

COLLABORATIONS FOR LEADERSHIP IN APPLIED HEALTH AND CARE SPECIFIC THEME - DETAILS

Host Organisation

1.1 Name of proposed Host Organisation (NHS Trust or Provider of NHS services)

Liverpool Clinical Commissioning Group

Theme – to be completed for all Themes

2.1 Name of Theme

Evidence synthesis and implementation

2.2 Percentage of Research and Implementation

Research:

70%

Implementation:

30%

The theme has two main objectives that will be addressed throughout the term of the NWC CLAHRC:

1) To facilitate the identification and production of high quality evidence synthesis to meet the needs of NHS and LA partners and commissioners and to inform research being conducted by other CLAHRC themes.

2) To provide CPD for NHS and LA partners through participatory action research. That is, to assist in the development of appropriate clinical and public health questions, identification, assessment and synthesis of evidence and implementation of changes to clinical and public health policy and practice.

In the short term (1-2 years), activities will focus on establishing and furthering collaborative links with NHS and LA commissioning and provider partners and other CLAHRC themes to identify their evidence synthesis needs and conduct and disseminate the results of these initial projects. Furthermore, with respect to the CPD programme, relationships with NHS and LA partners will be established and built upon to develop and deliver tailored CPD activities.

In the medium term (2-3 years), collaboration will continue with NHS/LA partners, with the aim of identifying additional areas of importance to patients/public and individual-level outcomes. Evidence synthesis will be conducted around these topics. The CPD programme will be modified and evaluated with respect to its impact on changes in healthcare and PH policy and practice, integrating the findings of such evidence synthesis projects. Mechanisms will be put in place to embed the capacity of health professionals within the NHS/LAs to conduct and implement the findings of evidence synthesis within their clinical/PH practice.

In the long term (4-5 years), emphasis will be placed on continued facilitation of the growth and development of evidence synthesis capacity with NHS/LA partners.. Partners will be further encouraged and supported to identify and define important areas of practice, synthesise relevant evidence and subsequently implement appropriate changes to practice and policy. This will be done within the context of maintaining the established collaborations between partners and the Universities involved in this theme.

2.3 Theme Strategy, providing a description of how the aims and objectives will be achieved:

The work of the evidence synthesis and implementation theme builds on substantive investment in the North West, from the NIHR and other funding streams. The strategy is based on the development of collaborative partnerships through the establishment of a **NWC CLAHRC Evidence Synthesis Collaboration** (hereafter referred to as the Collaboration). The purpose of the Collaboration is twofold. First, to produce comprehensive evidence synthesis, drawing on its members' extensive existing synthesis expertise. Second, to develop programmes for staff in partner organisations to encourage the development of skills related to evidence synthesis and implementation of those findings into health policy and practice. There currently exist a number of review synthesis groups in the North West region, each with different areas of expertise and focus, who will actively participate in the Collaboration. A number of these groups exist to synthesise evidence related to the clinical effectiveness of health technologies; these include three **Cochrane Review Groups (Cystic Fibrosis, Epilepsy and Pregnancy and Childbirth)**, the **Liverpool Reviews and Implementation Group (LRIG)**, the **Department of Biostatistics and Clinical Trials Research Centre**, the **MRC North West Hub for Trials Methodology Research** and the **Cochrane Collaboration Programmes at the Universities of Liverpool and Lancaster**. **NIHR Liverpool Pancreas BRU** PIs have national and international roles in evidence synthesis and guideline production in pancreatic digestive diseases. The **Eye and Vision Science Unit** provide expertise in qualitative and quantitative evidence synthesis in relation to screening for diabetic retinopathy. Finally, to supplement and broaden this expertise, the **Doctoral Midwifery Research Society at UCLAN**, the **Centre for Health Equity Research and Knowledge Exchange at Lancaster University** (which led the ESRC funded collaboration producing guidance on the conduct of narrative synthesis) and newly established collaborative links with realist synthesis practitioners from Canada provide expertise in the areas of meta-synthesis and narrative synthesis. Thus the Collaboration is built on a broad range of clinical expertise as well as comprehensive experience in a range of evidence synthesis methods.

There will be four activities to achieve the theme objectives:

- 1) Identification of NHS and LA partners' and commissioners needs for new evidence synthesis and establishment of mechanisms for carrying out this research:** There will be a mechanism established to identify priority areas for evidence synthesis projects and to oversee their implementation. The selection of topics for evidence synthesis will be directed by the identified needs of NHS and LA partners and commissioners as well as the needs of the other NWC CLAHRC themes. This will build on current mechanisms to promote service user and public participation and engagement with both commissioners and clinical managers. A panel, comprising service users/members of the public, service managers and commissioners, will participate in prioritising and scrutinising requests for evidence reviews, establishing mechanisms to conduct the research and implementation of the findings. This could include, for example, clinical areas where there may have been difficulties in implementing changes to practice, areas where local research is needed to assist in decisions regarding the need to implement new practices, or the identification of clinical/public health problems requiring synthesis of evidence to inform decision making.
- 2) Provision of evidence summaries needed within the NWC CLAHRC:** To inform proposed research the Collaboration will provide support for rapid reviews of existing evidence. The theme leader would have knowledge of, and access to, researchers able to carry out such work.
- 3) To identify the CPD needs of NHS/LA partners and commissioners related to the synthesis of research findings and their implementation into policy and practice:** The experience of members of the Collaboration will contribute to the design and delivery of a comprehensive CPD programme to meet NHS/LA and commissioners' CPD needs as part of participatory action research projects. The Collaboration will foster guideline development, adoption and dissemination in support of this activity, built on evidence synthesis and working within or to NICE accreditation, feeding other Themes.
- 4) Review methodology development:** Historically the focus of evidence synthesis has been on the use of trial data. There has been excellent work done in the area of methods development in meta-synthesis (synthesis of qualitative and quantitative data) as well as in the area of realist synthesis. This collaboration will build on this work and move forward with further methodological research as part of the action research projects noted above.

a. Description of proposed projects that will be pursued within the first two years of the contract:

The initial work of the Collaboration will focus on establishing collaborative links with NHS/LA partners, commissioners and other CLAHRC themes. However, to maximise the Collaboration's productivity in the early stages of this collaboration, a number of pre-identified reviews will be conducted. These were informed through discussion with NHS/LA collaborators and focus on issues related to health inequalities and public health and the requirements of other CLAHRC themes. These reviews will be undertaken using internationally accepted standards related to evidence synthesis and are summarised below.

- 1) **Public mental health (NWC CLAHRC theme):** To inform the research to be conducted in the mental health theme an evidence review will address the following questions: (i) what environmental and social factors impact on public mental health and well-being?; (ii) what are the likely mechanisms responsible for these associations?; and (iii) what evidence is available on the effectiveness of individual-level and community-level interventions designed to influence public mental health?
- 2) A series of reviews will be conducted of evidence on the actual and potential impact on health and health inequalities of local policies/actions in areas related to the social determinants of health/health inequalities (e.g. tobacco control, transport, housing design, living wage, planning regulations and access to healthy food, alcohol reduction, etc). The focus of these reviews and questions to be addressed will be determined in consultation with the Community of Public Health Practice to be established by the Health Inequalities theme. The review methods to be used will depend on the topics chosen and the type of evidence available but there will be a particular focus on evidence for differential socio-economic effects.
- 4) **Reducing the long-term impact of surgery on the health and functioning of the frail elderly undergoing operative interventions.** Which preoperative screening tests are most appropriate for use in the frail elderly? What is the more appropriate post operative care to reduce morbidity and mortality.
- 5) **Polypharmacy in patients with multiple morbidities:** We propose to undertake a realistic evidence synthesis exploring both quantitative and qualitative evidence with a focus on interventions to reduce polypharmacy. Specifically the review will examine, targeting the consultation and prescribing reviews. The results of the synthesis will be used to identify potential projects for implementation through a series of focus group discussions with commissioners, service users and practitioners (pharmacists and prescribers).
- 6) **Optimal management of pancreatic digestive diseases:** The diagnosis, treatment and long-term care of pancreatic exocrine insufficiency, chronic pancreatitis and peri-ampullary cancer have been extensively studied, but systematic approaches to the evidence are few. The management of these three conditions will be systematically reviewed to provide the foundation for new guidelines to be developed by the recently formed UK and Ireland Pancreatic Guideline Development Group, in association with NICE.
- 7) **Prevalence of, and management strategies for, co-morbidities in long term conditions:** As described in the complex needs theme, we will undertake this systematic review in order to inform an implementation project.

In addition to these proposed evidence synthesis projects, the collaborative CPD programme that will run throughout the term of the CLAHRC will commence in the first year of the grant (see details below in the Implementation section).

b. The Theme's relevance to the health of patients and the public:

There is a general acceptance that there is a need for the use of the synthesis of evidence in the development of policy and practice. Historically this evidence has come primarily from quantitative research findings. The work of this theme will broaden that focus to include a wider range of evidence as well as providing a focus on the impact of policies and interventions on health inequalities. In addition these will be directly linked to the development needs of health care professionals including both commissioners and providers to increase their capacity to clearly define research questions, identify, assess and synthesise available evidence and to use this evidence in the development of policy and practice to improve patient care, public health policies and actions and health and health equity outcomes.

c. The proposed Theme Leader:

Professor Rumona Dickson (University of Liverpool) has extensive experience in the area of evidence synthesis having directed an NIHR Technology Assessment Group (LRiG) for the past 11 years. In addition, she has worked collaboratively with all the Cochrane Groups and the Cochrane Programmes that form part of the proposed synthesis Collaboration. In terms of implementation of research into health care practice, she has extensive international experience in the delivery of CPD programmes for health care professionals. These programmes had as their primary aim the development of the capacity of the participants to identify, summarise and use the findings from evidence synthesis programmes. Professor Dickson therefore brings the knowledge, experience and expertise required to lead this collaborative venture.

d. Three examples of how previous research findings in this area have translated into improved outcomes for patients and the NHS:

The synthesis work of the NWC CHLARC Collaboration for Evidence Synthesis is world leading. The Cochrane Pregnancy and Childbirth Group was the first to be established (1992). Since then it has been consistently the most productive. The editorial team (Neilson & Alfirevic co-ordinating editors) manages a portfolio of around 600 reviews and database of over 18k trial reports, supporting the work of over 1200 review authors from 51 countries. These resources are used worldwide to inform national and international guideline development, The team has particularly strong links with NICE (e.g. guidelines on antenatal care, induction of labour, intrapartum monitoring) and RCOG Guideline Development team. LRiG has, over the past 11 years, contributed directly to the development of numerous NICE guidance documents which have had direct impact on the delivery of care to patients in the NHS. The group also worked closely with the GDG to resolve a number of complex methodological problems. NIHR Pancreas BRU PIs have undertaken a significant number of meta-analyses and contributed to national and international guidelines in pancreatic digestive disease that over the last 10 years have led to centralisation of services, optimisation of drug and surgical therapies as well as improved survival with adjuvant chemotherapy in pancreatic cancer.

For Themes containing proposed applied health research

Research Theme Section – for research or mixed model Themes Please leave blank if implementation-only Theme

3.1 The proposed applied health research to be undertaken within the Theme

As a part of the development of the CLAHRC bid, existing collaborative links were built upon to scope NHS collaborators' proposed needs for such an evidence synthesis and implementation theme. The theme was well received and this initial project was identified during this scoping phase:

1) Evaluation of referral pathways for patients with pancreatic digestive disease: Use of existing data sets developed by the NIHR Pancreas BRU to assess current referral pathways and to use this information to identify inequalities, compared to evidence-based optimal practice, as well as to inform and formalise discussion and management between referral and treatment centres.

2) Core outcomes sets: Work will be undertaken with relevant local groups to determine whether an existing core outcome set (COS) is deemed appropriate to local needs for evaluating patient outcomes for a particular service, or whether a gap in existing evidence means further work on COS development is needed. Once the COS is agreed, health informatics methods will be used to assess the feasibility of COS implementation in practice. A first project will be undertaken as a 'proof of principle', after which training of local commissioners in the process will be provided for application to other areas.

3.2 Key researchers associated with the Theme including how their involvement will add depth and quality to the proposed applied health research to be conducted:

1. Led by Professor Robert Sutton who directs the NIHR Pancreas BRU, has extensive experience in evidence synthesis and is a founder member of the UKI Pancreatic Guideline Development Group.
2. Led by Professor Paula Williamson who heads the COMET initiative the Department of Biostatistics at the University of Liverpool

3.3 Please describe the proposed outputs from the research and the impacts anticipated (including the intended audience, how the impacts will be achieved and the likely timeframe):

1. The output would provide an overview of current clinical pathways and form the basis for the development of an agreed clinical pathway with consensus from commissioners and providers.
2. Will provide an overview of key clinical outcomes that can be used in future research and implementation projects.

For Themes containing implementation (to be funded by matched funding only)

Implementation Theme Section – for implementation or mixed model Themes Please leave blank if research-only Theme

4.1 Please describe the proposed implementation of applied health research into clinical practice across the health community that will be pursued within the proposed Theme using the matched funding, including an overview of how these relate to the overall strategy:

This is a core part of the user-led theme strategy and will be carried out throughout the term of the NWC CLAHRC. It includes the delivery of a capacity building CPD programme, part of an action research project, which will be evaluated using realistic evaluation methods.

4.2 Please describe the proposals for activities to facilitate the implementation of research findings across the health community, including the rationale and an outline of the process and methodology by which this approach to implementation will be evaluated:

1. Using evidence in practice; participatory action research projects

With the help of the service links in the NWC Evidence Synthesis Collaboration and NHS/LA partners (notably Liverpool Health Partners and the NW Coast AHSN), 6-8 practitioner teams, who desire to investigate or to change their current practices, will be identified. Through a set of joint workshops and individual team meetings their clinical/public health practice questions will be examined, the evidence related to the topic synthesised and an implementation strategy established and carried out. These action research projects will be assessed using realist evaluation. All projects will include an assessment of how current and proposed practice changes might affect any current health inequalities and are designed to promote individual and team capacity related to the use of evidence in clinical practice. The project, which will be overseen by the NWC Evidence Synthesis Collaboration, will run annually and if appropriate be opened to health care and public health professionals from outside the NWC CLAHRC geographic region.

4.3 Please outline the key individuals associated with the implementation, summarising their previous experience in the proposed approach to implementation:

The theme is led by Professor Rumona Dickson who has extensive experience in evidence synthesis, CPD for health professionals and programme implementation. Additional clinical expertise as well as synthesis and evaluation experience will be sought as appropriate from members of the NWC Evidence Synthesis Collaboration including those with specific expertise in meta-synthesis and realist evaluation. These will include, but not be limited, to:

Liverpool Reviews and Implementation Group (University of Liverpool; UoL) – Professor Rumona Dickson
Cochrane Review Groups – Professors Jim Neilson, Zarko Alfirevic, Tony Marson and Dr. Kevin Southern
Cochrane Programmes – Professors Andrew Smith and Tony Marson, Drs. Amanda Nicolson and Phil Alderson

Eye and Visual Science – Professor Simon Harding

Doctoral Midwifery Research Society (UCLAN) – Professor Soo Downe

Centre for Health Equity Research and Knowledge Exchange (Lancaster University) Professor Jennie Popay

NIHR Pancreas BRU - Professors Robert Sutton, Paula Ghaneh and John Neoptolemos

Public Health and Epidemiology (UoL) – Professor Simon Capewell

Department of Biostatistics (UoL) – Professor Paula Williamson

Health Services Research (UoL) – Professor Mark Gabbay

Stakeholder Engagement Prof Mike Pearson will also contribute to implementation

All members of the collaboration have extensive experience in both evidence synthesis and implementation of change in health policy and practice. They will contribute to the development of the comprehensive participatory action research project that will be the basis of the implementation/capacity development component of this theme.