps to support new and better ways of promoting health, delivering care and supporting the economic sustainability of the system.”

COLLABORATING TO
MAKE RESEARCH HAPPEN



GREATER MANCHESTER INTEGRATED CARE PARTNERSHIP

ARC-GM collaborates closely with the Greater Manchester Integrated Care Partnership which brings together all health and social care partners across GM and wider public sector and community organisations.

We have developed a trusted and supportive relationship with the Greater Manchester Combined Authority (GMCA), NHS Greater Manchester Integrated Care (NHS GM) and our co-funding health and care partners to support and address Greater Manchester applied health and care research needs and priorities.

Through our organisational meetings and Stakeholder Forums we update on current research, discuss system priorities and develop the links to co-produce future research, including leveraging additional research funding into Greater Manchester.

Members of the ARC-GM team sit on a number of NHS GM and GMCA boards and committees within the areas of Population Health, Health Inequalities, Ageing and Falls.

HEALTH INNOVATION MANCHESTER

ARC-GM provides robust, high quality and independent applied health and care research expertise to inform Academic Health Science Network innovation adoption decisions within Health Innovation Manchester (HInM).

We contribute reviews of the existing evidence, advice regarding the type of ongoing evaluation needed, and strategies for implementation. ARC-GM has contributed the following to innovation adoption decision-making:

- Consideration of evidence frameworks to support decision-making, which recognise multiple relevant domains including innovation effectiveness, potential unintended consequences, economic issues and stakeholder acceptability.
- Rapid evidence synthesis¹⁰ to summarise what is (and is not) known about candidate innovations to inform adoption decisions and the planning of evaluation. To date over 20 reviews have been undertaken or are in progress. This process has been shared with many other AHSNs.
- Advice on evaluation including design, data sources, data collection and analysis and any ethical considerations and external funding opportunities.
- Advice on implementation science frameworks to help guide approaches to deployment and process evaluation;
- Additional intelligence on national research, evaluation and implementation activity that may inform pipeline decision-making.



Through close working with Health Innovation Manchester, ARC-GM has also supported evaluations with industry and other partners such as Novartis UK, Novo Nordisk, Medtronic and 42nd Street.

PUBLIC AND COMMUNITY INVOLVEMENT AND ENGAGEMENT

At ARC-GM our vision is to ensure that public voices and the voices of our local communities are at the heart of our research. We partner with members of the public at all stages in the research process helping us to shape the research that we do, advising on how it is carried out and how the results are shared and applied.

We have a public panel of 15 members from diverse backgrounds and with a range of lived experiences with whom we work to provide advice on the best approaches to use when involving and engaging with the diverse communities of Greater Manchester. The panel supports early conversations between researchers and the public. Panel members have been an invaluable resource to support recruitment to project advisory groups when specific lived experiences are required through the trusted relationships they have in their own communities.

We also have a young person's panel with ten young people from across Greater Manchester (aged 17-25 years) who are new to involvement in research, with mentorship provided by our more experienced panel members. This is ensuring that the voices of young people can help shape our future work.

We see collaboration with the VCSE and the other research infrastructure across Greater Manchester as a vital way to ensure that a wide range of voices from different backgrounds, particularly those communities not currently taking part in research, have a voice.

The Greater Manchester Public and Community Involvement and Engagement Forum was set up in March 2020 to enable those with a passion to improve the way research organisations and VCSE colleagues work together to meet and share best practice. The Forum provides a network to share opportunities more widely across Greater Manchester.

ENGAGING WITH LOCAL COMMUNITIES

In October 2021 we hosted a week of activities and presentations to showcase and celebrate the way in which the communities of Greater Manchester came together in an inclusive way during the COVID-19 pandemic.

The Valuing our Differences and Learning Together sessions were focussed around:

- Creative Styles for Inclusive Vibes.
- Listening to Young People's Voice.
- Supporting Diversity and Inclusion.
- The Human Experience Perspective.

We fostered learning about how different communities worked together and the impact this had on maximising diversity and inclusion in public involvement and engagement activities.

ADDRESSING HEALTH INEQUALITIES THROUGH APPLIED RESEARCH IN GREATER MANCHESTER

Tackling health inequalities is a key priority for Greater Manchester and recent experiences during COVID-19 have further highlighted this need. Mid-March 2022, in collaboration with NIHR Greater Manchester Patient Safety Research Collaboration (NIHR GM PSRC), health and care stakeholders and community organisations from across Greater Manchester came together for a workshop at Gorton Monastery to discuss and define an agenda for action relevant to applied research to address health inequalities, and inequalities in patient safety in the context of health and care services.

The key recommendations¹¹ included strengthening the way which the Greater Manchester research community works with the VCSE sector and, developing wider public engagement using an outreach approach to address social isolation and mental health needs, especially in underserved



communities. A commitment was made to enable further participatory research placing communities with lived experience at the heart of research.

HIDDEN LIVE: ADAM'S STORY

Hidden LIVE is a collaboration between our Mental Health research theme, the NIHR GM PSRC and Made by Mortals.

The multi-media theatre piece uses imagination and experiences of 'real people' and asks us all to question what we can do to help, by raising awareness of young people's mental health and creating opportunities for important conversations. In collaboration with Made by Mortals, we worked with this young, diverse group to create a character based on their lived experiences.

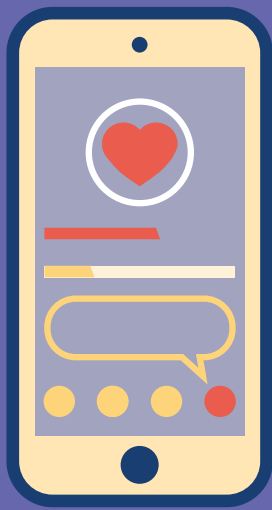
During Mental Health Awareness Week 2022, we took the Hidden LIVE show to the Royal Northern College of Music. The performance included an immersive listening experience of a pre-recorded podcast written and performed by the young people, as well as music crafted by them and a live performance from the perspective of a caseworker from Children's and Adolescents Mental Health Services (CAMHS). Further performances of Hidden LIVE across Greater Manchester are planned throughout 2023.

WHAT WE'VE BEEN DOING

Our themes cover nine priority areas, including: digital health; mental health; economic sustainability; organising care; healthy ageing; implementation science; evaluation; training and development; and public, community involvement and engagement.

Here are a handful of examples of our work, out of the 100+ research projects we are involved with...





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DIGITAL HEALTH

Informing public policy on health data sharing in the COVID-19 pandemic through Citizens' Juries

What we did

In collaboration with NHSX (now part of the NHS Transformation Directorate) and the National Data Guardian for Health and Social Care, we commissioned three Citizens' Juries that were run online between March and May 2021.

We wanted to involve the public in deliberating whether pandemic data sharing initiatives should be continued after the pandemic had ended. The juries each spent 36 hours across eight days listening to evidence and deliberating the initiatives. Overall, the juries supported the continuation of data sharing initiatives introduced during the pandemic although they had concerns about how some initiatives had been introduced.

What was the impact?

- The Citizens' Juries were cited in the April 2022 review, *Better, Broader, Safer: Using Health Data for Research and Analysis*⁸, commissioned by the Secretary of State for Health and Social Care. The report advocates the use of secure platforms and transparency to earn public trust, stating that the Citizens' Juries showed that the public understand the concepts behind robust Trustworthy Research Environments, and strongly support such work.
- The insights from the Citizens' Juries were used in Greater Manchester to inform public awareness campaigns and to build trust in healthcare data sharing in relation to the Greater Manchester Care Record.
- The Summary Care Record Independent Advisory Board has used the jury findings to recommend changes to the Summary Care Record's communication and public engagement strategies.

Next steps

We are now working in collaboration with the NIHR Greater Manchester Patient Safety Research Collaboration (PSRC), on a project that aims to hear from marginalised, disadvantaged and seldom-heard communities about their views on sharing and using de-identified personal health information. We also aim to focus on views about using data for health and care research purposes, such as research to address inequalities.

MENTAL HEALTH

Identifying acceptable support strategies for parents of children with obsessive-compulsive disorder (CO-ASSIST)

What we did

We provided additional support to a NIHR Research for Patient Benefit Programme funded project that set out to identify workable ways of providing support that would meet the needs of parents/carers of children with obsessive-compulsive disorder (OCD). With a strong focus on Patient and Public Involvement (PPI), the study was initiated and designed through consultation with UK OCD charities and parents/carers. The work took part in three phases:

Phase One: We spoke to parents and professionals to understand the needs and challenges of caring for a child with OCD, and we looked at published evidence on support for parents of children with a range of mental health conditions.

Phase Two: We produced a roadmap of potential support strategies, which were discussed and voted on by parents and professionals.

Phase Three: Parents and professionals reviewed results from the phase two voting to select the components of a support package and how these might be delivered.

What we learned?

The most workable, helpful solution to address the current gap in provision was an online platform containing sensitive

parent-informed resources and information to:

- support and equip parents to support their child
- help parents make sense of OCD
- support parents to develop a shared understanding of OCD within the family
- help parents to consider their self-care
- provide opportunities for parents to be heard by people who understand.

Getting the right help at the right time for their child and dispelling misconceptions around OCD were also identified as requiring wider organisational and public health initiatives. There is a pressing need to develop and test the online support platform for parents and carers of children with OCD¹².

ECONOMIC SUSTAINABILITY

Inequalities in the North of England

What we did

We wanted to understand the impact of the COVID-19 pandemic and associated control measures on the health and productivity of the people of the North compared with the rest of England. We have collaborated with the Northern Health Science Alliance (NHSA) and northern ARCs (North West Coast; Yorkshire and Humber; North East and North Cumbria) to study how COVID-19 has affected the North of England relative to the rest. This included the publication of a number of reports, including:

- Child of the North: Building a fairer future after COVID-19¹³.
- A year of COVID-19 in the North: Regional inequalities in health and economic outcomes¹⁴.
- Overcoming health inequalities in 'left behind' neighbourhoods (in collaboration with the NHSA and the All Party Parliamentary Group (APPG) for 'Left Behind' Neighbourhoods)¹⁵.

- The Parallel Pandemic COVID-19 and Mental Health¹⁶.

What happened?

- All reports have been shared widely within Government, including all northern MPs and representatives from relevant committees and All Party Parliamentary Groups, continuing to highlight the widening inequalities faced by people in the North that need to be addressed by Government, the Department of Health and Social Care and local policy makers.
- Findings have also been shared and discussed with key policymakers from the Greater Manchester Health and Social Care Partnership and the Greater Manchester Combined Authority, which make up the newly formed Greater Manchester Integrated Care Partnership (GMICP).
- We have obtained over £1m of additional external research funding to further explore ways of addressing the health and care inequalities experienced, particularly in the north of England.

ORGANISING CARE

Evaluation of the Hospital Independent Domestic Abuse Advisor (HIDVA) Service

What we did

We worked with Wrightington, Wigan and Leigh NHS Foundation Trust (WWL) on an independent evaluation of their hospital-based Independent Domestic Abuse Advisor service. The service had been identified by NHS England and NHS Improvement as a flagship example of best practice, and requested an independent evaluation of the HIDVA service to inform developing services nationally.

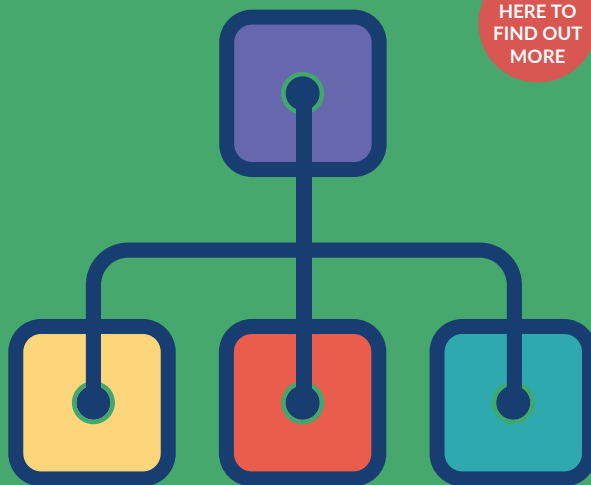
We explored the processes, activity and outcomes associated HIDVA service, providing a comprehensive assessment of the implementation and impact of the new service. Our evaluation¹⁷ found that:

- Hospital-based Independent Domestic Abuse Advisors

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provided an efficient, flexible service during the COVID-19 pandemic.

- Locating Independent Domestic Abuse Advisors within a team working across a trust and building good working relationships facilitates an effective disclosure and referral route, which endures through social restrictions.
- Hospital-based Independent Domestic Abuse Advisors supported high-risk victims who may otherwise not have been identified in traditional community-based DVA settings during the pandemic.
- Hospital-based Independent Domestic Abuse Advisor services can broaden access by supporting vulnerable, at-risk populations whose needs may not be identified at other services.

What we found

Overall, we found that hospital-based Independent Domestic Violence and Abuse services can broaden access to domestic violence and abuse services by supporting vulnerable, at-risk people whose needs may not be identified by other services. Our evaluation of the service informed the commissioning of the service in WWL for 2021/2022.

HEALTHY AGEING

Evaluating the Keeping Well at Home Initiative across Greater Manchester and beyond

What we did

In May 2020 the University of Manchester's Healthy Ageing Research Group teamed up with the GMCA to support those who were self-isolating during COVID-19. The Keeping Well at Home booklet was produced, printed and distributed across Greater Manchester and the UK.

We undertook an evaluation¹⁸ of the booklet to assess its usefulness, content and impact. As national restrictions on movement and meeting remained in place at the time, a postal questionnaire was distributed to a sample of older adults who had received the booklet in Greater Manchester. Nearly 500

questionnaires were returned. The response to the booklet was overwhelmingly positive:

- 92% found the information helpful.
- 90% agreed the booklet would help older people stay healthy during lockdown.
- 74% had used the home exercises section.
- 78% found the tips for keeping their mind well helpful.
- Around 50% of respondents did not have internet access.
- Paper based resources was the preferred choice for 92% of respondents with only 6% opting for digital versions.

What happened?

- The evidence from the evaluation challenges the growing trend towards communicating just through digital channels and emphasises the need for tailored paper-based materials for older adults.
- The booklets have now been distributed to over 250,000 older adults, not only in Greater Manchester but also other localities nationally and internationally since the beginning of the pandemic and has featured as a World Health Organisation case study.

Next steps

The findings from the evaluation supported the business case for the GMCA Ageing Hub to develop, print and distribute the updated *Keeping Well This Winter* booklet to a large number of older people. The new version includes additional sections identified as important by the ARC-GM evaluation and has been translated into Bangla, Urdu, British Sign Language, Audio, and Easy Read.

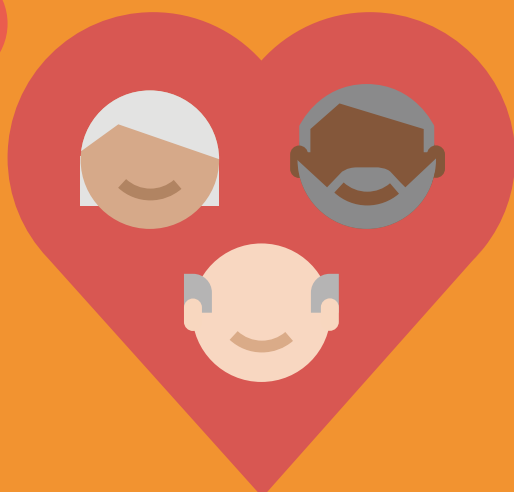
IMPLEMENTATION SCIENCE

Multi-region evaluation of the national roll out of social prescribing link workers in primary care

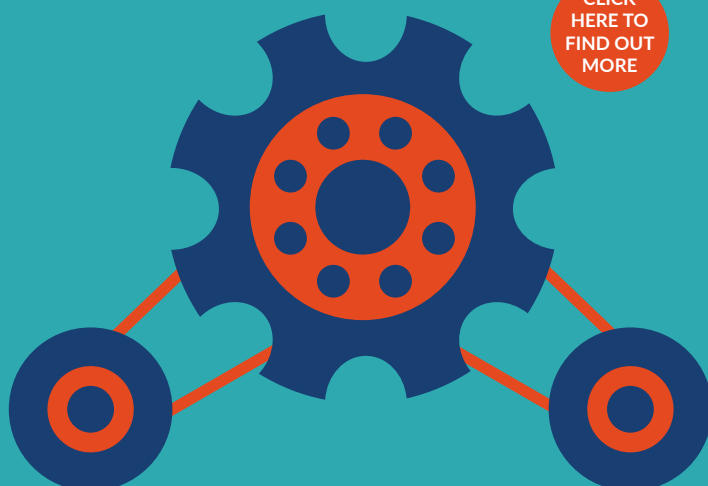
What we did

We worked with the former NHS GM, the Greater Manchester VCSE sector, and the Greater Manchester Social Prescribing providers to develop and agree a planned

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evaluation of the local Greater Manchester Social Prescribing provision.

What happened?

We were awarded more than £2m from the NIHR Health and Social Care Delivery Research Programme for a three year research project from March 2022 to examine how social prescribing is currently configured and provided and to see whether access, engagement and outcomes vary by delivery model, geography and population characteristics over time. Focussing on how social prescribing link workers operate, how well they work, who does and doesn't use them, whether they are of benefit to people and are a good use of NHS resources.

We are liaising with NHS Scotland, NHS England and The Department for Health and Social Care to discuss early insights and findings.

Next steps

Close to a year into this award, we have mapped the provision of social prescribing link worker schemes across Greater Manchester, with the other four localities from across England and Scotland due to finalise their mapping work in early Spring 2023. From here, we will be using the mapping work to select eight sites and schemes for further exploration.

EVALUATION

Greater Manchester's challenges and opportunities to improve care for type 2 diabetes have been explored as part of an international collaboration.

What we did

In 2019 Manchester was named the twenty-first global city to join Cities Changing Diabetes, in partnership with Health Innovation Manchester. The programme supports innovative new approaches to the prevention and management of type 2 diabetes in cities.

We conducted a mixed methods study applying the 'rule

of halves' framework to routine data to identify gaps in the diagnosis and treatment of individuals with type 2 diabetes in Greater Manchester. We also explored the social and cultural factors that make certain groups of people living in Greater Manchester vulnerable or resilient to type II diabetes and its complications^{3,4}.

Key findings included:

- Those aged under 40, particularly men of white ethnic origin and men and individuals living in the most deprived neighbourhoods, are most likely to experience under-diagnosis of type 2 diabetes.
- GP practices within Greater Manchester whose diabetes populations are younger tend to perform less well than others in terms of delivery of care and the meeting of treatment targets for their diabetes patients.
- Those aged under 40 with type 2 diabetes feel that existing care and support is not tailored to their needs, with a sense that education courses to support self-management of their condition do not reflect their lifestyles and seem to be aimed more at older people living with the condition.
- Younger adults with type 2 diabetes should not be treated as a homogeneous group and there is a need to consider tailored support relevant to their different needs.
- Greater Manchester has significant strength within diabetes research, this includes research into the use of digital technologies to help manage health and the prevention of health complications associated with diabetes, however there is a lack of research focussed on understanding the needs of ethnic minority communities.

What does this mean?

It is hoped that the work undertaken during the Cities Changing Diabetes programme will further support the health and care system in Greater Manchester, as well as Greater Manchester research partners, to collectively work to tackle type 2 diabetes and reduce its impact within the city region.

TRAINING AND DEVELOPMENT

What we did

We are working with local partner organisations, NIHR infrastructure and other academic institutions to build capacity and capability in applied health and social care research, evaluation and implementation science across Greater Manchester.

We offer PhD studentships, Pre-doctoral Fellowships and Research Internships to health and care professions, service users and carers, university undergraduates.

What has happened?

We have established a Greater Manchester NIHR Training Network Steering group with membership from Manchester Academic Health Science Centre, Manchester Biomedical Research Centre, Clinical Research Network and Patient Safety Research Collaboration.

So far, we have supported 27 Research Interns from the health and care system, who each spent 30 days over 12 months with the ARC-GM team. The internship offers an opportunity to enhance research knowledge and skills through first-hand, supervised experience of applied health or social care research. We also currently have two service users and carer research interns working with us throughout 2023.

We have supported 19 people on Pre-doctoral Fellowships, three of whom were previously Research Interns. People who undertake these Fellowships are often hoping to do a PhD and the Pre-doctoral programme supports people to prepare PhD proposals.

We have supported a total of 15 PhD students, four of whom started in 2020, five in 2021. In partnership with the NIHR Older People and Frailty Policy Research Unit, we have funding for six additional PhD students from Dunhill Medical Trust, who started in October 2022.

We hold an annual event to showcase the fantastic work of Research Interns, Pre-doctoral Fellows and PhD students, where students and supervisors present their research and learning over the previous year.

Next steps

We will continue to offer Research Internships and Pre-doctoral Fellowships each year, whilst also working with Greater Manchester NIHR Training Network Steering group to offer a series of events and webinars, regular peer-to-peer networking meetings, mentoring and signposting.

PUBLIC, COMMUNITY INVOLVEMENT AND ENGAGEMENT

Our vision is to ensure that public voices and the voices of our local communities are at the heart of our research. We partner with members of the public at all stages in the research process helping us to shape the research that we do, advising on how it is carried out and how the results are shared and applied. Here is an example of how we have worked closely with public contributors to inform the design and analysis of work related to COVID-19 vaccinations².

What we did

Using the Greater Manchester Care Record, we studied inequalities in uptake of the COVID-19 vaccine, comparing COVID-19 vaccine uptake to previous inequalities in flu vaccine uptake to try to understand similarities and differences compared to routine vaccine uptake.

We found that ethnic inequalities in COVID-19 vaccine uptake are wider than those seen previously for influenza vaccine and exist even among those recently vaccinated against influenza. Most worryingly these inequalities were highest amongst people at the highest risk of severe COVID-19, namely older and more clinically vulnerable people, and those living in the most income-deprived areas.

This analysis provided us with statistical evidence, but it did

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not provide any context to the numbers, nor an understanding of the social, cultural and political drivers of higher or lower uptake.

In partnership with an Advisory Group set up with public contributors from the NIHR ARC-GM Public and Community Involvement and Engagement Panel and Forum, we developed a qualitative research community to better understand the experiences of groups that have been adversely affected by the pandemic in Greater Manchester.

We held a number of engagement sessions; with young adults in Greater Manchester, young carers, ethnic minority groups, and with individuals who have long term health conditions. Interview and focus groups were supported and co-facilitated by our Advisory Group. We also talked to community leaders and community organisations, as well as key stakeholders from local government and the NHS.

Through our partnerships we were able to explore a number of sensitive issues that may have not come up had we been working without the support of the Advisory Group including the existing mistrust marginalised groups have stemming from

racism and experiences of culturally insensitive healthcare.

What happened?

- This work has received numerous awards for its approach to public engagement; the 2021/22 NIHR Greater Manchester Clinical Research Network's 'Recognising Outstanding Engagement' award; along with two commendations at the 2021/2022 University of Manchester 'Making a Difference' Social Responsibility Awards.
- This led to new work funded by NHS England's NHS Insights Prioritisation Programme (NIPP), on 'Optimising vaccination in Greater Manchester' in which we are working with the local health and care system and Health Innovation Manchester to gain further insights into promising approaches to targeted vaccination and exploring opportunities for local implementation. This includes exploring the important role the voluntary, charity and faith groups played in supporting vaccination programmes and strategies for public engagement.



LOOKING AHEAD



We hope you have enjoyed reading the highlights of our impact story so far. I think it is great to see such variety in the topics we have researched, the methods we have used, and the findings we have generated.

What I find so stimulating about working in the NIHR ARC-GM is the balancing act that we need to do, on the one hand producing world-class research, and on the other producing findings that are relevant and useful to local communities and services.

A key part of what we do is creating more capacity in applied health and care research in the local area. We do this through formal training and by creating the time and space to experience and undertake research with us. Our success will be determined by how well we enthuse our staff, PhD students, our pre-doctoral fellows and our interns and equip them for the future. Our legacy will depend on this community of researchers in Greater Manchester committed to improving the health and well-being of all groups in society through world-class research.

We also need to continue to offer training in implementation and evaluation to the health and care community in Greater Manchester to encourage the best use of research in decision-making and debate. This can only be achieved by continuing to collaborate with the NHS, local authorities, the public and communities, the voluntary, charity and social enterprise sector, industry and universities across the region. We must also keep our Stakeholder Forum, Public and Community Involvement and Engagement Panel and Forum, and Young Persons' Advisory Group engaged and excited by our research.

Two priorities for us have been development of more capacity in public health and social care research. These are vital for the health and wellbeing of the local population and the sustainability of the care system, but capacity to have impact through high-quality research has been very limited. Looking ahead, we need to entice more people and resources into these areas.

Greater Manchester's devolution and unique history of collaborative working means that we have unrivalled opportunities for demonstrating the value of high-quality research connected to decision-makers that help us pick the right research to do and are eager to hear the findings. Our relationships with the Integrated Care System are invaluable.

However, we must not become parochial. Our ARC is only one

of 15 nationally and we can work together with other ARCs to influence national policy on key challenges such as health inequalities and healthy ageing. The work we have done with colleagues across the North has made the impact of the COVID-19 pandemic on health and productivity impossible to ignore.

The pressures that are faced by the health and care system, and the staff who work in it, are well-known. Several initiatives are underway to attempt to reduce these pressures. The increased use of social prescribing schemes, the move to 'virtual wards' and the changes to staff skill-mix are all major experiments that have some promise but remarkably little evidence-base. Our aim is that ongoing projects in these areas will inform how these initiatives are adopted in the future.

Four areas in which we are currently placing emphasis are Greater Manchester's recent Live Well initiative and the contribution of social prescribing to this, the continuing need to support ageing well, evidence to inform the appropriate use of digital technologies, and the urgent need to bring applied research to under-represented communities.

The slow pace of most research studies is a source of frustration for decision-makers and the public. Our recent success in being awarded a national rapid service evaluation centre means that we will lead the way in getting high-quality research findings to decision-makers in the fastest possible time.

It is of utmost importance to us to be led by Greater Manchester priorities, work with all stakeholders to choose what research we do and how we carry it out and report it, and ensure we are up-to-date with best practice in how to do applied health and care research most effectively.

We know that the Department of Health and Social Care has said their areas of research interest are prevention, reduction of pressures on the care system, better planning of the workforce, health inequalities, economic growth, and innovation. The Integrated Care System in Greater Manchester is currently finalising its priorities too. We need to identify how we can uniquely contribute to these, alongside continuing to engage with frontline practitioners and the public and local communities about what they need us to do.

Professor Matt Sutton

Professor of Health Economics and Deputy Director, NIHR Applied Research Collaboration Greater Manchester

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