



## Research in the Trust

### Report for Quality Academy

September 2023

This report provides an update on research in the Trust, highlighting some of the activities of our research teams and provides information on some of the developments that are happening.

#### Research Activity and Performance

At the beginning of September the Trust has recruited 6795 participants into research studies this financial year with 487 active studies.

In order to improve research experience and as a requirement of the NIHR, we take part in the PRES- Participant Research Experience Survey. The Trust's target for 2023/24, as set by the NIHR Y&H Clinical Research Network, is 514; at end of August 379 surveys have been completed (74% of target achieved to date).

Last year 22/23 the Trust achieved some excellent feedback from the PRES:

- 89% participants strongly agree/ agree that they would take part in research again
- 91% participants strongly agree/ agree that they felt valued by the research team
- 96% participants strongly agree/ agree that they were treated with courtesy and respect by the research team

#### What we did well (sample comments):

'The staff conducting the trials were very lovely'

'The staff were very friendly and helpful'

'Everything was very professionally done, Staff very helpful, explained everything plainly. Very, very polite and friendly'

'I felt cared for and valued at the time by the nurse who questioned me.'

## APPLIED HEALTH RESEARCH

### Yorkshire Quality and Safety Research Team

Recently we celebrated World Patient Safety Day, raising awareness about the research that we do here at BTHFT developing and evaluating strategies for involving patients in patient safety: patient reporting and feedback, helping patients and families raise concerns about deterioration, preparing patients to look after their own safety after a hospital stay and involving patients in incident investigations. We had a great day in the foyer of BRI where we set up a stall, posters and some creative activities and talked to a wide range of staff and patients about the work we do.



Over the last few months our focus has been on setting up some major research infrastructure awards, all based on collaborations between BTHFT, University of Leeds and Bradford, amongst others. These are:

Funder	Title	Duration	Funding amount
National Institute for Health Research (NIHR)	Yorkshire and Humber Patient Safety Research Collaboration (YHPSRC)	April 23-March 28	£5.8million
NIHR	Patient safety research collaboration network	September 23-March 28	£750,000
NIHR	Policy Research Unit, Quality, Safety and Outcomes	January 24-December 29	£1.1million

For more information about our themes of work and other activity, please visit [www.yhpsrc.org](http://www.yhpsrc.org). Below we introduce you to one of the themes of work and describe some of the current activities we are undertaking.

The **‘De-cluttering (Safely) for Safety’** theme within the YHPSRC aims to develop and test ways to reduce low-value safety practices without harming patients. ‘Low-value’ is defined as an intervention for which there is no evidence of patient benefit or where there is evidence of more harm than benefit (Brownlee et al, 2017; Kirkham et al, 2015). Previous research carried out in Australia has identified that, in hospitals, time spent by nurses double-checking medicines may not actually reduce harm in itself and takes time away from nurses helping patients in other ways (Westbrook et al, 2021). Double-checking may therefore be an appropriate target for de-implementation, however, there is a lack of research testing the effectiveness of this practice in the UK and around the world.

We are therefore carrying out a scoping exercise with medication safety officers (MSOs) to better understand the current variation in practice and policy surrounding the widely adopted practice of double-checking. BTHFT MSO, Abimbola Olosugo, and patient safety specialist, Leah Richardson, are supporting this work. We are inviting 273 MSOs from all acute Trusts across the UK to complete a survey that asks questions relating to how double-checking is carried out in everyday practice. The survey also asks MSOs to share their individual Trust policies underpinning double-checking. The data generated by this survey will build understanding of the extent to which double checking currently occurs, for which patient groups, which medicines and in which settings. The findings from this scoping exercise will inform a Programme Grant for Applied Research (PGfAR) to provide definitive evidence to establish whether double checking medicines reduces medication errors and harm. You can find out more about the ‘De-cluttering (Safely) for Safety’ theme here:

[https://yhpsrc.org/psrc\\_themes/#DFS](https://yhpsrc.org/psrc_themes/#DFS)



In the last few months we have also completed two projects and are now in the process of writing up findings for publication and disseminating outputs more widely so as to optimise the impact from the work. Below is a little more information about both of these projects and a contact for further information.

### **The Resi-med study and the 'I manage my programme'**

The Resi-med study team has submitted the final report detailing research to develop the 'I Manage My Meds' support programme and they have been in discussions with NHS England about its potential roll out. The programme was developed from NIHR



Research for Patient Benefit funded research, led by Dr Beth Fylan and Dr Giorgia Previdoli, which aimed to explore and improve how older people with mild-moderate frailty and with polypharmacy (use of several medicines) safely self-manage their medicines. The study ran in four stages: a rapid literature review, qualitative research, co-design, and intervention prototyping. The rapid review identified how rarely medicines support interventions developed the broad skillset older people need to safely manage medicines at home. Subsequently, using semi-structured interviews with 32 patients and carers and 16 healthcare staff in South and West Yorkshire, the team identified and categorised a range of self-management strategies people currently have in place. Patients described how managing many medicines was a complex job, demanding time and dedication and requiring multiple skills. Staff described their varied and overlapping roles in supporting medicines self-management, multiple barriers to supporting patients, including workload and staffing, and how patients could be supported through better preparation and support to be more vigilant and independent with medicines. Using a process called experience-based co-design, staff and patients agreed three priorities for improving self-management and developed prototypes for an online and face-to-face support intervention – 'I manage My Meds' - for older patients on polypharmacy including those living with mild-moderate frailty. It offers support in five parts: Always check what you get; Keep on top of your supply; Routines and reminders; Changes to watch out for; Time to ask for help. You can find out more about the Resi-med study here: <https://yhpsrc.org/resi-med/>

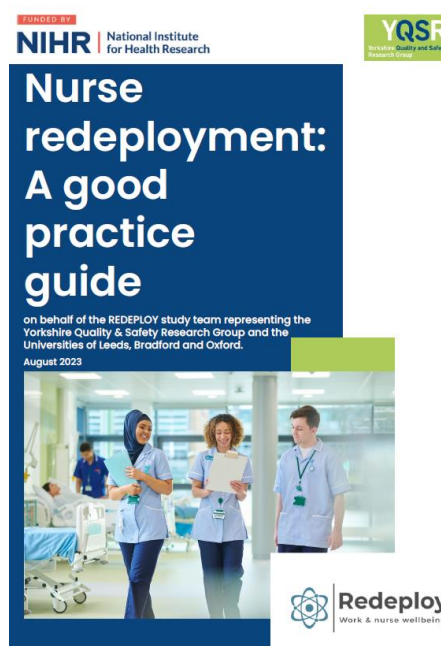
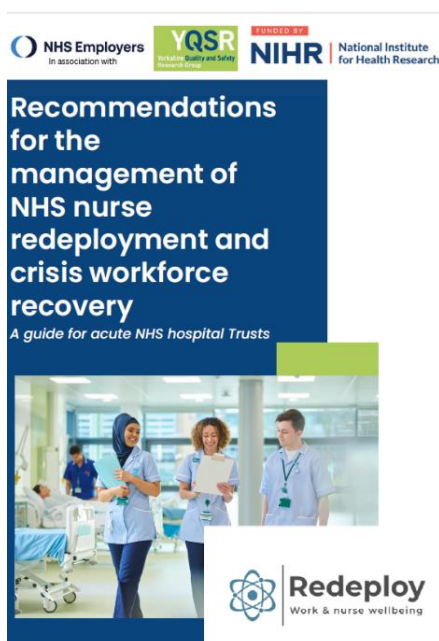


## Lessons from the frontline: The impact of redeployment during Covid-19 on nurse well-being, performance and retention



The Redeploy study team has recently submitted its end of study report to the NIHR and is also soon to launch their two national outputs:

1. Recommendations for the management of NHS nurse redeployment and crisis workforce recovery: A guide for acute NHS hospital Trusts
2. Nurse redeployment: A good practice guide



These outputs and study findings were generated from interviews and surveys with 100 nurses in three acute Trusts across England. This study was funded by the NIHR and aimed to understand the impact of redeployment during Covid-19 on nurse well-being, engagement and retention. We found that redeployment had the potential to have a positive or negative impact on nurse well-being, performance and retention depending on how the process was managed and how well supported nurses working in a redeployed role felt. We also found there was a lack of guidance for nurse managers tasked with redeploying nurses which left them feeling unsupported.

From the nurses' experiences we developed 11 organisational level recommendations (output 1) e.g., to develop a Trust wide formalised approach for nurse redeployment; and a more operational focused good practice guide (output 2) for those involved directly in the redeployment process e.g., key principles of good redeployment and things to encourage or avoid during the process.

These outputs were developed in collaboration with senior stakeholders from the following organisations: Health Education England; Nursing and Midwifery Council; Royal College of Nursing; Unison; NHS Employers; NHS England and Improvement; NHS Providers; Improvement Academy; Care Opinion (patient perspective); and nursing academics.

We are working closely with the above organisations to disseminate and implement these outputs nationally. We are also working closely with the Chief Nurse and CPD teams at BTHFT to disseminate and implement these outputs e.g., through contributing to the Stepladder to Success Development Programme.

## **NIHR** | **Applied Research Collaboration Yorkshire and Humber**

Our focus over recent months has been on developing our business plan for our £2.7m extension to contract with NIHR. Each of our research themes have been developing objectives that meet the needs of our health and care partner organisations. We have also been working in partnership with our three Integrated Care Systems (ICS) in Yorkshire and Humber to ensure that our research supports the health and care system. All ICBs have statutory responsibilities to facilitate and promote research about health and to use evidence obtained from research in the health services it provides. YH ARC is keen to support our ICSs in ensuring research and evidence enables their work.

In West Yorkshire Health and Care Partnership, YH ARC is the lead for research in the system. In May 2022 we established the Research Leadership Working Group and co-produced a research strategy for West Yorkshire. The draft research strategy has five ambitions:



**Figure 1: The 5 research ambitions of the West Yorkshire Health and Care Partnership**

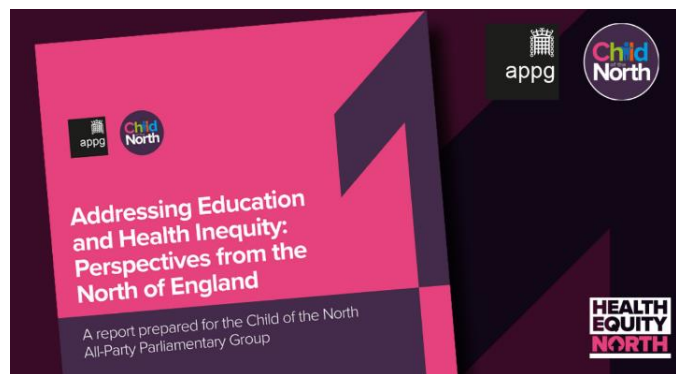


As part of the strategy, YH ARC has developed a West Yorkshire Scientific Advisory Group (WYSAG) model to support the use of evidence in policy making in West Yorkshire. The WYSAG is a joint venture between West Yorkshire Combined Authority and West Yorkshire Health and Care Partnership. Led by YH ARC, the WYSAG launches on 18<sup>th</sup> September and aims to provide independent, scientific support and challenge on policy development and implementation with a focus on health, health inequalities, and growing a sustainable and inclusive economy. The model is the first of its kind in the country.

In South Yorkshire ICS and Humber and North Yorkshire ICS we continue to build on established links to add value. Working with the research leads in those ICSs, we are contributing to their research strategies and activities, including grant applications to leverage income for the region.

### **Recent research highlights include:**

Professor Mark Mon-Williams of our [Early Life and Prevention research theme](#) led on a Child of the North report focusing on addressing education and health inequity for Northern children. Launched in parliament on 11<sup>th</sup> September, it brings together significant research evidence of inequity for children living in the North of England and calls on policy leaders to intervene to address the imbalance.



Our [Born and Bred in \(BaBi\) Network](#) has worked with the NIHR Yorkshire and Humber Clinical Research Network Reverse Mentoring Scheme to help ensure our research is inclusive. Working with the EMRI (Ethnic Minority Research Inclusion) group, the aim is to improve our reach in to underserved communities in the region.

Through our implementation arm, the Yorkshire and Humber Improvement Academy, we have produced an episode of our Essential Implementation podcast series, exploring what is practical implementation and how we can promote it within our health systems and across the world more? All episodes of the Essential Implementation podcast series are available on our [YouTube channel](#) here



**New impact case studies** have been uploaded to our website, highlighting how our work across the ARC has made a difference in a wide range of areas including air pollution, children's physical activity, digital inequalities and mental health, NHS 111 call handling, and care home use of emergency care. You can see all of our latest impacts on our website <https://www.arc-yh.nihr.ac.uk/making-a-difference>

NIHR
Applied Research Collaboration
Yorkshire and Humber

IMPACT CASE STUDY

University of Sheffield

### Reducing transfer of care home patients to the Emergency Department

**Aim:** Review existing research to explore how decisions to transfer care home residents to hospital are made and identify factors associated with likelihood of transfer.

**The problem**

A high number of care home residents aged over 65 are transferred to hospital emergency departments (ED). An estimated 40% of emergency admissions for care home residents may be for avoidable conditions. There is also lots of variability between care homes, with residents of some care homes being 8 times more likely to be transferred to the ED than others. Identifying factors which predict hospitalisation of residents and understanding how transfer decisions are made could help explain variation and develop effective interventions to reduce unnecessary transfers.

**What our ARC is doing to help solve this**

Two systematic reviews were conducted simultaneously looking for:

1. Qualitative evidence presented in existing systematic reviews regarding decisions to transfer residents to the ED.
2. Quantitative factors found to affect the likelihood of transfer of residents.

These reviews highlighted the complexity of decision making when transferring residents and the challenges in managing appropriate referrals to the ED. Decision making appeared less dependent on the nature of the acute deterioration of the resident and more on communication with family members, robustness of advanced planning, perceptions of the facility to be able to provide safe care and access to community services. We also identified multiple factors associated with transfer of care home residents to the ED, including: polypharmacy, care home quality rating, specific condition (COPD/Heart Failure), presence of specialist dementia units, age, presence of advanced directives and urinary catheters.

**How this will impact future care and our health services**

The findings will help to develop future interventions to **reduce avoidable hospitalisations of residents** and enable the use of routine data to **compare different care homes**

Project delivered by NIHR ARC Yorkshire and Humber's Urgent and Emergency Care Theme - [www.arc-yh.nihr.ac.uk/what-we-do/urgent-care](http://www.arc-yh.nihr.ac.uk/what-we-do/urgent-care)

The [BaBi network](#), an innovative birth cohort study with sites across the region made a big impact at the NIHR CRN Reproductive Health and Childbirth national conference. Originating in Bradford, this study aims to link together existing routine data to create a clearer picture of families' lives over time. The network now has 6 study sites, all adopting a local model for collaborative research. The conference generated huge interest and many more sites are keen to join the study.



We continue to provide **capacity building opportunities** across our themes of work. We have uploaded two new Improvement Science Snapshots, on deimplementation of low value care, and the use of logic models. All snapshot videos are uploaded to our **YHARC YouTube channel** (<https://bit.ly/30kOip9>) as they become available.





## ACTEARLY

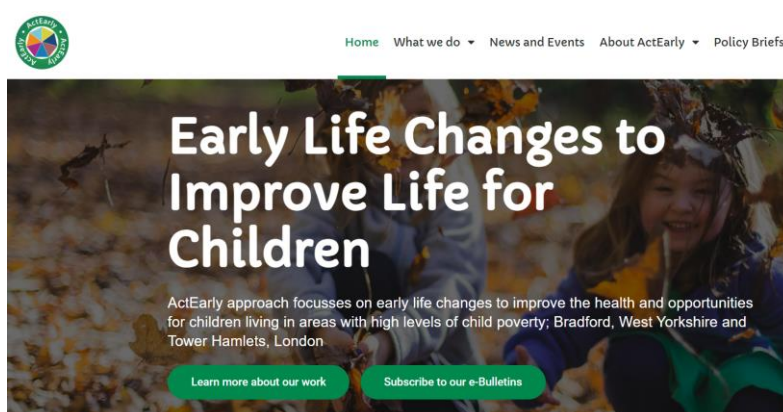
ActEarly is a UKPRP funded collaboration between Bradford and Tower Hamlets in London.



The ActEarly vision is to create City Collaboratories in areas of high child poverty that provide research ready, people-powered and data-linked test beds to co-produce, implement and evaluate multiple early life interventions to prevent disease and reduce inequalities.

### Highlights since our last update

We have had positive feedback from our funders, especially regarding the impact of our website:



More details are available on the site which also includes a link to sign up for our monthly newsletter [here](#)

ActEarly has recently produced five new local government policy briefings that include both written and video formats. The policy briefings look at:

Overcrowding in housing,  
Children's wellbeing and play,  
How can local government protect and promote health and well being during the cost of living crisis, The potential of

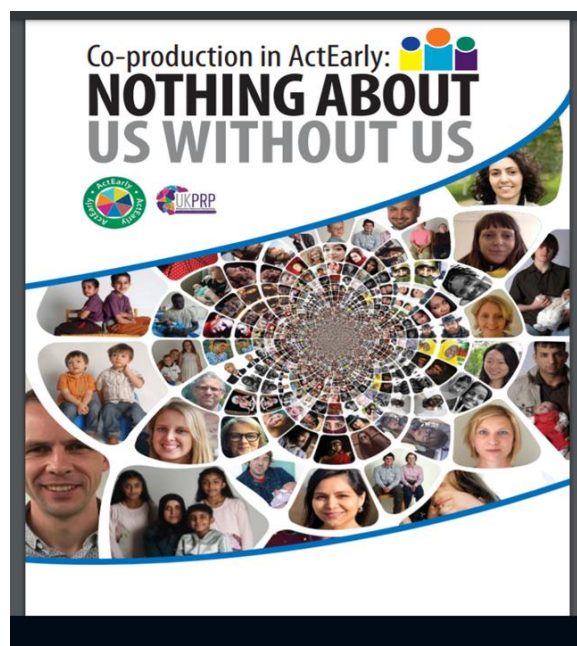
basic income schemes to promote and protect young people's mental health



CoPPeR - Four community organisations, from different parts of Bradford, will be supported to undertake studies of what effects their local environment has on the health and well-being of people in their area.

By working with trusted community organisations who all serve different ethnic groups, we will create opportunities for seldom heard groups to take a leading role in improving local matters through the application of research.

The experience gained in this study will inform plans for the creation of a Centre for Co-production and Peer Research (COPPER). This will ensure the sustainability of this approach to doing research, it will encourage and support its expansion and it will provide a context in which ways of evaluating the impact co-production and peer research has on health and well-being can be devised and undertaken. This more inclusive participative model of research will be of interest in communities beyond Bradford.



## Born in Bradford

Born in Bradford (BiB) aims to understand why some families fall ill and why others stay healthy. We are a people powered research project, and together with our communities and stakeholders aim to make positive changes to improve the lives of families living in our city and beyond. We host three birth cohort studies (the Born in Bradford Family Cohort, Born in Bradford's Better Start and BiB4All) encompassing over 60,000 Bradford residents in addition to a range of other initiatives including the Better Start Bradford Innovation Hub, Bradford Inequalities Research, the Healthy Childhood theme of the Yorkshire and Humber Applied Research Collaboration, Connected Bradford, Join Us: Move Play, the LEAP, the Centre for Applied Education Research and various other externally funded applied health research studies. We have over 100 members of staff all working to make Bradford communities healthier and happier. You can find out more about our research programme here: [www.borninbradford.nhs.uk](http://www.borninbradford.nhs.uk).

### ***BiBFest 2023***

Born in Bradford held a two-day conference at Salts Mill at the beginning of July 2023. Day one was our Young Person's event: 300 young people from local secondary schools attended to learn about BiB research and try their hand at a range of activities designed to boost their learning and creativity and spark their interest in science and research.



On day Day 2 we welcomed 400 people from a range of backgrounds including academics, policy makers, practitioners and the general public from across the country attending. Talks including topics from across the BiB programme including early life, inequalities in physical activity, enhancing the power of the community and strengthening youth resilience, all with a focus on the impact of the BiB research and

what can be done in the future to help improve outcomes for families in Bradford and further afield.

### ***Age of Wonder: Exploring the journey for adolescence into young adulthood***

Funded by the Wellcome Trust, Age of Wonder is a seven-year project capturing the journeys of up to 30,000 Bradford teenagers through adolescence into adulthood. In the past academic year we have recruited 21 secondary schools in the district, and had over 4000 teenagers sign up. In addition to collecting important information on physical and



“My hobbies are swimming, bowling and dog walking. I go to swimming every week and I use floats. I have jacket potatoes before going to swimming as it is nice and quick. When I get hot, swimming cools me down and when I go under the water with my goggles on, I look at my hair and it's like sea coral like in the ocean. I'm gonna be a vet and do lots of surgeries like shedding some of their fur .... and when the animals are asleep and give them sleeping medicine. My ambition is Special Olympic swimming and Special Olympic cycling”

Kitty- Aged 13

*Photo by Carolyn Mendelson*

mental health of young people, we have piloted a suite of offers for young people, including sessions on careers, and data science workshops empowering them to explore their own data. Alongside the questionnaire we are capturing Teenagers’ Stories from 50 volunteers using a range of creative methods. Young people provide us details on their hopes, aspirations, dreams, ambitions and fears through interviews, group discussions, videos, songs, written expressions, paintings, drawings, and memes. Our artist in residence, Carolyn Mendelson has completed 22 portraits of young people. BiB Age of Wonder recently featured on a podcast by the Wellcome Trust (<https://wellcome.org/news-and-reports/podcast/episode-4> ).

### **JU:MP**

JU:MP (Join Us: Move Play) is an applied implementation and research programme being delivered by BiB on behalf of Active Bradford. JU:MP aims to take a locality based, joined about approach to help children and families be more active to





benefit their health. The team are working with over 100 organisations including schools, faith settings and community organisation to deliver activities to get families active. Working with communities, they have completed refurbishment of five parks, and are working to improve a further five. The Bestlife App has been launched this summer; a unique digital game to engage young people in physical activity by completing quests including walking, visiting parks, being active at home or attending a sports session. They are also a key strategic partner working at a policy level to deliver Bradford's Physical Activity strategy.



### ***Healthy Places: Understanding and reducing exposures to indoor and outdoor pollution and evaluating the Bradford Clean Air Zone***

The BiB Breathes team continues to work closely with Bradford Council to track the impact of the Clean Air Zone (CAZ), implemented in September 2022, on heart and lung health in the district. As part of this work, we recently released a [paper](#) highlighting the links between high pollution events and subsequent health service use. The analysis indicated that as many as one-in-two healthcare attendances for breathing difficulties in Bradford could be triggered by breaches in daily air pollution limits. This research was picked up by media including the Guardian, BBC, and featured on the Powered by NHS Data social media campaign.

In June 2023 we held the final of our IVE creativity lab events across 11 Bradford primary schools, supported by Bradford Council and Bradford Teaching Hospitals charitable trust. These activities have engaged and stimulated young people across Bradford to creatively highlight and develop ways of improving air quality. The celebration event on Clean Air Day found our young people pitching their ideas to a prestigious panel of judges with IQRA Academy winning the competition with their social media campaign titled Thinking Economically which includes videos, popular media channels, and stories to create awareness about the health problems associated with air pollution. Bradford Council is working with the winning team to develop their idea for roll out at the 1-year anniversary of the CAZ.

Our newest project to the Healthy Places work, [INGENIOUS](#) (Understanding the sources, transformations, and fates of indoor air pollutants) has now recruited over 100 of the target 300 BiB families. These families will help provide a comprehensive understanding of the key sources of indoor air pollution and how occupant behaviours (e.g. cooking, cleaning, and ventilation) can affect levels of air pollutants.

In a new partnership, INGENIOUS will work with the EU-funded INQUIRE (Improving indoor air quality and health: Identification of chemical and biological determinants, their sources,



and strategies to promote healthier homes in Europe) project by recruiting 25 households for more intensive monitoring of indoor air pollutants not yet covered by air quality standards and regulations. It will also test the effectiveness of air purifier technologies in a subset of homes. This study has received ethical approval and will start in Autumn 2023.

### **Born in Bradford's Better Start (BiBBS) birth cohort**

This is the 2<sup>nd</sup> birth cohort within the BiB cohort family. This month the community research team hit their **target recruitment of 5,000 pregnancies!** This is a huge success for the BIHR and was celebrated internally by the team, with plans for community celebrations to coincide with Bradford Baby Week in November. This cohort is recognised internationally as



the world's first interventional cohort (designed to evaluate multiple early years interventions) and as a model of recruiting populations often described as 'seldom heard', with the majority of participants living in areas of high deprivation and having an ethnic minority background – over 55 languages are spoken by cohort participants.

### ***Bradford Inequalities Research Unit (BIRU)***

**BIRU** is working with Bradford District & Craven CCG and West Yorkshire integrated care board to evaluate the impact of interventions delivered to reduce health inequalities in central Bradford.

We have successfully used **Connected Bradford** data to provide evidence of the impact of two complex interventions designed to reduce unplanned hospital admissions and accident and emergency (A&E) attendances: The Pro-Active Care team (PaCT) provides proactive, holistic short-term care and support for vulnerable individuals; and The Pro-Active Care

team (PaCT) provides proactive, holistic short-term care and support for vulnerable individuals.

Our evaluations compared those who had received the interventions to matched populations who had not. For those who received **PaCT** (Pro-Active Care Team), the odds of an **unplanned hospital admission** was **31% lower**, and the odds of an **A&E attendance** was **41% lower**, compared to the matched control group. For those who received **CLICS** (Central Locality Integrated Care Services), the odds of an **unplanned hospital admission** was **17% lower** compared to the matched control group. We're now working with colleagues in the Improvement Academy and across the ICB to disseminate this learning and see how we can work together to ensure the implementation of these effective interventions.

### ***BiB Youth Resilience Programme***

Using place-based approach, the Youth Resilience Programme is a partnership with community organisations in Barkerend, Bradford. The consortium of community groups is implementing a coproduced plan to prevent young people from violence, drugs and anti-social behaviour. Teenagers take part in activities that gives them resilience against violence, drugs and anti-social behaviour and provide opportunities



to grow up with positive experiences. Major activities that community organisations are delivering are connecting vulnerable young people with mental health support; promotion of positive role models; mentorships; introduction to locally and nationally available career pathways; parental training; and capacity building of community groups. BiB will be working with community and neighbourhood partners to implement these solutions and evaluate their impact over the next five years (2023-2028).

### ***Centre for Applied Education Research***

CAER researchers have led on a number of impactful projects this year, including:

#### ***School-based screening and support for fundamental movement skill difficulties (FUNMOVES):***

It is estimated that 2-5 children in every classroom have clinically significant motor skill difficulties (Developmental Coordination Disorder; DCD), however health inequalities mean that not all children with these difficulties access the support they need to thrive. FUNMOVES was developed to allow teachers to universally screen children's fundamental movement skills within an hour (e.g., P.E. lesson), using resources readily available in schools. In collaboration with the Children's Development Service (CDS) at St Luke's

Hospital, we have also co-produced associated manualised intervention resources for schools (Occupational Therapy and Physiotherapy activities that can be embedded in P.E. and playtime) and families (incorporating more motor skill practice into everyday routines). The CDS have also trialled the use of FUNMOVES for triaging their waiting list for DCD, which has led to drastically reduced waiting times, and allowed children that need specialist support to be seen sooner.



#### *Electronic Developmental Support Tool (EDST):*

Research shows that the Early Years Foundation Stage Profile (EYFSP) assessment, conducted at ages 4-5 in England, can help identify children more likely to need future SEND (Special Educational Needs and Disability) support. While it is a useful tool for this (children who do not achieve a "good level of development" in this assessment are over 5 times more likely to require SEND support within 2-7 years compared to their peers), it only provides information at one point in time. The EDST has been developed by CAER researchers, educational psychologists, and Special Education Needs Coordinators (SENCOs) to allow teachers to assess children's developmental skills multiple times during primary school, with input from parents. This approach offers a more holistic view of each child's strength and difficulties, and helps address inequalities in the diagnosis and referral of SEND and neurodevelopmental conditions. The EDST is being piloted in 14 Bradford schools as of August 2023, producing reports on each child's needs to be shared with education and

health professionals. Researchers are also working on a "Digital Advice Bank" to provide immediate classroom adjustments and interventions based on a child's specific needs, set to roll out in January 2024. The EDST may be offered to schools across the UK in September 2024, which could provide early support across the UK and reduce some of the need for expensive specialist services.

### ***Health families' theme of the Yorkshire and Humber ARC***

The Early Life and Prevention theme continues to support nearly 60 active research projects across the Yorkshire and Humber region. In Bradford research focussed on local places and inequalities continues to develop, including Play in Urban Spaces for Health through 'designing-in' play within urban regeneration. The national BRUSH project, supporting toothbrushing clubs in primary schools and nurseries to reduce dental caries has gained valuable insight about implementing such schemes which will inform the next phase of the project.

### ***The Leap***

The Leap is an Arts Council programme focused on increasing leadership and participation in arts and culture for people and places that are the least engaged in Bradford District. Born in Bradford is a member of the Consortium providing oversight and governance for The Leap, and acts as it's accountable body. The Leap to date, through various innovative interventions has supported over 250 people to deliver community led projects, delivered 131 training and networking sessions to support people and their projects, given work to 375 artists and creative professionals, supported a little short of a million pounds of community-led arts and culture project, which actively involved over 35,000 participants and reached over 120,000 audience in Bradford and Keighley.

### ***Connected Bradford***

The Connected Bradford programme links healthcare data from GP sites, trusts, and emergency care with wider data from local authorities, police, and the Department for Education, including environmental, housing, and crime data. Connected Bradford currently hosts linked data for over 1 million individuals, spanning multiple organisations: including GP sites, trusts, and emergency care units. It also incorporates broader data from local authorities, police, and the Department for Education, encompassing environmental, housing, and crime data. The program has successfully harmonised unstructured data into meaningful databases, established user access procedures, governance and technical processes and is in the process of identifying other datasets anonymised the data.

This anonymised data is contributing to various studies with the goal of reducing health inequalities, identifying vulnerable adults and children, improving mental health services, and preventing vulnerabilities.



The Connected Bradford database has been involved in numerous projects, including the recent BiB Breathes initiative. The BiB Breathes project utilises linked data to investigate the impact of air pollution exposure on health service attendances for respiratory illnesses within the Bradford population. Looking ahead, the database will be used to assess the effects of Clean Air Zones (CAZ) on respiratory and cardiovascular diseases.

Furthermore, the program has been instrumental in the Classroom Air Cleaning Technology (CLASS-ACT) study, which evaluates portable high-efficiency particulate air (HEPA) filters in primary schools in Bradford. Additionally, Connected Bradford has supported research projects focused on identifying individuals Not in Education or Employment (NEET) based on school data, as well as cases where school data indicates pending diagnoses of autism spectrum disorder or special education needs.

### **Bradford Genes & Health**

The Bradford Genes&Health study aims to learn how genes vary in adult Bangladeshi & Pakistani communities. The study is also recruiting in East London and Manchester with the view to including 100,000 people from these communities in the research study. In order to better understand why heart disease, diabetes and stroke occur in higher levels in these groups, it is important to know what is normal when searching for genes that may cause inherited diseases. Participants are asked to complete a short questionnaire, consent form and provide a saliva sample. One in four participants will be asked to attend stage two clinic visits where further consent is obtained, blood samples and a second short questionnaire is completed. In October 2022 we extended our recruitment activities to Kirklees and Calderdale, engaging with GP practices and community settings including Mosques. We now have over 5000 participants of whom 315 have also take part in a follow up study called Cardinal, where they completed a short questionnaire and provided blood samples.

### **The BaBi Network**

The BaBi Network is an important multi-site research study run by Born in Bradford that aims to find out what influences the health and wellbeing of families across the country. It is a network of local birth cohort studies that work together to link existing data across health, education, and social care to create a picture of families' lives over time. This will help to shape local services, creating a healthier environment for families to enjoy. Whilst each BaBi site focuses primarily on local outcomes, establishing a wider BaBi network provides opportunities for important national research and learning.





BaBi started recruiting in 2019 in Bradford as the BiB4All study, and was joined by Leeds, Wakefield, Doncaster and East London in 2022 to create the BaBi Network. BaBi has now recruited over 23,000 participants across England, and Bradford provides strategic guidance to the sites to help them replicate what we do so well in Bradford. Participation in BaBi is offered as part of standard antenatal care to all pregnant women receiving maternity care at participating Trusts. If they wish to take part, consent is taken by community midwives.

BaBi has significantly increased research capacity across Yorkshire and Humber and has had expressions of interest from Trusts all over England to take part. The Network is expanding to include Nottingham, Hull, York and Scarborough, Harrogate, Tameside and Warwick in the next few months. BaBi Research Midwives have trained over 650 clinical colleagues to take consent and takes a collaborative approach to sharing ideas and skills, and leveraging funding.

### **BiB Linked Projects**

As well as actively recruiting and leading studies across the BiB programme we are also important collaborators on a number of projects.

The ***Multimorbidity and Pregnancy: Determinants, Clusters, Consequences and Trajectories (MuM-PrediCT)*** project is a collaboration of researchers from England, Northern Ireland, Scotland, and Wales. The project has received an MRC grant of almost £3 million to use data-driven research to characterise and understand the determinants and consequences of pre-existing multimorbidity (MM) in pregnant women, and to predict and prevent MM and its adverse consequences in women and their offspring.

The ***MIREDA (Mother and Infant Research Electronic Data Analysis)*** partnership includes people and datasets from six existing UK research programmes that are addressing infant and maternal health and has received an MRC grant of £1.2 million. MIREDA aims to improve maternal and infant health, particularly among disadvantaged groups by creating a UK resource including harmonised maternal and infant birth-cohort health data, linked to local datasets including those in public health, neonatal health, imaging, primary care and hospitals.

***BETTER4U (Preventing obesity through Biologically and bEhaviourally Tailored inTERventions for you)*** is a consortium of 28 organisations from across Europe in addition to institutions from Israel and Australia, and has been awarded an HORIZON grant of €11.27 million. It aims at the identification and personalized management of all weight gain determinants to battle the increasingly rising numbers of overweight/obesity, via homogenous, globally adaptable, and practically assessed public health initiatives and key interventions.

## Improvement Academy

Based within Bradford Institute for Health Research, the Improvement Academy undertakes implementation and improvement projects nationally, provides training across many areas, including Quality Improvement and Behaviour Change, and hosts one of NHS England's Patient Safety Collaboratives. The Improvement Academy is also the implementation arm of the Yorkshire and Humber Applied Research Collaborative. Below details some of the work in which we are currently involved.

### Patient Safety Incident Response Framework

The [Patient Safety Incidence Response Framework](#) (PSIRF) was released last year and sets out the NHS' approach to developing and maintaining effective systems and processes for responding to patient safety incidents for the purpose of learning and improving patient safety. The adoption of a systems-based approach fits in with the Improvement Academy's ethos around patient safety.

To support the implementation of PSIRF we have developed a training course to complement the national training and support teams in developing a practical understanding of PSIRF. This is based on a model we use in other training, such as Quality Improvement and Structured Judgement Reviews. We recently delivered the PSIRF training to colleagues at Calderdale and Huddersfield Foundation Trust, with a view to offer the training to teams across the region and nationally. In addition, we have developed training relating to Thematic Analysis, a core component of PSIRF to assist teams in identifying patterns when conducting an incident investigation.



## HSJ Awards

We have been shortlisted for two HSJ awards:

- Implementation of Safety Huddles across all inpatient Sue Ryder units – in the category Quality Improvement Initiative of the Year
- Connected Yorkshire Community Health Checks – in the category: Innovation and Improvement in Reducing Inequalities



We have also won across three categories as part of the HSJ Patient Safety Congress Poster Competition:

- [Achieving Behaviour Change \(ABC\): De-Implementation of Inappropriate Glove Use](#) – in the category Education and Training
- [Lightening the Load](#) – in the category Protecting and supporting the workforce
- [Improving prevention, identification, escalation, and response to physical deterioration in care home residents in Rotherham](#) – in the category Recognising and responding to the deteriorating patient

## New Clinical Leadership Fellows

Each year the Improvement Academy hosts Clinical Leadership Fellows under the [Future Leaders Programme](#). This is a fantastic opportunity for doctors-in-training and other clinical professionals to develop leadership skills, learn from senior NHS leaders, develop networks, and lead projects focusing on improving patient safety across Yorkshire and Humber. Often the fellows stay involved with programmes of work following their leadership year. We welcomed two fellows in August:

- Dr Grace Duffy - a specialty trainee in Palliative Medicine in West Yorkshire. Her focus will be on learning from patient safety incidents and deaths. She is keen to understand how patient safety and mortality incidents are investigated and how learning from such investigations can be disseminated most effectively. She will achieve this through involvement with PSIRF and the Learning from Deaths workstream.



- Dr Nee Ling Wong - a Rheumatology registrar in South Yorkshire. She will be the first of many Leadership Fellows working on the Shared Care Artificial Intelligence Role Evaluation (Shared CAIRE) project. Building on her existing experience in providing outpatient and inpatient medical care, her team will be researching on how artificial intelligence can work cohesively in a real-world clinical setting.

Details of previous fellows can be found on our [website](#).



#### **Recruitment Success:**



ASR have been delivering the National Institute for Health and Care Research funded HomeHealth trial in collaboration with University College London, and the University of Hertfordshire. We have successfully achieved and surpassed our local recruitment target for the study. A total of 111 older people with mild frailty were recruited to take part in this research project. These participants have been randomly allocated to either receive usual care, or usual care plus the HomeHealth intervention (<https://www.ucl.ac.uk/epidemiology-health-care/research/primary-care-and-population-health/research/ageing/centre-ageing-population-studies-5>). Those allocated to the intervention received visits from the HomeHealth workers employed by Age UK Bradford District and were supported over a six month period to develop and work through a tailored programme to help them stay healthy and independent. The programme may include items like exercise programme, nutritional advice, support with social activities, planning for the future, signposting to services to deal with unmet needs.

Intervention delivery and 12-month follow-up is now complete, and locally we have seen a fantastic follow-up rate of 86%. Data analysis is underway, and we will hopefully have some results to shout about early next year. Anecdotal feedback suggests the intervention has been very well received by many of our participants.

### **Which community services are best for helping older people to be independent?**

Our research team has undertaken a systematic review and network meta-analysis stratified by frailty, with aims to find out which community services work best to help people stay living at home, and to do day-to-day activities independently. This review is funded by National Institute for Health and Care Research.



Based on review of data from 129 studies with 74,946 people globally, our research findings suggest that individualised care planning, with treatment based on what an individual needs and there are regular follow-ups, can help people stay living at home.

Full paper on findings is currently in press: Crocker TF, Lam N, Ensor J, et al. Community-based complex interventions to sustain independence in older people, stratified by frailty: a systematic review and network meta-analysis. Health Technol Assess in press.



#### **New Project Launch:**

We are very excited to announce the launch of a new research study - FORECAST - InFormation about REcovery After STroke.

In collaboration with University of Leeds and Leeds Teaching Hospitals NHS Trust, this project aims to develop an intervention to

improve the quality, consistency, and delivery of information about recovery provided to patients and their families on stroke units.

### **We are delighted to announce two new senior appointments:**

#### **Tom Crocker**

##### **Associate Professor in Stroke Care**

Tom has a special interest in systems approaches to health services research and the meaning and measurement of quality of life. He has substantial experience with qualitative and quantitative methods, and particular expertise in systematic review methods. Tom is lead author for three Cochrane reviews. In this new role Tom will help the department continue to deliver world-leading, innovative research with real-world relevance.



**Liz Graham**

### Associate Professor in Ageing Research

Liz has over 20 years' research experience, including the management of national multi-centre RCTs, recruitment and engagement of hardly reached groups (e.g., care home communities), and routine data linkage processes. In her new role she will be expanding the portfolio of work which aims to support older people to live well in the community, in collaboration with NHS and third sector service providers.

## Clinical Research

### Clinical Research Delivery Workforce

The Clinical Research Delivery Teams are currently in the process of moving over to be part of the Research Division and we will all be one team by the end of September. We have held an Inaugural Operations Meeting as an off-site away day and have now commenced monthly strategic operations meetings for clinical research. This will allow the staff to work together, build an overview of the research portfolio and workload to enhance our centralised planning and decision making and assist with improving on our research performance.

As a newly formed team the Centralised Clinical Research Delivery Workforce have created a charter together to outline how we will work together:



### **Trust Research Unit Council**

We have launched our unit council for clinical research, chaired by Susan Shorter, cross-specialty research nurse. The council members have undertaken the trust quality improvement bronze training and have surveyed the workforce about their priorities. The council is now identifying areas of work to commence.

### **Clinical Research Specialty News**

*Children's:* Rachel Wane, Senior Research Nurse was asked to present on behalf of the Trust at the Dolfin trial national collaborators day. The Bradford team were selected due to being one of the primary sites and were one of the highest recruiting sites nationally. Rachel shared best practice and an overview of how the trial is being successfully run here.

*Stroke and Neurology:* Our Stroke team - Ruth Bellfield, Senior Research Nurse and Aabid Hussain, Clinical Trials Assistant were asked to speak at the Yorkshire and Humber stroke network meeting due to being the highest recruiting site in the region for the Stroke research portfolio.

*BradRep Education:* Vicki Drew, Senior Research Nurse for Haematology has been delivering our research education programme to students at the University of Belfast alongside colleagues from Leeds.

*CRN First Steps to Research Faculty:* Two of our research workforce Kari Swettenham, Senior Research Midwife and Rachel Wane, Senior Research Nurse have been allocated as part of the faculty to deliver the Yorkshire and Humber Clinical Research Network's "First Steps to Research Programme"

## NIHR Patient Recruitment Centre: Bradford

Our Patient Recruitment Centre is once again very busy, and is currently running 38 trials (in set-up, open or in follow-up) and recruitment to date for this financial year is 45.

NIHR | National Institute for Health and Care Research

## National Patient Recruitment Centres

PRC: Bradford  
[www.local.nihr.ac.uk/prc/bradford](http://www.local.nihr.ac.uk/prc/bradford)



NIHR | National Institute for Health and Care Research  
National Patient Recruitment Centre Bradford

## PARTICIPANT IN RESEARCH EXPERIENCE SURVEY (PRES)

RESULTS: APRIL 2022 - MARCH 2023

Feedback from participants after taking part in research at the NIHR Patient Recruitment Centre in Bradford

98%

of participants would consider taking part in research again.



### FEELING VALUED FOR PARTICIPATING IN RESEARCH

100%

felt valued by research staff for taking part in the study.



### INFORMATION BEFORE TAKING PART IN RESEARCH



97%

strongly agreed/agreed that the information they received before taking part prepared them for the experience on the study.

### CONTACTING THE RESEARCH TEAM

99%

knew how to contact someone from the research teams with questions or concerns.



### BEING TREATED WITH RESPECT



99%

strongly agreed/agreed that research staff always treated them with courtesy and respect.

<https://local.nihr.ac.uk/prc/bradford/>

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