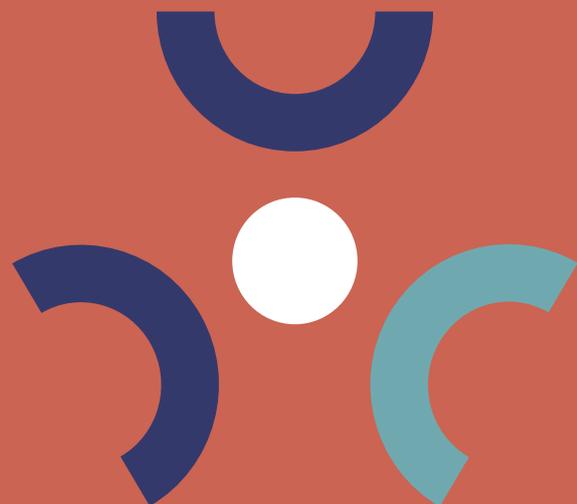




# The legacy of the CLAHRCs 2014-2019

5 years of NIHR-funded applied health research



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## Foreword

As Directors of the National Institute for Health Research (NIHR) Applied Research Collaborations (ARCs) of England, we are delighted to launch this brochure outlining the highlights of our research between January 2014 and September 2019. During this time, we were known as National Institute for Health Research (NIHR) Collaborations for Leadership in Applied Health Research and Care (CLAHRCs) and we were on our second round of funding.

NIHR CLAHRCs were created in 2008. The NIHR initially funded nine CLAHRCs across England with a specific aim: to develop and conduct applied health and care research across the NHS, and to translate research findings into improved outcomes for patients. Each individual CLAHRC did this by creating linkages and partnerships between the applied health and care researchers who conduct the research, and those who use the research in the community.

In 2013, following the success of the pilot CLAHRCs, NIHR funded a second round of 13 CLAHRCs for a five-year period starting in January 2014. This document sets out the highlights of this round of funding.

Following an open competition, the NIHR confirmed that they would fund 15 ARCs (Applied Research Collaborations) commencing from 1 October 2019, and covering the same 15 geographical footprints as the Academic Health Science Networks, with whom we work closely.

The ARCs continue the work of the CLAHRCs, improving outcomes for patients and the public, improving the quality, delivery and efficiency of health and care services, and increasing the sustainability of the health and care system both locally and nationally.

The ARCs are undertaking research on the priority areas of need, including the challenges of an ageing society, multimorbidity, and the increasing demands placed on our health and care system.

The £150 million five-year funding also aims to deliver national-level impact through significant collaboration between the ARCs, with individual ARCs providing national leadership within their fields of expertise.

As ARC Directors we would like to thank all of the ARCs for sharing their project information and supporting the development of this brochure. In particular, we'd like to thank Professor Kamlesh Khunti and Dr Kevin Quigley of ARC East Midlands for drawing together the information. We hope you enjoy reading it.

## ARC Directors

## CLAHRCs in numbers

Between 2014 and 2019, CLAHRCs continued to conduct a range of innovative research studies leading to improved outcomes for patients, as well as better services. Alongside that, CLAHRCs engaged in innovative capacity development work with NHS partners, running courses in research, evaluation and implementation of the latest evidence.

The CLAHRCs as a whole have:



Generated **£508** million in external income



Been awarded **£156** million in matched funding



Carried out **1,054** research and implementation studies



Published **4,529** articles in peer reviewed journals



Trained **1,054** postgraduate students including at least **511** PhD studentships



Engaged in **754** collaborations with industry partners

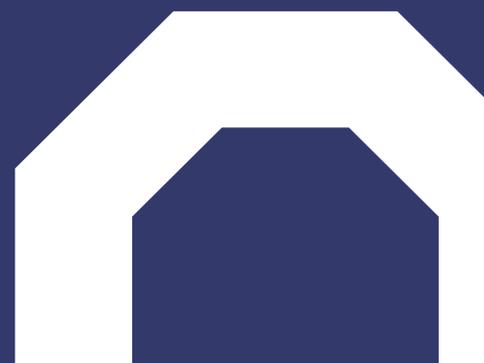
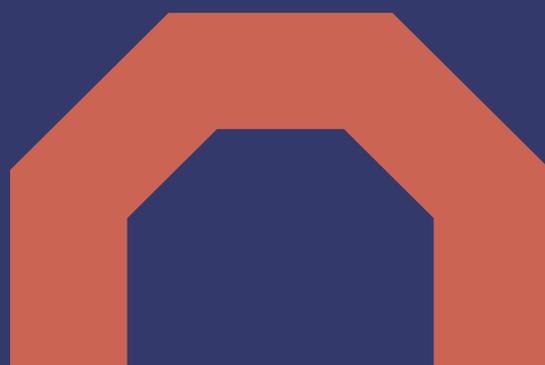


Welcomed **17,200** attendees to CLAHRC learning events

NOTE: Not all CLAHRCs were able to provide data. Final figures are therefore likely to be higher.

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# CHILDREN AND YOUNG PEOPLE



# Assessing QbTest Utility in ADHD: A randomised controlled trial (AQUA)

## What?

NIHR CLAHRC East Midlands looked at a computerised test for diagnosing Attention Deficit Hyperactivity Disorder (ADHD) in children. The aim of the trial was to investigate whether the use of the computer test (QbTest) can lead to earlier ADHD diagnosis while remaining accurate.

## Why?

Young people with ADHD have difficulties with attention, impulsivity and hyperactivity that can make it harder for them to learn, form relationships and prepare for adulthood. It is important that young people receive a correct diagnosis of ADHD as soon as possible. Diagnosis of ADHD can be lengthy and relies on subjective reports and clinical observations, while a QbTest takes 20 minutes to complete.

## How?

They trialled the test on 250 participants in a randomised controlled trial. Clinicians were 44% more likely to make a diagnostic decision, and were twice as likely to rule-out ADHD with no loss of diagnostic accuracy. They concluded that QbTest could reduce time to diagnose and make significant savings.

They then partnered with the East Midlands Academic Health Science Network (EM AHSN), who deployed the QbTest at seven NHS sites across Derbyshire, Leicestershire and Lincolnshire; aiming to transform care by using the computerised system alongside traditional observation and interviews, as well as prove and quantify the impact on patient experience, efficiency and time to diagnosis. This evaluation confirmed a reduction in time of diagnosis by an average of 153 days, and identified an average cost-saving of 32.6%, brought about by a reduction in the number of appointments needed for diagnosis and ruling out ADHD sooner for ambiguous cases.

Subsequently, an independent cost-benefit analysis was undertaken by Kent Surrey Sussex AHSN, using the East Midlands data collected during the 12-month demonstrator, that showed a positive cost-benefit of £3.27 savings to the NHS for every £1 spent. Following a survey of clinicians and patients/parents, 94% of clinicians reported greater understanding of patient's symptoms and 85% of patients found the QbTest results helpful.



## Result

Both the trial and a subsequent evaluation showed diagnosis taking place quicker and making substantial cost savings. After being selected as an AHSN national programme for 2020/21, QbTest has been implemented into practice for children 6 to 18 years old in 80 sites across 42 trusts in England. Since the start of the East Midlands demonstrator in Jan 2017, more than 38,000 appointments have been saved.

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# Transforming care: using positive behaviour support to enable children and young people to remain in their local communities

## What?

An NIHR CLAHRC East of England project helped establish an intensive support team for children and young people with intellectual (learning) disabilities and 'challenging behaviour', who are often excluded. They showed that exclusion can be prevented with flexible, person-centred, and responsive support.



## Why?

Exclusion from schools and care often leads to children and young people being moved to out-of-area residential schools or hospital, usually far from their families and other support. These placements are extremely costly (approximately £300,000 per annum), using funds that could be more effectively invested in local services.

## How?

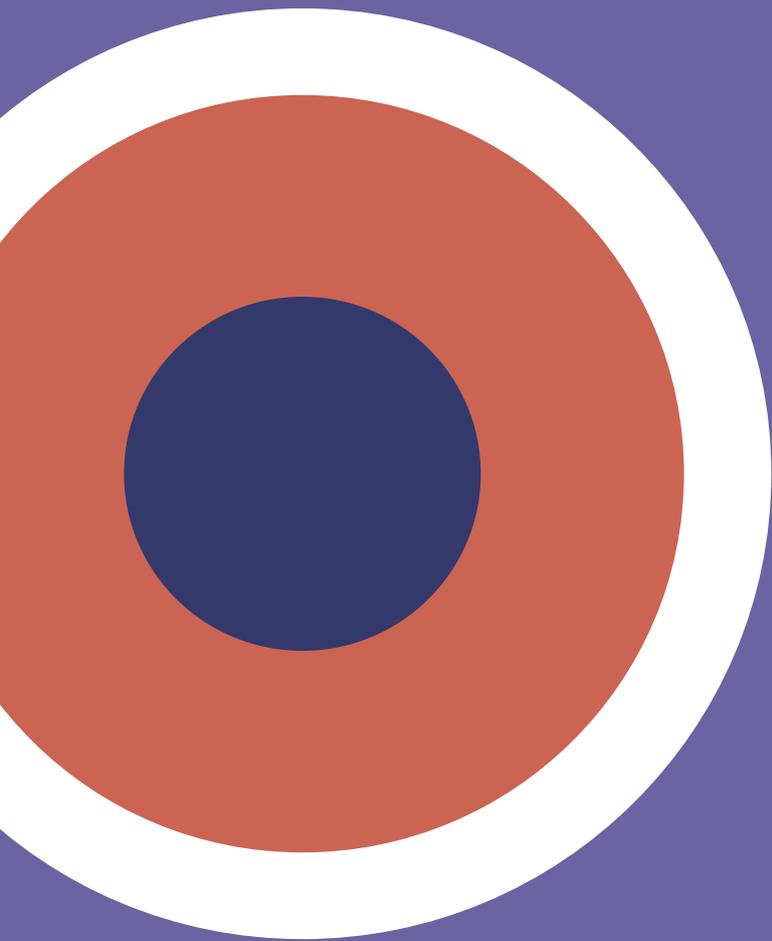
Following the project, Dr Roland Casson worked with Cambridgeshire County Council to set up an intensive support team to support eight children and young people to remain in their local communities.

## Result

All eight children and young people remained 'close to home' and the quality of their lives improved. The programme was extended and rolled out to Peterborough.

A health economic analysis supported earlier findings, suggesting that the work of the intensive support service leads to cost savings: up to several million pounds a year across health, education and care budgets. Funding is now being sought to retain and extend the existing service, and introduce a similar intensive support service, also using a PBS approach, into the specialist community-based teams for adults with intellectual disabilities across Cambridgeshire and Peterborough.

# EARLY DETECTION AND PREVENTION



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# Smoking cessation interventions for people with severe mental illness are highly effective in helping people to quit

## What?

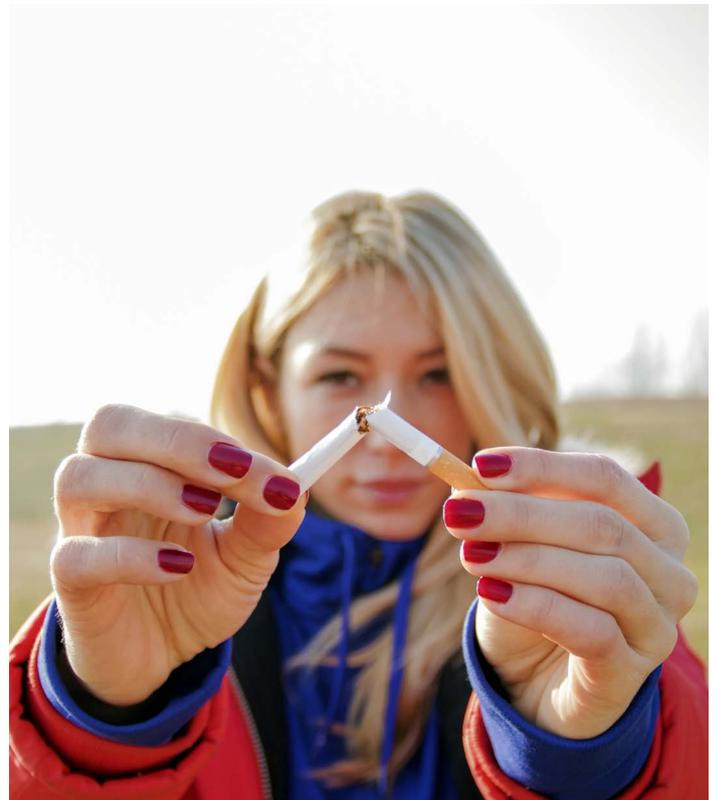
The SCIMITAR+ trial supported by NIHR CLAHRC Yorkshire & Humber tested the effectiveness of a bespoke smoking cessation intervention for patients with severe mental illness, which combined behavioural and pharmacological approaches. This was the largest trial of its kind.

## Why?

People with severe mental illness are three times more likely to smoke than the wider population and are more at risk of health inequalities.

## How?

The project team carried out a pragmatic randomised controlled trial, comparing usual care with a bespoke smoking cessation which combined behavioural and pharmacological approaches.



## Result

The study showed that at six months, more than twice as many patients receiving the bespoke smoking cessation intervention had quit, compared with those receiving usual care. Moreover, patients engaged more readily with the smoking cessation intervention than usual care.

The results of the SCIMITAR+ trial have contributed to NICE guidelines for supporting people to stop smoking in mental health services.

A lay summary has been published on the National Centre for Smoking Cessation Training (NCSCT) website and the team helped them to revise their training modules and to adapt the standard treatment protocol for smoking cessation practitioners working with people with severe mental illness. The project team have also co-produced a series of films with service users about stopping smoking.

The project has been evaluated by a health economist. They found that the costs of delivering the smoking cessation were more than offset by the reduced healthcare use, and resulted in savings of £270 per participant. There were also improvements in quality of life, meaning that smoking cessation saved money and improved health outcomes.

## LSA risk score

### What?

The Leicester Self-Assessment (LSA) developed by NIHR CLAHRC EM in partnership with Diabetes UK is a short questionnaire that assesses the risk of having and/or developing type 2 diabetes. The questionnaire can be found on the Diabetes UK website where it has been taken by more than 2.1 million people.

### Why?

According to the latest Diabetes UK figures, there are 3.9 million people in the UK diagnosed with diabetes with another million undiagnosed. People from Black Asian and Minority Ethnic (BAME) communities experience disproportionately higher number of incidences of diabetes, undiagnosed diabetes and the resulting health problems this causes.

### How?

Previous Public & Patient Involvement and Engagement work on the self-assessment risk tool highlighted the need for accessibility for all communities where English is not the first spoken and written language. In response, the CLAHRC translated the LSA into Bengali, Hindi, Punjabi and Gujarati.

The new translated versions were introduced at community events to help hard to reach groups who often do not have English as their first language.



### Result

The Leicester Self-Assessment (LSA) questionnaire has been taken by more than 2.1m people on the Diabetes UK website. In addition, it is recommended for use in NICE guidelines and the NIHR have used it as an example of how they have contributed to growth. Patients who score on the questionnaire as being at high risk of diabetes can self-refer onto the NHS Diabetes Prevention Programme.

The translated versions of the questionnaire have been used at community events across the East Midlands. They are available at Diabetes UK roadshows and can be found on the Diabetes UK website. CLAHRC research shows the translated versions have been well received by South Asian communities, especially for those unable to read, write and understand English.

Building on this work, ARC EM have collaborated with Diabetes UK to develop a further translation of the questionnaire into Urdu.

Previous work by this research team have shown that screening people with a risk stratification tool followed by a screening blood test is the most cost effective way of identifying people with and at risk of developing diabetes.

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# Doctor Referral of Overweight People to Low Energy total diet replacement Treatment (DROPLET)

## What?

NIHR CLAHRC Oxford funded and led the DROPLET study, which is one of two studies nationally to demonstrate that very-low-calorie diets can deliver significant and sustained weight loss. DROPLET is a trial monitoring patients over a year who have been newly diagnosed with type 2 diabetes and are on a very-low-calorie diet plus behavioural support.

## Why?

According to Diabetes UK in 2019 there were 3.9 million people in the UK diagnosed with diabetes, with another million undiagnosed.

## How?

DROPLET monitored patients over the course of a year who were on a very-low-calorie diet plus behavioural support. The trial tested their weight and the status of their Type 2 Diabetes.

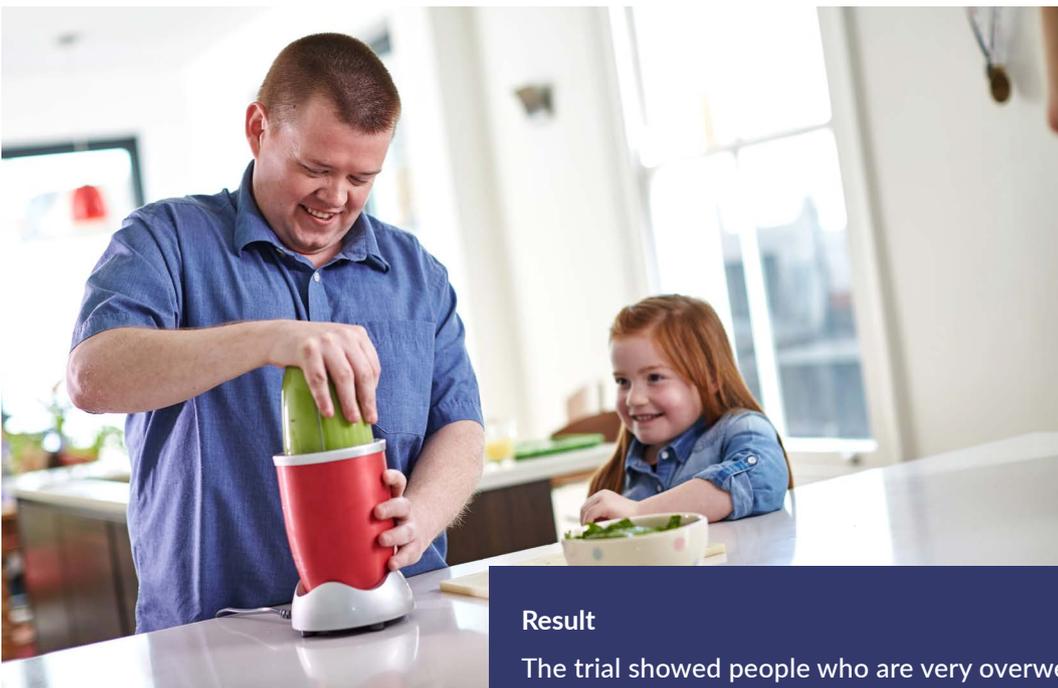


Photo credit: World Obesity Federation

### Result

The trial showed people who are very overweight lose an average 10kg at one year, following referral from primary care to a total diet replacement programme. This trial has contributed to the evidence base that led to the national NHS pilot study of low-calorie diets for people with diabetes.

Other research has shown that weight loss of this magnitude achieved through a similar programme delivered in primary care enables nearly half of everyone with newly diagnosed diabetes to achieve remission from diabetes after a year.”

# Atrial fibrillation quality improvement programme

## What?

NIHR CLAHRC North Thames led research on improving medicine optimisation in anticoagulation that helps avert strokes. This was part of a wider programme of research.

## Why?

Atrial fibrillation (AF) is the most common form of heart arrhythmia, affecting 1 in 25 people over the age of 65. It affects over a million people across the UK and is a factor in one in every eight strokes and one in three strokes in those over the age of 80. More than half of these could be averted by the use of oral anticoagulants yet their use across the country is highly variable.

## How?

CLAHRC North Thames examined the reasons for variations in the use of anticoagulation between clinical commissioning groups and supported implementation of intervention programmes to improve medicine optimisation.



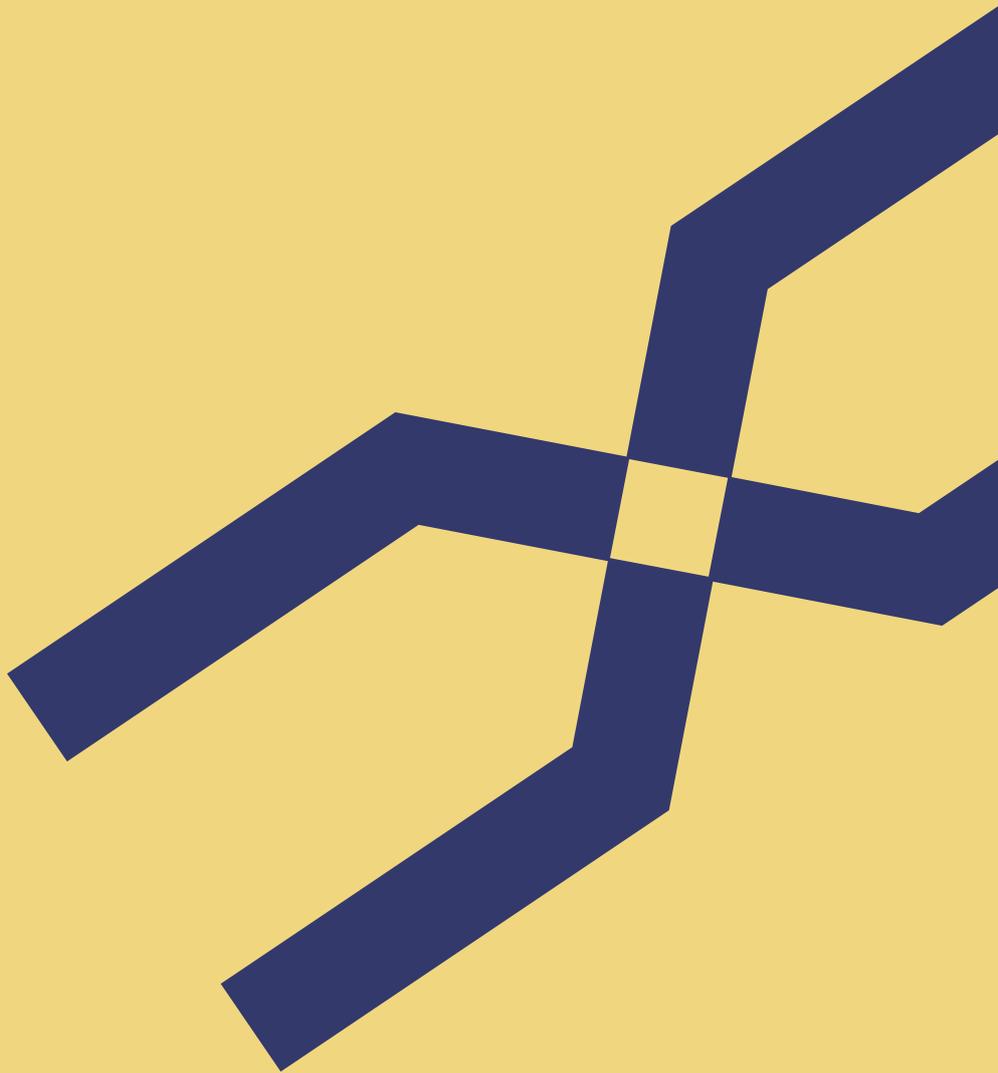
## Result

The programme was implemented across all 12 CCGs in north central and north east London with support from the area's AHSN, covering a population of approximately four million. This has substantially improved AF detection and management and is estimated to have prevented an estimated 120 strokes over three years. This has saved approximately £4m in healthcare costs.

The programme contributed to the evidence base for the effectiveness of early detection and anticoagulation, supporting national implementation. This culminated with NHS England commissioning the AHSN Network to deliver a programme of AF detection and anticoagulation nationally.

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# EMERGENCY CARE AND ACUTE ILLNESS



# Birmingham Symptom-specific Obstetric Triage System (BSOTS)

## What?

The Birmingham Symptom-specific Obstetric Triage System (BSOTS) tool was developed by NIHR CLAHRC West Midlands' Maternity theme to aid rapid triage assessment and as an algorithm to identify the best response for women having an obstetric emergency.



## Why?

Stakeholder engagement with Birmingham Women's and Children's NHS Foundation Trust identified that there was no standardised method for triaging women who presented with obstetric emergencies. This affects a significant number of women. For example, at Birmingham Women's and Children's NHS Foundation Trust alone there are approximately 22,000 obstetric emergencies per year.

## How?

The project team worked with consultant obstetricians and patient and public involvement and engagement advisors to co-design a tool for rapid triage assessment and an algorithm to combine the various clinical symptoms and physiological indicators to determine risk stratification and appropriate response times. The aim was to test whether a standardised approach could be reliable and improve care.

## Result

BSOTS was piloted in one trust before being rolled out to a further three in the West Midlands. The tool was found to be robust enough to be used in a range of settings and was shown to be reliable. After this success, the tool was then endorsed by the Royal College of Obstetrics and Gynaecology and the Royal College of Midwives in 2017.

This maternity triage system has now been implemented in 39 units, including one in Australia. There are a further 25 maternity units in the process of implementation. In November 2020 BSOTS won the Health Service Journal (HSJ) Patient Safety Award for Maternity and Midwifery Services Initiative of the Year, recognising their outstanding contribution to healthcare.

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## PReCePT (Prevention of cerebral palsy in pre-term labour)

### What?

PReCePT (Prevention of cerebral palsy in pre-term labour) is a quality improvement (QI) initiative that provides practical tools and training to help staff consider administering magnesium sulphate to eligible women.

### Why?

Premature birth is the main cause of brain injury and cerebral palsy in babies. Evidence shows that babies can be protected from brain injury by giving magnesium sulphate to women who are at risk of having a premature delivery. This reduces the risk of cerebral palsy in a third of cases.

### How?

NIHR CLAHRC West worked closely with the West of England Academic Health Science Network (AHSN) and University Hospitals Bristol and Weston NHS Foundation Trust on a series of projects evaluating and supporting the rollout of PReCePT. The West of England AHSN undertook an 'evidence into practice' project (PreCePT) in partnership with five member trusts from February 2014 to March 2015 and succeeded in increasing the uptake of magnesium sulphate in the target group from 7% to 60% within six months. CLAHRC West evaluated this project.



### Result

PReCePT was one of seven programmes selected for adoption and spread across the national AHSN Network. The programme aimed to support all maternity units in England to increase their average uptake of magnesium sulphate to eligible women during preterm labour to 85% by 2020. ARC West are evaluating this national roll out.

The PReCePT Study is an embedded research trial in 40 maternity units to assess which is the best implementation method to improve and sustain magnesium sulphate uptake. The results of the trial will inform best practice for national adoption and spread of future QI initiatives.

# Back Skills Training (BeST)

## What?

NIHR CLAHRC Oxford have developed and validated an online course equipping clinicians to deliver the Back Skills Training (BeST) Programme for people with low back pain.

## Why?

Low back pain is the leading cause of disability worldwide. Its management and treatment cost the NHS an estimated £2.8 billion annually.

## How?

Through CLAHRC Oxford, the project team, have taken an intervention, developed and evaluated in an NIHR funded trial, and successfully translated it into routine clinical care achieving similar patient outcomes to the trial.

The trial face-to-face training moved to an online pilot and finally launched globally as a Massive Open Online Course (MOOC). More than 4,000 people have completed the BEST MOOC and been trained to deliver a clinically and cost-effective approach to treating low back pain.



## Result

The MOOC is available on the Future Learn platform. It has attracted clinicians, patients and others with a general interest in both back pain and Cognitive Behavioural Therapy more broadly and has a global reach.

The observation that patients have accessed the intervention directly is an important and relevant point to note for self-management. Of the clinicians who completed iBeST via Future Learn, 75% reported applying what they have learnt to their practice since starting the course.

The BeST programme is now recommended in a number of clinical guidelines across the world for low-back pain, further broadening its impact and global reach.

# Accident and emergency tracker

## What?

NIHR CLAHRC North West London developed the Accident and Emergency Tracker project, which aims to help people working in and experiencing the urgent and emergency care system to make better decisions based on the published A&E data.

The team used Statistical Process Control (SPC) charts, as well as developing a web application, to provide SPC analysis of A&E data at national, regional and provider level. The application automates analysis of the volume of attendances and performance against the 4-hour standard for every trust in England, and every acute hospital in Scotland, and updates itself when new data is released.

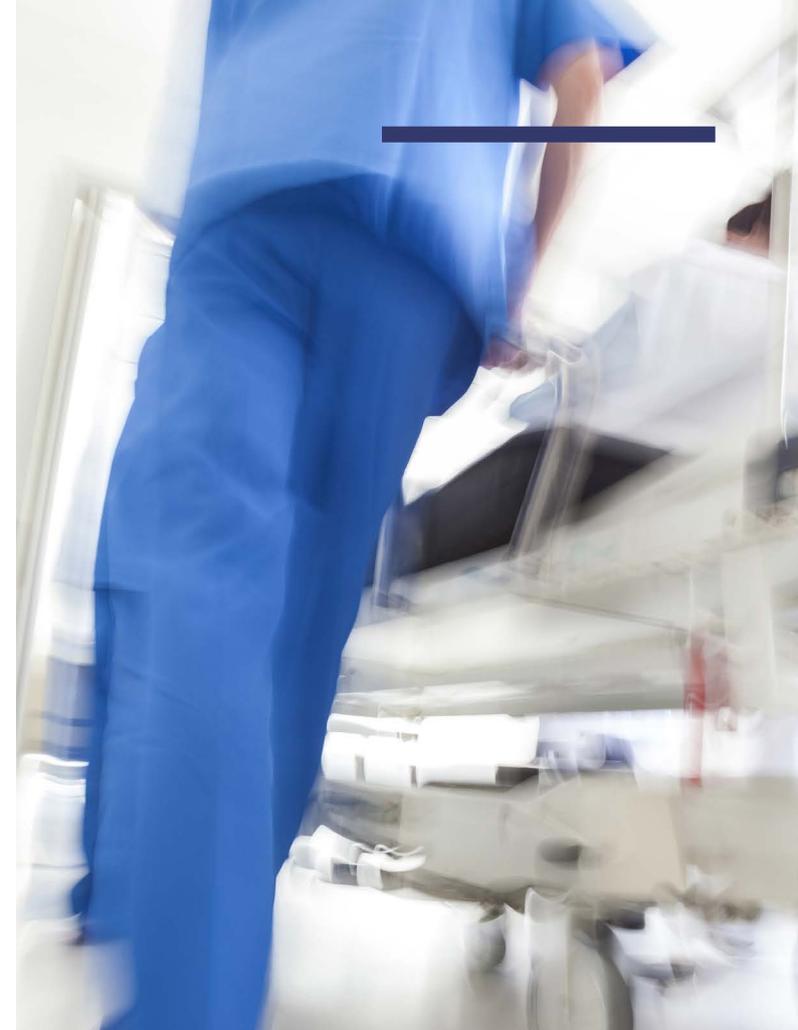
## Why?

Although the NHS produces an enormous amount of data, the potential value of this resource in managing and improving systems is underutilised. The NHS may lack the appropriate level of support in converting data into insights useful to improving outcomes for patients.

Individual organisations show a wide variation not only in their level of performance but also in the high-level patterns exhibited over time. This emphasizes the need for locally targeted improvement efforts.

## How?

The Accident and Emergency Tracker automatically analyses attendance and performance of the 4-hour standard across NHS England, at local, regional and national level, and in acute trusts in Scotland.



### Result

The web application is publicly available and has been used at regional (NHS England London) and United Kingdom (NHS Scotland) collaborative events. The app is live here: <https://clahrcnwl.shinyapps.io/ae-app/>. The project team has also collaborated with NHS Improvement sharing methodological expertise and contributing to national learning events and video e-learning events.

Building on this work, during the COVID-19 pandemic, the team has worked with the Scottish Government to look at daily data for these measures and a number of others within primary care. The use of SPC charts has shown the effects of various national interventions (such as lockdowns) on demand and performance throughout the system, as well as monitoring flow through urgent care pathways recently redesigned in response to COVID-19.

# Care After Presenting with Seizures (CAPS)

## What?

NIHR CLAHRC North West Coast funded the Care After Presenting with Seizures (CAPS) project which developed an algorithm to identify seizure admissions and monitor the impact of the pathway from routinely collected hospital administrative data.

## Why?

Each year more than 50,000 people attend emergency departments with a seizure. Many of these patients attend on multiple occasions, yet the National Audit of Seizure Management (NASH) shows that many are on suboptimal therapy and that only a minority reach the specialist service that could prevent further seizures.

## How?

The NASH audit was administered by the University of Liverpool and used by NICE to produce quality standards. The Cheshire and Merseyside Strategic Clinical Network (SCN) for neurology was keen to apply the findings of NASH across the north west region. In particular, it was felt that NASH had identified a segment of the population who were being missed by traditional methods. Furthermore, the audit showed that even where referrals were being made, they took longer than three months after the original admission.

In response, the SCN coordinated the development of a referral pathway for adults presenting to emergency services, which has been launched in seven district general hospitals.

To support this initiative, CLAHRC North West Coast funded the CAPS project, which aimed to find out if the pathway had a beneficial effect on the numbers of referrals made within three months of the emergency presentation, and if the use of a dedicated nurse would enhance any effect. To achieve this, part-time research nurses were funded and placed at selected hospital sites to promote the use of the pathway and actively place patients on to it. A clinically-informed algorithm developed by the CAPS project team was used to monitor the impact of the pathway from routinely collected data. Analysis of this data was shared with the hospitals involved.



## Result

Neurology outpatient appointment rates following an admission with seizures are low, worryingly so for those with no appointment in the previous 12 months. A nurse-supported pathway can improve appointment rates, but the effect is modest. Further service redesign is required, the impact of which should be rigorously investigated.

The “within three months” referral metric used in CAPS is being recommended as a key performance metric by the “Getting It Right First Time” (GIRFT) programme, designed to improve the quality of care within the NHS. The National Neurology Advisory Group recommended the algorithm for adoption by NHS England.

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# MANAGEMENT OF LONG-TERM CONDITIONS



# My Medication Passport (MMP)

## What?

My Medication Passport (MMP) is a passport-sized booklet designed by patients to help them manage their medicines and promote effective and up-to-date communication between patients and service providers. It is updated by the patient or carer and accompanies them throughout their patient journey. The booklet was launched in 2014 for general use and since then approximately 260,000 have been ordered across the UK.

## Why?

Patients are often asked the same questions by multiple clinicians and may not always recall the relevant information. MMP can support the safe transition of care, particularly when other records are not up-to-date or available to every clinician. Moreover, MMP can aid patients and their carers to open a dialogue about medicines, health beliefs and other matters that are important to them.

## How?

Patients have driven the development of MMP from inception - and continue to champion its use. Following an initial focus group, development of the passport was led by patient and public representatives through discussions at a project steering group. From those discussions, the working drafts were then referred to a local reader group. The development team included patients, carers and clinicians from a wide range of care sectors. Pharmaceutical company AstraZeneca supported the initial development costs and launch of MMP.

CLAHRC North West London then evaluated its use involving 133 patients that demonstrated MMP's acceptability and usefulness as a record of current and previous medicines as well as other related information. Patients shared their MMP with family and carers and used it to support conversations with health care professionals, and across care boundaries. Patient ambassador Brian Turley was heavily involved in the promoting the benefits of the MMP across police stations.



## Result

In 2014 CLAHRC North West London launched MMP for general use. Patients found MMP useful in a range of clinical and nonclinical settings including: high street and hospital pharmacies; nursing homes; retirement housing; local community groups; charities, police and prison officers. As a consequence, MMP has supported changes to the delivery of services linked to medicines optimisation and supported self-care by patients.

Our patient ambassador, Brian Turley, sadly passed away and an award for patient and carer involvement was developed in May 2016 in memory of him. The first award was presented in April 2017.

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## Carer Support Needs Assessment Tool (CSNAT)

### What?

The Carer Support Needs Assessment Tool (CSNAT) is an evidence-based tool that facilitates tailored support for family members and friends (carers) of adults with long-term, life-limiting conditions. The research underpinning this tool was informed by carers and practitioners. This is a suite of studies to support its dissemination and implementation.

### Why?

Support for family carers remains an important element of care at end-of-life for a range of conditions and is an increasing national priority.



### How?

Over the course of its funding period, NIHR CLAHRC Greater Manchester supported nine family/informal carer-related studies, working in collaboration with Hospice UK, Marie Curie, the Stroke Association, Dimpleby Cancer Care and the Motor Neurone Disease Association.

This work on family/informal carers for people at end-of-life has focused on research to adapt, pilot and implement the Carer Support Needs Assessment Tool (CSNAT) in end-of-life care and other life limiting conditions (cancer, stroke, motor neurone disease, and dementia). The collective research studies represent a robust programme of work, which has involved more than 1,500 carers and 500 practitioners, while the programme has also delivered training workshops to more than 90 healthcare organisations.

### Result

CSNAT and its CPD-accredited online training has 405 registrations from 124 organisations spanning 10 countries. The use of the online training continues to grow, with a consistent 30-50 new registrations month on month.

The CSNAT Approach and the Online CSNAT training have been included in the Royal College of General Practitioners (RCGP) and Marie Curie, Daffodil core standards for advanced serious illness and end-of-life care.

The CNSAT research team were given the award of the publication of practice-changing research within the NIHR portfolio at the 2018 NIHR Charities Consortium Conference for Hospice and Community-based Research.

# Developing, implementation and scaling up of a social network tool designed to enhance and diversify support for people with long-term conditions

## What?

GENIE is a web-based intervention that provides tailored self-management support to people with long-term conditions by activating existing networks and engagement with local and online resources.

## Why?

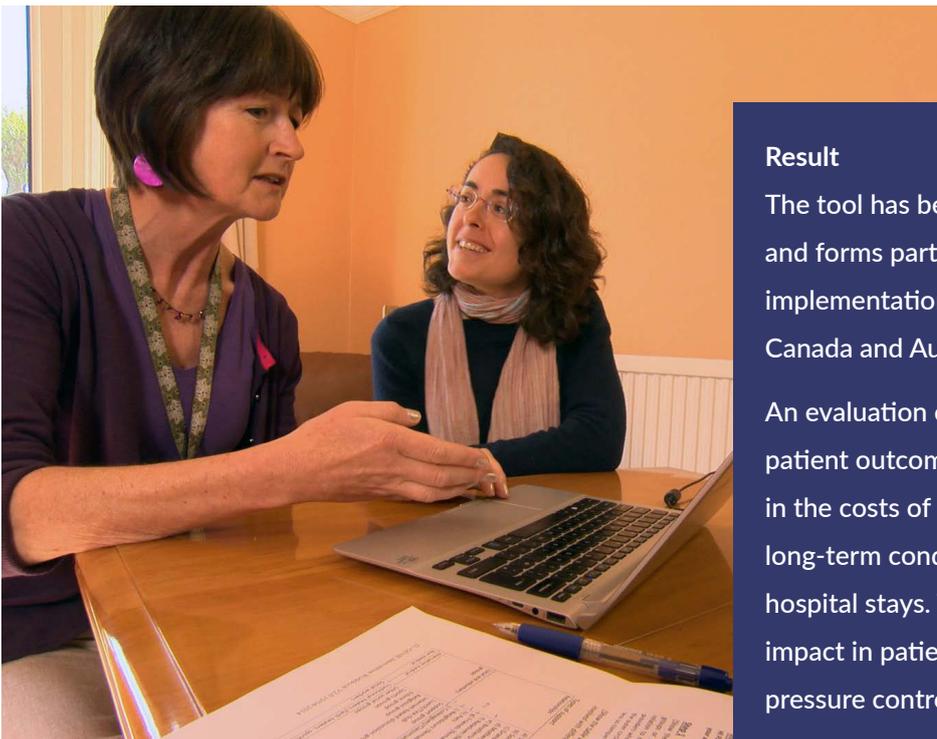
Engagement with people's diverse social networks and the resources and activities around them can have a positive impact on their health and wellbeing. The intervention bridges the gap between individual self-management efforts and the resources available in the local environment.

## How?

NIHR CLAHRC Wessex developed GENIE and supported its implementation and evaluation. The tool has received accreditation and is now self-funded via a licensing process.

GENIE allows users to self-manage by making all of their local resources and support network available to them in one portal. It has been well established that engagement with diverse social networks, and the resources and activities around them can be beneficial for people's health and wellbeing.

GENIE has also gone through a rigorous independent evaluation process. It has received certification QIS 2015 (Quality standard for self-management interventions) and passed the QISMET (Quality Institute for Self-Management Education and Training) accreditation process. This builds on previous endorsement by NHS England as suitable for supporting people with long-term conditions.



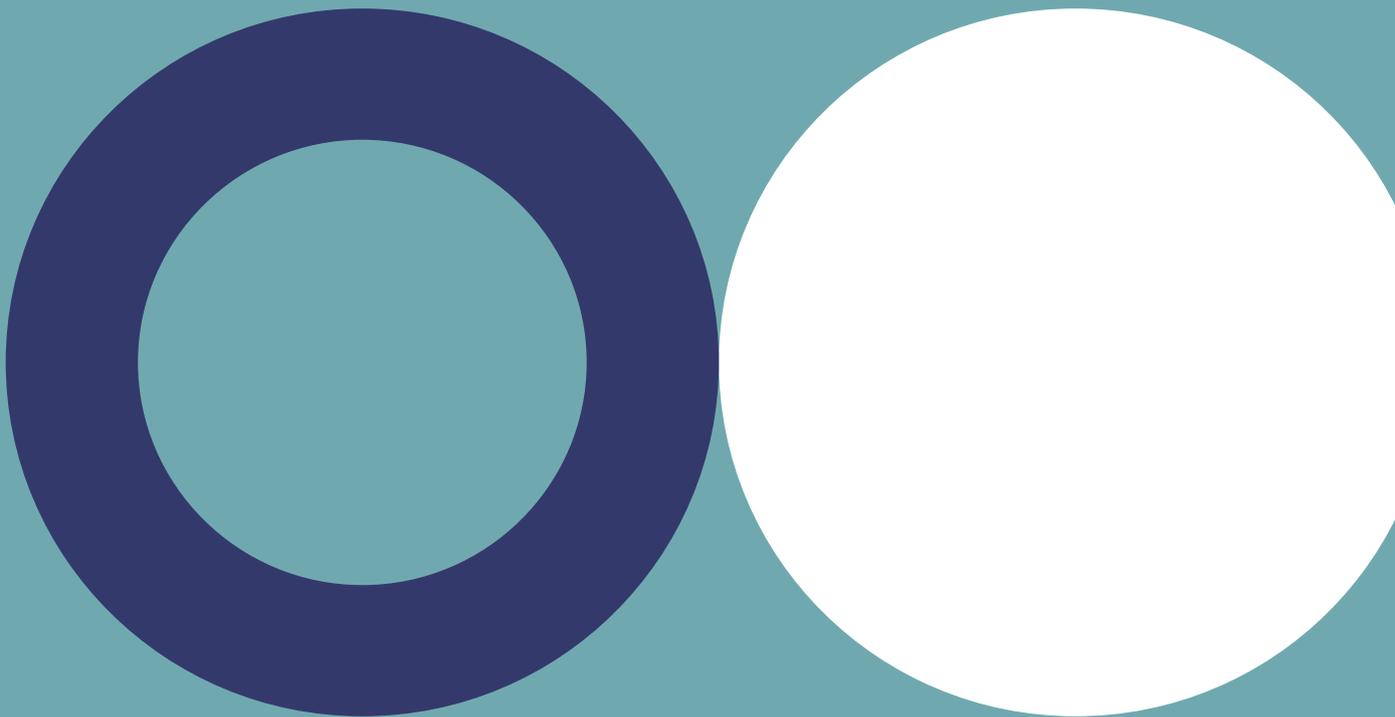
## Result

The tool has been implemented in Southampton and forms part of ongoing national research and implementation programmes elsewhere in the UK, Canada and Australia.

An evaluation of the tool's impact on NHS costs and patient outcomes found that the tool saved £175 in the costs of treating the average patient with long-term conditions, primarily in reduced overnight hospital stays. There is also evidence of significant impact in patient outcomes, such as better blood pressure control.

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# SUPPORTING VULNERABLE PEOPLE



## Development of an electronic frailty index (eFI)

### What?

The electronic frailty index (eFI) is a tool that can be used to identify people who have different levels of frailty.

### Why?

As the population ages, the risk of frailty (including falls) increases. An online tool able to identify those in need of support is crucial in maintaining quality of life.



### How?

Researchers at NIHR CLAHRC Yorkshire & Humber collaborated with TPP/ResearchOne to develop and validate an electronic frailty index (eFI) that uses existing electronic health record data to identify and severity grade frailty.

### Result

The eFI is now freely available in every general practice in England, with approximately 95% UK coverage. It is included in the 2016 NICE multimorbidity guidelines and the 2017/18 General Medical Services (GMS) contract.

Following eFI implementation, approximately 2.5 million older people in England have been assessed for frailty. 630,000 have been diagnosed with moderate frailty, and 320,000 with severe frailty; 210,000 of those with severe frailty have received a medication review and 25,000 older people have been referred to a falls prevention service.

Building on this work, CLAHRC Yorkshire & Humber collaborated with the Yorkshire and Humber Academic Health Science Network (AHSN), and engaged with approximately 75 clinical commissioning groups (CCGs) nationally. This has enabled the development of new frailty care models. This pioneering work is cited in the NHS 10-year plan as an exemplar model of population health management.

The eFI team won the Healthcare IT Product Innovation category, EHI Live 2016 Awards and the Royal College of Physicians Excellence in Patient Care Innovation Award for 2017. The eFI is also a core component of the Connected Health Cities (Connected Yorkshire) project work on developing and evaluating care pathways for older people with frailty.

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## Person Centred Co-ordinated Care (P3C)

### What?

The Person-Centred Co-ordinated Care (P3C) programme addresses individuals living with frailty or multimorbidity and those in old age. In collaboration with the South West Academic Health Science Network, NIHR Peninsula CLAHRC engaged with local providers, STPs and commissioners and developed theory, innovation, and a consistent evaluation framework, which are contributing to new models of care, and recently the NHS Plan, with its emphasis on personalisation and integration.

### Why?

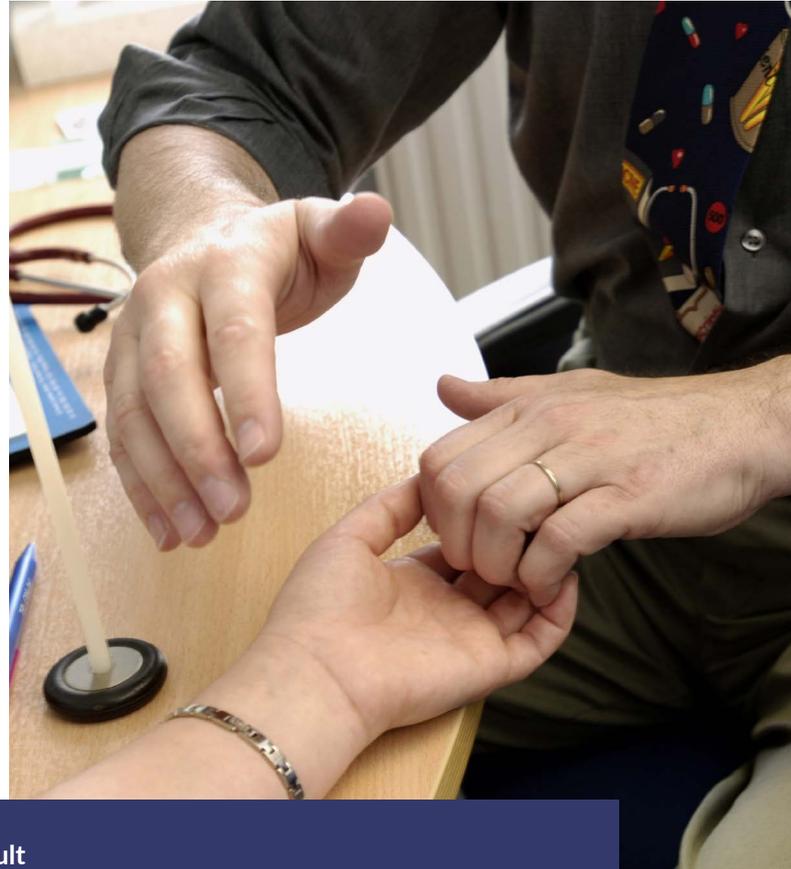
The programme supports the care and health needs of the most vulnerable groups, namely those who are frail, have multiple chronic conditions and those in old age.

### How?

The P3C programme has led to seven evaluations of local innovation, developed an evaluation framework and new measures, and gained external funding for additional research.

The highlights of the programme include:

- Development of the P3C Experience Questionnaire (P3CEQ), the P3C Organisation Change Tool and refinement of the Researcher-in-Residence model
- An understanding developed from realist review findings and evaluations as to how organisations can support P3C through specific components of teamwork, care planning and information exchange
- Enhancement of clinical practice through a) methods to engage individuals with complex needs in care, and b) a method of clinical reasoning for multimorbidity (Sharing Evidence Routine for a Person-Centred Plan for Action - SHERPA)



### Result

The programme has continued into ARC South West Peninsula and forms a fruitful partnership between the ARC, AHSN and local NHS providers.

Further afield, the P3CEQ has undergone psychometric testing, and is being used in the UK including Kent and Somerset and has also been adopted for international practice including being translated into five languages – Spanish, Norwegian, Estonian, German and Dutch.

# The Southampton Mobility Volunteer programme to increase physical activity levels of older patients: a feasibility study (the SoMoVe study)

## What?

The Southampton Mobility Volunteer programme (the SoMoVe) trains volunteers to encourage older people in hospital to be more active.

## Why?

Evidence shows that older people in hospital are inactive and may spend as much as 83% of their time lying in bed. Low physical activity levels in hospital are associated with poor outcomes including worsening physical function, longer hospital stay and increased dependence in activities of daily living.

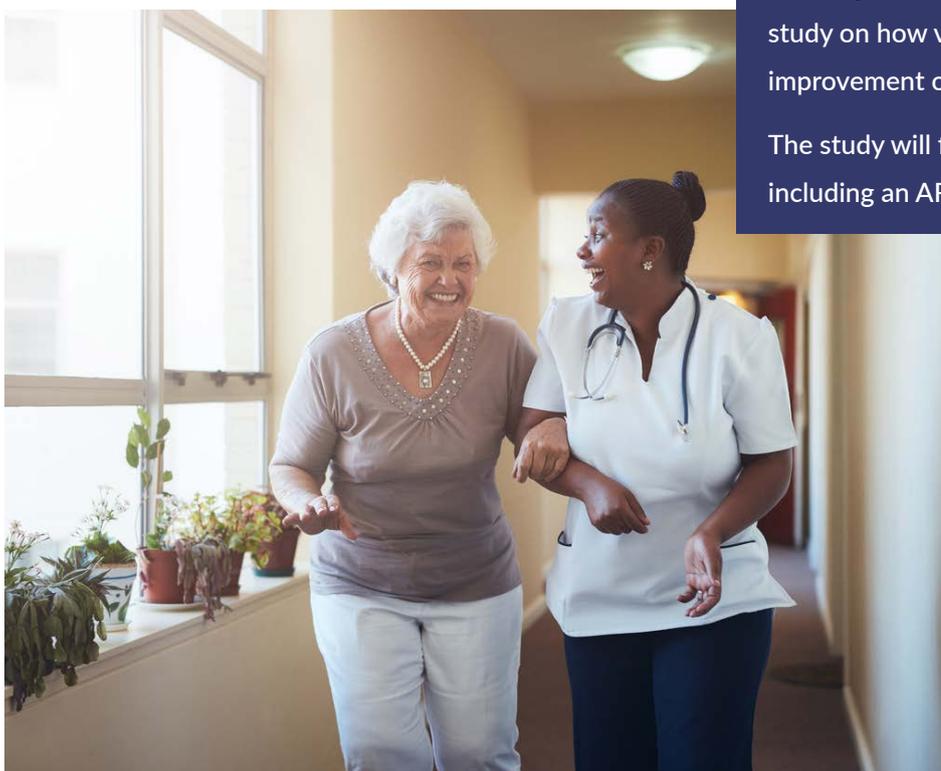
## How?

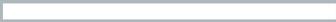
The SoMoVe study funded by NIHR CLAHRC Wessex evaluated the feasibility and acceptability of training volunteers to encourage older people in hospital to be more active. Volunteers encouraged older inpatients to keep active by encouraging them to go for walks or do bedside exercises twice daily.

## Result

The study was successful and amongst participants who received the intervention, there was an average increase in daily step count by 43% and a reduction in length of hospital stay by half a day. The intervention was well received by patients and staff members appreciated the additional help provided by the volunteers to encourage older inpatients to be more active. Patients and volunteers both enjoyed the social interaction that the intervention provided.

After the study ended, University Hospital Southampton continued the mobility volunteer initiative under a new project Eat, Drink, Move. The trust received £50,000 from Helpforce to support the programme. Guidelines have been prepared and published to support the programme. A report published by the British Geriatrics Society (Healthier for Longer) included the SoMoVe study as a case study on how volunteers can contribute to the improvement of care for older people in hospitals. The study will form the basis of future research including an ARC Wessex study.





# PALLIATIVE AND END OF LIFE CARE

# Prepared to Share: Data sharing in end-of-life care

## What?

The Prepared to Share study funded by NIHR CLAHRC East of England is an evaluation of Electronic Palliative Care Co-ordination Systems (EPaCCS), which aims to improve coordination of care, enable patient choice and achieve cost-effectiveness in end-of-life care.

## Why?

Media stories about failures of end-of-life care, concerns about leakages of information, data protection regulations and a trend towards increasing the sharing of information create a need to improve the way end-of-life data is collated and shared.



## How?

The Prepared to Share study investigated the impact of EPaCC on the quality of end-of-life care as measured by patients dying in their preferred place, use of unscheduled care and hospital admissions at the end of life.

The study also investigated the attitudes of a range of stakeholders (patients, lay carers, GPs, community nurses, hospital doctors, ambulance service staff, GP practice managers, commissioners, etc.) to the changes in data sharing practices.

## Result

The study found that the main challenges faced by EPaCCS included:

- unrealistic expectations set by existing guidance
- the discrepancy between IT realities in healthcare and our broader lives
- information governance
- and “death register” associations

The main driver supporting it was national support and strong clinical leadership.

Findings from the study have been included in Cambridgeshire and Peterborough CCG’s Quality and Engagement Framework for 2018/19.

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## Outcome Assessment and Complexity Collaborative (OACC)

### What?

The aim of the Outcomes Assessment and Complexity Collaborative (OACC) project conducted and funded by NIHR CLAHRC South London is to transform palliative and end-of-life care (PEoLC) for patients and families in south London by implementing routine patient-centred outcome measures to systematically improve the quality of care services.

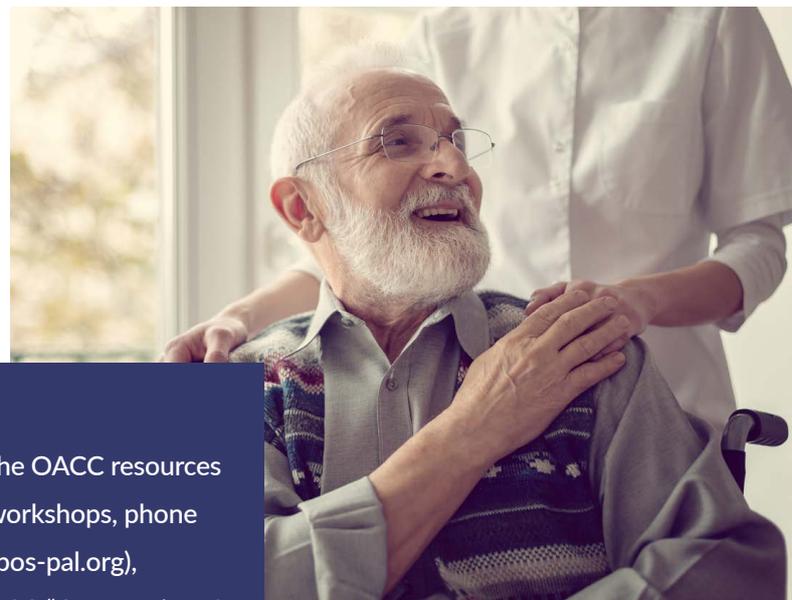
### Why?

Outcome measures are purpose-designed, validated questionnaires used to assess patients' symptoms and quality of life, and can be used to improve individual patient care. Outcome measures are used in many health specialties, but relatively few are tailored to advanced illness. Researchers at CLAHRC South London led a move to introduce a standardised set of outcome measures – developed with patients and families – into palliative and end-of-life care services for the first time. The measures can be used to inform and improve care.

### How?

The initial project is now complete, but has been extended through collaboration with Hospice UK. Working with Hospice UK, the team has produced OACC outcome resource packs to support palliative and end-of-life services to implement the measures, which more than 241 providers across the UK and internationally have taken up.

The project team have taken forward the outcome work implemented in the OACC project to a new stage, through the adopted C-Change project, which looks at how to deliver high-quality and cost-effective PEoLC for those with advanced conditions in the last year of life.

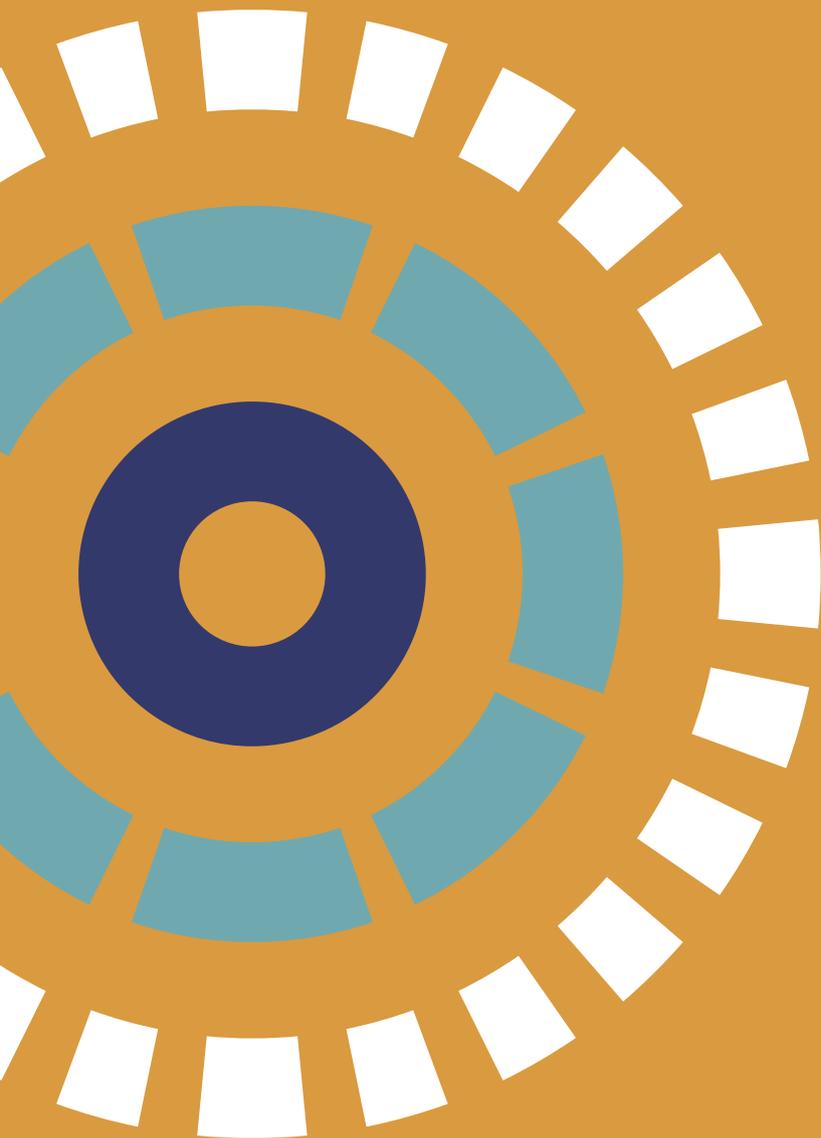


### Result

NIHR ARC South London continues to provide support for the OACC resources nationally and internationally through its 'train-the-trainer' workshops, phone and email support, free material online (including on <https://pos-pal.org>), opportunities to network and share information, and the OACC "Community of Practice", a national forum for networking and peer support measures.

In February 2020, the project team organised a Palliative care Outcome Scale (POS) workshop, which had more than 200 international delegates, including nurses, doctors, physiotherapists, psychologists, occupational therapists, social workers, managers, allied health professionals, commissioners and researchers from 15 countries.

# SUPPORTING OUR PARTNERS



# Promoting HIV screening in general practice (RHIVA)

## What?

RHIVA2 is a programme that promotes HIV testing in general practice and has been shown to increase testing and diagnosis of HIV.

## Why?

HIV remains underdiagnosed, and 4 in 10 people are diagnosed late. Early diagnosis of HIV prevents future ill health or death, stops viral transmission to partners and children, and reduces burden to public health budgets.

## How?

Using the RHIVA2 cluster RCT, NIHR CLAHRC North Thames showed that promotion of HIV testing at general practice registration leads to increased and earlier detection of HIV, and is cost-effective. The trial was conducted in Hackney, a deprived inner-city London borough, with an extremely high diagnosed HIV prevalence of 8 per 1,000 adult population.

## Result

The intervention led to a fourfold increase in the detection of HIV and was proven to be cost-effective in the medium term, preventing ill health and death, stopping viral transmission and reducing the burden to public health budgets. It was also notable that 73% of newly diagnosed people were heterosexuals and 68% were of Black African and Caribbean origin, indicating that testing in primary care reaches at-risk populations. It was also found to be feasible and acceptable to both patients and staff.

RHIVA has been included in:

- The 2015 NICE guidelines for routine HIV testing in high prevalence areas (>2 HIV diagnoses per 1,000 adult population)
- British HIV Association (BHIVA) Standards of Care for People Living with HIV (2018)
- The European Centre for Disease Prevention and Control recommended RHIVA as an example of good clinical practice in their HIV and hepatitis B & C testing guidelines (2018)



City & Hackney Clinical Commissioning Group then commissioned the intervention, and an implementation follow up study demonstrated sustained increase in HIV testing and new diagnoses during the following three years. The project team then supported Newham CCG as they implemented HIV testing in general practice. Barts Health NHS Trust have introduced the RHIVA failsafe procedure to ensure prompt HIV clinic entry for people newly diagnosed with HIV in general practice.

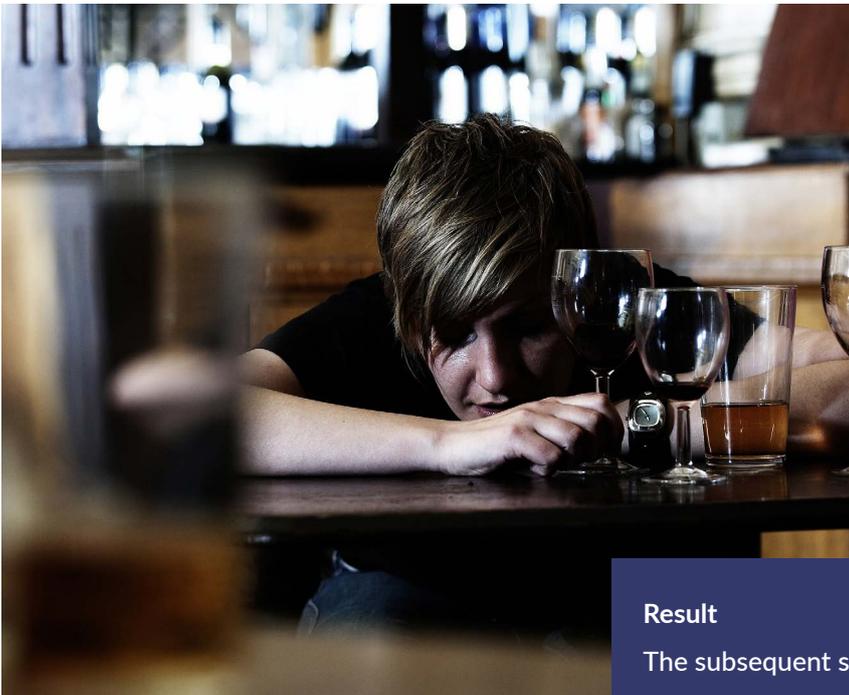
# Managing Alcohol-related Frequent Attenders (AFAs)

## What?

Guy's and St Thomas' Charity funded an Alcohol Outreach Treatment (AAOT) service, based at South London and Maudsley NHS Foundation Trust for three years. The team comprises psychiatrists, nurses, alcohol counsellors, social workers and 32 volunteer support workers. They provide intensive case management to promote engagement with alcohol rehabilitation and address other unmet needs for Alcohol-related Frequent Attenders (AFAs) at hospital.

## Why?

Alcohol misuse costs the NHS £3.5bn each year and £21bn to the wider national economy. NIHR CLAHRC South London's research with NHS hospital episode statistics shows that a relatively small number of high-need, high-cost alcohol-related frequent hospital attenders (ARFA) account for 59% of the alcohol-related NHS costs. This group also has higher levels of multimorbidity, longer periods when in hospital, more readmissions and a higher mortality than any other patient group.



## How?

In collaboration with clinicians and managers across King's Health Partners' Trusts, 174 patients with three or more alcohol-related admissions in the past year from hospital electronic records were identified. ARC South London ran a randomised controlled trial, to generate rigorous evidence that would support a national service development of this type comparing the impact of this service to usual care.

## Result

The subsequent study found that the AOTT intervention reduced alcohol-related admissions to King's College Hospital by 25% overall. In addition, the inpatient cost showed an overall net saving of £10,569 per patient per year.

The AAOT trial won the BMJ Award 'Mental Health Team of the Year 2019'. ARC South London are now working with health economists to complete an economic evaluation.

# Evaluating online GP consultations

## What?

An evaluation of a GP online consultation/triage system that allows patients to submit their symptoms through an online form on their practice website.

## Why?

The NHS Long Term Plan sets out a commitment that every patient will get the right to an online GP consultation as part of its 'digital first primary care offer'.

Online consultations are seen as a solution to improve patient access to primary care, increase convenience (saving waiting and travelling time) and reduce face-to-face appointments, so freeing up GP time.



## How?

NIHR CLAHRC West, in collaboration with One Care Ltd, evaluated the effectiveness, acceptability and impact of implementing eConsult in 36 GP practices across Bristol, South Gloucestershire and North Somerset between April 2015 and June 2016.

## Result

Patient satisfaction with the system was high, with most saying they would use the service again instead of booking a face-to-face appointment. When patients were dissatisfied, this was usually because of a lack of interaction with a GP, missed or delayed communications, or thinking that their query could be answered remotely, and then being asked to book an appointment.

The staff cost of dealing with an e-consultation was higher compared to a standard GP face-to-face consultation. This was driven mainly by the time spent dealing with e-consultations and that most online consultations resulted in GPs needing to follow up with a telephone (32%) or face-to-face (38%) appointment, which could duplicate workloads.

Staff felt that online consultations worked well for straightforward queries such as fit notes and follow-up from previous consultations. However, GPs often needed to see or speak to the patient, for example when patients had multiple symptoms or had conditions which were new and complex.

New ways of accessing healthcare advice could be helpful for some patient groups and for straightforward medical enquiries. However, they cannot replace face-to-face consultations in situations which are more complex and may end up increasing rather than decreasing GP workload.

Findings informed NHS England's national guidance for primary care to conduct online consultations. The economic results are now included in the PSSRU Unit Costs for Health and Social Care (2018), used by health economists, NICE, clinical commissioning groups and finance departments to cost healthcare and produce health policy.

# Organising Healthcare programme

## What?

NIHR CLAHRC Greater Manchester set up the Organising Healthcare programme to support the local health economy. The programme focused on primary care workforce challenges, integration of health and social care, and access to primary care services.

## Why?

GP workload has increased by 16% between 2007 and 2014, putting pressure on UK primary care services. GP practices have struggled to meet this challenge, and two thirds of GPs report unmanageable workloads.

CLAHRC Greater Manchester worked in partnership with the Greater Manchester Health and Social Care Partnership (GMHSCP) in collaboration with the ten Greater Manchester clinical commissioning groups to investigate long-term workforce challenges in general practice across the region.

## How?

This project focused initially on a baseline mapping exercise of the workforce landscape across all 10 CCGs, drawing on data captured through existing tools, as well as additional data gathered by the project team. The next stage of the project focused on the challenges of recruiting and retaining GPs within practices in GM, as well as identifying the barriers to and facilitators of the successful uptake and integration of new roles.

In a separate project CLAHRC Greater Manchester worked with Salford CCG in evaluating three new roles: advanced practitioners, physician associates and practice pharmacists. This collaborative work identified key enablers and barriers to the implementation of these new roles, and identified gaps in knowledge, including baseline data. This informed thinking within the CCG through consideration at senior meetings, shaping local priority setting, and future allocation of funding including commissioning decisions. This work was then expanded across the region.



## Result

Since 2018, the programme team have continued to shape workforce priorities and activities across Greater Manchester. Outputs from the programme have been cited by the Health Foundation, Nuffield Trust, Kings Fund and Royal College of General Practitioners.

# Health Service Modelling Associates programme (HSMA)

## What?

The Health Service Modelling Associates (HSMA) is a programme where NHS staff are seconded and trained to conduct a modelling or data science project.

## Why?

NIHR PenCLAHRC saw this as an innovative way of building research capacity and innovation within the region's NHS.

## How?

NHS staff are seconded from their organisations for one day a week for one year to conduct a modelling or data science project that addresses issues of importance for their organisation. HSMAs are provided with training in a range of methods that helps them carry out data analysis. They are supported by a mentor from the PenCLAHRC (now NIHR PenARC) modelling team who provide them with advice and guidance throughout the project, and a workplace supervisor – a senior representative from the HSMA's organisation who ensures that their work becomes part of the routine analytical function of the host organisation.

In the 2014-2019 cycle of CLAHRC, the programme recruited over 30 HSMAs from 13 NHS organisations, including acute trusts, mental health trusts, commissioning organisations and the South Western Ambulance Trust.

The programme has two aims, which are to solve problems for NHS organisations and to develop the capacity within the service so that partners can make use of these techniques in future.

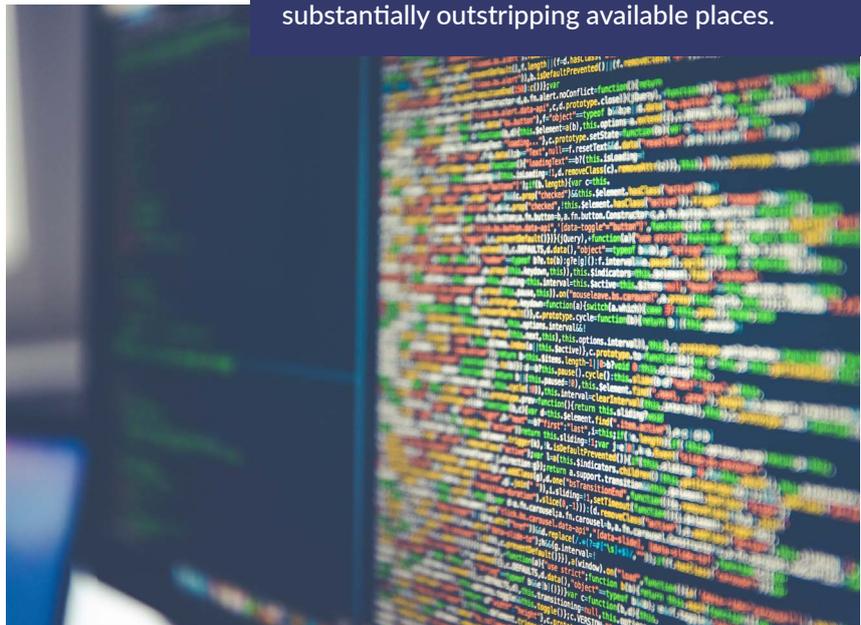
## Result

Projects conducted by HSMAs have resulted in a number of positive changes for patients and improvements to services.

Examples include:

- In the Devon Partnership Trust the work directly led to an £8 million investment in a new adult mental health ward at Torbay Hospital which has decreased costs and disruption to patients and families
- At the same trust, work by a second HSMA was used to inform the resourcing requirements of 'Crisis Cafes', which provide a space for those in mental health crisis to have rapid access to a conversation with a member of staff, potentially avoiding admission

The success of this programme is demonstrated not just by these successes but that the number of applications for these posts continues to grow, substantially outstripping available places.



# Supporting implementation and evaluation of local innovation in healthcare through the partners' priority programme

## What?

NIHR CLAHRC North West Coast offered a bespoke support service to partners that encouraged the sharing of knowledge and experience to help identify which healthcare models being developed by partners are most effective.

## Why?

Supporting service evaluation and improvement assists NHS and social care partners in reducing health inequalities, improving population health and reducing emergency admissions.

## How?

CLAHRC North West Coast encouraged and facilitated mixed teams of practitioners, commissioners, patients, public and researchers to work together. Led by partners, these teams developed evaluation plans, including access to specialists to assist with research methods, developing implementation plans and learning about transformation in organisations.



Innovations that featured in the programme included different examples of social prescribing; delivery of clinical services in the community; enhanced primary care provision; rehabilitation services; transitional care; mental health support; and condition-specific support, such as cancer.

## Result

Examples of successful evaluations carried out under this programme of work include:

- An evaluation of the Life Rooms model, a service provided by Mersey Care, illustrated the need and benefit of social prescribing to improve mental health wellbeing and reduce the burden of mental illness. The evaluation has provided evidence to inform the roll-out of the service to other sites in the region.
- An evaluation of a consultant-led, community-based cardiovascular diagnostic, treatment and rehabilitation service in Knowsley and run by Liverpool Heart and Chest showed that the service led to a lower rate of emergency hospital admissions in a highly disadvantaged population, concluding that similar approaches could be an effective component of strategies to reduce unplanned hospital admissions.
- Twelve months after establishing a local specialist community-based personality disorder (PD) team, the service was evaluated, which concluded that by reorganising local community pathways to establish a specialist PD team, long hospitalisations can be reduced. The findings are being used to inform decisions on redirecting investment.

## Rapid response and pragmatic research

### What?

NIHR CLAHRC West Midlands introduced a more pragmatic and accessible approach to support applied health research amongst their partners based on the use of Stepped Wedge Cluster Randomised Trial (SWCRT).

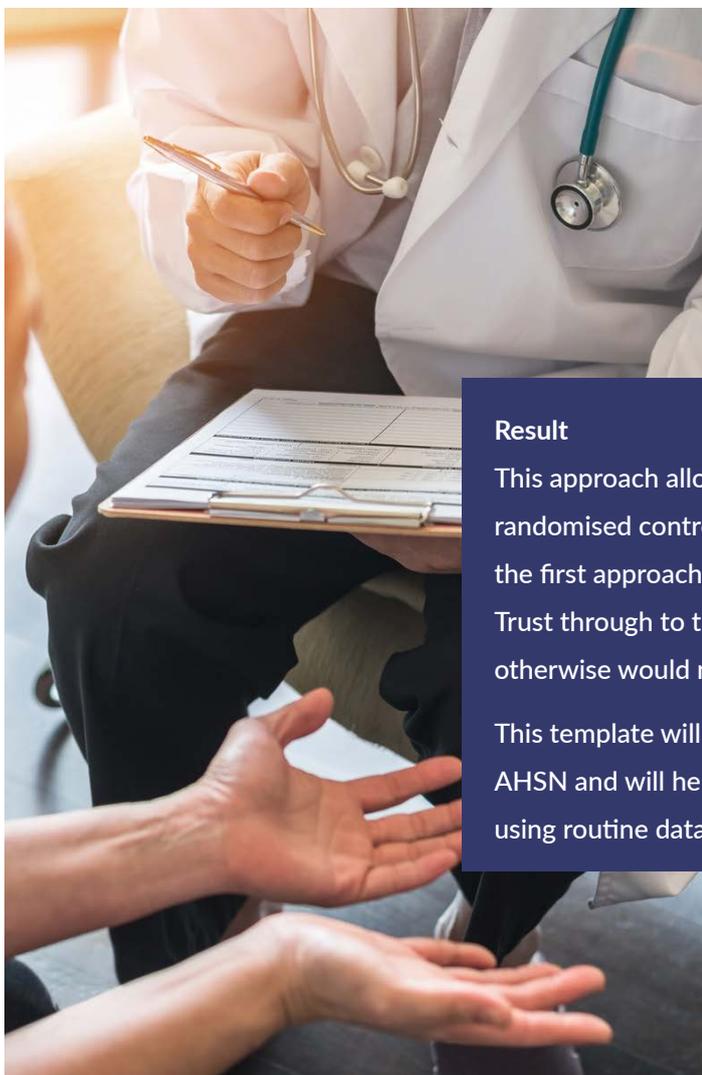
### Why?

Stakeholders said that they didn't engage with research because it was either too slow to inform their decision making or it was too difficult to run a traditional randomised controlled trial, particularly creating a control group.

### How?

To address these concerns, CLAHRC West Midlands began to investigate the use of SWCRT design. It was thought it could provide a solution as it allowed all groups to receive the intervention. This is important where there is a belief that the intervention will improve health, or if the intervention is going to be implemented regardless of the effectiveness, for example, a policy intervention. It also allows resources supporting the implementation to be spread or 'phased' over a period of time rather than being fixed to a single 'go live' date, which can be important for complex interventions or those with a significant training burden.

In addition, it became clear that time can be as great a constraint as methodology. CLAHRC West Midlands embedded a health informatics post within the organisation and used that to create the Margaret Peters Centre, which allows data analysis in situ. This simplified data sharing and significantly reduced the time taken to process evaluation data.

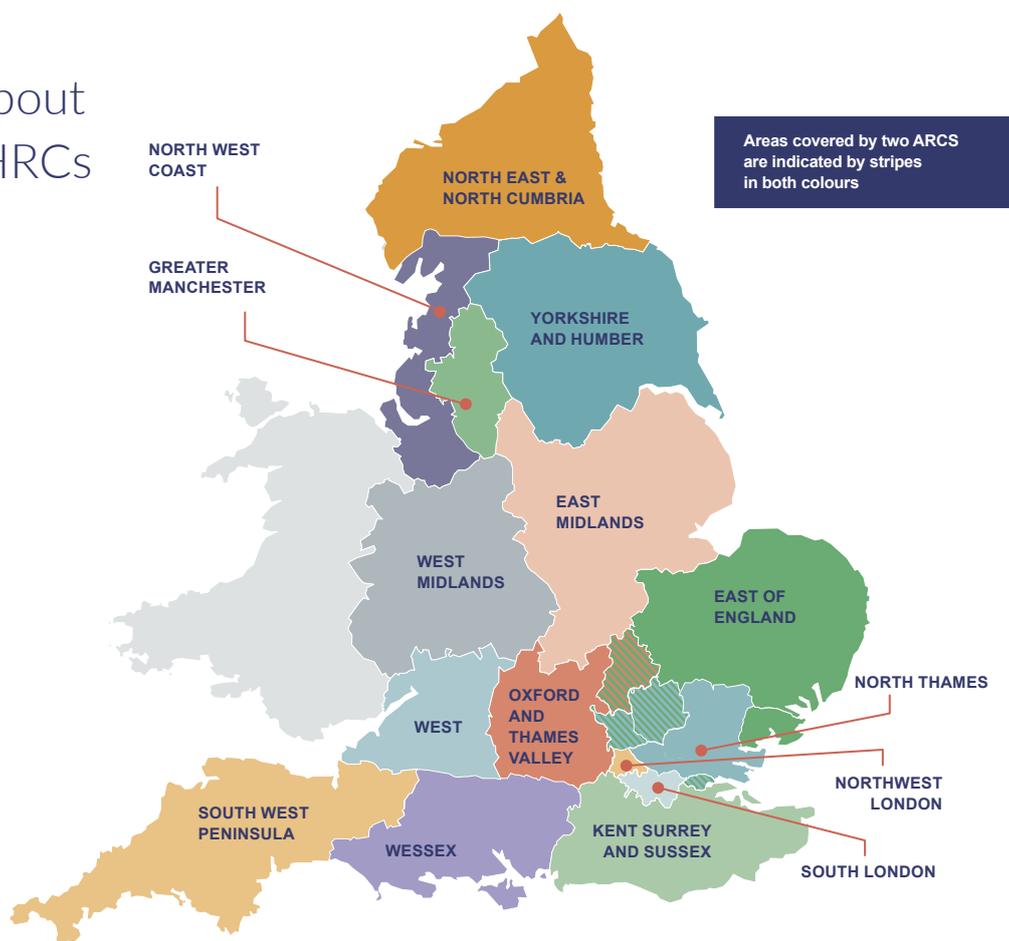


### Result

This approach allowed CLAHRC West Midlands to undertake a five-arm randomised controlled trial, which recruited 8,000 NHS frontline staff from the first approach to University Hospitals Birmingham NHS Foundation Trust through to the end of data analysis. This allowed for an evaluation that otherwise would not have taken place.

This template will be extended further in ARC WM in conjunction with WM AHSN and will help speed up evaluation and track the adoption of innovation using routine data.

## More information about the ARCs and CLAHRCs



NIHR ARC Scheme

[www.nihr.ac.uk/explore-nihr/support/collaborating-in-applied-health-research.htm](http://www.nihr.ac.uk/explore-nihr/support/collaborating-in-applied-health-research.htm)

NIHR ARC East of England

[www.arc-oe.nihr.ac.uk](http://www.arc-oe.nihr.ac.uk)

NIHR ARC East Midlands

[www.arc-em.nihr.ac.uk](http://www.arc-em.nihr.ac.uk)

NIHR ARC Greater Manchester

[www.arc-gm.nihr.ac.uk](http://www.arc-gm.nihr.ac.uk)

NIHR ARC Kent Surrey and Sussex

[www.arc-kss.nihr.ac.uk](http://www.arc-kss.nihr.ac.uk)

NIHR ARC North East & North Cumbria

[www.arc-nenc.nihr.ac.uk](http://www.arc-nenc.nihr.ac.uk)

NIHR ARC North Thames

[www.arc-nt.nihr.ac.uk](http://www.arc-nt.nihr.ac.uk)

NIHR ARC North West Coast

[www.arc-nwc.nihr.ac.uk](http://www.arc-nwc.nihr.ac.uk)

NIHR ARC Northeast London

[www.arc-nwl.nihr.ac.uk](http://www.arc-nwl.nihr.ac.uk)

NIHR ARC Oxford & Thames Valley

[www.arc-oxtv.nihr.ac.uk](http://www.arc-oxtv.nihr.ac.uk)

NIHR ARC South London

[www.arc-sl.nihr.ac.uk](http://www.arc-sl.nihr.ac.uk)

NIHR ARC South West Peninsula

[www.arc-swp.nihr.ac.uk](http://www.arc-swp.nihr.ac.uk)

NIHR ARC Wessex

[www.arc-wx.nihr.ac.uk](http://www.arc-wx.nihr.ac.uk)

NIHR ARC West

[www.arc-w.nihr.ac.uk/](http://www.arc-w.nihr.ac.uk/)

NIHR ARC West Midlands

[www.warwick.ac.uk/fac/sci/med/about/centres/arc-wm/](http://www.warwick.ac.uk/fac/sci/med/about/centres/arc-wm/)

NIHR ARC Yorkshire & Humber

[www.arc-yh.nihr.ac.uk/](http://www.arc-yh.nihr.ac.uk/)

In 2019, all of the existing CLAHRCs were re-funded as Applied Research Collaborations. The ARCs cover the same geographical areas as the preceding CLAHRCs. In addition, there are two new ARCs: ARC North East and North Cumbria, and ARC Kent Surrey and Sussex. These cover the only parts of England that previously didn't have an ARC.

**NORTH EAST & NORTH CUMBRIA**

- 1. Multimorbidity, Ageing and Frailty
- 2. Supporting Children and Families
- 3. Prevention, Early Intervention and Behaviour Change
- 4. Integrating Physical, Mental health and Social care
- 5. Inequalities and Marginalised Communities
- 6. Assistive Technologies and Data Linkage
- 7. Evaluating Change with Pace and Scale
- 8. Knowledge Mobilisation and Implementation Science

**NORTH WEST COAST**

- 1. Person Centred Complex Care
- 2. Improving Population Health
- 3. Equitable Place-Based Health and Care
- 4. Methodological Innovation, Development, Adaptation and Support (MIDAS)
- 5. Health and Care Across the Life Course
- 6. Care and Health Informatics

**GREATER MANCHESTER**

- 1. Healthy Ageing
- 2. Digital Health
- 3. Mental Health
- 4. Organising Care
- 5. Evaluation
- 6. Implementation Science
- 7. Economic Sustainability

**WEST MIDLANDS**

- 1. Long Term Conditions
- 2. Acute Care Interfaces
- 3. Integrated Care in Youth Mental Health
- 4. Maternity
- 5. Cross-cutting: Organisational Science
- 6. Cross-cutting: Research Methodology, Informatics and Rapid Response
- 7. Cross-cutting: Public Health
- 8. Cross-cutting: Social Care

**WEST**

- 1. Healthier Childhoods
- 2. Mental Health
- 3. Integrated and Optimal Care
- 4. Public Health and Prevention
- 5. Behavioural and Qualitative Science
- 6. Applied Data Science
- 7. Evidence
- 8. Health Economics

**SOUTH WEST PENINSULA**

- 1. Dementia
- 2. Mental Health
- 3. Public Health
- 4. Complex Care
- 5. Methods for Research and Improvement

**WESSEX**

- 1. Ageing and Dementia: supporting independent living for people with complex health needs
- 2. Healthy Communities: improving public health across the lifecourse
- 3. Long Term Conditions: integrating person centred approaches to optimise healthy living
- 4. Health Systems & Workforce: supporting health and social care by improving service delivery

**KENT SURREY AND SUSSEX**

- 1. Social care
- 2. Starting Well: Early detection and intervention of mental health problems in children and adolescent
- 3. Living well with dementia
- 4. Primary and community health services
- 5. Co-production
- 6. Public health
- 7. Digital innovation
- 8. Economics of health and social care

**SOUTH LONDON**

- 1. Alcohol
- 2. Applied informatics
- 3. Capacity building
- 4. Children and young people
- 5. Economics and biostatistics
- 6. Implementation research
- 7. Maternity and perinatal mental health
- 8. Palliative and end of life care
- 9. Patient and public involvement research
- 10. Public health and multimorbidities
- 11. Social care

**YORKSHIRE AND HUMBER**

- 1. Older People with Frailty
- 2. Early Life and Prevention
- 3. Urgent and Emergency Care
- 4. Mental and Physical Multimorbidity
- 5. Health Economics, Evaluation, Equality
- 6. Improvement Science

**EAST MIDLANDS**

- 1. Mental health and wellbeing
- 2. Managing multi-morbidity
- 3. Building community resilience and enabling independence
- 4. Data2health
- 5. Ethnicity and Health Inequalities
- 6. Translating and implementing sustainable service improvement

**EAST OF ENGLAND**

- 1. Ageing and Multi-Morbidity
- 2. Population Evidence and Data Science
- 3. Inclusive Involvement in Research for Practice-Led Health and Social Care
- 4. Health Economics and Prioritisation in Health and Social Care
- 5. Mental Health Over the Life Course
- 6. Palliative and End of Life Care
- 7. Prevention and Early Detection in Health and Social Care

**OXFORD AND THAMES VALLEY**

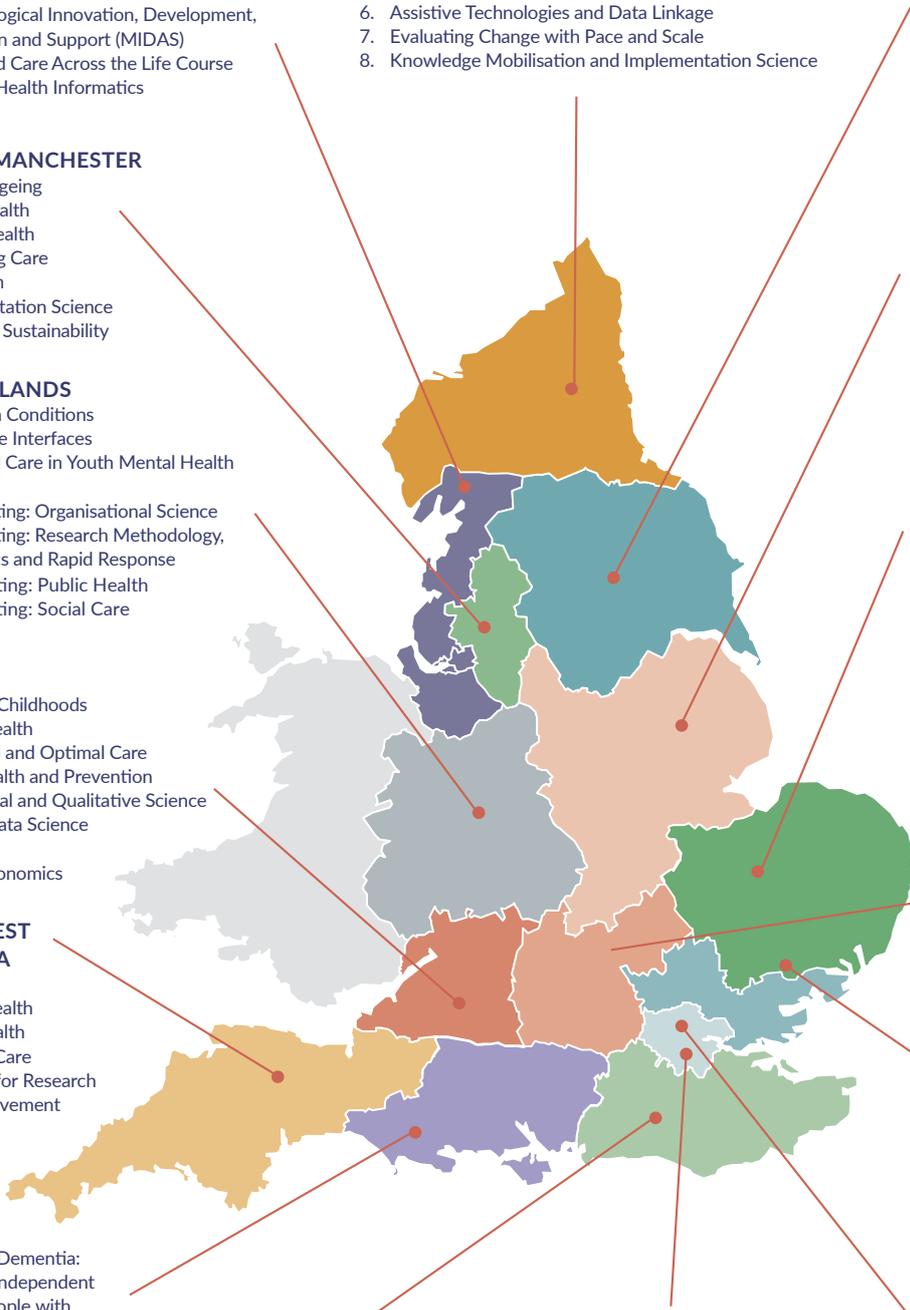
- 1. Disease Prevention through Health Behaviour Change
- 2. Patient Self-Management
- 3. Mental Health across the Lifecourse
- 4. Community Health and Social Care Improvement
- 5. Applied Digital Health 6. Novel Methods to Aid and Evaluate Implementation

**NORTH THAMES**

- 1. Mental Health: Tackling Social and Institutional Inequalities in Mental Health Systems
- 2. Multi-morbidity: Understanding Cluster and Evaluating Care
- 3. Population Health and Social Care
- 4. Innovation and Implementation Science
- 5. Health Economics and Data

**NORTHWEST LONDON**

- 1. Child Population Health
- 2. Multimorbidity
- 3. Digital Health
- 4. Innovation and Evaluation
- 5. Information and Intelligence
- 6. Patient, Public, Community Engagement and Involvement
- 7. Collaborative Learning and Capacity Building



Areas covered by two ARCS are indicated by stripes in both colours

## Project contact information

### **Assessing QbTest Utility in ADHD: A Randomised Controlled Trial (AQUA)**

Project contact: Charlotte Hall ([Charlotte.hall@nottingham.ac.uk](mailto:Charlotte.hall@nottingham.ac.uk))

### **Transforming Care: the use of Positive Behaviour Support (PBS) to enable children and young people (CYP) to remain in their local communities**

Project contact: Roland Casson ([roland.casson@cambridgeshire.gov.uk](mailto:roland.casson@cambridgeshire.gov.uk))

### **Smoking cessation interventions for people with severe mental illness are highly effective in helping people to quit**

Project contact: Simon Gilbody ([simon.gilbody@york.ac.uk](mailto:simon.gilbody@york.ac.uk))

Further information: <https://www.york.ac.uk/healthsciences/closing-the-gap/scimitar-programme/>

### **LSA Risk Score**

Project contact: Professor Kamlesh Khunti ([kk22@leicester.ac.uk](mailto:kk22@leicester.ac.uk))

Further information: <https://arc-em.nihr.ac.uk/clahracs-store/leicester-diabetes-risk-score> and <https://arc-em.nihr.ac.uk/sites/default/files/field/attachment/bite-8-type-2-diabetes-risk-test.pdf>

### **Doctor Referral of Overweight People to Low Energy total diet replacement Treatment (DROPLET)**

Project contact: Susan Jebb ([susan.jebb@phc.ox.ac.uk](mailto:susan.jebb@phc.ox.ac.uk))

Further information: <https://www.phc.ox.ac.uk/research/research-themes/health-behaviours-theme/research/tdr>

### **Atrial fibrillation (AF) quality improvement programme**

Project contact: Kailey Nolan ([Kailey.nolan@uclpartners.com](mailto:Kailey.nolan@uclpartners.com))

Further information: <https://www.arc-nt.nihr.ac.uk/research/projects/improving-detection-and-treatment-of-atrial-fibrillation-in-primary-care/>

### **Birmingham Symptom-specific Obstetric Triage System (BSOTS)**

Project contact: Sara Kenyon, email ([s.kenyon@bham.ac.uk](mailto:s.kenyon@bham.ac.uk))

Further information: <https://clahrprojects.co.uk/clahr-impact/west-midlands/bsots-birmingham-symptom-specific-obstetric-triage-system>

### **PRCePT (Prevention of cerebral palsy in pre-term labour)**

Project contact: Pippa Craggs ([pippa.craggs@bristol.ac.uk](mailto:pippa.craggs@bristol.ac.uk))

Further information: <https://arc-w.nihr.ac.uk/research/projects/preventing-cerebral-palsy-in-pre-term-babies-the-precept-programme/> and <https://arc-w.nihr.ac.uk/research/projects/preventing-cerebral-palsy-in-pre-term-babies-the-precept-study/>

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## Back Skills Training

Project contact: Esther Williamson ([esther.williamson@ndorms.ox.ac.uk](mailto:esther.williamson@ndorms.ox.ac.uk))

Further information: <https://www.futurelearn.com/courses/cbt-for-back-pain>

## Accident and Emergency Tracker

Project contact: Tom Woodcock ([thomas.woodcock99@imperial.ac.uk](mailto:thomas.woodcock99@imperial.ac.uk))

## Care After Presenting with Seizures (CAPS)

Project contact: Jane Cloke ([j.cloke@liverpool.ac.uk](mailto:j.cloke@liverpool.ac.uk))

## My Medication Passport

Project contact: Susan Barber ([s.barber@imperial.ac.uk](mailto:s.barber@imperial.ac.uk))

## Carer Support Needs Assessment Tool (CSNAT)

Project contact: [arc-gm@nhr.ac.uk](mailto:arc-gm@nhr.ac.uk)

Further information: <https://www.arc-gm.nhr.ac.uk/end-of-life>, or <http://csnat.org/>.

## Developing, implementation and scaling up of a social network tool designed to enhance and diversify support for people with long-term conditions

Project contact: Richard Trowbridge ([r.m.trowbridge@soton.ac.uk](mailto:r.m.trowbridge@soton.ac.uk))

## Development of an electronic Frailty Index (eFI)

Project contact: Andrew Clegg ([Andrew.Clegg@bthft.nhs.uk](mailto:Andrew.Clegg@bthft.nhs.uk))

Further information: <https://academic.oup.com/ageing/article/45/3/353/1739750?login=true>

## Person Centred Co-ordinated Care (P3C)

Project contact: Richard Byng ([richard.byng@plymouth.ac.uk](mailto:richard.byng@plymouth.ac.uk))

Further information: <https://arc-swp.nhr.ac.uk/research/projects/person-centred-coordinated-care-p3c/>

## The Southampton Mobility Volunteer programme to increase physical activity levels of older patients: a feasibility study (the SoMoVe study)

Project contact: Richard Trowbridge ([r.m.trowbridge@soton.ac.uk](mailto:r.m.trowbridge@soton.ac.uk))

## Prepared to Share. Data Sharing in End-of-Life Care

Project contact: Angela Shine ([angela.shine@cpft.nhs.uk](mailto:angela.shine@cpft.nhs.uk))

## Outcome Assessment and Complexity Collaborative (OACC)

Project contact: Irene Higginson ([irene.higginson@kcl.ac.uk](mailto:irene.higginson@kcl.ac.uk))

Further information: [http://www.clahrc-southlondon.nhr.ac.uk/files/bite\\_palliative\\_care\\_june2018.pdf](http://www.clahrc-southlondon.nhr.ac.uk/files/bite_palliative_care_june2018.pdf) or <https://www.kcl.ac.uk/cicelysaunders/attachments/Studies-OACC-Brief-Introduction-Booklet.pdf>

### **Promoting HIV Screening in General Practice (RHIVA)**

Project contact: Kailey Nolan ([Kailey.nolan@uclpartners.com](mailto:Kailey.nolan@uclpartners.com))

Further information: <https://www.arc-nt.nihr.ac.uk/research/projects/improving-the-identification-and-management-of-people-with-hiv/>

### **Managing Alcohol-related Frequent Attenders (AFAs)**

Project contact: Paolo Deluca ([Paolo.Deluca@kcl.ac.uk](mailto:Paolo.Deluca@kcl.ac.uk))

Further information: [http://www.clahrc-southlondon.nihr.ac.uk/files/bite\\_alcohol\\_june2018.pdf](http://www.clahrc-southlondon.nihr.ac.uk/files/bite_alcohol_june2018.pdf)

### **Evaluating Online GP Consultations**

Project contact: Jeremy Horwood ([j.horwood@bristol.ac.uk](mailto:j.horwood@bristol.ac.uk))

Further information: <https://arc-w.nihr.ac.uk/research/projects/improving-access-primary-care-study/>

### **Organising Healthcare**

Project contact: [arc-gm@nihr.ac.uk](mailto:arc-gm@nihr.ac.uk)

Further information: <https://www.arc-gm.nihr.ac.uk/organising-healthcare>, <https://www.arc-gm.nihr.ac.uk/projects/addressing-long-term-workforce-challenges-general-practice-greater-manchester>, or <https://www.arc-gm.nihr.ac.uk/projects/salford-primary-care-workforce-study-contribution-to-a-safer-salford>

### **Health Service Modelling Associates Programme**

Project contact: Daniel Chalk ([D.Chalk@exeter.ac.uk](mailto:D.Chalk@exeter.ac.uk))

Further information: <https://arc-swp.nihr.ac.uk/training-type/health-service-modelling-associates-programme/>

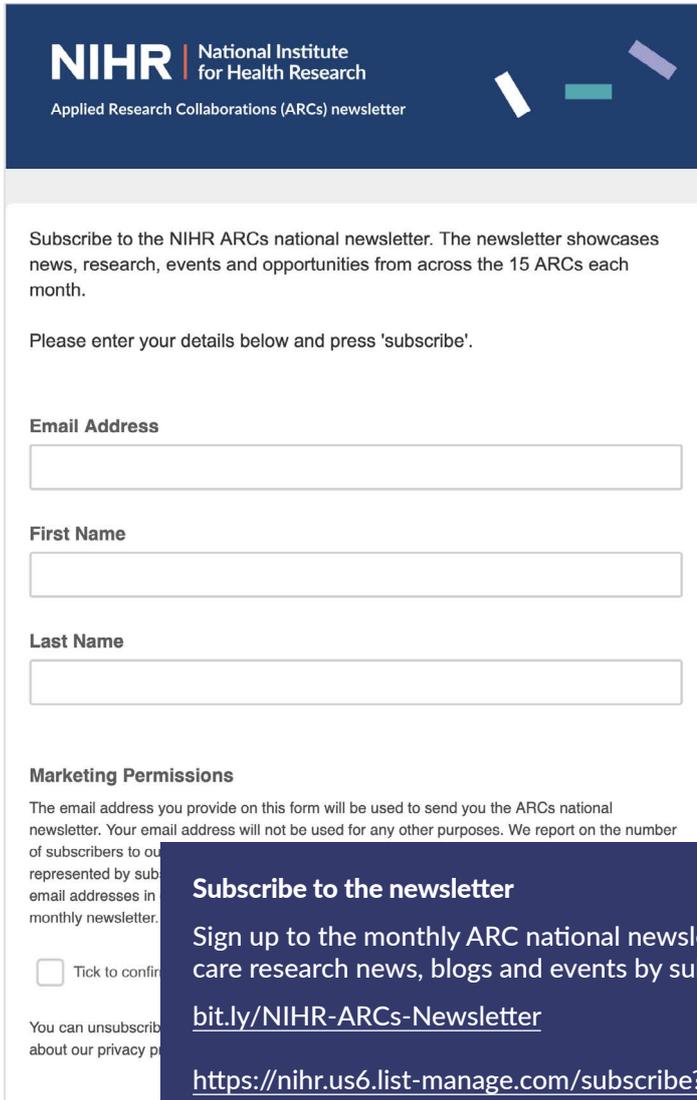
### **Supporting Implementation and Evaluation of Local Innovation in Health Care (through the Partners' Priority Programme)**

Project contact: Jane Cloke ([j.cloke@liverpool.ac.uk](mailto:j.cloke@liverpool.ac.uk))

### **Rapid Response and Pragmatic Research**

Project contact: Paul Bird ([paul.bird@uhb.nhs.uk](mailto:paul.bird@uhb.nhs.uk))

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