Health Innovation Network

NIHR | National Institute for Health and Care Research

# NHS Insights Prioritisation Programme

Rapid insights into new ways of working post-pandemic

February 2024

# Introduction

The NHS Insights Prioritisation Programme (NIPP) aimed to identify and test promising innovations that support post-pandemic ways of working, build service resilience, and deliver benefits to patients.

The programme was launched in 2021 by NHS England (NHSE) and the Accelerated Access Collaborative (AAC). It built on innovation gaps and opportunities identified from the collaboration between the NHS Beneficial Changes Network and the AAC.

Academic Health Science Networks (AHSNs), now known as health innovation networks (HINs), and National Institute for Health and Care Research (NIHR) Applied Research Collaborations (ARCs) were invited to bid in partnership for a share of a £4.2m fund, to test and evaluate promising innovations within their Integrated Care Systems (ICSs).

Fourteen partnerships were awarded funding, and ran projects between November 2021 and March 2023, focused on one of four priority areas:

- Remote consultation
- Remote monitoring
- New approaches to service delivery
- Health and social care workforce innovation

An independent evaluation of the programme was carried out between February and May 2023.

Each project has produced an individual report, with the results of their rapid evaluation and recommendations for future implementation. This is intended to guide other healthcare systems to identify projects of interest, find out more information, and access resources that can help with implementation.

This report summarises the collective findings of all 14 projects, learning points and recommendations for service provision, that may help spread successful ways of working born out the necessity of the pandemic.



| Collaboration | Project | Theme | Setting |
|---|---|---|---|
| • Health Innovation East<br>• ARC East of England | Understanding implementation and impact of remote monitoring in Integrated Care Systems | RM | C S |
| • Health Innovation Kent Surrey Sussex<br>• ARC Kent, Surrey and Sussex | Evaluating discharge to assess pathways across Kent, Surrey and Sussex | SD W | P C SC |
| • Health Innovation Manchester<br>• ARC Greater Manchester | Optimising access to targeted vaccination activity in Greater Manchester | SD W | P C SC |
| • Health Innovation North East and North Cumbria<br>• ARC North East and North Cumbria | Evaluating the impact of a video intervention to reduce opioid prescribing in primary care | RC SD W | P |
| • UCLPartners Health Innovation<br>• ARC North Thames | Establishing Community Diagnostic Centres in London: learning from year one | SD | P C S |
| • Health Innovation North West Coast<br>• ARC North West Coast | Neonatal early supported transfer home | RM SD W | S T |
| • Imperial College Health Partners Health Innovation<br>• ARC Northwest London | Improving identification, early management and progression of chronic kidney disease | RC RM SD | P C S T |
| • Health Innovation Oxford and Thames Valley<br>• ARC Oxford and Thames Valley | Evaluating the role of virtual transient ischaemic attack outpatient clinics | RC RM SD W | P S |
| • Health Innovation Network South London<br>• ARC South London | Preparing a culturally tailored online diabetes self-management programme for evaluation and scale | RC SD W | P C |
| • Health Innovation South West<br>• ARC South West Peninsula (PenARC) | Evaluation of Community Assessment Treatment Units for frail patients | RC SD W | P C S T SC |
| • Health Innovation Wessex<br>• ARC Wessex | Implementing digital remote monitoring for people with frailty | RM | P C SC |
| • Health Innovation West of England<br>• ARC West | Evaluating the effectiveness of the Additional Roles Reimbursement Scheme | SD W | P |
| • Health Innovation West Midlands<br>• ARC West Midlands | Acute assessment and care, without hospital transfer, for older people | SD | P C S |
| • Health Innovation Yorkshire & Humber<br>• ARC Yorkshire and Humber | Evaluation of (Community) Unscheduled Care Coordination Hubs to reduce hospital attendance | SD | P C S |

**Key:**

RC Remote consultation
RM Remote monitoring
SD Service delivery
W Workforce
P Primary care
C Community
S Secondary
T Tertiary
SC Social care

# Foreword

The COVID-19 pandemic was, we hope, a once-in-a-lifetime event which has had a profound impact on society and institutions like the NHS. While we rose to the immediate challenges of minimising the impact of Covid and delivering the biggest mass vaccination programme in the UK's history, the pandemic has also precipitated a significant revolution in the delivery of healthcare.



'NIPP has explored 14 projects to understand how well they work and what may make them successful elsewhere.'

Developments like virtual wards, remote consultations, and digital remote monitoring accelerated the use of technology that was already in many homes and hospitals, or on our own wrists. Meanwhile, different approaches to delivering care were needed that protected valuable hospital capacity and supported people to be cared for at home. Understanding how a wider group of staff, carers – and even patients themselves – could be the 'eyes and ears' to identify risks and escalate concerns, widened the safety net at a critical time.

The NHS Insights Prioritisation Programme (NIPP) aimed to capture and solidify some of that learning. Over 3,000 innovations that were either created or accelerated because of the pressures from the pandemic were submitted to the Beneficial Changes Network's programme, and from this incredible resource, the NIPP developed 14 projects to enhance our understanding of how some promising innovations work and what may make them successful elsewhere.

Individual health innovation networks were already linked with their corresponding local NIHR Applied Research Collaborations. NIPP presented an opportunity for them to work closely together on a specific project, benefitting from each other's unique skills and links with system partners. An immediate impact of the programme has been cementing these relationships and we hope to see much more joint working in future.

NIPP projects responded to many NHS priorities, and specifically addressed health inequalities to see how new ways of working might help reach under-served communities. The programme was designed to put patient and public involvement and engagement at its heart, and there are many examples of how the projects involved people with lived experience, and the learning they took from this.

I'd like to thank all the project partnerships who took part, for their efforts to make sense of our evolving healthcare landscape and provide the research evidence to validate these positive stories of innovation. I hope this will be the start of continued, greater collaboration between NIHR Applied Research Collaborations and the Health Innovation Network.

**Professor Dame Nicky Cullum**
Chair, NIHR Applied Research Collaborations

**Richard Stubbs**
Chair, Health Innovation Network

# Background to the project

By providing funding and a framework for approaching service evaluation activities, NIPP facilitated the evaluation of 14 projects nationally to deliver compelling insights into research and practical implementation in real-world settings.

The evaluations began in November 2021 during the recovery phase of COVID-19, and built on the innovative practice submitted through the NHS Beneficial Changes Network.

The programme has provided a suite of useful insights to help health and care teams implement innovation in practical ways.

# Beneficial Changes Network

The COVID-19 pandemic acted as a disruptor and accelerator of innovation. By demonstrating its resilience and ability to make changes rapidly, the NHS was able to learn from the pandemic and future-proof services.

The Beneficial Changes Network was a collaborative network of health and social care stakeholders and people with lived experience, that aimed to harness, capture and evaluate the benefits of these innovations.

The network collected over 3,000 submissions of innovations that were either created or accelerated because of the pressures from the pandemic. The results of these submissions were clustered into four priority areas: remote consultation, remote monitoring, new approaches to service delivery, and health and social care workforce innovation.

However, it was recognised that there was a lack of robust evidence to validate these innovations in real-world settings. The AAC and National Institute for Health and Care Research set up NIPP to create an evidence base that would support the adoption and spread of proven innovations across England.

The network collected over 3,000 submissions of innovations that were either created or accelerated because of the pressures from the pandemic.



# Methodology

The original objectives of the programme were to:

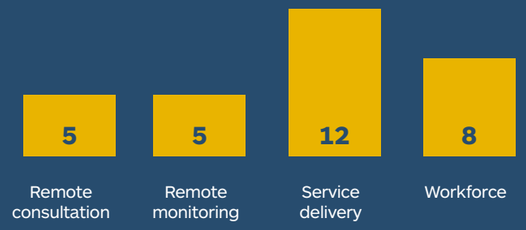
- Contribute to NHS Reset by generating rapid insights in relation to promising innovations.
- Identify interventions that contribute to Integrated Care Systems (ICS) and regional needs.
- Build local capacity and expertise for evaluation and implementation.
- Demonstrate an impact on health inequalities, as set out in NHS England's Core20PLUS5 approach.

A collaborative governance structure was created with key representatives from the Health Innovation Network, ARCs, NIHR and NHS England at both programme oversight and programme/project delivery level, with additional financial oversight from Health Innovation Manchester. A working group was set up with ARC and Health Innovation Network representatives from each NHS region.

Projects were assessed according to the following criteria:

- Strategic alignment with the NIPP objectives and innovation theme(s).
- Appropriate outcomes and outputs in place and availability of data.
- Adequate focus on health inequalities.
- Evidence of ICS / regional partner system support.
- Appropriate public and patient involvement.
- Design and methods review described and consistent with outcomes framework.
- Capable of yielding rapid insights in 18 months.
- Risks identified and mitigated.
- Widespread applicability and worthwhile investment of public funds.
- Evidence of effective ARC/ Health Innovation Network collaboration.

## Innovation theme




## Setting


The 14 projects met one or more innovation theme and healthcare setting.

# Patient and public involvement and engagement

All of the projects were expected to include elements of patient and public involvement and engagement (PPIE). The Accelerated Access Collaborative has developed *The patient and public involvement strategy 2021-2026*, which sets out six aims for engagement.

The programme held a workshop to share their experiences and advice for involving the public and patients in the NIPP projects:

- Don't make your project aspirations bigger than the resources you have available. If you have limited resources, be clear that you may gain insights, but won't be able to achieve full co-production.
- Don't undertake primary involvement work before you have checked what is already out there. It is not always necessary to conduct your own literature review or survey, check with existing networks such as Health Talk.
- Recruitment of PPIE representatives can be challenging in a short timeframe or in a crisis (such as a pandemic).
- If you find it difficult to recruit people with lived experience specifically related to the innovation you are investigating, consider recruiting people from another relevant existing PPIE network and introduce at least one new person who is fresh to this type of research.
- Trying to access patients after they have left hospital is often difficult.
- One NIPP team worked with a group carrying out health checks in the community and asked them to recruit people for PPIE at the same time.
- Share adverts to recruit PPIE through a relevant charity or specialist organisation, or the NHS England PPIE team's public facing web page.
- Provide people with an induction and training in the same way as NHS staff. It will take approximately two months to go through the NHSE recruitment process in this way.
- If using technology, include an induction so that people can contribute effectively.
- Be strategic about which meetings PPIE representatives attend and time meetings to suit them.
- Pay people (vouchers can be the best way); volunteers may be less reliable.
- Don't underestimate the length of time it may take for organisations, patients, and other stakeholders to agree during the co-production phase.
- Be mindful of working with patients who are not aware that they may have a condition – be careful not to worry people.



Some project teams decided to use social media to advertise opportunities for participation. One team found that this approach, coupled with accessible language and terminology, helped their recruitment.

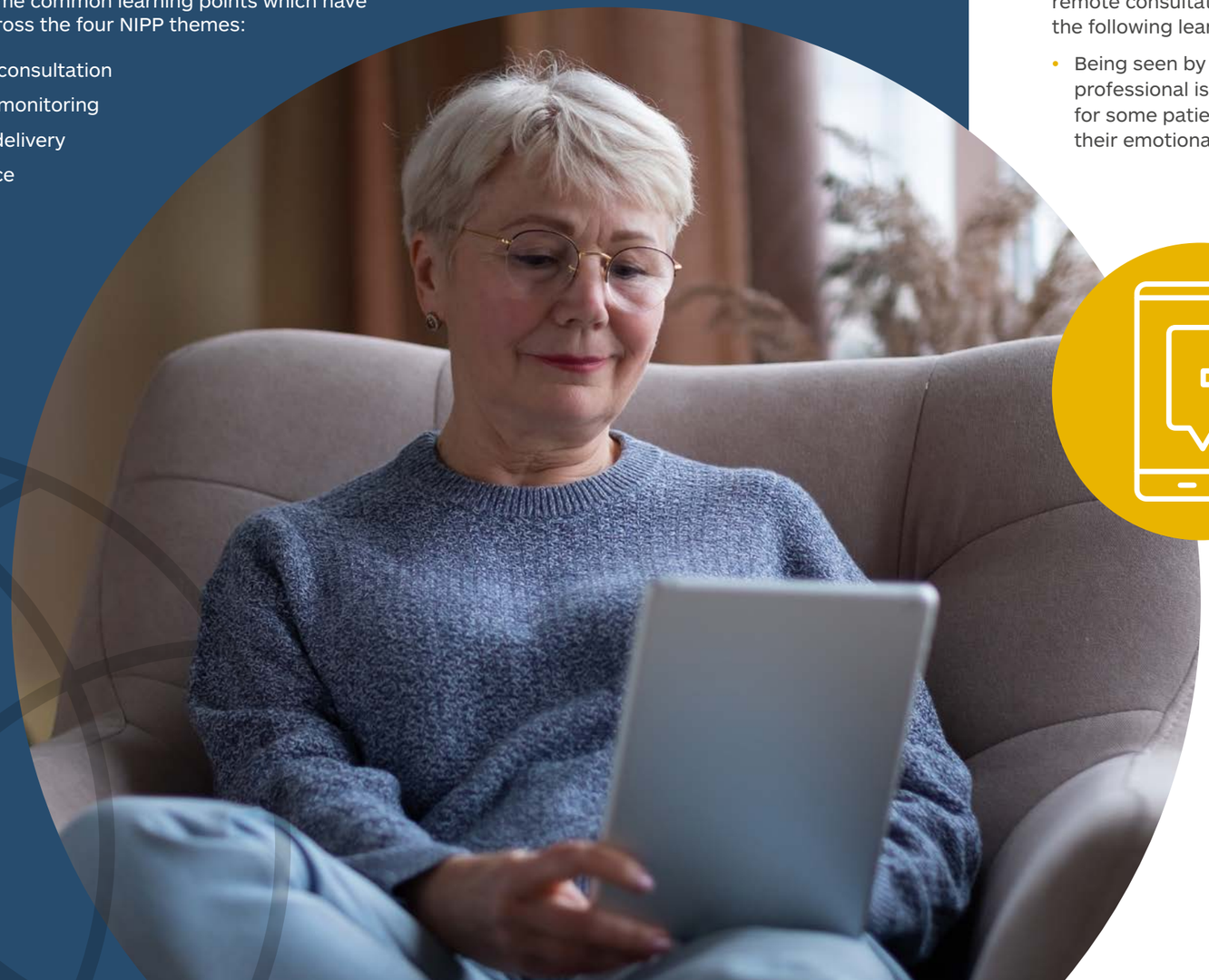
Several ARCs and Health Innovation organisations used existing PPIE groups and leads. However, when addressing health inequalities, recruiting a more diverse panel was not always easy through existing panels.

# Learning points

The accompanying project reports describe each approach in detail, the outcomes and rapid insights, plus implications for future delivery. Many have created toolkits and other resources that explore the research findings in more detail, and how they may be applied elsewhere.

While many of these are specific to the clinical theme or to target populations and geographical areas, there are some common learning points which have emerged across the four NIPP themes:

- Remote consultation
- Remote monitoring
- Service delivery
- Workforce





## Remote consultation

Remote consultation is a conversation or episode of care between a clinician or patient which is not carried out face-to-face. This could be a telephone or video consultation or through secure email, SMS text or online messaging platforms.

Projects that focused in part on remote consultation highlighted the following learning points:

- Being seen by a healthcare professional is very important for some patients and supports their emotional wellbeing.
- A framework on service design may be helpful for the development and adoption of an improved referral system, enabling providers to decide which type of patients would be best for virtual care, wider system factors and the preferences of patients/carers.
- Hybrid models may offer the greatest potential benefits to patients and clinicians, in terms of experience, operational efficiency and environmental impact, if services truly adopt the best aspects of both virtual and face-to-face models.
- Virtual clinics may be better suited to specific parts of the pathway (e.g. follow-up and triage) or where avoiding travel is a priority.
- In one project, most virtual clinics were observed to use telephone consultations. Patients or clinicians did not favour video consultations, due to set-up barriers and concerns around equity of access.
- Triaging is a key step in patient pathway development and may include: a simple assessment of urgency, decisions on using virtual or face-to-face, investigations and imaging required, likely diagnosis, and treatment plan.
- Clinicians may benefit from specific training in communication skills for virtual care, for instance to establish a rapport or break bad news. Current training focuses on face-to-face settings, where non-verbal communication supports those interactions.
- There also needs to be better signposting and patient-facing information to guide patients so they understand how care will be delivered, particularly for hybrid and virtual models.

# Remote monitoring

Remote monitoring allows people to be supported at home by using technology to collect clinical data and share it securely with a clinician, for instance measuring blood pressure information, which is sent directly to a clinical team.

Projects that focused in part on remote consultation highlighted the following learning points:

- Digital remote monitoring services must be co-produced with patients and their carers. This may be complex, for instance where patients have a cognitive impairment, but is critical.
- Patient and carer feedback shows scope for remote monitoring to be more inclusive, and to reflect their experiences in the design of such services.
- Staff with a role in delivering or supporting remote monitoring are key to its success. Implementation could include clinical champions, training and ongoing support for staff, with an understanding that workload and resource use may vary as remote monitoring becomes more established.
- For successful implementation of digital remote monitoring for frail, older people, ongoing research is necessary to ensure policy and practice is underpinned by robust evidence specific to this population.
- As the pace of digital innovation necessitates rapid evaluation, flexible processes are key, along with straightforward approval and governance processes and dedicated resource within system partners.
- Data systems and evaluation capacity need to be in place that ensure the full benefits of remote monitoring are realised. This aligns with national policy aims for ICSs to develop electronic patient records and provide targeted support for more patients to use digital health tools at home.

# Service delivery

Some projects focused their research on how services can be improved for people, particularly those who may currently be excluded because of the impact of health inequalities on access to services.

The following learning points were highlighted:

- Post-pandemic, there is a risk that services will default to standard provision. Policy changes at system and locality level are required to ensure that the relationships built through the COVID-19 pandemic are not lost.
- It is widely accepted that there is under-representation of minority groups within current locality-based health system decision-making. A balance is needed between minimising the governance and risk management requirements of health providers, while maximising the gains to be made by allowing community leadership to take on more responsible roles in supporting delivery.
- Adapt usual referral processes to ensure engagement from your target population, such as working with community organisations to build trusted relationships between healthcare and service users.
- Connectivity through meaningful organisation-community networks can build and sustain relationships. Approaches that facilitated engagement locally included health providers working with established voluntary, community and social enterprise (VCSE) groups, and the development of community connectors and champions.
- The crucial role of the VCSE sector was recognised in facilitating community engagement. Sustaining relationships and partnerships created in the pandemic requires further resource to equip and empower these organisations to carry out engagement work.

- Investment is required in culturally tailored services and delivery at scale.
- Ensure allocation of funds to actively address and reduce inequalities, and be open to innovative ways of working which could produce efficiencies, such as working across ICS boundaries, and creating a centralised virtual delivery model with local community organisations trained to deliver in person for those who are digitally excluded.
- Research commissioning should focus on systems of acute care for individuals living with frailty and long-term conditions. This would enable the system to sustainably support an ageing population.
- Local systems need to have the freedom to focus on what they are trying to accomplish, and define the best way to achieve this.
- Systems need support in bringing together their population health, activity, demographic and outcomes data to be able to understand whether they are improving health outcomes and reducing inequalities.
- Once stakeholders are engaged sufficiently, the 'test of change' approach to implementation, involving each of the key system stakeholders, is a viable approach.

'We learnt it is possible, with careful planning, to involve patients in an open discussion on the clinical risks for the implementation of these services. There is currently limited research on how to involve patients in health and social care implementation and this project begins to make a contribution to this space.'



# Workforce

## Some projects focused their research on how staff can help innovation in service delivery and develop new ways of working. The following learning points were highlighted:

- It is possible to deliver applied research in a non-research organisation, and to bring together teams from across a large geography to address local system priorities.
- Building skills and confidence across all staff groups and creating a culture of engagement were seen as essential for the effective implementation of new, rapid ways of working.
- An overview of service user flow may be helpful, and should include carers, whose needs are often forgotten.
- Highly skilled, confident staff allow for rapid clinical decision-making and can support improved patient flow.
- New pathways often rely on strong multi-disciplinary working: how the services in the pathway are connected, the skills and knowledge of the teams, and how care is coordinated along the pathway.
- Multi-disciplinary teams and rapid clinical decision-making are also central to any approach to medically optimise and discharge patients as soon as possible.
- Communication, in all senses, is always an area for improvement, with clear local operational policies.
- Adoption of 'modern working' principles is supportive of efficient patient flow and empowering patients to be engaged in their care.
- Challenges with career progression, role scope, supervision, infrastructure and integration may need to be addressed with changing pathways.
- Consideration is needed for the systems impact of staff moving from other roles into a new arrangement, to prevent staff shortages and deficiencies in services in other parts of the pathway.
- Greater flexibility regarding reimbursement may be necessary to ensure areas of high deprivation can recruit and retain staff. Identification of these areas may involve additional measures beyond those captured by the area-level Indices of Multiple Deprivation.

# Evaluation

Ernst and Young LLP were engaged by the programme to carry out an independent evaluation of NIPP (February 2023-May 2023) and determine how well the programme met its objectives. This retrospective evaluation also captured key learning from the programme delivery, and offered recommendations for post-NIPP activities and future innovation programmes within the NHS.

Read the full evaluation report.

As a result of NIPP, the number of survey respondents who considered ARC and Health Innovation Network teams as collaborative, improved from

**70%** to **97%**

## They concluded that NIPP had been successful in:

- Facilitating a structured approach for the funding and acceleration of innovations and interventions, particularly in comparison to previous initiatives, such as the Beneficial Changes Network.
- Having a clearly structured application process that enabled 14 out of 15 applicants to secure funding.
- Facilitating almost all of the projects to meet NIPP deadlines, despite many redesigning their evaluation methodologies to deliver on time.
- Learning and knowledge sharing events that took place as part of NIPP were generally recognised as helpful, and enabled network thinking among ARCs and the Health Innovation Network.
- Acting as an accelerator for ARC and Health innovation Network collaboration, for those with existing relationships established prior to NIPP. Those who had little to no existing ARC-HIN relationship were able to build them while working on NIPP.



## Examples of good practice highlighted in the independent evaluation:

‘We had worked with the HIN lead a year before. When NIPP came up, it became a good vehicle to activate. If we had to work from scratch, it would have been a lot slower.’

‘NIPP has accelerated something that probably wouldn’t have happened otherwise. We had previously been connected, but NIPP provided the opportunity for a shared project to work on together.’

‘The HIN programme manager was able to link us with access to high-level stakeholders that we didn’t have at the start of the project.’

‘The ARC connected the HIN team to links that we wouldn’t otherwise have had. This has added value and sped up activities.’

‘This level of detailed research is new to HINs: understanding the trade-offs between rapid versus robust research was a huge learning curve.’

‘Play on natural strengths – HINs did the project management and ARCs owned the research.’

# Recommendations

The independent evaluation made seven recommendations in relation to the way the programme was run. These would be useful to consider when designing similar applied research programmes in future at national or system level.

1. Use existing connections to PPIE networks as an enabler for recruiting research participants.
2. As a part of the application process, projects should set out the expected governance approvals involved in their evaluation activities, and their experience in managing them.
3. Create a dedicated mobilisation period to reduce the impact of restricted programme timelines and enable better planning and preparation.
4. Generate specific, measurable and time-bound (SMART) key performance indicators that are relevant and meaningful to projects.
5. Design a structured, consistent approach for providing projects with feedback on quarterly reports that facilitates two-way communication between programme management and individual projects.
6. Facilitate more frequent opportunities for collaboration and knowledge sharing between projects, to enable network-level thinking.
7. Recognise and communicate best practice for effective collaboration between partners (e.g. ARCs and HINs).



# Resources

The **Accelerated Access Collaborative (AAC)** is a unique partnership between patient groups, government bodies, industry and NHS bodies, working together to enable faster adoption and spread of proven new treatments and diagnostic tools in healthcare. One of its aims is to maximise the benefits of research in the NHS.

- NHS Insights Prioritisation Programme

The **National Institute for Health and Care Research (NIHR)** funds, enables and delivers world-leading health and social care research that improves people's health and wellbeing, and promotes economic growth. The NIHR have generated a framework for adding value in research that consists of 10 guiding principles to support researchers in producing high quality, transparent research.

- NIHR Adding Value in Research framework

**Applied Research Collaborations (ARCs)** are funded by the NIHR to support applied health research and research on implementation of health and care evidence into day-to-day practice. There are 15 local partnerships which work to improve outcomes for patients and the public; improve the quality, delivery and efficiency of health and care services; and increase the sustainability of the health and care system both locally and nationally.

- Collaborating in applied health research

**The Health Innovation Network (previously known as the Academic Health Science Network)**, brings together the NHS, industry, academic, third sector and local organisations. The network is commissioned by NHS England and the Government's Office for Life Sciences, and is a partner in the Accelerated Access Collaborative. There are 15 individual health innovation networks across the country, working with local systems to improve health and generate economic growth. The Health Innovation Network has published a guide to carrying out real-world evaluations and helpful activities that evaluation teams should consider.

- Real-world evaluation guide

# Conclusion

The NHS Insights Prioritisation Programme was successful in accelerating the progress of 14 promising innovations and interventions. By providing funding and a dedicated framework, the programme has contributed to NHS Reset and identified interventions that meet regional needs and ICS priorities.

The projects have facilitated service evaluation activities and collaboration, building capacity and expertise for future evaluation activities. The focus on Core20PLUS5 priorities has both positively impacted on health inequalities and paved the way for further work to target groups of people who are currently under-served in health and care.

The programme has resulted in a set of rapid insights and resources which are already being used to take the ideas explored into other areas of the NHS. Collectively, the programme has produced valuable learning opportunities for similar projects, and how large-scale funded programmes like NIPP can be run in future, to achieve the maximum possible impact.

The programme increased collaboration between the ARCs and the Health Innovation Network, regardless of whether projects had previous experience of working together. Building cohesive teams with shared knowledge and working relationships, means these partnerships are now mobilised for future success beyond NIPP.

Shared knowledge and working relationships, means these partnerships are now mobilised for future success beyond NIPP.



# Further information

Read more about the programme in our series of blogs and podcasts.

## Blogs

**Remote technology in health and care – what's the way forward?**

Charlotte Walton, Health Innovation Network Strategy Director

- Read more

**Post-pandemic priorities: reducing impact on hospitals**

- Read more

**The perfect partnership: ARCs and AHSNs**

Dr Yu (Maggie) Fu, formerly Senior Research Fellow working jointly between the Applied Research Collaboration and Health Innovation Network for the North East and North Cumbria.

- Read more

## Podcasts

**Episode 1: Digital monitoring**

Dr David Kryl is the Director of Insight at Health Innovation Wessex, Dr Jennifer Lynch, a Senior Research Fellow and project lead at the National Institute for Health and Care Research Applied Research Collaboration East of England and Tracey Marriott, Director of Clinical Innovation Adoption, Health Innovation Oxford and Thames Valley.

- Listen here

**Episode 2: Health inequalities**

With Aoife Molloy, NHS England's senior clinical advisor for Health and Equality and Jo Dumville, professor of Applied Health Research at the University of Manchester. Plus Sophie Lowry, part of ARC South London's Implementation & Involvement team and Implementation & Involvement Manager for HIN South London, and Sandra Tomlinson, Facilitator for HEAL-D, a diabetes education and support programme for adults of African and Caribbean heritage.

- Listen here

**Episode 3: Reducing impact on hospitals – part one**

Louise Hall, Evaluation Lead from the Health Innovation South West team, Professor Suzanne Mason from the University of Sheffield's School of Health and Related Research, and Professor Dan Lasserson, the only Professor of Ambulatory Care in the UK, who is based at the University of Warwick.

- Listen here

**Episode 4: Reducing impact on hospitals – part two**

Professor Dame Caroline Watkins, Professor of Stroke and Older People's Care within the University of Central Lancashire's Faculty of Health and Care, and Stuart Jeffrey of the NIHR Applied Research Collaboration Kent Surrey and Sussex.

- Listen here

**Episode 5: NHS Programme Manager for HIN Commissions, Tayo Owodunni**

In this final episode, we hear from some of those who've contributed and get reaction and comment from Tayo Owodunni, the NHS Programme Manager for HIN Commissions, specifically the Innovation, Research & Life Sciences Group.

- Listen here

RM

Health Innovation East / Applied Research Collaboration East of England

# Understanding implementation and impact of remote monitoring in Integrated Care Systems

Remote monitoring enables the observation and reporting of people's physiology and behaviour, and supports the diagnosis and treatment of health conditions at home. Remote monitoring can improve efficiency by freeing up hospital beds and clinician time, and reduce the COVID-19 backlog.

In the East of England remote monitoring has been implemented across a range of clinical pathways. We worked with four sites in Integrated Care Systems across the region to evaluate the implementation and impact of remote monitoring pathways for joint replacements, respiratory conditions (including asthma) and heart palpitations - all of which were at different stages of implementation, supported diverse patient populations and used different delivery models.

We analysed routinely collected quantitative data, interviewed clinicians about their experiences, and worked with our lived experience advisory panel (LEAP) to understand the experiences and views of patients and carers.

***'Patients benefit so much more than we anticipated. It's not just about monitoring, they get a huge amount of education and feedback and reassurance from it, and don't re-present in acute settings anymore.'***

**Quote from interview with a clinician involved in delivering remote monitoring**

## Outcomes

Three overarching themes common to the remote monitoring implementation experience were identified:

1. **Potential for access inequities:** variability of patient demographic data collection and patient/carer involvement prevents robust monitoring of equity issues.
2. **System-level challenges and enablers:** condition-specific pathways may be less sustainable long-term than a central hub approach. Better system integration should include consideration of community resources to improve patient experience.
3. **Data reporting, sharing and use:** poorly supported data informatics affects knowledge of who is benefitting or excluded from remote monitoring and misses opportunities to share information.

## Learning

Our findings highlighted the need for improved data systems and evaluation capacity to ensure the full benefits of remote monitoring are realised. This aligns with national policy calls for Integrated Care Systems to further develop electronic patient records and provide targeted support for more patients to use digital health tools at home.

Implementation must include clinical champions, training and ongoing support for staff, and an understanding that workload and resource use can vary as remote monitoring becomes established.

## Next steps

Future development in remote monitoring may want to consider:

- A central hub that can support streamlined commissioning and delivery.
- Improved data systems.
- Building evaluation capacity into service design to inform decision-making.
- How remote monitoring links services and knowledge across the Integrated Care System.
- How the experiences of patients and carers can be consistently included in service evaluation and development.

## More information


- enquiries@healthinnovationeast.co.uk
- ARCoffice@cpft.nhs.uk


**Read full case study**

SD W

**Health Innovation Kent Surrey Sussex /
Applied Research Collaboration Kent Surrey and Sussex**

# Evaluating discharge to assess pathways across Kent, Surrey and Sussex

The project evaluated the impacts, capacity, processes and barriers in Kent Surrey and Sussex's discharge to assess pathway. We looked at the experiences and outcomes of service users and informal carers, recommending outcome and process measures for use in ongoing monitoring and engagement, and developing a toolkit for service improvement.



Discharge to Assess (D2A) had been implemented in different ways across Integrated Care Systems, and the strengths and weaknesses of these differences were not known.

We identified three themes that support an optimal D2A pathway: commissioning, multidisciplinary working and information flows.

Three diverse case sites from a range of demographic data focusing on deprivation and ethnicity were selected.

***'Very useful and timely, as the findings and feedback will now be incorporated into a whole year's work plan around discharge and development of a transfer of care hub.'***

**Ben Keeble, Senior Programme Manager Urgent Care, Dartford, Gravesham & Swanley Health & Care Partnership, NHS Kent and Medway**

## Outcomes

The top six specific recommendations were:

- Use of the D2A service improvement toolkit to help identify and resolve blocks in the pathway.
- A local operational policy for the pathway is made available to all D2A providers.
- Communication, in all senses, requires improvement.
- Carers are often forgotten; their needs must be considered.
- Develop service user flow oversight.
- Develop a patient reported outcomes measure for people discharged from urgent care pathways to aid service development.

## Learning

The themes and findings that we have highlighted have been put together into a toolkit for commissioners and service managers to review their own D2A services against. We feel that pathways will benefit from this additional focus on areas that are key to delivery and will improve the flow of service users and the quality of their care accordingly.

While national policy has been helpful to drive D2A there seems to be a need to further embed both the consistency and the understanding of the pathway in the teams providing this. The pathway involves multiple providers and sectors making it a complex system. The development of the toolkit is felt to provide additional support to enable greater consistency across D2A in different places.

## Next steps

We have shared the findings across KSS through a series of workshops and we have linked with the Emergency Care Intensive Support Team. We are working with places to encourage use of the toolkit and the outputs.

We are in discussion with NHS England's intermediate care and discharge team to provide share our work nationally, that adds to their previous insights.

## More information

- enquiries@healthinnovation-kss.com
- ARCKentSurreySussex@spft.nhs.uk

**Read full case study**

SD W

**Health Innovation Manchester /**
**Applied Research Collaboration Greater Manchester**

# Optimising vaccination activity in Greater Manchester

COVID-19 vaccination initiatives were driven by standardised national campaigns and mass vaccination centres. In Greater Manchester, early data identified comparatively poor levels of vaccination in specific groups and communities.

This project provided insights into innovations focused on reducing inequalities in vaccination amongst underserved groups and communities. It identified factors that may support the sustained implementation of successful approaches.

Early exploration highlighted that across the ten Greater Manchester localities, extensive and targeted vaccination activities were taking place to target delivery in underserved communities. Whilst there was a shared focus on increasing access, awareness, and acceptability for a range of communities, approaches were varied and nuanced.

We recognised there would already be extensive insights and learning on targeted vaccination in the system and it was important to capture and reflect on local knowledge to ensure it informs future activities.

***'This work shows clearly the importance of recognising communities and culture in the delivery of successful vaccination programmes.'***

**Janet Crofts, Managing Director, Greater Manchester Primary Care Provider Board**

## Outcomes

The primary aim of the project was to generate insights into how underserved communities, which experience inequity through lack of cultural, setting and/or circumstance-relevant service provision, can be best served.

We generated six key insights:

1. Use of evidence-informed targeted vaccination activities should be maximised in Greater Manchester.
2. Community engagement should be used to co-design targeted vaccination activities.
3. Targeted vaccination delivery must dovetail with co-ordinated community engagement activities.
4. Targeting under-served groups for vaccination delivery should be supported by adequate resourcing.
5. Targeted vaccination activities should be guided by appropriate quantitative and qualitative data.
6. Continued partnership working should be supported in Greater Manchester.

## Learning

After identifying our six key insights, we explored these with local stakeholders. We mapped collective insights to an existing, relevant framework and developed a bespoke implementation framework for community informed targeted vaccination.

This framework aims to make explicit the different factors, outcomes and impacts we identified when developing a programme of community-informed targeted vaccination activities. The framework may aid programme designers, evaluators, and implementers.

We also generated a rapid overview of reviews on interventions to increase vaccination in vulnerable groups – a pre-print of which is available here.

## Next steps

The implementation framework will continue to be shared widely with locality health providers and stakeholders across Greater Manchester and has transferability to other regions. We will work with stakeholders to consider how the framework can be used to inform and shape future activities in this area.

## More information

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**Read full case study**

RC SD W

**Health Innovation North East and North Cumbria / Applied Research Collaboration North East and North Cumbria**

# Evaluating the impact of a video intervention to reduce opioid prescribing in primary care

Opioid use in the Northeast of England is high. A video messaging pilot-intervention has been implemented, in response to the pandemic, to explain the rationale for opioid reduction and encourage people to seek support. This study aimed to evaluate the potential benefits, risks, and economic consequences of 'at scale' implementation.

In response to the impact of COVID-19, a novel process was initiated to remotely explain the reasons for reduced opioid use and initiate support. A short video suitable for smartphone viewing is messaged using a two-way communication system. Patients can watch the video more than once and request additional support by replying with a simple text or email response.

This approach has already been rolled out in selected GP practices in a region in Northern England, targeted at patients identified as prescribed high levels of opioids. This process also enables efficient delivery of a discrete offer of help to at-risk individuals who often avoid service contact, especially during the pandemic.

***'Many people prescribed long term high-dose opioids are not fully aware of the consequences of taking these medications or how the medical evidence regarding their effectiveness has progressed. It was important to me, as someone with lived experience of opioid reduction, that the choice to do so remains with the patient.'***

**Niki Jones, steering group member and person with lived experience**

## Outcomes

There were three key findings from the project:

1. There was considerable interest in primary care with early and positive engagement from the required general practices willing to engage, to learn and to support those who find themselves using high doses of opioids
2. It is possible to deliver applied research in a non-research organisation
3. It is possible to bring together teams across a large geography to deliver an important project that addresses an ICB priority.

## Learning

The analysis and formal evaluation of this project will inform further development and implementation of the intervention, and the outcomes of this project will inform future strategies to address opioid prescribing.

Ultimately if positive, the evaluation will lead to widespread implementation and the longer-term outcomes of reduced opioid prescribing and associated positive impacts that this will bring communities.

## Next steps

The data will be used to support future opioid reduction strategies in this area of England with the highest levels of opioid use. The published protocol (BMJ Open) will support and inform future use of the project's findings.

## More information

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**Read full case study**

SD

UCLPartners Health Innovation /
Applied Research Collaboration North Thames

# Establishing Community Diagnostic Centres in London: learning from year one

Community Diagnostic Centres are being established as a new service model to meet rising demand and address the growing backlog for diagnostic tests.

In April 2021, there were 197,454 people waiting for diagnostic tests and procedures in London; 16.7% of these had been waiting over six weeks, breaching NHS targets.

The CDC programme was launched in July 2021 and is central to the system recovery and reset in London; aiming to deliver a new way of working, build service resilience and deliver direct benefit to patients.

The programme outlines six aims; improve population health outcomes, increase diagnostic capacity, improve productivity and efficiency, reduce health inequalities, improve patient experience and support integration of care.

***'I'll look back at this as one of the best things I've ever done. It's got real potential. There's no need to go into hospital for diagnostics.'***

**CDC lead**

## Outcomes

We worked with partners across London to understand whether CDCs were addressing the six aims of the programme, with particular focus on increasing access to diagnostics, reducing healthcare inequalities, and speeding up the diagnostic pathway.

National data collection was focused on activity delivered by CDCs. We co-developed an outcomes framework to help demonstrate how the programme is addressing the aims outlined in the Richards' Report.

Since July 2021, CDCs in London have delivered 411,170 diagnostic tests. Sites have increased capacity in terms of equipment, however staffing levels remain an issue.

There has been some improvement in the proportion of people waiting over six weeks for diagnostics, reducing from 16.8% to 14.2%.

## Learning

As part of gathering insights on how CDCs are developing, patients have had the opportunity to share their views on the model. This feedback has informed recommendations put forward in a learning report to system leaders that will shape how CDCs are tailored to reduce the health inequalities across local populations.

Embedding the CDCs in the wider diagnostic pathway has proven complex in a programme that focuses on capital investment and runs on annual funding cycles. Systems are at varying levels of maturity in terms of integrating services and systems, which would enable them to better manage site capacity, workforce requirements, and patient flow and experience along the full diagnostic pathway.

## Next steps

As the CDC programme moves into its next phase, we recommend focusing on these key areas:

- Improve data collection.
- Nest CDCs into the wider diagnostic pathway.
- Focus activity in the areas with the highest wait times and capacity pressures.
- Continue to evaluate the impact of additional diagnostic capacity on the outcomes the programme aims to achieve.

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**Read full case study**

RM SD W

**Health Innovation North West Coast /
Applied Research Collaboration North West Coast**

# Neonatal early supported transfer home

Babies often remain in hospital to receive healthcare interventions which can increase parent-baby separation. Some of these healthcare interventions could be delivered safely at home with support from an outreach team. Neonatal early supported transfer home may reduce hospital stays and improve cot capacity.

The NEST@Home project was developed during the pandemic and aimed to evaluate existing neonatal outreach services across North-West England to understand disparities and variations in service provision and develop a best practice toolkit.

Gathering data and business intelligence has been challenging due to variations in information systems, such as separate systems for neonatal units and other hospital systems.



***'We will be forever grateful for the extra support we received at home from the neonatal outreach team. They really enabled us to become well-equipped with advice, reassurance and top tips for life at home with two healthy, happy babies.'***

**Gemma, mum to twins**

## Outcomes

Neonatal outreach services across the North West are diverse, with variation in their support offer and delivery. The key barriers identified include limited funding and a lack of resources.

Staff and parents suggested that alongside investment providing consistency in treatment approaches, financially supporting parents and an updated documentation system could facilitate improvements.

A comprehensive framework for neonatal outreach is needed along with collaboration between trusts to spread best practice and learn from other innovative approaches.

Although staff and parents made some minor suggestions to improve intervention delivery, there was a consensus that parents greatly valued neonatal outreach.

## Learning

Disparity between units means there is not a consistent pathway for babies requiring supported discharge from a neonatal unit and babies remain in units which may not be the best place for them to receive care. Services often focus on babies with complex needs, but separation of late preterm infants should be considered equally important.

We are working collaboratively to create a framework which outlines different levels of service specifications according to local needs, and a toolkit to support those specifications which will include a range of costed service provision options.

## Next steps

Staff and parent interview findings have informed a recommendations report outlining next steps, including the development of a comprehensive framework, outcomes reporting and the integration of digital platforms and monitoring systems.

Further research is required to evaluate the impact of separation, for example around mental health, breastfeeding and bonding.

Outputs from this project can link into other initiatives such as First 1001 Days Movement, Healthy Early Years, Family Integrated Care and Baby Friendly Initiative.

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**Read full case study**

RC RM SD

**Imperial College Health Partners /**
**Applied Research Collaboration Northwest London**

# Improving identification, early management and progression of chronic kidney disease

We used a patient and clinician designed, data-driven process to support primary care teams to implement a series of small changes to their chronic kidney disease (CKD) pathways which, when coordinated across the whole patient pathway, have a significant overall impact on treatment and management of the disease.

Around 15% of all over 35-year-olds in England live with CKD, yet eight in ten people remain undiagnosed, resulting in large numbers of patients presenting with serious and costly complications that could have been delayed or avoided with earlier intervention.

Data was collected from interviews with patients at risk of CKD, patients diagnosed with CKD, primary, secondary care and public health clinicians as well as population health data analysis and an academic literature review to understand the largest challenges and opportunities in the existing pathways.

Clinicians and patients then co-designed pathway improvements together in workshops and these solutions were then tested in GP practices and with patients to get feedback.

***'It was great being involved with the workshops. I felt genuinely heard. It felt like a genuine partnership and that I was an equally valued member. We were all able to work together to find a solution.'***

**Patient co-design participant**

## Outcomes

The resulting pathway recommendations include:

- CKD guidance for primary care.
- Early-stage CKD education options for primary care and patients to access
- CKD screening support for patients
- Enhanced primary care templates in diabetes, hypertension and CKD
- CKD search and recall process for primary care
- Training and implementation package for primary care

## Learning

The project found that a majority of patients meeting the criteria for annual screening for CKD are not being fully screened. A majority of those with test results indicative of CKD are not being coded for CKD and are therefore unlikely to be receiving optimised treatment for their condition.

We co-designed, tested and evaluated solutions to these, including automated CKD clinical guidance and alerts on relevant primary care pathology results, patient record searches and adding a CKD protocol in templates for type 2 diabetes, annual blood pressure, medication review, and urine collection.

## Next steps

The final report will include recommendations to the Integrated Care System for gaps in care and targeting potential improvements.

Missed or delayed screenings and coding for CKD may introduce additional health and cost burdens to patients and the healthcare system. The project team is currently analysing the impact of population health risk factors, health inequalities and associative cost burdens to quantify the impact of current CKD care pathways.

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**Read full case study**

RC RM SD W

**Health Innovation Oxford and Thames Valley / Applied Research Collaboration Oxford and Thames Valley**

# Evaluating the role of virtual transient ischaemic attack outpatient clinics

This project generated rapid insights to guide service design, improvement and planning for transient ischaemic attack (TIA) outpatient clinics. It looked at the benefits and disadvantages to patients and healthcare professionals of three models (virtual, face-to-face and hybrid) and considerations regarding resource use, costs, health inequalities and environmental sustainability for each of these models.

Virtual clinics for managing TIA were introduced during the COVID-19 pandemic in most NHS Trusts. Some have continued this model; others returned to face-to-face clinics or offer a hybrid approach.

The effectiveness, efficiency and patient and staff experience in a virtual clinic model are unclear. The project aimed to generate rapid insights to guide service design, improvement and planning for TIA outpatient clinics.

***'The delivery of high-quality rapid access TIA services is paramount to reducing the burden of recurrent stroke through early treatment. This work offers a unique and highly valuable insight into the patient and clinician experience of the varying models of face-to-face and virtual consultations.'***

**David Hargroves, Consultant Stroke Physician; Clinical lead for Stroke: South East, NHS England; National Speciality Adviser for Stroke Medicine, NHS England; National Clinical Lead for Stroke Medicine - NHS England GIRFT programme.**

## Outcomes

We found significant variation across services – even when using the same clinic model. Services are currently designed around local contexts and clinician preferences. This variation meant it was not possible to define what a good pathway looks like for each model.

Patient pathways and working practices were primarily dependent on imaging availability, particularly for MRI.

Most virtual clinics make use of telephone consultations. Patients or clinicians did not favour video consultations due to set-up barriers and concerns around equity of access.

## Learning

Virtual clinics were found to be better suited to certain patients, such as older people with co-morbidities, young workers and those living in rural areas. However, some patients preferred face-to-face contact, emphasising the importance of being physically seen to support their emotional well-being, particularly after having a TIA diagnosis.

## Next steps

There is potential to use virtual consultation for some patients, while the hybrid model may offer the greatest potential benefits to patients and clinicians. A framework for TIA clinic design is needed to set common standards and outline when virtual consultations are appropriate and/or preferred. Findings from the project, particularly the views and experiences of patients and healthcare professionals, are transferable to other systems considering offering virtual appointments.

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**Read full case study**

RC SD W

**Health Innovation Network South London /**
**Applied Research Collaboration South London**

# Preparing a culturally tailored online diabetes self-management programme for evaluation and scale

HEAL-D (Healthy Eating & Active Lifestyles for Diabetes) is a type 2 diabetes structured education programme that supports people to achieve diet and lifestyle goals through the development of self-management skills.

The programme has been developed to address health inequalities and is co-produced and culturally tailored for adults of Black African and Caribbean heritage.

The Covid pandemic has emphasised the importance of effective type 2 diabetes management and the need for accessible, culturally sensitive diabetes education to be a priority.

HEAL-D was initially developed and evaluated as a face-to-face programme and further developed to enable online delivery due to the pandemic. There were two project workstreams:

1. An evaluation to explore the feasibility and acceptability of a virtual delivery model in south London, and the factors affecting its scale-up across other areas of England.
2. Exploring the potential for HEAL-D Online to be an effective solution in different populations and geographies, by preparing resources and engaging with areas outside south London.

***'The HEAL-D team have brought hope. They understand our African and Caribbean way of life and have deep-dived into how to connect with us. The HEAL-D programme breaks things down and builds them up again in a way that we can identify with. Understanding that we can still eat the things we love in controlled portions and actually stay alive and healthy is a breakthrough.'***

**HEAL-D service user**

## Outcomes

The NIPP project has provided crucial evidence to support further local commissioning and inform further research to examine the clinical effectiveness of HEAL-D and HEAL-D Online, a programme which addresses health inequalities.

As part of the wider service delivery, HEAL-D Online has been delivered to over 170 people over 27 months and all attendees agreed or strongly agreed that, as a result of the course, they learned practical skills and feel more motivated and supported to manage their diabetes.

## Learning

The programme highlighted the importance of using population health data to identify local needs and health inequalities, actively targeting services to meet the needs of the population.

Policy makers should invest in culturally tailored services and delivery at scale, and can apply learning from HEAL-D to other areas of practice, based upon the positive experience of care reported by attendees.

## Next steps

HEAL-D continues to be developed in partnership with people living with type 2 diabetes of African and Caribbean heritage. Feedback will be collected from people who do not engage with health services, or did not attend or complete HEAL-D, to understand how the programme could be more accessible.

A large clinical-effectiveness and cost-effectiveness trial is underway, which will run in London, Birmingham and Manchester over the next four years.

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**Read full case study**

RC SD W

**Health Innovation South West /**
**Applied Research Collaboration South West Peninsula (PenARC)**

# Evaluation of Community Assessment Treatment Units for frail patients

Community Assessment Treatment Units (CATUs) were part of the Cornwall & Isles of Scilly COVID-19 response to divert frail, older patients from emergency departments. Treating them closer to home with as short a stay as possible, in a single location to protect them from harm and support people to remain independent for longer.

A CATU is a bedded unit sited within a community or sub-acute hospital that supports frail patients with an urgent medical need that cannot be managed in the community and would otherwise be presenting at an emergency department (ED).

Hospital admittance for patients with frailty is associated with an increase in harm and increased care needs on discharge. CATUs aim to provide safe alternative care for older people, ensuring healthcare professionals have an alternative referral route in the community that offers rapid diagnosis and assessment and bedded care where needed.

Of particular challenge is the rurality of Cornwall, which has a disproportionately small hospital bed base and large population over the age of 75, compared to national averages.

***'It allows us to confidently manage increasingly complex people at home. Because if that fails, we've got a community-based back-up plan, and a psychological safety net for developing more and more community intermediate care.'***

**ICS lead**

## Outcomes

CATUs safely redirect demand away from the acute. Each year 1,200 admissions and 550 ED attendances were redirected to CATU resulting in 1,500 hours freed of ambulance handover time. The proportion of patients readmitted within three months following discharge was slightly lower for CATUs (6%) than in a similar population of acute patients (8%), suggesting that delivering care at place is not compromising quality and higher acuity patients can be appropriately treated in a community hospital setting.

## Learning

The research found learning points relating to service planning, practice, policy direction and future research commissioning.

CATUs were found to be a means to increase clinical acuity held in the community sector. In practice, highly skilled, confident staff allowed for rapid clinical decision-making, improved patient flow, and greater job satisfaction.

At Integrated Care System level, the response to urgent care for patients with frailty should meaningfully include the community healthcare, voluntary, and social care sectors to ensure seamless transfer into and out of hospital.

## Next steps

The three CATUs evaluated are still operational and have a place in a system that is struggling to cope with an ageing population and a limited bed-base. The CATUs provide a much-needed 'safety net' to primary care and community services and could, with resource, broaden their reach in this space.

Critical success factors include stakeholders engaging across the system, strong leadership within CATUs, system-level governance structures in place and a full, substantive workforce of well-trained practitioners.

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**Read full case study**

RM

**Health Innovation Wessex /**
**Applied Research Collaboration Wessex**

# Implementing digital remote monitoring for people with frailty

The project aimed to evaluate digital remote monitoring for individuals living with frailty. Although implemented during the pandemic, there was limited evidence on its uptake, use and acceptability specific to this group. There was also a need to support the process of implementation of digital innovations.

Digital remote monitoring is rapidly expanding and stakeholders in the Wessex region identified a need for evidence to support its implementation for people with frailty. We wanted to understand the use and acceptability of two digital remote monitoring approaches amongst older people with frailty, carers and staff: one approach using artificial intelligence-facilitated environmental monitoring sensors, the other monitoring signs and symptoms.

We developed a toolkit to assist implementation of innovations in practice.

## Outcomes

We found digital remote monitoring needs to be tailored to each individual informed by their preferences, with practicalities and design of the technology, and the ability of the user considered. An appropriate balance of digital remote monitoring and direct interaction (face-to-face, telephone or online) based on individual preferences also needs to be achieved.

It was found that a perceived lack of reliability and false alarms impacts trust of digital remote monitoring, and knowledge and simple instructions would aid trust.

A prototype web-based implementation toolkit was also developed.

## Learning

For successful implementation of digital remote monitoring for frail, older people, ongoing research is necessary to ensure policy and practice is underpinned by robust evidence specific to this population. This will require appropriate and flexible approaches, as the pace of digital innovation necessitates rapid evaluation.

Accessing the views of this population and their carers is critical but complex, as they face many challenges and many have cognitive impairment, but digital remote monitoring services must be co-produced with them. Views of staff also need to be heard to ensure they trust and use the technology.

Key implications for use of the implementation toolkit include early consideration of implementation in research and development of new interventions and innovations in practice.

## Next steps

Further evidence is required to support use of digital remote monitoring for older people with frailty. To gain clarity and trust, piloting and testing digital remote monitoring with people with physical and cognitive impairment (e.g. with dementia support groups, Age UK groups) should be completed prior to implementation to ensure acceptability. Without significant evidence, there are risks of wasting resources and technology not being fit for purpose.

The implementation toolkit has potential use as part of a training module to support all those involved in implementation across health and social care settings and third sector organisations.

## More information


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**Read full case study**

SD W

**Health Innovation West of England / Applied Research Collaboration West**

# Evaluating the effectiveness of the Additional Roles Reimbursement Scheme

The NHS England Additional Roles Reimbursement Scheme (ARRS) introduces non-GPs into primary care to expand and enhance the workforce. ARRS aims to reduce pressure on GPs, while increasing access to primary care appointments and specialist expertise. This project evaluated implementation of the ARRS including anticipated and unintended consequences, to inform decision-making.

General practitioners (GPs) have seen an unprecedented rise in workload pressure in recent years, while general practice is facing a workforce retention crisis. At the same time, a more multidisciplinary approach to patient care is needed. This can improve patient outcomes and offer more holistic care, ensuring they see the most appropriate professional for their needs.

The ARRS scheme was introduced in 2019 and allows Primary Care Networks (PCNs) to be reimbursed for the salaries of 17 roles within a multidisciplinary team.

We gathered evidence through both data analysis and interviews, about how it is being implemented. This included barriers and facilitators to implementation, and the system's impact on patient outcomes and staff roles.

***'I think our GPs are still massively overworked; the workload is still huge. Post-pandemic, the workload has just gone through the roof. So, I think they're grateful that without these roles they'd just be collapsing.'***

## Outcomes

Uptake of the scheme was rapid, increasing from 280 full-time equivalent (FTE) staff in direct patient care roles to 12,335 FTE from March 2020-September 2022.

ARRS inflexibility reportedly prevented some PCNs from using funding because of challenges recruiting to deprived areas, increasing health inequalities risk; this wasn't reflected in the workforce data, which found no commissioning variation by Index of Multiple Deprivation. ARRS staff were valued; success was gauged by broadening the expertise in primary care rather than reducing GP burden.

## Learning

Reimbursement needs to be more flexible. Increased incentives may be necessary to ensure areas of high deprivation can recruit and retain staff.

There are still challenges with career progression, role scope, supervision, infrastructure and integration and these need to be addressed. The system's impact of staff moving from other roles into primary care needs to be considered, to prevent staff shortages and deficiencies in services in other parts of the pathway.

## Next steps

ARRS roles have been commissioned rapidly since the scheme started. Our ongoing patient-level analysis of consultations with staff in ARRS roles will provide comparisons of the outcomes of these consultations (re-consultations, referrals, tests and prescriptions) compared with consultations with GPs and nurses, supported by comparisons of clinical resource use and cost.

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**Read full case study**

SD

**Health Innovation West Midlands /
Applied Research Collaboration West Midlands**

# Acute assessment and care, without hospital transfer, for older people

To evaluate two models of care both designed to prevent the conveyance to hospital of elderly patients with frailty. The aim is to minimise the disruption to patient's support networks by maximising the number of patients treated and maintained in their usual place of residence.


In recent years, South Warwickshire University NHS Foundation Trust (SWUFT) and Sandwell and West Birmingham Hospitals NHS Trust (SWBH) have developed models of care to prevent patients being conveyed to hospital.

The SWUFT model relies on ambulance staff being able to access specialist geriatrician staff at the trust directly, and get advice and emergency community responses from multidisciplinary teams that enable the patient to remain at home.

At SWBH, the model relies on doctors and other members of the multidisciplinary team visiting patients in their own home, and using new technology (such as mobile ultrasound and blood tests) to diagnose and treat patients at home rather than in hospital.

One of the main challenges is that many different services are trying to achieve similar objectives, so this project was about finding common themes, solutions and understanding.

***'We can assess you, we can diagnose you and, with the right support, we can treat you at home if that's your choice. We're not replacing the hospital. This isn't about the death of the hospital, if anything it is about the rebirth of the hospital.'***

**Prof Dan Lasserson, University of Warwick and NIHR ARC WM Acute Care Interfaces lead quoted on Panorama (first aired 16 Jan 2023)**

## Outcomes

A key theme was how the clinical risk associated with non-conveyance is best managed and shared. This is challenging across different professional groups. At SWBH, with a clinician-delivered service, this was easier as decision-making occurs in situ, but for SWUFT significant relationship-building needed to take place with ambulance staff to build trust.

## Learning

We learnt it is possible, with careful planning, to involve patients in communities of practice and open discussion around clinical risks for the implementation of these services. There is currently limited research on how to involve patients in health and social care implementation and this project begins to contribute to this space.

## Next steps

We will link with other ARCs on the 'Urgent and Emergency Care' national theme to coordinate work on this topic, along with the Hospital at Home Society.

We also plan to undertake further research to understand the use of point of care ultrasound (PoCUS) in primary care and to determine the learning curve in developing proficiency. These will be published in a peer-reviewed academic journal.

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**Read full case study**

SD

**Health Innovation Yorkshire & Humber /**
**Applied Research Collaboration Yorkshire and Humber**

# Evaluation of (Community) Unscheduled Care Coordination Hubs to reduce hospital attendance

Unscheduled Care Coordination Hubs (UCCHs) provide access to timely unscheduled care in the community for patients who have immediate care needs and are at risk of ambulance transfer to hospital. UCCHs provide the potential for more timely and appropriate care in or close to the patients' home, avoiding unnecessary conveyance to hospital, with the benefits of reducing ambulance wait times and avoidable admission.

UCCHs are an innovative community care model building on existing provision of unscheduled community care in systems, but incorporating additional key principles and features to provide a fast tracked, comprehensive community-based response for patients who are not seriously ill but are at immediate risk of attending hospital.

***'I think we've been able to keep more patients having treatment closer to home, which obviously is something that is part of the NHS plan.'***

***'I think [we're] preventing patients from going to hospital, patients are getting better experiences and better outcomes.'***

**Clinicians from the care hub sites quoted on Panorama (first aired 16 Jan 2023)**

## Outcomes

Care hubs are serving as an alternative point of access for unscheduled urgent care demand from a range of settings, including the ambulance service and intelligently redistributing cases in the community leading to better experience for patients and services.

There is not a 'one size fits all' UCCH, as the model needs to respond to local needs and expertise within systems; key features of the model can be described, such as a multidisciplinary team with expertise to manage patients' immediate and ongoing care closer to home.

## Learning

Implementation of the hub requires collaboration among many different UEC services stakeholders. Engagement with key stakeholders over a period of months and developing a shared narrative and goal for the hub and its impact on the system is a key first step for service planning and preparation of the UCCH.

Once stakeholders are engaged sufficiently, using a 'test of change' approach to implementation, involving each of the key system stakeholders, is a viable approach to develop the UCCH (and other complex models of care).

## Next steps

The UCCH model has wide applicability nationally but is a complex intervention to implement and evaluate. We recommend new sites develop their own business case based on the 'test of change' implementation process. Further tests of change can occur over a period of months to further develop and adapt the model.

Ideally implementation of the hub model should be at Integrated Care System level to ensure scalability, involving all key system stakeholders and particularly the ambulance service.

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**Read full case study**

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