



Achievements and Reflections

Researching Innovation,
Reducing Health Inequalities.

World class applied health research with direct impact on health and care

The Collaboration for Leadership in Applied Health Research and Care North West Coast (CLAHRC NWC) has spent the past five years working to reduce health inequalities faced in some of the most deprived areas of the North West Region.

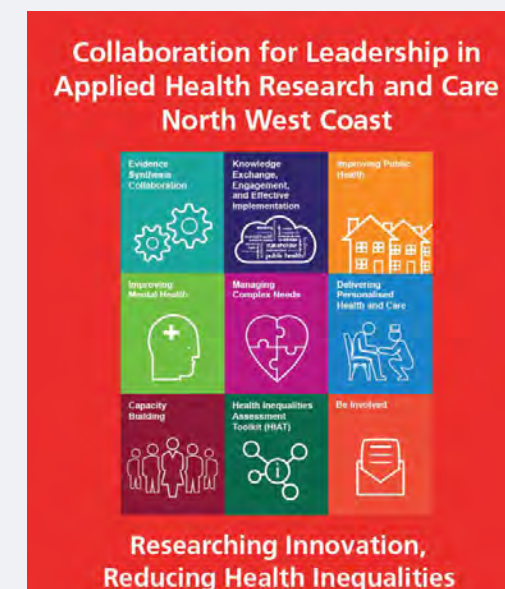
This involved 35 universities, local authorities, NHS organisations and the public working together to research innovation and deliver projects that will improve public health, wellbeing and quality of care across Cheshire, Merseyside, South Cumbria and Lancashire.

CLAHRC NWC works with other CLAHRCs nationally and regional organisations such as Innovation Agency (Academic Health Science Network for North West Coast) and Clinical Research Network North West Coast on shared projects. Supported by a multidisciplinary team including health economists, health service researchers, engineers, statisticians, psychologists, sociologists and staff of Partner organisations.

CLAHRC NWC is proud to have an active Public Engagement Team which ensures public engagement and service user involvement is at the heart of all of its work.

CLAHRC NWC Research Themes and Programmes

- Knowledge Exchange, Engagement and Effective Implementation
- Improving Public Health
- Improving Mental Health
- Managing Complex Needs
- Delivering Personalised Health and Care
- Capacity Building
- Evidence Synthesis Collaboration



An Introduction from the Director of CLAHRC NWC

"I am delighted to present an insight into our achievements from the past five years in delivering applied research to reduce health inequalities across the North West Coast. Life expectancies across the North West Coast vary dramatically, and through our research we have striven to understand this, and co-produce practical solutions.

I am particularly proud to see projects such as our Household Health Survey, Health Inequalities Assessment Toolkit (HIAT) and Neighbourhoods for Learning and publications feature. These initiatives have a valuable shelf life of many years to come and have made an impact on both on the quality of research we produce and its value to decision makers and service providers. We couldn't possibly showcase all of our work in one document but please visit the CLAHRC NWC legacy website where all of our work is featured.

I would like to thank our host organisation Liverpool CCG, our members, public advisers, staff and all those who worked with us during CLAHRC NWC for your support."



Professor Mark Gabbay
Director of CLAHRC NWC

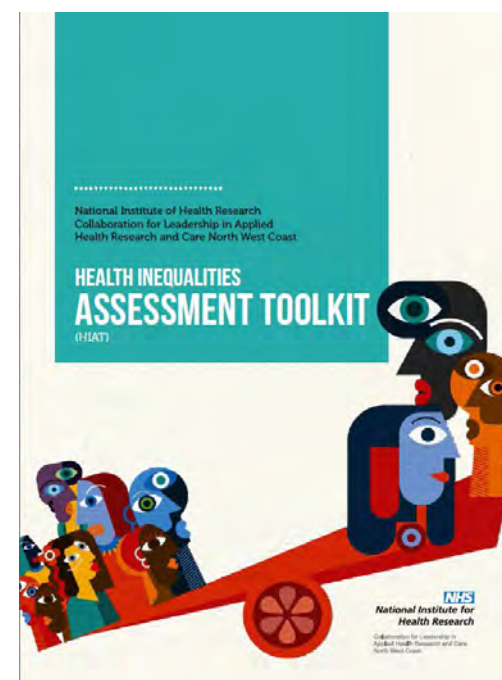
The Health Inequalities Assessment Toolkit (HIAT)

The Health Inequalities Assessment Toolkit (HIAT) has been developed through CLAHRC NWC to include health inequalities into existing ways of thinking, planning and organising within Universities and Partner Organisations, in order to maximise the positive effect of both our own work and that of other researchers.

The tool includes questions to help professionals to assess whether the work that they want to carry out considers the causes of health inequalities, and how they can be addressed through applied health research and partnership building.

The toolkit has already been used for assessing all of CLAHRC NWC's Partner Priority Programme research proposals, individual internships and PhD studentships - ensuring that reducing health inequalities has been positioned at the heart of CLAHRC NWC's research portfolio, and was embedded across all of CLAHRC NWC's themes and aims.

Visit the HIAT for free at <http://www.hiat.org.uk/>



Partners Priority Programme (PPP)

The Partner Priority Programme's (PPP) overall aim was to share knowledge and experience in order to identify which of the new healthcare models being developed by CLAHRC NWC Partners are the most effective in reducing health inequalities, improving population health and wellbeing and reducing emergency admissions.

Over 35 Partners including Local Authorities, Hospitals, Clinical Commissioning Groups and Universities developed evaluation plans with support from CLAHRC NWC. Participants had access to specialists to assist with research methods, developing implementation plans and learning about transformation in organisations.

Service Users and CLAHRC NWC Public Advisers attend a series of workshops in conjunction with Partners to develop and feed input into the plans.

"I joined the (Partner Priority Programme) PPP to evaluate our Knowsley Community Cardiovascular Service,"

Zoe McIntosh, a Cardiopulmonary Rehabilitation Facilitator at Liverpool Heart & Chest Hospital (pictured, right).

"The Service was implemented to reduce health inequalities by being community based and manage early diagnosis and self-management of Cardiac Rehabilitation across the borough. We needed the evidence to prove how effective the service is and I wanted from the CLAHRC NWC the skills to do that by assessing and quantifying the data we have collected already on usage, population, service model and patient feedback."

The biggest benefit of being part of the PPP though has been able to register with CLAHRC NWC's Internship programme. I am hoping to use the analytical skills and specific training in data analysis I compile to present data to my own Trust Board and local Clinical Commissioning Group for benchmark model comparison with other services."



Community Connectors

The Community Connectors (CC) service, managed by Sefton Council for Voluntary Service (CVS) in partnership with Sefton Metropolitan Borough Council, is borough wide and aims to reduce levels of loneliness, social isolation and low level mental health by enabling individual's access to local support through a range of existing early interventions and prevention services in the voluntary, community and faith sectors.

Through its involvement, CLAHRC NWC has facilitated new partnership working between the CC, Borough Council and community agencies to deliver service change. Service users requiring adult social care support are now accessing an unprecedented 30 different voluntary, community and faith sector groups with early indications suggesting this is contributing to reduced feelings of loneliness, social isolation and improved mental wellbeing. Hence, a reduction in health inequalities in the borough of Sefton.





The Household Health Survey (HHS)

The aim of the HHS has been to measure the extent of health inequalities faced by those who live along the North West Coast; identify strategies to improve the health of people in deprived communities, and assess the effectiveness of resilience interventions that target health inequalities.

Public Advisors, NHS partners and Local Authority representatives have been involved throughout the project - designing a comprehensive survey that assessed a wide-range of social, environmental, psychological, behavioral, service usage, and health factors.

Stakeholders also assisted with the implementation of the survey and co-producing outputs including publications.

Data obtained from the first wave of the HHS is being used to advance our understanding of the health inequalities faced in the North West. Some key findings so far include an increased sense of community belonging being associated with a reduced risk of psychosis and depression; and personal; financial struggles being associated with reduced self-esteem, which in turn is associated with a range of mental health symptoms, such as depression.

Information gathered from the first wave of data has been fed back to the communities involved through the Place-based Longitudinal Data Resource (PLDR). This platform enables residents, the public and service providers the chance to view information about the health of their neighborhood and benchmark it with others in the region.

You can view the findings at <https://pldr.org/>

Capacity building and NIHR Academy



A large component of CLAHRC NWC has been working to grow the careers of our Internships and Researchers, helping them find new avenues of development.

The National Institute for Health Research (NIHR) provides training and career development awards ranging from undergraduate level through to opportunities for established investigators and research leaders.

CLAHRC NWC capacity building outputs include: 25 PhD students; 2 Masters in Research (MRes); 3 Masters in Philosophy (MPhil) and 6 Masters in Science (MSc).



Additionally, 20 Interns have completed a Masters in Implementation Science Module that was fully funded by CLAHRC NWC, as part of its Partner Priority Programme.

We are pleased to have helped these staff of our partners, public advisers and individual students with a helping hand in their careers.

Highlighting dementia and its impact in research

Dementia Action Week (DAW) 2019 – is a week that unites individuals, workplaces and communities to take action and improve the lives of people living with dementia. CLAHRC NWC produced in-house a series of five videos to be shown over DAW, hosted on its YouTube channel.

Broadcast via the social media platform Twitter, the short clips feature the organisation's *Alzheimer's Society Knowledge Exchange Fellowship*, a piece of research managed by CLAHRC NWC Research Manager Dr Clarissa Giebel. They also feature CLAHRC NWC public advisers discussing their role in the research and a personal insight into the condition from Roy (pictured) whose story develops over three of the videos as he discusses his "vendetta" against the condition while discussing the hope he retains for a cure.

"The aim of the study is to better understand the socioeconomic predictors of accessing and using formal dementia care services (such as paid carers, support groups, clinical support, and transport) after a dementia diagnosis is made, and to understand the experiences of people from advantaged and disadvantaged backgrounds", said Dr Giebel.



Search for **CLAHRC NWC** on YouTube to see Roy's videos.

Nest@Home

Nationally, five percent of babies are born 4-6 weeks early and many remain in hospital longer than their mother, primarily for feeding support. Longer hospital stays, and mother-baby separation is known to have detrimental effects on bonding and can cause difficulties for mothers establishing and sustaining breastfeeding. Further, travel and subsistence costs for parents travelling and staying with their baby increases family financial, social and caring stresses. NEST@Home seeks to address these problems by promoting early supported transfer home.

A project team from Lancashire Teaching Hospital's Neonatal Unit and University of Central Lancashire's Supporting Evaluation and Research in Child and Family Health (SEaRCH) research group was formed and NEST@Home was successful in its application to be supported by CLAHRC NWC's Partner Priority Programme. This led to an evaluation of current discharge processes to develop the NEST@Home pathway which involved:

- Audit of the numbers and lengths of stay of babies born 4 to 6 weeks early admitted to the neonatal unit
- Review of evidence to find out what is known about early transfer home for babies born 4 to 6 weeks early
- Parent survey questionnaire / Stakeholder consultation and engagement events.

What were the results?

A review of evidence identified three key baby-led milestones (maintenance of their body temperature and breathing and sufficient oral feeding without distress) to be achieved prior to transfer home. Care providers practices that facilitated parental readiness and neonatal early supported transfer home were: early transfer home planning, comprehensive parent preparation, rooming-in, skilled community neonatal teams, at home nasogastric tube feeding.

Stakeholders reached a consensus that NEST@Home would be good for babies, families and enable effective use of neonatal resources. Through participatory exercises stakeholders agreed an evaluation and subsequent evidence informed a new baby and family-centred NEST@Home pathway.

The evaluation found support for the NEST@Home pathway, which with the right resources, training and support at the right time and place, could be safely implemented.

The strength of the NEST@Home pathway has been its development by the people most affected by it.

Parent Public Advisors and representation from nursing, midwifery, neonatal and paediatric medicine, dietetics, health visiting, commissioning, social care and the regional professional network participated in co-production events.

What next?

- Secure resources to recruit and train staff to increase capacity of the neonatal outreach team.
- Implement NEST@Home pathway for well babies born 4 to 6 weeks early.
- Evaluate implementation of NEST@Home in terms of reduced length of stay and equitable access.
- Develop a flow diagram of NEST@Home pathway and escalation processes.
- If successful, upscale NEST@Home pathway to other areas and for babies with more complex needs.



Transitional Care for Young Adults with Long Term Conditions

CLAHRC NWC conducted a scoping review to assess the transitional care literature using two long-term health conditions (LTCs): epilepsy and juvenile idiopathic arthritis (JIA).

We also conducted semi-structured interviews with young people with these conditions, and at different points on their transition journey, their carers, and health care professionals in neurology and rheumatology units, as well as clinical commissioners. 28 qualitative and quantitative papers were included in the review.

Our findings show a wealth of literature concerning key 'processes' of transitional care (effective communication, continuity of care and self-efficacy). Interview data corroborated the key essentials for good transition identified from the literature.

However, there is a paucity of outcomes that help define 'successful' transition and a lack of reliable research evaluating the effectiveness of transitional care interventions to support young people moving to adult health services. We provided drafts of study materials to young people who represented our interview sample demographic, in order to optimise ease of understanding of study information.

It is hoped this enterprise will lead to an improvement of the quality of transitional care, associated health outcomes and inequalities across the North West Coast footprint.

Partners involved with the project included Alder Hey Children's hospital, University of Central Lancashire and University of Liverpool.

Care After Presenting with Seizures (CAPS)

CLAHRC NWC worked to improve access and coordination of care for adults presenting to emergency care with seizures and created Care After Presenting with Seizures (CAPS). CAPS was aimed to find out if nurses employed to actively helping patients obtain a specialist referral after attending Emergency Departments following a seizure would result in more, and quicker, referrals, reduced readmissions, re-attendances and improved quality of life. Three sites (Aintree University Hospital, Arrowe Park Hospital and Warrington Hospitals) recruited a total of 361 patients via three research nurses based in the Emergency Departments. This data was analysed in addition eight years of routinely collected hospital data (c.17,000 admissions).



Conclusions and Impact:

- The Mersey and Cheshire Seizure pathway was implemented as part of the Walton Neuro Network Vanguard Programme, with the CAPS project being run in conjunction.
- The CAPS nurses significantly improved the 3-month referral rate
- Against a background of rising all-cause admissions, the share for seizures fell since the implementation of the pathway.
- The algorithm developed to identify seizure admissions has been recommend by the National Neurology Advisory Group to be used at a national level.
- Getting It Right First Time (GIRFT) now use the 3-month referral rate as a metric.

Perinatal Access To Resources (PEARS)

The PEARS project aimed to examine access to health and community resources amongst socially deprived women and families. It aimed to reduce gaps in health inequalities by testing whether combining elements of care, which have improved access to services and psychological health and wellbeing in other settings, can be implemented locally. The three elements of the care intervention included: 1) support from a non- professional peer 2) provision of detailed information about existing local services 3) help with identification of what a woman herself might find useful followed by IFTHEN Planning (a simple way to help people put their intentions into action).



Conclusions and Impact

- The project has highlighted to health visitors and midwives the importance of community resources as an adjunct to health care.
- Health visitors themselves have expressed interest in taking over the role of utilising the interactive community resources map developed during the research project.
- The intervention may also provide scope for the testing development of new research methodologies that better facilitate generation of reliable evidence from across the spectrum of our society.

Pioneering virtual reality tool developed to train North West midwives

CLAHRC NWC PhD student Stephanie Heys (*pictured, below*) developed a Virtual Reality (VR) programme to train current and future midwives by placing them in virtual scenarios from the pregnant woman’s point of view, in order to understand the patient’s perspective, and identify any way that they can work to reduce the effects of trauma as a result of a stressful birthing process.

The aim of the VR program is to act as an innovative and immersive educational training tool, presenting a real world scenario for midwives. This work has generated considerable interest from a number of NHS Trusts in adopting the programme as a training tool.



Partner Benefits

Both the Liverpool Women’s Hospital and Royal Preston Hospital were involved in trialling the VR training module, once completed, with ten midwives in each Trust. Pre-and-post questionnaires and a six week focus group with midwives involved in the training at both trusts enabled Steph to gauge the benefits and impact the programme had upon care delivery.

Steph said: “Being a midwife means I’ve got a good idea of how real scenarios can be coupled with the right questions to ask.

I’m really looking forward to seeing how the final product is received by fellow midwives across the North West region.”

CLAHRC NWC Collaborations

CLAHRC NWC collaborated with CLAHRCs in both South London and Greater Manchester to deliver workshops and master classes in Implementation Science.

CLAHRC NWC actively collaborated with all national CLAHRC training leads to support the development of the *Workforce of the future for applied health research*, including hosting a ‘*PhD Futures Event*’ with CLAHRC Greater Manchester to support students and Interns considering their future research careers. This event was held in collaboration with the NIHR Research Design Service North West.



CLAHRC NWC utilised the “*Evaluation Works*” toolkit developed by CLAHRC West.

CLAHRC NWC participated in: the Cardiometabolic programme of work led by CLAHRC East Midlands; the Child and Maternal Health initiative led by Yorkshire and Humber; Stroke Partnership led by Yorkshire and Humber; hosted the Knowledge Mobilisation: Research and Practice Network led by Yorkshire and Humber

CLAHRC NWC also joint funded PhDs and other training opportunities with neighbouring CLAHRCs.



"The algorithm developed to identify seizure admissions has been recommend by the National Neurology Advisory Group to be used at a national level."

Art-based storytelling and health inequalities



Three Neighbourhoods for Learning (NfL) have worked with the north west artist Len Grant to pioneer the use of arts-based storytelling in resident-led research. This work aims to strengthen partnership working in neighbourhoods and address the social determinants of health inequalities. Two NfLs have focused on understanding social isolation and building greater social connectedness. The third area has explored ways of improving employment prospects for local people.

In 2019, the team won a North West Coast Research and Innovation award for the project. All feature on <https://neighbourhoodresilience.uk/>

(pictures above by Len Grant)



Ensuring local voices are heard



Retired teacher Freda Clayton (pictured) joined the programme as a Resident Adviser after discovering that her local district was one of the most deprived areas in the country and felt she had to do something. Freda said: "I never thought I'd be doing street interviews, taking photos and presenting findings about my local area but I feel passionate about doing something. We have a huge rubbish dumping problem. I'm enjoying the experience as I feel I am helping make a change."

CLAHRC NWC's Resident Advisers involved in our public health programme of work in Blackburn's *Neighbourhood for Learning* (part Wensleyfold and Mill Hill) have worked with representatives from Blackburn with Darwen Council and other local stakeholders.

The aim was to share the findings of local enquiries they had conducted and discuss how to move forward in partnership to help build the resilience of people who live and work in the area and of services delivered in the neighbourhood.

Dilwara Ali, the local Facilitator for the CLAHRC's Community Research and Engagement Network and who has been co-ordinating the resident advisers, said: "These resident advisers have been on a journey building skills and confidence in listening to the community. Now we want our partners to tap into them as a resource and respond to what they have found out so far."

Neighbourhood Resilience Programme

The CLAHRC NWC Neighbourhood Resilience Programme is based in a network of ten Neighbourhoods for Learning.


The programme aims to enhance systems resilience in these neighbourhoods.

It does this by using evidence from research alongside the knowledge of people who live and work in the local areas, to identify what matters to people locally and what needs to change. The programme provides a valuable opportunity for joint working between residents, professionals, policy makers, and other stakeholders.


Visit <https://neighbourhoodresilience.uk/> to see videos and read more about this pioneering initiative.

"As local residents, we've been investigating how friends and neighbours connect with each other and how this 'social connectedness' affects wellbeing and health inequalities in our community."
(Resident Adviser)


Quick facts about CLAHRC NWC




> £10m 5 year project hosted by Liverpool CCG, funded by NIHR




> 35 Local Authorities, NHS Trusts, the public and Universities collaborating on applied research




> 70 projects aimed at reducing health inequalities



> Produced over 150 Publications



> 14,000 hours of Public Adviser time



> 20 PhD students, 60 Internships and 170 public advisers. 40 BITES (Brokering Innovation through Evidence) published, and 1 catalogue of research projects available on line for all partners and public to access.



NIHR | Applied Research Collaboration North West Coast

From 1st October 2019 became the Applied Research Collaboration North West Coast (ARC NWC).

This is a pioneering collaboration between universities, NHS, local government and third sector partners, which will be at the forefront of a new government initiative to tackle health inequalities across the North West Coast.

The population of the North West Coast faces stark health inequalities. Average life expectancy can vary across local authority areas by up to 12 years, and healthy life expectancies vary by over twenty years. In response, funding from the National Institute for Health Research (£9 million) will be used to establish ARC NWC. Hosted by NHS Liverpool Clinical Commissioning Group (LCCG), it will bring together health and social care providers, NHS commissioners, local authorities, universities, public advisers, third sector partners, the Innovation Agency (Academic Health Science Network or AHSN) and others to address disparities in the health of the region.

The research funding will help to develop health solutions for the future, enable greater independence for patients about how they manage their healthcare and improve the health of communities.

Health Minister Nicola Blackwood said:

“As the population grows and demand on the NHS increases, it is paramount we develop the next generation of technologies and improve the way we work to ensure the NHS continues to offer world-leading care. The UK has a proud history of cutting edge health research and by supporting the great minds in health and social care, this funding has the potential to unlock solutions to some of the biggest challenges facing healthcare and revolutionise the way patients access treatments in the future.”

To find out more visit <https://arc-nwc.nihr.ac.uk/>