

Scientific title

Developing a Local Authority Research System: Middlesbrough Council and Redcar & Cleveland Borough Council and Teesside University

Full title of project

How to develop an existing Memorandum of Understanding (MOU) between Public Health South Tees (PHST) and Teesside University into a research system for Middlesbrough Council & Redcar and Cleveland Borough Council (MCRCBC)?

Background and Scientific Rationale

South Tees comprises two neighbouring unitary authorities, Middlesbrough and Redcar & Cleveland. It makes up approximately 40% of the Tees Valley sub-region, within north east England. South Tees has stark contrasts, comprising the large rural area of east Cleveland, through the coastal communities of Redcar and Saltburn and the urban conurbation that extends along the River Tees into Middlesbrough, the largest settlement of the area.

The health of people in MCRCBC is generally worse than England averages with both areas being in the most deprived districts/unitary authorities with many children living in low income families (31.8% in Middlesbrough and 25.2% in Redcar & Cleveland) (1, 2). Life expectancy is 12.6 years lower for men and 12.0 years lower for women in the most deprived areas of Middlesbrough and 11.0 lower for men and 7.3 years lower for women in the most deprived areas of Redcar & Cleveland when compared to those in the least deprived areas (1, 2).

MCRCBC have significant social and economic issues which contribute to inequalities. Systemic problems lay at the heart of these inequalities and need a long-term systemic response to support people to value their health and wellbeing (3). The key drivers for the stalling of both life expectancy at birth and healthy life expectancy in the area are due to the broader changes in social determinants of health than they are about changes in health care (4). National and local research has shown that austerity, changes in the welfare system, and the funding cuts to public and voluntary sector organizations is having an impact on people's health and well-being in the region as well as widening health inequalities (4). Furthermore, the region has been hit hard by the COVID pandemic with Middlesbrough ranked 4th and Redcar and Cleveland ranked 57th in the country for numbers of cases as of 14th May 2020 (5).

The primary goal of public health is to improve the health and wellbeing of our target communities. However, too often there appears to be a disjunction between public health research and public health policy and practice; with lengthy delays between the evidence generation and translation (6), and difficulties in implementing evidence generated from highly controlled experiments within complex real world settings (7).

Implementation science is commonly defined as the study of methods and strategies to promote the uptake of interventions that have proven effective into routine practice, with the aim of improving population health. Implementation science therefore examines what works, for whom and under what circumstances, and how interventions can be adapted and scaled up in ways that are accessible and equitable (8). The field of implementation science has been born as a result of recognising the importance of the gap between research and practice (9). This gap has expedited the use of multitudinous theoretical constructs, aiming to enhance the implementation process, identify the barriers and facilitators and acting as valuable tools in evaluating implementation (4). For public health practitioners endeavouring to influence across a system to implement evidence based practice, understanding the barriers and enablers to practical implementation are critical in the field. Undertaking local level evaluation, with implementation science domains, is a step towards understanding the context in which to apply evidence based research (10). At TU we have build up significant expertise in

translational research and co-production, linked to the Centres for Public Health Research and the Centre of Social Innovation.

Whilst many view academics and practitioners as coming from different worlds, in actuality the boundaries are blurred (11). It has been proposed that a co-production approach involving academics and practitioners working together will result in services that better translate into real world practice and are more meaningful to those who will engage with them (12). However, developing structural approaches takes time and requires persistence from both academics and policymakers, which can be challenging given the short time span of policy cycles and lack of institutional incentives within academia (13). There are many different names for co-production research (14) such as knowledge translation (15) participatory action research (16), and collaborative research (17). However, most tend to adhere to similar principles, where the creation, exchange, synthesis, and dissemination of knowledge between researchers, policy makers, practitioners and end users is key (18). As a civic university, it is important for TU to work with local partners in the area. Part of the TU mission is to generate and apply knowledge that contributes to the economic, social and cultural success of students, partners and the communities it serves. The University has in place a Corporate Social Responsibility Framework which captures a commitment to service, which they deliver through working in partnership with individuals, communities and civic organisations to address the needs and aspirations of local communities in the Tees Valley (19).

A Memorandum of Understanding (MOU) was signed a year ago (29th May 2019) between TU and MCRCBC to develop shared work around teaching, business and enterprise and research in the public health field. In terms of research, this has resulted in a number of public health projects including a researcher being seconded to Middlesbrough Council for one year to work with practitioners to implement findings. A further example is the NIHR SPHR funded foodscape study which identified and tested interventions to change the food offered by takeaways in order to improve diets and reduce obesity (20). To date this work has focused on the public health team at PHST. This proposed project aims to use the learning from the work to date to develop links in other departments at both TU and MCRCBC and to make recommendations for the future work of the MOU.

Research Questions

Aim

To explore how the existing MOU between PHST at MCRCBC and TU can be developed further to include other departments to develop a research system that will enable the authorities to become more research active in public health and other areas.

Objectives

1. To examine how the current MOU is being operationalised with PHST and TU.
2. To examine how the existing MOU can be extended to include all departments at MCRCBC by surveying all Heads of Service (HOS), demographically elected Councillors and relevant stakeholders, such as Senior Managers at the Clinical Commissioning Groups (CCGs) and senior clinical staff from South Tees Hospitals NHS Foundation Trust and VCS organisations.
3. To investigate more fully key research priorities, capacity issues, commissioning, research needs and barriers and facilitators with three departments at MCRCBC.
4. To ascertain key research priorities, capacity issues, commissioning, research needs and barriers and facilitators from the TU perspective.
5. To work with members of the public and the voluntary sector to make recommendations to develop a PPI group to be involved in future research.
6. To make recommendations for developing the existing MOU to include strategies related to capacity issues, key research priorities and bidding activity.

Research Plan / Methods

Design and theoretical/conceptual framework: The work will consist of a survey and qualitative fieldwork. The project will be informed by the NIHR SPHR six knowledge sharing principles (21) by framing questions in the survey and fieldworks around these principles. The six principles are: Clarify your purpose and knowledge sharing goals; Identify knowledge users and stakeholders; Design the research/project to use the expertise of the knowledge users and stakeholders; Agree expectations; Monitor, respect and be responsive in sharing knowledge; Leave a legacy (21).

Setting/context: South Tees which comprises of two neighbouring unitary authorities, Middlesbrough and Redcar & Cleveland. This scoping work includes both areas, as in April 2018 MCRCBC took the strategic decision to create PHST; the shared team operating under one Joint Director of Public Health. This move reflected the geography covered by NHS South Tees CCG (more recently NHS Tees Valley CCG) and South Tees Hospitals NHS Foundation Trust (STH NHS FT).

Study population: Staff from TU and MCRCBC (including elected members), CCGs, STH NHS FT and VCS in the geographical area.

Methods

OBJECTIVE 1: A focus group (n=10-15) will be held with current members of the MOU Steering Group at both TU and MCRCBC to identify current strategies and plans. Because of the current COVID pandemic the focus group will be conducted using Microsoft Teams. It will take approximately 60 minutes and will be digitally audio-recorded with permission, then transcribed, anonymised and checked.

OBJECTIVE 2: Survey: An online survey will be sent to all HOS at MCRCBC, demographically elected Councillors and Managers at the CCG (~n=200) to identify how research evidence is currently obtained, how important evidence is and key research priorities, research needs and barriers and facilitators to carrying out research. The survey will be sent from the council with two reminders at weekly intervals then a final reminder a month later. Evidence tells us that an average response rate is around a third (22) so we expect to receive around 70 responses however; because of COVID this may be lower and we may need to send an extra reminder a month after the proposed final one. We will incentivise the survey with five £10 gift vouchers. A descriptive report will be produced from the results.

OBJECTIVE 3: Findings from the survey from three departments will be interrogated and purposive in-depth online focus groups arranged with HOS and relevant Officers at three strategic areas within MCRCBC (Children's Social Care, Planning and Regeneration) (n=6).

- **Children's Services:** the best start in life is a strategic priority for the whole of the local system. The children, young people and families receiving support and also those providing it have a lot to gain from additional support around evidence based practice.

- **Planning:** Planning departments have a significant impact on the local built environment, which in turn has a significant impact on health and wellbeing. Before the lockdown, PHST were working with relevant HOS to organise a training package to be delivered to further build on the strong relationship that already exists with Planning colleagues. This package is to be facilitated by Michael Chang from Public Health England, who is regarded as the national policy expert on planning and health. However, one gap that exists is what Planning and Public Health colleagues count as evidence. The scoping work proposed here will start to tease out some of these answers whilst also supporting new partnerships between the two Planning departments and TU.

- **Regeneration:** similar to Planning, the actions of Regeneration colleagues can have significant impacts on the local population via the creation of employment opportunities (preferably good employment opportunities). Regeneration colleagues in Middlesbrough are already in preliminary discussions with TU about the expanded MOU and hence this scoping will build on this and create a roadmap for implementation.

OBJECTIVE 4A: Purposive interviews will be carried out with TU Associate Deans for Enterprise and Business Engagement and Research and Innovation and research centre leads across the university (n=8-12) to ascertain key research priorities, knowledge exchange

capacity, structural incentives for collaborative research and barriers and facilitators from the TU perspective.

OBJECTIVE 4B. A focus group (n=5-10) will be held with lecturers and researchers at TU who have experience of co-production work. All interviews will be arranged at participants' convenience. Because of the current COVID pandemic interviews/focus group will be conducted by telephone or Microsoft teams. Interviews will take up to 60 minutes and will be digitally audio-recorded with permission, then transcribed, anonymised and checked.

OBJECTIVE 5: We will work with a group of up to 20 members of the public over the duration of the project. They will be identified by existing community groups and via social media. They will meet monthly and will develop recommendations on how we can link into existing community groups and how we can develop a future community group to be involved in the MOU, as well as what expectations of that involvement would be. Members will be given a £20.00 e-voucher for every meeting they attend.

OBJECTIVES 1- 5 will include questions relating to:

- How can the local system better link with the NIHR infrastructure?
- What is the existing and required research expertise in the Local Authorities currently?
- What expertise is needed elsewhere in the system, especially non-NHS settings?
- What resources are needed to achieve real and sustained change in relation to the use and creating of evidence?
- How can we build on the AskFuse service? (based out of TU)
- How can we support the growth of research in social care settings?

OBJECTIVES 3-5: ANALYSIS

Data will be subjected to framework analysis, which is appropriate for qualitative health research with objectives linked to quantitative investigation and a delimited time frame (23). Data will be coded by the study team using a list of a-priori themes. Our analysis of the likelihood of embedding new ways of working will be informed by Normalization Process Theory (4). This model considers factors that affect implementation in four key areas; how people make sense of a new practice (coherence); the willingness of people to sign-up and commit to the new practice (cognitive participation); their ability to take on the work required of the practice (collective action); and activity undertaken to monitor and review the practice (reflexive monitoring) (4).

OBJECTIVE 6: To use the findings from OBJ 1-5 to make recommendations for developing the existing MOU to include key research priorities and bidding activity plans for the next 3 years and to develop how these can be operationalised. This will also include measurable outputs and outcomes associated with the MOU to demonstrate the long-term success or non-success.

Dissemination, Outputs and anticipated Impact: We will provide an interim report at two months. At the end of the project we will produce a 5,000-word written report and a PowerPoint presentation of 20 slides as well as a detailed plan for the project partners for embedding practical solutions for knowledge exchange across different departments and with external stakeholders (e.g. CCG, NHS FT, VCS and local communities).

Findings will be disseminated across MCRCBC and TU as well as Fuse and a peer-reviewed paper (submitted to Journal of Public Health) will be developed. We would welcome conversations with NIHR PHR and the nine other areas about how the findings can be shared more widely (e.g. a series of online sessions open to all Local Authorities in collaboration with the Association of Directors of Public Health and other relevant bodies [The Association of Directors of Children's Services]).

What do you intend to produce from your research?: A plan for moving work forward into other departments of MCRCBC will be produced which will identify key research priorities and bidding activity for the next three years as well as clear capacity and implementation plans.

What do you think the impact of your research will be and for whom?: This work will contribute to how research is further developed and managed to include other departments between the organisations through the MOU. A plan for improving research capacity and capability in all of MCRCBC and developing collaborative research grants will be developed and worked on with the existing MOU group.

Project/research timetable: The planned project will run from the October 2020 until January 2021. Final reports will be delivered by the end of January 2021 (Table 1).

Table 1: Gantt chart for project

	Oct-20	Nov-20	Dec-20	Jan-21
Team meetings	****	****	****	****
PMG meetings	*	*	*	*
Protocol and paperwork developed				
Ethical approval gained				
Interim report				
Objective 1				
Objective 2				
Objective 3				
Objective 4				
Objective 5				
Objective 6				
Final report				

Project management and governance: TU will be the nominated sponsor of the research. As the project is only over a small period of time it is important for those involved to meet frequently. The project will have a Project Management Group (PMG) which will consist of PIs and members of the existing MOU management group. The PIs will meet weekly and will include the members of the existing MOU management group at every other meeting. DNB and SL will alternate chair this group.

Ethics/Regulatory Approvals: As the project will not include patients' data, ethical approvals were sought from the School of Social Sciences, Humanities and Law at Teesside University ethics board prior to any research taking place. Ethical approval was granted in September 2020 (Review Reference: 2020 Sep 1350 Newbury-Birch). All data will be held in a secure environment identified by a unique participant identification number.

Project registration: The project was registered on the research registry on 7th October 2020. (researchregistry6090).

Patient and Public Involvement: Participant involvement is important in a project of this kind. As stated the project will be informed by the NIHR SPHR six knowledge sharing principles (21). We will work with a group of up to 20 members of the public over the duration of the project. They will meet monthly and will develop recommendations on how we can link into existing community groups and how we can develop a future community group to be involved in the MOU, as well as what expectations of that involvement would be. In order to do this and because this is a very short project (4 months) we have developed the work with co-CIs from TU (Prof Newbury-Birch) and MCRCBC (Scott Lloyd) which ensures that the project has senior input from both organisations. We will set up a steering group for the project which will include stakeholders from TU, MCRCBC as well as CCGs, and the VCS. We will also work

with a group of individuals from the community (Objective 5) to develop recommendations for how a community group can be developed and managed in the future.

Project/research expertise: The research team is an internationally renowned multi-disciplinary team that are experts in the field and have long standing relationships with each other. They provide the complementary content area, methodological expertise and skills that are necessary to carry out this project. Members of the team are associated with Fuse, which brings together the five North East Universities of Durham, Newcastle, Northumbria, Sunderland and Teesside in a unique collaboration to deliver robust research to improve health and wellbeing and tackle inequalities. Fuse is one of the five UK Public Health Research Centres of Excellence that was funded by the UKCRC. With a focus on translational research, Fuse works hand-in-hand with the NHS, local and national government, voluntary and community sectors seeking to make a significant contribution to transform public health (DNB, SL, NC, PVG). They are also associated with The NIHR Applied Research Collaboration North East and North Cumbria which is a collaboration between universities, the NHS, local authorities, voluntary organisations, charities and businesses will tackle issues causing health and care inequalities in the region (DNB, SL, NC, PVDG). Supporting expertise includes Planning and Regeneration (TT, TC) and Social Work (DS). Members of the team are experts in public health research (DNB, SL, NC, PVDG, VZ) and knowledge exchange (DNB, SL, NC, PVDG). PVDG is the AskFuse Research Manager and a NIHR Knowledge Mobilisation Research (KMR) Fellow. AskFuse is the rapid response and evaluation service of Fuse. His NIHR KMR Fellowship evaluates and support the North-East System-Led Improvement approach for Best Start in Life in the region to improve the commissioning of early years' services and the evidence that is used to inform these services.

DNB from TU will co-lead the project with SL from PHST. She has worked with local authorities throughout her career including seven years working with Durham County Council on co-production research projects. She is an expert in carrying out evaluations and co-production research (10). She leads a large team of researchers and students who carry out public health research at TU. SL is Advanced Public Health Practitioner for Public Health South Tees. He is a Visiting Fellow at TU, a member of Fuse and a named collaborator on the ARC for the North East and North Cumbria. He also works as Associate Lead for Public Health Research for the NIHR Clinical Research Network North East and North Cumbria (1/2 a PA a week) supporting the development of the Public Health Speciality Group and the emerging, exciting national proposals to fund one Embedded Researcher in each Local CRN and also fund research capacity in a Director of Public Health or Consultant in Public Health. He is involved in a number of current research studies including Stand Up for Health (NIHR award 17/149/19) and sits on the NIHR Public Health Research Prioritisation Committee. Much of this work (e.g. CRN Public Health Speciality Group, the NENC ARC) is still developing putting Scott in the ideal position to understand how best to link MCRCBC, TU and the MOU with these groups and to best identify opportunities as part of the scoping. Other members of the MOU group from MCRCBC will also support this work. Dr Esther Mireku is Consultant in Public Health and strategic lead for the MOU and will maintain oversight of the work. Robin Bedford and Graeme Nicholson are the first Public Health colleagues to access the CRN NENC green shoots programme and from April 2020 have dedicated time and mentorship to develop their research skills and capacity, which will provide additional learning and links for the scoping work.

Professor Jim McManus – Director of Public Health for Hertfordshire County Council and Vice-President of the Association of Directors of Public Health – has agreed to be an independent pair of eyes to review the findings and proposals made as part of the scoping work (costed as two days within the budget). We would also welcome an element of cross-checking across the ten projects whereby Directors of Public Health each review one of the other areas findings and recommendations.

Success criteria and barriers to proposed work

Success criteria: To gain ethical approval for the study; To successfully recruit to the survey and the interviews and focus groups; To produce the final report by January 2021.

Barriers to proposed work: Short Time Frames: This is a short-term project which is to be carried out over the summer holidays however we feel we have the expertise and have developed the project to be completed within the time frames. **COVID:** The pandemic has had an enormous impact on society. This proposed project is working in conjunction with MCRCBC and we will work very closely with our colleagues to ensure that we take this into account. **Low response rates for survey and interviews:** Because of the short time-frame and the COVID situation there is a possibility of low response rates. As the project is working in co-production with the MCRCBC and the email contact for the survey and interviews will come from MCRCBC we are confident we can reach our recruitment targets.

Funding for the study: Funding for the study was obtained from NIHR PHR Programme (reference number NIHR131912).