

Annual report summary 2024



Foreword

As we celebrate our fifth anniversary, I am delighted to present our latest annual report that showcases our key achievements and ongoing efforts to improve the lives of people in our region.

Over the past year, we have continued to build strong partnerships with NHS trusts, local authorities, universities, charities, industry partners, and most importantly, patients and the public. This collaborative approach has enabled us to tackle complex health challenges and translate research findings into tangible improvements in clinical practice and patient care.

At this point in our funding period, our priority is to bring our projects to a close and wherever we can to start to implement project findings and change practice for the benefit of the NHS and patients. As projects complete, they prepare project closing reports and work with our Knowledge Mobilisation Support Unit to identify ways that the project findings can be publicised and those who might want to implement them identified and contacted. This publicity can be via social media or directly through contact.

Over the years we have had a number of projects that have been rolled out nationally often after being implemented within the East Midlands. In particular, Leicester Diabetes Risk Score where people can use a simple questionnaire to assess their risk of having or developing type 2 Diabetes and QbTest which is an online tool that supports the diagnosis of ADHD in children and young people, have become part of normal practice and rolled out across the country. More recently, the FaME prevention programme has been adopted for national roll-out as its success has been confirmed as part of the National ARC Healthy Ageing programme. Also, our Models of Care for Diabetes is being rolled out to other integrated care boards (ICBs) and the ARC study Baby Steps has been commissioned by some ICBs and health services in Scotland and Australia. Another former ARC East Midlands falls management project FINCH is also being rolled out nationally again through the National ARC Healthy Ageing programme. We are proud to have made such a strong contribution to national practice. Our commitment to equality, diversity and inclusion (EDI) is one of our greatest strengths, and this is evident in the work of our Centre for Ethnic Health Research (CEHR).

In the last year, reflecting its growing reputation as an international centre of excellence, the CEHR has become a core partner with the National Immunisation Schedule Evaluation Consortium II (NISEC II) in future vaccine trials including future development of vaccines for flu and COVID-19. Alongside this, the Centre continues to provide its courses on Cultural Competency and Effective Community Engagement. The Centre is part of our role as National Lead ARC for EDI of Under-represented Groups

We are also the lead ARC for Multiple Long-Term Conditions (MLTC). For this we have funded a suite of national projects looking at important areas in providing care to people with multiple conditions alongside an evaluation of the studies and the particular challenges they face in being implemented.

I want to thank our colleagues, partners and patients for their dedication and continuous support. Your commitment has been crucial to our success in driving cutting-edge research and making positive changes in health and social care.

As we look to the future, I am excited about the opportunities that lie ahead.



A handwritten signature in blue ink, appearing to read 'K. Khunti', written over a horizontal line.

Professor Kamlesh Khunti

Director, NIHR ARC East Midlands

Performance Overview

Since our establishment, we have made significant progress in advancing health and care research while building partnerships that directly benefit our communities. Our focus on collaboration and innovation has allowed us to make a meaningful impact on health outcomes for diverse populations.

Achievements since October 2019



Publications: 627 papers published in peer-reviewed journals



Partnerships formed: 33 collaborations including NHS, academic and local authority partners



Research projects: 76 projects successfully carried out



PhD funding: 47 PhD students funded



Funding secured: £19.84 million secured in co-funding and £65.46 million in external funding



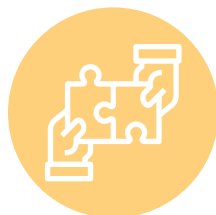
Industry engagement: 51 partnerships established

Performance overview 2023 – 2024

In this financial year, our work has led to impressive results:



Funding generated: £4.5 million, including co-funding, to support our research initiatives.



Partnerships: 10 collaborations with local small and medium enterprises



Active projects: 41 ongoing projects



Training initiatives: 23 courses delivered to 434 participants



Publications: 115 papers in peer-reviewed journals

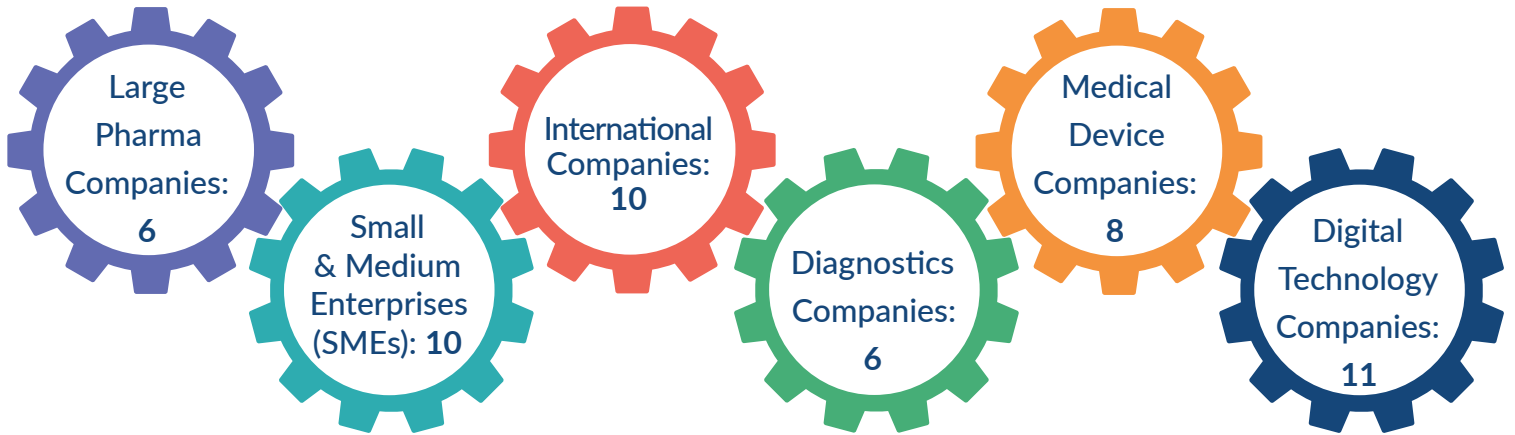


National leadership roles: We are proud to be the lead ARC for: Research on multiple long-term conditions, Promoting equality, diversity and inclusion of underrepresented groups

Industry Partnerships

The ARC East Midlands has a well-established Industry Strategy that supports our proactive approach to collaborating with industry partners. This strategy is reflected in the diverse range of partnerships we have built and maintained over the years and funding cycles. We are dedicated to engaging industry and other stakeholders in the next phase of our development as we work on the current regional and national priorities.

Partnership overview



Our commitment to collaboration not only enhances our research capabilities but also drives innovation in health care, ensuring that we remain at the forefront of addressing pressing health challenges.

Capacity Development

At ARC East Midlands, we are dedicated to supporting the next generation of researchers in health and care. Our capacity development initiatives aim to equip individuals with essential research skills, enabling them to actively engage in research and apply evidence in their practice.

We offer PhD studentships and deliver an extensive series of training sessions. In the past, we have also offered postdoctoral fellowships and have also hosted research placements, including those for Health Education England GP Fellows and NIHR In-Practice Fellows. We are also excited to announce upcoming internships linked to our Dementia Capacity programme.

Here are some key highlights of our capacity development:

PhD funding: Since 2019, we have funded 47 PhD candidates

Adopted PhDs: Additionally, we have adopted 5 PhD candidates, further enriching our research community



Recent graduates: In the last reporting year, 11 researchers successfully completed their PhDs, contributing to a total of 44 awarded PhDs to date

Current cohort: Our current PhD cohort comprises 37 candidates, including 18 from the Nursing, Midwifery, Allied Health Professions and Social Care (NMAHPS) fields and 3 medical doctors

Training Courses

We offer a variety of training programs at ARC East Midlands to help individuals enhance their skills and knowledge in health and care research. Our courses are designed to be engaging and accessible for everyone, including healthcare professionals, researchers and community members.

In this reporting year, we delivered 23 courses to 434 participants, equipping individuals with essential skills and knowledge. Here are some of our key training initiatives:

Short course programme



Our Centre for Ethnic Health Research has run 15 courses focused on Effective Community Engagement and Cultural Competency, with 143 participants. All ARC staff, including investigators, research team members, program staff, and PhD students, receive the cultural competency training. In addition, each NIHR ARC is offered two free places annually. For more details, visit the training page:

👉 ethnichealthresearch.org.uk/training

Educational sessions



We have hosted educational seminars on multiple long-term conditions with the Enhance programme and at Leicester medical school. These sessions included topics on global health perspectives and complex multimorbidity, tailored for medical students and clinical trainees.

Implementation science training



Workbooks are now available as open-source materials, free for anyone to download:

👉 live-arc-em-2024.pantheonsite.io/arc-store-resources/implementation-science-training

Bespoke training programmes



We have delivered tailored training in Implementation, Knowledge Mobilisation, and Coproduction for the Nottingham Wellcome DTC cohort, supporting our commitment to building capacity beyond the ARC.

Recorded sessions



All training sessions are recorded and accessible on our YouTube channel:

👉 youtube.com/@nihrarceastmidlands3838

Media and Communications

Effective communication is essential for engaging with our stakeholders and promoting our research initiatives. Over the past year, we have expanded our outreach through various channels, ensuring that our work reaches a wider audience and fosters community involvement.

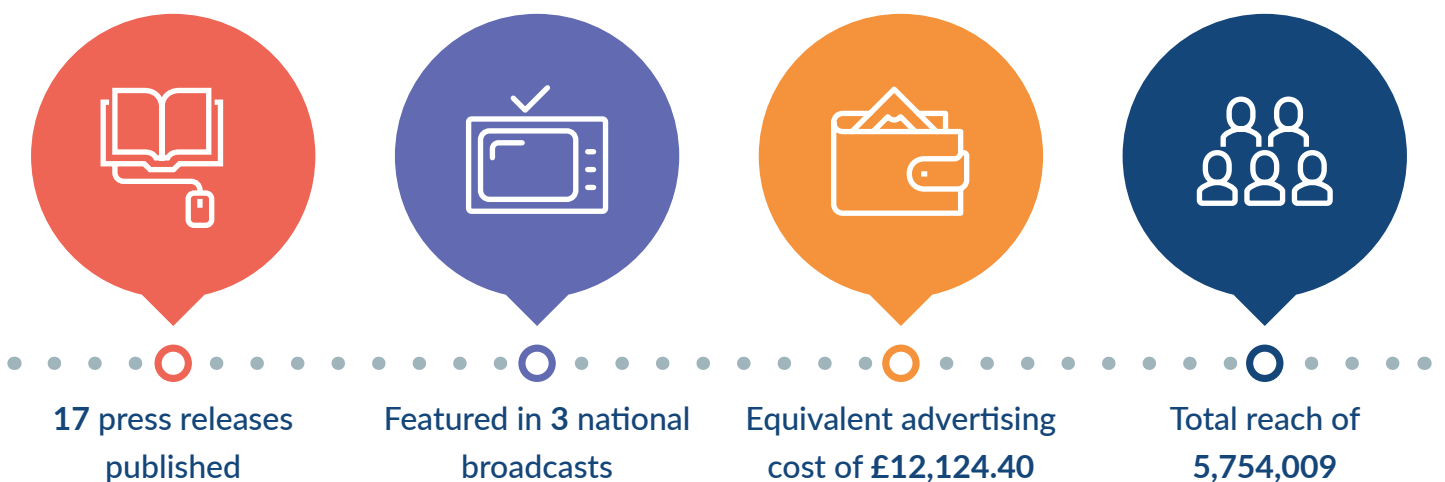
Here are some key statistics that illustrate our impact:

- ✂ Over **4,900** followers and **6,000+** posts, allowing us to engage actively with our audience and share important updates.
- ▶ YouTube channel: More than **80** videos, **200** subscribers and over **21,000** total views, showcasing our research initiatives and educational content.
- ✉ Email newsletter: **820+** subscribed contacts, issued quarterly, keeping our community informed about our latest news and events.

In addition to these established channels, we have launched new platforms to enhance our presence and connect with diverse audiences:

- in LinkedIn: Launched in November 2023, with over **300** followers, facilitating professional networking and collaboration. Connect here: uk.linkedin.com/company/nihr-applied-research-collaboration-arc-east-midlands
- 🎧 Spotify: Our podcast, Chronic Conversations, launched in December 2023, has attracted over **120** plays across 6 episodes, providing valuable discussions on multiple long-term conditions. Listen here: podcasters.spotify.com/pod/show/arc-east-midlands

Our communications efforts also include a robust press strategy. Over the past year, we have achieved the following:





Spotlight on our research

We are proud to highlight five impactful projects that have transformed healthcare delivery and improved outcomes for our communities. These initiatives tackle pressing health challenges through innovative approaches and collaborative efforts, demonstrating our commitment to advancing patient care and improving lives.

Spotlight: Specialist Commissioning of Paediatric Neurological Rehabilitation Pathway

40,000 children sustain an acquired brain injury or neurological injury per year. Rehabilitation has been shown to improve outcomes and quality of life, with the potential to reduce health inequalities and make significant cost savings across the health and care system, as well as improve social and educational skills. However, for many, rehabilitation stops once they are discharged from acute care.

Project overview:

The Children's Neurorehabilitation service (BRILL Team) at Nottingham Children's Hospital provides intensive neurorehabilitation, early supported discharge, and ongoing support for children with brain and spinal injuries.

A service evaluation conducted by Rachel Keetley in 2016, followed by her ARC East Midlands, University of Nottingham and Health Education England East Midlands funded PhD fellowship in 2019, highlighted the long-term rehabilitation needs of these patients, focusing on participation and well-being.

Key developments:

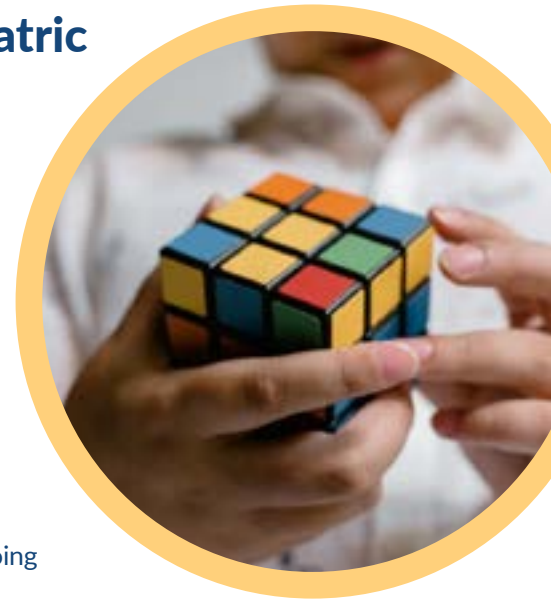
- Increased national awareness of the unique long-term needs of children with acquired brain injuries and their families.
- Developed East Midlands regional specialist paediatric neurorehabilitation clinic to include multi-disciplinary assessment and follow up.

Key impacts:

- Improved patient outcomes: Enhanced health and social care results, preventing poorer outcomes and reducing delays in diagnosis and treatment.
- Optimised care pathways: Streamlined management of conditions and better access to services, leading to higher quality care.
- Policy influence: Contributed to the development of clinical guidelines and policies, facilitating better implementation in practice.

This initiative is vital for improving the rehabilitation journey for children with neurological injuries and ensuring they receive the comprehensive care necessary for recovery and development.

Read more about this research: arc-em.nihr.ac.uk/news/rehabilitation-access-children-brain-injuries-enhanced-arc-east-midlands-funded-researcher



Spotlight: Focus ADHD Programme

Attention Deficit Hyperactivity Disorder (ADHD) is a developmental disorder affecting behaviour and impacting around 5% (1 in 20) of school-aged children. Historically, there was no simple test to diagnose ADHD, leading to multiple clinic visits that cost the NHS an estimated £23 million annually. The Focus ADHD programme aims to improve the diagnosis process through the use of the QbTest.



About QbTest:

QbTest is an innovative device that objectively measures attention, impulsivity, and activity levels in comparison to standardised norms. The tool supports clinicians in making more accurate and timely diagnoses of ADHD.

Impact of the AQUA Trial:

The CLAHRC East Midlands AQUA-Trial evaluated the effectiveness of QbTest compared to usual care. Key findings from the randomised controlled trial conducted from 2014 to 2018 include:

- **Reduced time to diagnosis:** The use of QbTest shortened the time required to reach a confirmed diagnosis by two-thirds.
- **Acceptable and feasible:** Clinicians, parents and young people thought favourably of the QbTest and clinicians generally found it easy to implement in their service

Health Innovation Network (HIN) Assessment:

An assessment by Health Innovation East Midlands confirmed the following impacts:

- Time from assessment to diagnosis: Reduced by 153 days.
- Patient feedback: 85% of patients found the QbTest results helpful.
- Clinician insights: 94% of clinicians reported a better understanding of patients' symptoms.
- Return on investment (ROI): The median ROI to the NHS was £84,460 per trust.

Positive impacts (2020 – 2024):

- QbTest has been implemented across England via the 15 HINs (formerly the AHSNs).
- Between April 2020 and March 2024, via the HIN implementation 71,102 children and young people have benefited and the QbTest had been adopted in 79 NHS trusts, three quarters of all NHS trusts that provide ADHD services.
- Over the four years more than 95,097 hours of clinical health care capacity was released and an estimated £38.5M NHS savings were achieved.
- In July 2024 NICE published guidance recommending the use of QbTest to help diagnose ADHD in children and young people. NHS trusts and recommended by NICE for diagnosing ADHD in children and young people.
- The national rollout of QbTest has received 4 national awards: the Health Service Journal (HSJ) Awards 2019 (Innovation in Mental health), the National Mental Health and Wellbeing Awards 2022 (Innovative Mental Health Intervention), the HSJ Partnership Awards 2022 (Best Mental Health Partnership with the NHS), and the national Innovate Awards 2023 (Innovation Spread).

Find out more about this programme: thehealthinnovationnetwork.co.uk/programmes/mental-health-and-neurodiversity/focus-adhd

Spotlight: Falls Management Exercise (FaME) Programme

Falls are a significant public health issue for older adults, costing the NHS over £2.3 billion each year. They contribute to loss of independence and may lead to long-term nursing care.

Project overview:

The FaME programme empowers older individuals to maintain their independence and improve their quality of life through targeted, progressive, strength and balance exercise. Our research focuses on expanding the reach of FaME using a newly developed implementation toolkit.

Key findings from the PhISICAL study:

The Physical Activity Implementation Study in Community Dwelling Adults (PhISICAL) found that:

- **Feasibility** - FaME can be delivered at scale in the community
- **Effectiveness** - Delivery of FaME 'in the real world' is effective, with similar results to the clinical trials
- **Fidelity** - FaME can be delivered with high fidelity but quality assurance measures are needed for fidelity to be maintained over time

The PhISICAL study produced the FaME implementation toolkit, aimed at commissioners and providers of strength and balance exercise programmes as part of a falls pathway. The toolkit has been designed to increase the availability of the FaME programme and has been downloaded over 2000 times from the ARC East Midlands website.

FaME economic impact:

- **Economic benefits:** For every £1 spent FaME provides at least a £2.28 return to society, with some estimates as high as £50.59.
- **NHS savings:** Widespread adoption of FaME is estimated to save the NHS over £700 million.

FaME health benefits:

- Reduces fall rates by 31-58%.
- Enhances physical function, balance confidence, and overall quality of life.
- Encourages increased physical activity, aligning with health recommendations.

The FaME programme is a vital resource for improving the health and well-being of older adults, demonstrating significant societal and economic benefits.

Download the toolkit here: arc-em.nihr.ac.uk/arc-store-resources/falls-management-exercise-fame-implementation-toolkit



Spotlight: Baby Steps Programme

Project overview:

In the CLAHRC, the predecessor of the ARC East Midlands, a group-based programme called Babysteps was developed as part of a randomised controlled trial (RCT) for women with a history of gestational diabetes. The programme aims to support participants in reducing their risk of developing type 2 diabetes in the future. To enhance their experience, attendees have access to a self-directed web-application, also called Babysteps, hosted on the MyDESMOND digital health platform.

Key RCT findings:

- **Participation:** 293 women participated in the RCT, with 49% identifying as Asian or Asian British.
- **Engagement:** Only 33% uptake of the Babysteps programme indicates a need for improved engagement with this diverse, multicultural population.
- **Completion rates:** 77% of participants completed the programme, with a 75% uptake of the app.
- **Cost-effectiveness:** The programme was found to be highly cost-effective.

Participants reported:

- Reduced anxiety levels
- Improved quality of life
- Increased confidence to exercise

Following the onset of the Covid-19 pandemic, real-world implementation of the digital Babysteps programme began with a pilot project taking place across Leicester, Leicestershire & Rutland.

The Babysteps users were active on the programme on average of 28 days. 100% of survey respondents stated that they would recommend the programme to others, and 75% felt that Babysteps helped them to reduce their risk of developing type 2 diabetes in the future. Findings also showed that participants increased their physical activity.

Conclusion

Babysteps offers a pragmatic digital programme that can support women with a history of gestational diabetes in increasing their knowledge and confidence. It also identified gaps in national diabetes care.

Other implementation activity

Babysteps has been adopted in a range of sites across the British Isles as well as in Australia. Early figures show that 457 women have started using the programme.

Find out more about this programme: desmond.nhs.uk/modules-posts/babysteps



Spotlight: Action Falls Programme

The Action Falls programme, formerly known as GtACH, has been recognised as best practice for falls prevention in care homes and has been rolled out extensively across the UK.

Overview of the issue:

Falls pose significant challenges for individuals, often leading to physical injuries, loss of confidence, and increased dependence. Key statistics highlight the urgency of addressing this issue:

- 40% of hospital admissions from care homes are due to falls.
- 10% of UK ambulance call-outs respond to falls.
- Approximately 150,000 ambulance call-outs are to care home residents.
- The cost of ambulance call-outs alone is estimated at £41.4 million.

Programme details:

The Action Falls programme includes a multifactorial falls risk checklist, guidance on mitigating actions, and comprehensive training and support for care home staff.

Key impacts:

Patient outcomes:

- Reduced falls in care home residents by 43%
- Reduced risk of physical, psychological and emotional harm
- Care home staff have improved skills and confidence due to training that includes all staff members, even those not directly involved in care.

Policy influence:

- Included in the NHS-E Enhanced Health in Care Homes (EHCH) framework.
- Recognised as best practice for falls prevention in care homes.
- The FinCH team is collaborating with ARC Wessex to produce an evidence summary for policymakers and stakeholders.

The success and ongoing implementation of the Action Falls programme have led NHS-E to endorse it as a best practice model for reducing falls in care homes. Additionally, rising pressures on care homes and the broader health and social care systems have resulted in high demand for the programme, both nationally and internationally.

Download the toolkit here: arc-em.nihr.ac.uk/arc-store-resources/action-falls-toolkit

For more details, watch the video to learn more about this programme: youtu.be/vQxbjReGIAE?si=lu97YICOVeEqZ0GKH



Equality, Diversity and Inclusion (EDI)

EDI is a core value of our ARC, and as a national ARC lead on EDI research, all of our work programmes undergo an **Equality Impact Assessment (EqIA)** to consider how inclusive our approach and opportunities are.

From April 2023 to March 2024, we have:

Collaborative research efforts

We contributed to **104 funding applications** and active research projects, collaborating with **31 different organisations**, including universities, charities, community outreach groups and NHS Trusts. This engagement involved **62 unique community organisations** and **324 individuals**, all working together to develop and implement inclusive research.

Launch of the 'Equality in Research Matters' campaign:

We initiated this campaign to promote inclusivity in health and social care research. As part of this effort, we are hosting a series of webinars on EDI in collaboration with our Centre for Ethnic Health Research. You can access the playlist here:

👉 tinyurl.com/EqualityinResearchMatters

Engagement at conferences and meetings:

We presented at **8 national and international conferences** and participated in **20 meetings** with pharmaceutical companies, charities and large research, NHS or government organisations. These discussions focused on embedding EDI and effective Patient and Public Involvement and Engagement (PPIE) throughout our research and program delivery.

Training initiatives

We delivered various training courses with our Centre for Ethnic Health Research, including:

5 sessions on Effective Community Engagement:

👉 ethnichealthresearch.org.uk/training/effective-community-engagement-2

Overall, we engaged with **143 attendees** in these training sessions.

Additionally, our Increasing Participation of Ethnic Minorities in Research toolkit has reached **1,876 unique users**:

👉 ethnichealthresearch.org.uk/increasing-participation-of-black-asian-and-minority-ethnic-groups-in-health-and-social-care-research

10 sessions on Cultural Competence:

👉 ethnichealthresearch.org.uk/training/cultural-competence

231 downloads recorded of our EqIA toolkit: 👉 ethnichealthresearch.org.uk/equality-impact-assessment

673 views of EqIA video presentation: 👉 youtu.be/jbRDSIUXKZo



8 EqIA workshops delivered

Public and Patient Involvement and Engagement (PPIE)

PPIE lies at the heart of everything we do. Our PPIE representatives are involved in every stage of the life of our projects from planning and commencement through to delivery and, if appropriate, implementation.

Underpinning our PPIE activities are our Community Voices Panel made up of PPIE representatives some of whom have years of PPIE involvement and bringing the patient experience to the heart of applied health research.

Highlights of PPIE activities in 2023 – 2024

The ethnic minority health research priorities - REPRESENT study

In our commitment to understanding the health needs of ethnic minority populations, the REPRESENT study successfully recruited and facilitated focus groups with 42 individuals across nine ethnicities. These discussions explored views on research participation, identified areas of health and social care of priority and addressed barriers to participation. Additionally, we distributed a survey to community organisations, gathering feedback from 982 respondents from across the UK. The findings will guide our recommendations for priority research areas that are crucial to ethnic minority populations. The findings from the focus group and interview discussions were published in December 2023, and can be accessed here:

👉 doi.org/10.1111/hex.13944

Dementia and hearing loss project

Hearing loss is common and can greatly impact quality of life, making it an important risk factor for dementia. Our Centre for Ethnic Health Research team played an essential role in this project by helping to build relationships and recruit participants from South Asian and Black communities. They organised focus groups and offered valuable feedback on study processes and materials. This engagement was crucial for reaching individuals who may not typically participate in research, ensuring we collected high-quality data from these underrepresented groups.

Through these initiatives, our PPIE efforts continue to enhance the relevance and impact of our research, ensuring that the voices of patients and communities are heard and valued.

Feedback from the NIHR

We have received positive feedback from the NIHR, underscoring our dedication to improving health and care outcomes while addressing health inequalities through impactful research and community engagement:

NIHR would like to thank you and your staff at ARC East Midlands for your efforts and contributions in delivering the work programme and completing the annual report.



The ARC programme of work across the various themes and wider initiatives continues to deliver relevant applied health and care research findings to its local communities and populations, aligned with local partners' priorities.



The establishment of the Centre for Ethnic Health Research remains central to this ARC's deliverables on tackling health inequalities and supporting diversity and inclusion.



The reach of the CEHR in terms of the number of funding applications supported and the breadth of organisations engaged is impressive.



It is encouraging to read that other projects are being rolled out to other Integrated Care Boards (ICBs) and the Baby Steps study has been commissioned by health services in Scotland and Australia.



The ARC demonstrated progress by providing a supportive environment for those pursuing academic careers.



The ARC has to be commended for its efforts in supporting early career researchers (ECRs) development.



Looking Ahead

As we move forward, we are in the process of finalising our suite of projects for the extension period. The first group of approved projects is set to commence on 1 October 2024, and we look forward to sharing more details soon.

Additionally, we are preparing for the next round of NIHR ARC funding. This new cycle will start in 2026 after the end of the extension period. We will be sure to keep you updated as we plan for the future.

Get In Touch


Stay informed about the latest news and opportunities from the ARC East Midlands.

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