Co-creating, embedding and acting on research evidence to reduce health inequalities: the Medway Health Determinants Research Collaboration

1. Background and rationale

Medway Health Determinants Research Collaboration (MHDRC) is between Medway Council, which is the lead organisation, and the University of Kent.

1.1 Local context

Medway is situated on the North Kent coast and has a population of almost 300,000 people living in the conurbation formed by five towns (Strood, Rainham, Rochester, Gillingham and Chatham) and the surrounding rural areas. Covering 192 km^2, it is served by Medway unitary local authority. Medway is much more deprived than the South East average and slightly more deprived than the England average, and there is considerable income equality. Across Medway, there is a deprivation gap of 38% (difference between income score for lowest and highest of neighbourhoods), which places it well above average for income inequality, on the 75th percentile for English local authorities.[1] Rates of adult obesity, childhood obesity and smoking in pregnancy are significantly worse in Medway compared to the England average.[2] Life expectancy at birth and at 65 years of age in Medway is below the England average and the gap in life expectancy at birth between the least and most deprived wards is seven years in women and nine years in men.[2]

Medway Council has three directorates: People, comprising children's social care, adult social care and public health; Regeneration, Culture and Environment; and Business Support. Being a unitary authority, Medway Council is responsible for the full range of wider determinants that affect health and wellbeing, including education, green spaces, cycle lanes, and many factors that affect employment, homelessness and housing. This simplifies collaboration and coordination between different parts of the council, and contrasts with two-tier councils, where responsibilities are split between multiple districts and a county council.

Medway Council has recognised the role of the whole council in improving health and wellbeing through its impact on the wider determinants of health, which is essential for the development of a relevant and effective health research culture. An example of this is Collaborative Working Agreements between Public Health and other parts of the council, which document shared desired outcomes that will improve health and wellbeing; for example, embedding public health outcomes in the local plan, a key strategic document that is used to plan development to the year 2037; and working with the Integrated Youth Support Services team to address substance misuse by young people. In total there are nine agreements, and the approach was showcased as an example of best practice by the Local Government Association.[3]

Medway Council's annual plan priorities are: (1) People – Supporting residents to realise their potential; (2) Place – Medway: A place to be proud of; and (3) Growth – Maximising regeneration and economic growth – growth for all.

One of the six core values of the council plan is "Working together to empower communities", which includes strengthening links with local universities, of which the University of Kent is the largest and most important.[4]

The University of Kent is the academic partner for the proposed collaboration. Part of it is based in Medway and is therefore a key local employer. The university has a strong and growing applied health and care research portfolio, led by the Centre for Health Services Studies (CHSS), of which co-applicant Lindsay Forbes is a member. The University of Kent strongly supports the further growth of this portfolio; in this context, it has plans to set up an Institute of Health, Care and Wellbeing Research.

CHSS has worked with Kent health organisations and local government for three decades and has built up a strong local, national and international profile. CHSS conducts multidisciplinary research that is responsive to research users and directly impacts policy and practice, with a strong emphasis on public engagement, co-production and development of early career researchers; it has hosted a NIHR Integrated Clinical Academic Programme for several years. CHSS also hosts the leadership of the Applied Research Collaboration for Kent Surrey Sussex (ARC KSS); Lindsay

Forbes co-leads the public health theme and runs the ARC KSS Public Health Research Network linking local government public health practitioners and academia. CHSS also hosts the Kent branch of the Research Design Service SE and works closely with the Kent Surrey Sussex Clinical Research Network (KSS CRN) (Lindsay Forbes is Public Health Specialty Lead for the KSS CRN and leads an embedded researcher team at Kent County Council, funded by the CRN).

Kent and Medway Medical School (KMMS), a collaboration between the University of Kent and Canterbury Christ Church University, is also a key element of the environment for MHDRC. It started taking students in 2020, with a long-term aim of promoting better quality health and care services and therefore contributing to regeneration in Medway. KMMS is developing a research portfolio that will align with the objectives of the Council and wider determinants of health: professorial appointments have included those with an interest in migration, socio-cultural dimensions of health and illness in underserved areas and public mental health; a new professorial appointment focusing on rural and coastal health will soon be made.

1.2 Current research environment

Research is a key priority for Medway Council across all levels of the organisation.[5] As noted above, one of the values in the council plan is to strengthen collaborations with universities to build research and evidence (2021/22).[4] The Council has already started to develop its public health research capacity and capability over recent years, driven by the proposed Programme Director, Dr David Whiting, who is an experienced public health consultant with an established academic and publication track record (H-Index: 33). This includes hiring two staff with PhDs in the public health intelligence team over the last four years, creating a new post of Senior Public Health Research Officer in early 2020 and from early 2021, funding 66.7% of a Reader in Public Health in KMMS. The Senior Public Health Research Officer was hired specifically to grow research capacity and capability, and this has led to:

- **Increased public health research delivery,** including four in-house research projects (including a large epidemiological survey of the wider determinants of health, such as education, housing, employment, access to green spaces) and writing four evidence-informed summaries that have informed council activity (e.g., Covid infection control communication plan and vaccination uptake in ethnic minority communities).
- **Increased capacity to build academic collaborations and write applications for research funding to NIHR funding streams,** developed nine funding proposals in collaboration with universities and other organisations and disseminating information about research funding opportunities to council staff.
- **Increased council officers' public health research capability** by supporting them to design, deliver and disseminate research, for example, a recently published evaluation of service users' experience of virtual cancer prehabilitation during Covid.[6]
- **Started to develop processes for research governance** to ensure research is well-managed, ethical, consistently delivered and scientifically rigorous.
- **Developed systems for public/partner involvement** in research in Medway Council.

The corollary of these activities is a **shift towards Medway Council having a public health research culture,** with public health research increasingly being seen at corporate and council level and throughout the structure as an essential part of its function. Awareness of the importance of public health research has risen among councillors, corporate leaders and officers. Robust evidence of this is the commitment of funds towards posts and internal research projects.

Medway Council has worked with local academic and health system partners and has a strong track record of collaborative health research, including successful awards of joint research proposals (e.g., developing a public health research system (NIHR131931 £48K[5]), in-house research projects, e.g., evidence-based summaries to inform Covid response and recovery, on topics such as workforce support and patterns of infection, and joint collaborations with local health system partners, e.g., NHS partners and Kent County Council.

1.3 Rationale for the design of our HDRC

Medway Council is keen to develop a **robust research culture and become more research active** so that it can better use and generate evidence to improve the health of residents in its communities.

To develop our HDRC we used a logical framework approach (Attachment 5), which was built on our learning from previous research on creating health and wellbeing research systems.[5] We considered what NIHR aims to achieve and used a questioning process informed by previous research to create a problem tree to determine the underlying problems that need to be solved. The research infrastructure that we propose here will address the five key challenges that we identified:

(1) Insufficient capacity and capability to use existing evidence, identify funding opportunities, submit applications and conduct research.

MHDRC will increase capacity by: (a) dedicated leadership in the form of a Capacity, Training and Development Lead and a Deputy to build the skills of council staff to use evidence and in research methods; (b) a team of research officers to support and upskill council staff to develop research ideas, identify funding opportunities, write proposals and deliver research; (c) attracting academic public health (and related disciplines) to apply for pan-council funding bids hosted by the HDRC. For example, Dr Manikam, NIHR Advanced Fellow (NIHR300020; £900K) will undertake a follow-on five-year Advanced Fellowship hosted at MHDRC evaluating a high profile and award-winning intervention (Nurture Early for Optimal Nutrition).[7] Work is underway to develop an NIHR pre-doctoral fellowship application to work on the data from a Medway Health and Wellbeing Survey, including comparison with the Health Survey for England.

(2) Perceptions that research is not focussed on practical problems faced by local authorities and takes too long to produce usable results**.**

MHDRC will shift perceptions on the usability and relevance of research by: (a) developing research priorities collaboratively between the Council, public, academia and other stakeholders, so that they tackle solutions to real-life problems faced by the council and the public it serves; (b) undertaking comprehensive internal and external communication and engagement strategies that will showcase the results of MHDRC-led research and how this has influenced service design/delivery, health and wellbeing and/or addressed health inequalities; (c) establishing a strong and well-connected leadership team that influences corporate and council decision-makers across the full scope of the Council's responsibilities.

(3) A lack of understanding by council officers and elected members (councillors) of how research can lead to improved health for residents. Until now, research has not been routinely used by the Council, so its value has not been clearly demonstrated.

MHDRC will ensure elected members and senior managers recognise the value of research on improving health by: (a) facilitating research activity through collaborations across the health system locally, regionally and nationally, including academics, councils, NHS partners and third sector; (b) building on existing collaborations to showcase the value of high-quality research in improving health, including in non-health disciplines; (c) building research into staff annual plans; (d) providing case studies to demonstrate where research has improved health, wellbeing and/or addressed health inequalities; (e) recognising that developing research culture is organisational change that needs to be planned for and implemented systematically, and is likely to be an on-going process that lasts for the duration of the MHDRC.

(4) Non-public health parts of the council not recognising the magnitude of their role in improving health through their services.

MHDRC will help the whole council to recognise its key role in determining the health of the public by: (a) producing regular outputs from MHDRC comms team including disseminating where non-public health council activity has impacted on health and wellbeing; (b) working with service managers to build health outcomes into their service plans across all council functions; (c) writing and sharing evidence reviews; (d) reporting to the Regeneration, Culture and Environment Overview and Scrutiny Committee, which has responsibility for a number of areas related to the wider determinants of health, such as green spaces, the local plan, economic development, social

inclusion, and community development; (e) influencing elected members and members of the corporate management team.

(5) Absence of research infrastructure to support staff to undertake research activities. Council officers with research skills and experience need infrastructure and processes to build these activities into their roles and ensure that research can be delivered by the organisation.

MHDRC will provide research infrastructure by: (a) building research and information sharing infrastructures to ensure the organisation can contract with research funders, deliver research alongside other council activities, conduct research safely, legally and ethically and council officers to undertake research activities; (b) providing training on using evidence and research methods to council officers; (c) communicating research development opportunities and the role of MHDRC so that colleagues know where to go for support. Further details are in the workplan, below.

2. Vision, aims and objectives

2.1 Vision

Medway Council will have a positive research culture and will show organisational and democratic support for the use and delivery of research evidence to inform local, regional and national policy on the prevention of ill health, health improvement and reducing health inequalities. This culture and support will be embedded across the work of the Council, recognising that health is influenced by the physical, economic and psychosocial environment and that these are not simply the remit of the public health department, but of all council departments.

2.2 Aim

To build a collaborative research system led by Medway Council that provides strong leadership, builds capacity, showcases the value of health research and embeds research as a routine function in local government for strategic and operational decision-making to benefit local communities' health and wellbeing. MHDRC will take a whole system approach, whereby council officers and leaders, elected members, academics and partners work together to co-develop and co-deliver the research priorities that matter to communities, analogous to the whole system approach Medway Council is currently leading to address obesity.[8]

2.3 Objectives

1. To ensure sufficient capacity, capability and commitment in the council to synthesise and use existing research evidence, develop research questions, identify funding opportunities, submit viable proposals for funding, and deliver research projects.
2. To ensure research activities are focussed on addressing the practical problems faced by local authorities, and council officers and members perceive that research can produce results in usable timeframes.
3. To ensure council officers and members appreciate how research can lead to improved outcomes for the health of their residents
4. To ensure that beyond public health, other parts of the council recognise the value and magnitude of their role in improving health and wellbeing through their services and the importance of research for achieving this.

3. Six-year delivery plan

We propose a six-year funding period (October 2022 – September 2028) with ambitions to make MHDRC activities, funding and research culture sustainable so that Medway Council becomes a good example of a research-active council and is an exemplar across other councils in the South East (with whom we work closely) as well as nationally.

3.1 Preparation Year (Year 0)

Months 1-12. Led by DW, DR and LF

The preparation year will focus on foundational work to (1) describe existing research-focused links with the third sector and underserved communities; (2) strengthen and build new research-focused links and develop a shared research vision; (3) develop a plan for research prioritisation; and (4) create a Communications and Engagement Strategy across the collaboration.

3.1.1 Governance and oversight

Although the full MHDRC structure and functions will be set up in Year 1 (see 3.2.1. Setting up MHDRC), the Year 0 workstreams will require oversight and governance. This includes:

MHDRC Executive Team: Core members of the Executive Team (the 'Leadership Team' fully outlined in 3.2.1 Setting up MHDRC) will be formed in Year 0, will meet weekly and be responsible for the delivery of the four Year 0 workstreams outlined below. This includes the Programme Director (Dr David Whiting); Academic Lead (Professor Lindsay Forbes); and Wider Determinants Lead (Ms Dee O'Rourke). The 'full' Executive Team will not be in place until Year 1, but a skeleton team will be formed in Year 0 to include the Capacity, Training and Development Lead (Dr Logan Manikam); Deputy Capacity Training and Development Lead (Dr Gary Tse); Lay Co-Applicant (Mr Rick Pataky); Research Support Manager (Ms Emma Hendricks); and Senior Research Fellow (Dr Sarah Hotham).

MHDRC Board: Will set the direction, scope, timeliness and budget. The Board will comprise the Director of Public Health, who is also the Kent and Medway System Sponsor for Population Health Management; Programme Director of MHDRC; Deputy Chief Executive of Medway Council; MHDRC Academic Lead; Portfolio holder for public health and adult social care and chair of the Health and Wellbeing Board (a Councillor); Head of Research and Innovation from Medway NHS Foundation Trust; Lay Co-Applicant to ensure the public voice is well represented. The Board will meet quarterly and report to the Medway Council's Corporate Management Team (CMT), which in turn reports to elected members. The Deputy Leader and portfolio holder for housing and community services will chair the Board.

Public Advisory Group (PAG): Will provide public perspective and be the facilitator for engagement and co-production. The full PAG consisting of 6-8 members will be set up in Year 1 (see 3.2.2 Governance and oversight arrangements). However, 4 members will be recruited to provide the public perspective in Year 0 and will meet quarterly.

Scientific Advisory Group (SAG): Will provide scientific and technical advice. Although SAG will be set up in Year 1 (see 3.3.2 Governance and oversight arrangements), Year 0 will focus on identifying and recruiting members. This is likely to include independent academics and specialists with expertise in health policy, public health, health economics, health psychology and public engagement.

3.1.2 Describe existing research focused links with the third sector and underserved communities

WS0.1 has two aims; (1) to describe existing research-focused links with third sector organisations and (2) to identify and define underserved communities.

Medway Council (public health and the wider council) and the University of Kent currently have many productive links with the community and voluntary organisations for various purposes (e.g., service design and delivery, strategic planning, research). However, there is currently no clear strategic overview of the extent or strength of the *research-focused links* specifically with these organisations. We will identify the extent and quality of existing *research-focused links* with third sector partners and underserved communities. This process will also highlight gaps in research-focused links. Strong research-focused links are fundamental to enabling MHDRC to reach and engage a diverse range of partners for research purposes. As well as the clear benefits of partnering with the third sector and engaging them in designing and delivering MHDRC strategies, plans and activities, they also act as a gateway to access local and underserved communities. As such, these research-focused links are vital to ensuring that the work of MHDRC focuses on priority areas of health and health inequalities result in sustained and meaningful improvements for the most vulnerable communities.

'Research' in this context will need to be defined at the start of the workstream but is likely to be broad to capture research activities ranging from commissioning academic research and collaborating on bids for research funding, to monitoring and evaluation.

Approach

To gather this information, will we conduct a **mapping exercise of existing research-focused links and gaps** between Medway Council (public health and the wider council), academic institutions and the third sector in a robust and systematic way using social network analysis.

Social network analysis (SNA) provides a tool to understand a community by mapping the relationships that connect them as a network, and subsequently drawing out key individuals, groups within the network ('components'), and/or associations between the individuals/groups. SNA can provide information about the reach of research, the impact of research activity and clearly illustrate gaps in the network.

To complete the SNA, we will gather data on:

- How research-focused links were initiated (direction),
- The quantity, frequency, and duration of each research activity,
- Other organisations involved in the research activity,
- Aspirations for future research collaborations: e.g., who is not involved but could be, how can we reach out.

Target third sector organisations will be identified through different sources. These sources will include: directors in each of the council's directorates who can cascade requests to service managers; HealthWatch Medway, who have comprehensive knowledge of the third sector in Medway; academic colleagues in the three Kent universities; and Medway Voluntary Action. We anticipate additional sources to be identified as we progress the work.

The approach to collecting data from organisations will be flexible and adapt to capacity and preference. We envisage using online surveys, meetings and/or telephone calls with representatives from organisations. The SNA will generate diagrams to show the size of the network (i.e., number of nodes, links and unique links), the cohesiveness of the network (i.e., number, density and diameter of components) and the centrality (i.e., number of links that pass through an individual/organisation).

Alongside collecting data for the SNA, we will use the opportunity to begin the process of **defining and identifying 'underserved communities'**. When speaking with our third sector partners, we will also collect information on the populations and communities they serve, the type of support provided and the aim of this support. In conjunction with the SNA findings, this insight will allow us to identify the research gaps, strengths and opportunities that will guide the focus of MHDRC (and be used in the development of MHDRC strategy).

It is important to note that building our knowledge and understanding of the underserved communities will be an ongoing process and is not confined to this workstream. We recognise that we must have a clear definition of 'underserved communities.' This will ensure MHDRC focuses on communities that traditionally have lower inclusion in research and engagement, high healthcare burden and have important differences in the ways they engage with public health interventions. We acknowledge the various challenges associated with this, including the lack of consensus and no agreed single definition, intersectionality, and the fact that the definition of 'underserved' is very context and research study specific.

In summary, we propose using Year 0 to widely explore our 'underserved' groups in Medway and establish a useful definition to help focus and prioritise MHDRC strategies, plans and activities. As part of this, we will ensure the Communications and Engagement Plan has a section on engagement specifically with underserved communities and include a definition identified by a

diverse range of MHDRC stakeholders. We will take learning from key work such as the NIHR-INCLUDE project to learn from best practice and apply this to a public health context.

Deliverables/outputs: Report on key findings and recommendations from mapping exercise including (1) overview of existing research focused links with third sector and underserved communities; (2) overview of gaps in these relationships (e.g., the links exist but have not been research-focused); (3) recommendations on how to fill gaps and strengthen existing relationships. The stop/go criteria will be the completion of the SNA and identification of research-focused gaps to inform the activities in WS0.2.

3.1.3 Strengthen and build new research-focused links and develop a shared research vision

WS0.2 aims to build third-sector research focused links and develop a shared vision of what MHDRC aims to achieve across stakeholder organisations (including the third sector, the University and Medway Council) and the public, including underserved communities.It will provide a mechanism to negotiate agreement on what constitutes 'research', what public health research activities look like, what the benefits will be and what the MHDRC can realistically achieve. This is important becauset at the outset these stakeholders will have different cultures, priorities, understanding of the need for evidence, expectations and conceptualisations of local council-relevant research, whether in academia, different parts of the council, the third sector or the public..

Approach

We will carry out this work in two phases.

Phase (1): work with the third sector and underserved communities

Findings from the SNA will illustrate the gaps in research-focused links and the organisations and underserved communities we need to build relationships with to close these gaps. This evidence will inform who we target to build knowledge and awareness about the role of research, and the wider MHDRC, in this preparatory phase. We are mindful that traditional methods such as questionnaires and focus groups prioritise the written and spoken word. This can exclude the voices of participants who are less confident about expressing their opinions and can disincentivise them from participating. Consequently, our approach needs to be adapted to the target population and recognise the need for novel approaches that use creative and reflective methods designed to build trust and promote collaborative working. Learning and best practice on reaching and engaging underserved communities will be gained from case studies and reports from public and third sector organisations; informal discussions with experts in engagement and collaborating with underserved communities; and insights from HDRCs who are using innovative methods to engage their communities. The latter will be gathered by liaising with other HDRCs (specifically those who have the best experience and/or made the best progress with community engagement) and by joining HDRC meetings for areas to learn from each other. Preliminary plans for engagement activities include:

- **Interactive workshop**

We will invite 20-30 representatives from third sector and underserved communities to a half-day interactive workshop. Using a solution-focused approach, the workshop will use a focal question (for example, 'what is the best way to engage you in health research in Medway') to guide activities. These activities could include round table exercises to understand more about the barriers/challenges to being involved in research, how best to involve them in research prioritisation and research activity, and to explore possible research ideas to improve the value of existing interventions and the unanswered research questions. The methods used to gather this information will be informed by best practice, but could include using a visual scribe, audio/visual recording of individual feedback, online voting polls, and idea ranking.

- **Visits to community groups/organisations**

We will reach out to organisations and seek to attend informal activities including meetings and events hosted by the third sector. Again, using the solution-focused approach, in these opportunities we will run abbreviated versions of the workshop- asking the focal question and gathering feedback through appropriate methods. HeathWatch Medway will also be called on to help build new research focused links with third sector organisations where there are currently gaps as they have excellent relationships with third sector organisations and community groups across Medway.

The aim of engagement exercises will be to showcase the valuable contributions to the public health evidence base that third sector organisations provide and set out the potential for growing this contribution. The exercises will introduce MHDRC and its vision and build an awareness of the research prioritisation process that will take place in Year 1 so third sector colleagues will be well-informed and able to engage effectively and play active roles in the process. This engagement will also help to gain insight needed to build a shared understanding of research between MHDRC and partners, which is a bedrock of the research prioritisation process in Year 1. Opportunities for joint working/initiatives (for example, joint research training and development activities between Community Health Researchers who volunteer for MVA with the Medway Public Health Research Champions) will be identified and delivered.

Phase (2): work across all local stakeholders

In this second phase we will expand our work to include a wider range of local stakeholders to develop agreement on the aims of the HDRC, the rationale for becoming research active in the council and what constitutes research. This will tackle the different perspectives that each stakeholder organisation and the public, including undeserved communities are likely to have about the proposed work of MHDRC. In this phase we will hold a consensus workshop to:

- Develop a shared research vision, aims and mission statement for MHDRC
- Identify how to engage all stakeholders (including local communities) in the research prioritisation process to be undertaken in years 1, 3 and 5.
- Identify potential new collaborations and ways of working.

Stakeholders may include (1) council officers from regeneration, transport, housing and planning, health and social care, education and welfare; (2) council decision-makers, including directors, assistant directors and senior managers from all departments; (3) decision-makers and researchers from the University of Kent; (4) external stakeholders and MHDRC collaborators, including Kent Police, Kent Fire and Rescue Service, NHS partners, including Integrated Care Partnership (e.g., Inequalities Prevention and Population Health Committee), culture and arts organisations including libraries, sports and leisure; Medway Community Healthcare and Medway NHS Foundation Trust and third sector (e.g., Second Chance Medway); (5) members of the public, including the Lay Co-Applicant, who will also help facilitate the workshops, Public Advisory Group and public groups, such as Medway Health Champions and Medway Diversity Forum. We will include people from underserved communities.

Deliverables/outputs: Final report outlining how we have strengthened and developed new relationships with the third sector and underserved communities and achieved a shared vision between these and the rest of the collaboration and other key collaborators. It will also provide recommendations on how best to engage the third sector in research prioritisation and research and showcase examples of joint working. The evidence in the final report will act as a stop/go criterion for progression into Year 1 and to inform WS0.3.

3.1.4 Developing a plan for research prioritisation

The aim of WS0.3 is to develop a robust and collaborative research prioritisation plan for use in years 1, 3 and 5 (see section 3.2.3 Strategy development, plans and prioritisation processes).

Approach

The first stage of this workstream is to conduct a scoping review of approaches to developing shared research priorities. This will include reviewing peer-reviewed literature, case studies and best practice from organisations that have carried out similar exercises (e.g., ARC KSS); and insights and learning from other HDRCs who will have started this process in their first year. This workstream will also harness insights from the engagement exercises in WS0.2, including the best ways to engage different stakeholders (e.g., local communities, council officers, partners etc.) in key MHDRC plans and activities including the research prioritisation exercise.

The scoping review and key insights from WS0.2 will identify the best methods to establish research prioritisation. It is likely that our approach will follow the James Lind Alliance (JLA) approach, which uses a combination of surveys and workshop interactions between key stakeholders. This approach has good support and rigour, and our team also has significant experience of applying it – Dr Logan Manikam has used it extensively for research prioritisation purposes including to identify research priorities for South Asian communities. We have allocated funding in the Year 0 budget to pay for expert advice from the JLA to help shape our prioritisation plan and to peer-review our plan.

The approach is also likely to use various sources of intelligence to support it including (1) local public health and council intelligence, e.g., Joint Strategic Needs Assessment, and Medway Health and Wellbeing Survey 2022 that consulted approximately 3,000 residents and identified areas of local service need, health outcomes and wider determinants of health; (2) national intelligence and peer-review literature on addressing health inequalities, e.g., Census 2021, guidance on place-based approaches to reducing health inequalities; (3) by consulting (e.g., surveying) colleagues in the council, statutory and collaborating organisations, e.g., Kent Police, Kent Fire & Rescue Service (KFRS), Kent & Medway CCG, Medway & Swale Health and Care Partnership etc., elected members and members of the public (Lay Co-App, PAG, Medway Diversity Forum, Medway Better Health Champions, etc.).

The decision-making process around the final list of priorities will likely draw from evaluability assessment methodology,[9-11] which will identify (1) the likely impact of the priority area to improve health and reduce health inequalities through manipulating the wider determinants of health; (2) whether the institutional context is appropriate for research in this priority area; (3) the likelihood of being able to identify measurable indicators of outcomes and a clear vision of success; (4) feasibility of implementing findings of the research across council services and activities, in Medway and elsewhere.

We will engage our stakeholders, including local and underserved communities, to help shape the research prioritisation plan. This will ensure maximum engagement from stakeholders and as such, results in meaningful research priorities for MHDRC. We will engage representatives from all stakeholder groups through mechanisms such as our Lay Co-App and PAG; established community groups (e.g., Medway Diversity Forum, A Better Medway Health Champions and resident groups like Luton Arches Residents' Forum); and strategic meetings across the health system, such as Medway Health and Wellbeing Board, ICS Inequalities Prevention and Population Health Committee, Medway & Swale Health Population Health Management Voluntary and Community Priorities Working Group and Joint Research Collaborative.

In summary, WS0.3 will develop a plan for undertaking research prioritisation in Year 1 following a scope review to identify the best method(s) (e.g., JLA) and engagement with stakeholders to shape the approach.

Deliverables/outputs: This workstream will deliver a plan to develop shared MHDRC research priorities using robust methods that involves MHDRC stakeholders, including underserved communities and the public, council and academic colleagues, and partner organisations including the third sector. The plan will act as a stop/go criterion for progression into Year 1 and will direct all research prioritisation activities in subsequent years.

3.1.5 Create a Communications and Engagement Strategy across the collaboration

WS0.4 will develop the MHDRC Communication and Engagement Strategy to achieve effective knowledge transfer and exchange (KTE) with all stakeholders **including local and underserved communities, partner organisations including public and third sector, as well as key stakeholders and funders nationally**. The strategy will include internal and external communications and engagement, using innovative and evidence-based approaches (e.g., as learned from other HDRCs). The Communications and Engagement Strategy will be signed off by the MHDRC Board.

Approach

The plan will be developed based on the following principles:

Co-design with local communities: the external Communication and Engagement Strategy will be co-designed with local communities (including underserved communities) to ensure KTE is effective and meaningful to the communities most impacted by health inequalities. Led by the Communication and Engagement Lead and the Lay Co-applicant, co-design will be achieved through a series of facilitated engagement exercises. These engagement exercises will be designed following engaging with third sector organisations and other HDRCs who have significant experience in engaging with underserved communities. They may involve approaches such as harnessing community leaders and representatives and/or third sector organisations who can act as a bridge to facilitate open and honest dialogue, and reach overlooked and vulnerable communities that may have less trust in public services or may find it hard to engage (e.g., unable to understand English). It is hoped that the co-design approach will also help build more trust in the council. The ambition is to engage people from around 15 communities (recognising that there is intersectionality and people may belong to more than one group), including but not limited to those from the most and those from areas of deprived areas in Medway, LGBTQ communities, rough sleepers, sex workers, people with learning disabilities, carers, people from ethnic minority groups and transient communities. Once the Communication and Engagement Strategy is drafted, we will engage with these groups to ensure that it is appropriate and meaningful to them.

Coherence with council and university communications: Coherence is needed between the MHDRC communications and engagement strategy and Medway Council and University of Kent communications. This will also create agreement across the collaboration in terms of what we are aiming to achieve and ensure buy-in from the council and university at a corporate level. MHDRC will work with communications and engagement colleagues in Medway Council and the University of Kent to ensure the goals of MHDRC are communicated appropriately.

Excellent use of existing communications channels: Use of established communications channels to reach internal (Medway Council, the University of Kent and third sector partners) as well as external audiences. Use of these channels will also ensure that there is coherence with the council and university corporate communications and engagement (see above), make good use of these resources, and can be used to reach engaged audiences internally and externally. Less engaged audiences or those who are often overlooked will need more creative approaches (see above).

Harnessing innovation and incorporating a range of approaches: We will maximise the utility of our connections with other HDRCs who are delivering creative approaches to engaging underserved communities and apply these locally as appropriate.

Advocacy for the new approach that HDRCs are collectively developing: to ensure that all local authorities are encouraged to understand the value of research focused practices in the development of their policies, strategies and plans. This will be done through participation in conferences and seminars (real world and on-line) and through contributions to publications that

are academic, local government and third sector focused. This will ensure that alongside the design and development of our approach we regularly engage with partners and stakeholders at a national level.

Deliverables/outputs: WS0.4 will deliver a Communication and Engagement Strategy for MHDRC that outlines innovative, effective and evidence-based approaches to knowledge exchange among all MHDRC stakeholders including local and underserved communities. The Communication and Engagement Strategy will be signed off by MHDRC Board. The strategy will act as a stop/go criterion for progression into Year 1 and will direct all communications and engagement activities in subsequent years.

3.2 Workstream 1: MHDRC set up, strategy development and priority setting

To achieve objectives 1 and 2. Led by DW, DR and LM. Months 12-72.

Workstream 1 (WS1) includes recruitment to MHDRC, co-creation of the strategy, policies and practices with internal and external stakeholders, development of a research prioritisation process and design of monitoring and evaluation frameworks.

3.2.1 Setting up MHDRC

MHDRC full structure and functions will be set up in Year 1 (aside from those set up in Year 0 – see Section 3.1). There will be a significant amount of work in the first year recruiting staff, setting up structures, creating procedures and co-producing priorities. The structure (Attachment 2 Organogram) includes an Executive team comprising:

- Programme Director, who will take overall responsibility for the delivery of the programme (to be held by Dr David Whiting, Deputy Director of Public Health, Medway Council).
- Wider Determinants Lead, who will lead on cross-council collaborations to ensure a focus on whole council involvement in research to improve health (to be held by Dee O'Rourke, Assistant Director, Culture & Community, Medway Council, a role that includes responsibility for place-based programmes, regeneration, economic growth and cultural development)
- Capacity, Training and Development Lead, who will be responsible for activities to develop council staff research skills (to be held by Dr Logan Manikam, Consultant in Public Health, Medway Council)
- Deputy Capacity, Training and Development Lead, who will support activities to develop council staff research skills (to be held by Dr Gary Tse, Reader in Public Health, Medway Council and KMMS)
- Academic Lead, who will provide academic leadership on behalf of the University of Kent (to be held by Professor Lindsay Forbes, Professor of Public Health, University of Kent)
- Public Involvement and Communications manager (to be recruited)
- Lay Co-Applicant (to be held by Rick Pataky, a member of the public with relevant lived experience and championing the voice of underserved communities)
- Research Support Manager (to be held by Emma Hendricks, currently Senior Public Health Research Officer, Medway Council)
- Senior Research Fellow (to be held by Dr Sarah Hotham, Senior Research Fellow, University of Kent)
- Research Governance and Compliance Manager (to be recruited)
- Programme Manager (to recruit)

Core members of the Executive Team ('Leadership Team'), i.e., Programme Director, Academic Lead, and Wider Determinants Lead, and the Programme Manager will meet weekly. The full Executive Team will meet every six weeks and will be responsible for the delivery of:

Communications and engagement: to deliver MHDRC internal and external communications about the objectives, activities and outputs of MHDRC to council staff, councillors, partner organisations, the public and service users. Public and service user engagement will be at the heart of MHDRC's work and will use a co-production approach, recognising the public as equal partners in MHDRC. Led by a Public Involvement and Communications Manager, managing a Comms Officer and Public Involvement Coordinator. This function will be supported by 0.1 FTE

Patient and Public Involvement (PPIE) Advisor from the University of Kent. This role will provide the expertise and best practice to ensure MHDRC PPIE policies/practices are robust and aligned with NIHR INVOLVE standards.

Research: to support council colleagues to deliver research and evidence-based policy advice aligned with MHDRC research priorities. There will be a Research Support Manager to manage the MHDRC research portfolio and a team of three Senior Research Officers, Senior Research Fellow and a Research Fellow (the latter two embedded in the team but employed by University of Kent). The Research Team will identify opportunities for research and funding, support research question development, co-write research proposals, and support effective dissemination. It will also liaise with the KSS CRN about participating in NIHR portfolio studies. The team will also deliver training across the council on identifying and formulating research questions, using evidence and research methods.

Research governance, monitoring and compliance: to develop MHDRC governance and regulatory arrangements and establish a network of governance colleagues across Medway. The team will include a Research, Governance and Compliance Manager, supported by a Governance and Monitoring Officer, who will develop governance and regulatory arrangements, including those between organisations for information governance. They will work with the research officers to set up and implement streamlined systems and procedures by which the council can contract to do research projects, identify the implications of research delivery for the organisation, agree that research is appropriate, safe and ethical, ensure that research activity is supported and delivered by services, and is monitored and reported to funding organisations according to their requirements. These systems and procedures will be implemented for NIHR Portfolio studies and 'home-grown' research.

Training and development: to create a capacity, training and development programme (CTDP) and support its implementation. A distinct workstream has been created for the development, implementation and evaluation of this programme (see 3.3 Workstream 2: Research capacity, training and development) as this is pivotal to the MHDRC approach. The programme will be well-positioned to influence existing council training programmes, e.g., graduate and apprenticeship schemes, and will align with the Council's learning and development functions to facilitate this.

Programme management: responsible for supporting the management of MHDRC as a whole and managing individual project milestones to ensure projects are delivered in a timely manner, on budget and are achieving planned deliverables. The Programme Manager will manage an Administrative/Executive Support Officer who will provide administrative support to MHDRC and executive support to the Leadership Team. A Finance Officer will identify research support costs and manage MHDRC budget.

These functions will be integrated with each other, and other council functions, rather than be siloed and separated. This is essential to achieving resilience, buy-in from council colleagues and will integrate research into the organisation. The MHDRC Research Team will benefit from close relationships with the Medway Public Health Analytical Team (also led by Dr Whiting) that delivers advanced analytical functions using computational statistics, such as reproducible approaches and Bayesian statistics. The team provides a blend of skills, including computer science, statistics and epidemiology, and includes a Data Scientist, two analysts with PhDs, and an anthropologist who specialises in analytics. MHDRC Comms & Engagement Team will be embedded with Medway Council's Comms Team that provides communication, media, design and marketing support to the council. Training and development activities will align with the Council's learning and development functions and Information Governance Team.

3.2.2 Governance and oversight arrangements

MHDRC governance arrangements (Attachment 3), take learning from those governing KSS ARC and will be embedded within and alongside established Medway Council governance structures:

- **MHDRC Board** will set the direction, scope, timeliness and budget. It will ensure delivery of the vision and that the work carried out addresses health inequalities locally and also regionally and nationally. It will ensure tangible outcomes are being delivered in line with MHDRC objectives. The Board will be set up in Year 0 (see 3.1 Year 0 for membership). Public

representation will include the Lay Co-App from Year 0. An additional two lay members will be included from the start of Year 1 to ensure to public voice is well represented. The Board will meet quarterly and report into the Medway Council's Corporate Management Team (CMT), which comprises all council directors and the chief operating officer and is chaired by the chief executive. CMT in turn reports to elected members.

- **A Public Advisory Group (PAG)** will provide the public perspective and will be the vehicle for engagement and co-production. PAG will be set up in Year 0 (see 3.1 Year 0 for details) in a smaller form (4 members). Full PAG will commence from Year 1 and consist of 6-8 members of the public who live, work or study in Medway and will provide an advisory role to MHDRC. Recruitment will focus on members of the public who can provide the voice for underserved communities who are subject to poorer health, e.g., ethnic minority, LGBTQ, mental health problems, substance misuse, homelessness or long-term unemployment, as recommended by members of the public in the development of this proposal. PAG will meet quarterly and be co-chaired by the Lay Co-Applicant and 1 FTE Research Fellow (Year 0 only) and the PPIE Advisor (University of Kent; years 1-5).
- **A Scientific Advisory Group (SAG)** will provide scientific and technical advice to the MHDRC Executive Team to ensure research delivered under MHDRC is robust and meets rigorous ethical and methodological standards. Although SAG will be set up in Year 1, Year 0 will focus on identifying and recruiting members. SAG will meet annually for a one-day workshop. Membership will include independent academics and specialists with expertise in health policy, public health, health economics, health psychology and public engagement (to be appointed during the first year of the MHDRC) and will be chaired by Dr Alison Barnett, South East England Regional Director of Public Health and former Director of Public Health for Medway.

MHDRC will also inform the following existing groups about key MHDRC activity and outputs including: (1) **Integrated Care Board (ICB),** which has responsibility for arranging the provision of health services in Kent and Medway (when it formally takes over from the CCG on 1 July 2022). While membership is still being determined, it will include senior colleagues from across the Kent and Medway health system. MHDRC will report to the ICB for information to aid knowledge transfer and exchange. It will also facilitate access to a wide network of colleagues across the local health system to provide context for the MHDRC, opportunities for collaborative research; (2) **Medway Health and Wellbeing Board** (MHWB) to provide support and guidance. The MHWB comprises elected members, senior council officers, representatives from key NHS organisations and HealthWatch, and it provides collective political, clinical and community leadership to improve health and reduce inequalities across Medway. Reporting into the MHWB will also facilitate access to elected members across Medway and senior managers across all council directorates to disseminate MHDRC outputs, value and achievements.

MHDRC governance arrangements need to be considered in the context of other Medway Council structures including the Health and Adult Social Care Overview and Scrutiny Committee; Children and Young People Overview and Scrutiny Committee; Planning Committee, etc. MHDRC will report to these committees as appropriate.

3.2.3 Strategy development, plans and prioritisation processes

The MHDRC strategy and research prioritisation process will be co-created with internal and external stakeholders including the public. This will ensure a range of perspectives and expertise and will encourage commitment to the MHDRC.

The strategy will be drafted by the Executive Team and the PAG, and will involve key council forums, including the MHWB, the Turning the Tide Board (which focuses on addressing health inequalities related to ethnicity), and Regeneration, Culture and Environment Overview and Scrutiny Committee, and external public forums in its development. It will be agreed by the MHDRC Board. **Plans will be co-created** for each business area, specifically: capacity, training and development (see WS2); building research and evidence including governance and processes (see WS3); and communication and engagement (see WS4). **MHDRC research priorities** will be identified in Year 1 through a series of engagement and co-production exercises and reviewed in Years 3 and 5 to reflect changes in local need. The approach will be planned fully in Year 0 (see 3.1.4 Developing a plan for research prioritisation). The approach is likely to result in approximately

eight priority themes. The process will be collaboratively led by the Academic Lead and Wider Determinants of Health Lead, demonstrating both the embedding of academia into the council and a focus on practical problems faced by local authorities (objective 2). Priority research themes will be reviewed and refreshed in Years 3 and 5 to enable the MHDRC to respond in an agile way to changing contexts. Communities of Practice (CoPs) will be created for each research priority (see 3.4 Workstream 3: Building local research and evidence to drive council activity).

3.2.4 Monitoring and Evaluation of WS1

Our monitoring and evaluation approaches have been shaped by our logic model (Attachment 5) and are therefore grounded in the theory of change for each workstream. Monitoring will be reported on every six months to align with NIHR reporting requirements.

***Monitoring*:** We will monitor and report on the developmental activities set out above. We will also monitor: (1) number of managers who encourage staff to include research activities in their personal development reviews; (2) number of occasions an elected member chaired a public engagement event on research; (3) positive perceptions that research can help improve health, wellbeing and reduce health inequalities by senior officers (indicators identified by our logic model; Attachment 5).

During the first year of the MHDRC, we will develop a survey instrument to assess levels of understanding of the role of health research as well as perceptions of the relevance of research to solve practical problems faced by the council among Medway Council senior decision-makers, officers and elected members. We will adapt methodology developed by Dr Logan Manikam in undertaking national surveys of health and social care professionals during his time as a NICE Scholar.[12] We will develop the instrument in collaboration with colleagues across the council so that it resonates with different teams and roles, which will encourage a high response rate. The survey will be carried out annually to monitor progress. We will also use learning and baseline data collected as part of our building public health research project,[5] which surveyed Medway Council about perceptions of research activity and use of evidence to improve health and wellbeing as appropriate.

***Evaluation*:** The success of the implementation of MHDRC will be evaluated by assessing (1) implementation against aims, objectives and project plan (e.g., timeframes and budget); (2) facilitators and barriers to implementation to identify opportunities for learning and best practice; (3) reflections from MHDRC Executive Team and Board on implementation. The evaluation of WS1 will be delivered in Year 2 so that it provides timely insight that might benefit the implementation of future HDRCs.

3.3 Workstream 2: Research capacity, training and development

To achieve objectives 1, 2 and 4. Led by DW, LM and LF. Months 18-72.

WS2 focuses on building research capacity and capability among council officers to synthesise and use existing evidence, identify funding opportunities and submit bids and conduct primary research, including quantitative and qualitative research skills, public engagement, involvement and co-production approaches and research dissemination.

3.3.1 Approach

The research capacity, training and development plan will be developed by the Capacity, Training and Development lead (LM) and deputy (GT). They will subsequently lead the programme, which will be delivered by the Research Team. Inclusion of embedded researcher roles (employed by the University of Kent) within MHDRC structure will ensure academic rigour and a range of methodological approaches while focusing on addressing the practical problems faced by councils (objective 2).

The research capacity, training and development programme (CTDP) will be aligned with existing Medway Council learning and development programmes so that it is congruent with and embedded in council activity. For example, it will align with the public health workforce development programme that is designed to build a flexible and resilient workforce that meets the needs of the population of Medway and external research and development training opportunities, for example, provided by NIHR.

3.3.2 Implementation

WS2 will commence in Year 1 with development of the CTDP plan, with training starting from Year 2, as it relies on MHDRC structures, staffing, functions and strategic plans being in place. Key elements will be training to

- use evidence to inform service design, delivery and evaluation
- identify research opportunities and questions in their area of work
- deliver research, e.g., quantitative and qualitative research skills, engaging the public and service users in research, co-production, disseminating research findings.
- identify and apply for research funding opportunities, including linking with NIHR Research Design Service SE
- identify and apply for academic developmental opportunities, e.g., from the NIHR Academy and ARC KSS Academy

We will also set up research internships with academia that allow council officers to spend time on a project with academics.

Training in research methods will be delivered by a variety of approaches to suit different learning styles, including face-to-face sessions, live online sessions, interactive online training, and manuals. We will focus on ensuring that learning is active and experiential.

Engagement in CTDP will be encouraged by (1) creating MHDRC Research Champions across all levels of the council, from senior managers to junior officers and apprentices, whose roles will be to raise awareness of research and encourage council officers to engage in training and development activities (see 3.4 WS3); (2) alignment with council staff development programmes, including public health workforce development and council-wide learning and development programmes; (3) publication of events in the MHDRC bulletin (see 3.4 WS3); (4) including research activities in council officers' annual personal development reviews.

3.3.2 Monitoring and Evaluation of WS2

Monitoring: Measures of success include: (1) number of council officers trained; (2) number of officers contacting MHDRC to find out more about training and development opportunities; (3) number of council officers applying for these.

Evaluation: The success of WS2 will be evaluated by assessing: (1) implementation against aims, objectives; (2) facilitators and barriers to implementation to identify opportunities for learning and best practice; (3) reflections from attendees at the learning events including useability of the learning and planned involvement in research in the future. To promote efficient and embedded working, the evaluation will also include evaluation parameters from other council workforce development programmes, e.g., the public health workforce development programme, and the council-wide learning and development programme. The evaluation will be delivered early in Year 5.

3.4 Workstream 3: Building local research and evidence to drive council activity

To achieve objectives 1 and 2. Led by DW and LF. Months 18-72.

WS3 depends on the research governance plans being established and enacted so that there is an agreed process for carrying out research in the council, including contracting, monitoring, agreeing research support for individuals and services, assuring that research is carried out legally, safely and ethically using good science and robust methods and is aligned with the research prioritisation framework. Where appropriate, other HDRCs will be invited to collaborate to maximise learning, as it is likely that the five HDRCs will have some common problems, but in populations with different characteristics.

3.4.1 Approach

Our approach is to create an environment of genuine co-production to ensure research achieves acceptable, feasible, evaluable, replicable and sustainable findings and recommendations. To achieve this, we will engage council staff, collaborators and the public (including underserved communities) to plan, conduct and evaluate research. Our approach will be to build Communities of Practice (CoP), each of which will focus on a research priority theme. CoPs have been demonstrated to be a successful approach to create, house and exchange knowledge and are increasingly used in research.[13] We will undertake a stakeholder mapping process to identify potential for CoP membership, which may differ according to research priority. CoPs will be groups of individuals with common interests but critically from across a range of disciplines/backgrounds (including service users and members of the public) and will stimulate thinking and discussion to form research questions and different ways of considering and answering those questions, seeking out expertise to support developing research projects, identifying suitable collaborators and developing proposals and protocols.

A key priority in our approach will be to engage underserved communities in our research and so, wherever possible, we will use members of the public who are trained research champions to engage with these communities, as we know they are more likely to trust other members of their communities when invited to engage in research (as done during Covid, see WS4).

Although research and policy advice will be produced by the Research Team, our approach is for council officers to plan and deliver research in collaboration with MHDRC and collaborators (e.g., academics from non-traditional public health disciplines – we have links with, for example, University of Kent's Built Environment, Law, Geography, Anthropology and Social Science disciplines). This will be achieved by building capacity (WS2), membership in CoPs and other mechanisms to achieve a change in culture (Section 4). When planning, designing and evaluating research, we will make sure council officers make appropriate use of other NIHR infrastructure for support for design, development, delivery and dissemination and evaluation, such as ARCs, NIHR Academy, RDS, CRNs and other HDRCs.

3.4.2 Implementation

There will be a CoP for each priority research theme. Each CoP will include council officers, researchers, including those from MHDRC, across the council and academia, third sector organisations and members of the public, who may or may not be service users. CoPs will set their own shared and agreed terms of reference, and ways of working, and determine how long they should last. The CoPs will report to the Research Team and will create opportunities to initiate research projects and evidence syntheses, identify opportunities for research funding or CRN portfolio studies and identify mechanisms for knowledge transfer and exchange. They will be supported by the Research Team, who will support with horizon scanning to identify new opportunities for research and new concepts relevant to the research themes.

As well as providing training (see WS2), the Research Team will also produce reviews of evidence, support the writing of bids for research funding, the design and delivery of primary research (which may be conducted within existing council resources), and the writing of academic journal articles. Medway Council is a member of the Kent and Medway Shared Analytics Board and is contributing financially to the development of a shared linked-data set (KERNEL), linking data at an individual level from different data sources, e.g., primary care and acute data across Kent and Medway. Depending on the priorities chosen in WS1, this linked dataset may provide a useful source of data for research.

The Executive Team will foster links between council departments and academic departments that are not normally considered to public health, for example the law school, school of architecture and planning, and the school of economics. With the support of the HDRC team, council officers will work with these other academic departments to develop research projects to improve health and reduce health inequalities. For example, the council's planning department could work with the law school to explore how existing legislation can be used to influence the availability of alcohol or fast-food outlets in specific areas. As well as peer-reviewed articles, the Research Team will support council officers to write articles for magazines read by local government leaders.

At an organisational level, MHDRC will work with council officers and leaders to include research more prominently in the development of Medway Council's five-year plan, which will run from 2023 to 2028. Embedding research into the council plan will ensure that all departments of council include research in the development of their annual operational plans.

3.4.3 Monitoring and Evaluation of WS3

Monitoring: A monitoring framework will be developed that can be applied to the work of each priority research theme and includes measures of success that indicate the progress of each CoP and the MHDRC overall. Success measures for each priority research theme (and MHDRC overall) may include: (1) number of research projects started; (2) number of evidence reviews produced; (3) number of proposals for research funding submitted; (4) number of CRN portfolio studies recruited to; (5) number of journal articles submitted to peer-review journals

Evaluation: The success of WS3 will be evaluated by assessing: (1) implementation against aims, objectives; (2) facilitators and barriers to implementation to identify opportunities for learning and best practice; (3) reflections from those involved in the CoPs, e.g., lessons learned, examples of good practice. Perceptions of council leaders about the speed with which research can provide usable results will be assessed in a survey (WS1). We will also evaluate the effectiveness of our co-production activities (e.g., in CoPs). Tools such as the Making Visible the Impact of Research (VICTOR) tool (adapted for a council context), will also be used to identify the impact of research. Findings can be used to communicate MHDRC outputs to key audiences. The evaluation will be delivered Year 5.

3.5 Workstream 4: Dissemination strategy, outputs, and pathways to impact

To achieve objectives 3 & 4. Led by DW, DR and LF. Months 18-72.

3.4.1 Approach

Our knowledge transfer and exchange (KTE) activities will focus on building trusting and enduring partnerships between local practitioners, policymakers and academia, using professional communications, engagement and marketing expertise. KTE mechanisms will be context-appropriate, i.e., suited to the topic, project, research findings, and designed to meet the needs of priority audiences. We will use approaches that include push, pull, linkage and exchange mechanisms to stimulate engagement.[14,15] MHDRC Executive Team and Project Management Team will ensure KTE activities are coordinated, appropriate and targeted. An internal and external Communications and Engagement Plan will be developed in Year 0 to drive all MHDRC KTE activities (see 3.1.5 WS0.4 Create a Communications and Engagement Strategy across the collaboration).

3.5.2 Implementation

Implementation will include:

(1) Local communities: In Year 0, a public communications and engagement strategy will be co-produced with the Lay Co-applicant, MHDRC stakeholders (e.g., council officers, decision-makers and partners), local communities and PAG. This will use a range of methods, e.g., print and social media, infographics, events, to disseminate activities and outputs, ensuring that they are meaningful and accessible to the public, as recommended by PPIE in the development of this proposal. Established community groups that will also be called on for KTE include:

- **Medway Diversity Forum** is an active community group representing minority ethnic communities across Medway. It includes sub-groups of diversity research champions who are community leaders (often multilingual) and have been trained by the Medway Council. They have supported the co-production of council interventions, including a communication programme to inform Covid infection control and increase vaccine uptake in diverse communities.
- **A Better Medway Health Champions** are members of the public from across Medway who are passionate about improving local health and wellbeing through council activities and their own networks. Medway Council offers Champions a comprehensive training programme covering a broad array of health and wellbeing topics, and 501 champions have been trained to date. MHDRC will develop a training session on research skills so that Champions are trained to disseminate research outputs in a similar way to those in the Medway Diversity Forum.

- **Established community groups** accessed through the Lay Co-applicant or PAG members. PPIE for this bid recommended the recruitment of PAG members who can act as 'trumpets for the voices of their communities' to magnify the public voice in MHDRC planning, activity, dissemination, and evaluation e.g., Luton Arches Residents' Forum.

(2) Local authority: the MHDRC team recognises that dissemination to council senior managers, officers and elected members is essential to ensuring Medway Council becomes research-active in a sustainable way. To achieve this, we propose:

1. **Communities of Practice** (WS3) that will help to identify mechanisms for knowledge transfer and exchange relevant to their specific research priority theme.
2. **Research into Practice events** for local authority managers and officers once a year. These half-day events will showcase the outputs and impact of MHDRC and will increase awareness of the value of research to the public and the organisation.
3. **MHDRC Research Champions in Medway Council**. At a senior level, including elected members and senior officers, to highlight the impact of MHDRC outputs, to champion local authority input into MHDRC activity, e.g., strategy development, research prioritisation, applying for funding opportunities, etc., and to disseminate the message that research is everyone's business. Senior MHDRC Research Champions can also ensure research planning links to wider organisational planning processes. They will provide valuable dissemination at a senior level across the council and the wider health system in Kent and Medway. This top-down approach to shift culture will complement the bottom-up approach to enable Medway Council to become a research active organisation (see section 4). In addition, there will be other Research Champions across the council who are passionate about the routine integration of evidence and research. Their role will be to: (1) raise awareness of research and encourage the routine embedding of research and evidence across all departments; (2) champion and encourage council officers to engage in training and development activities on research; (3) identify opportunities for service-user or public engagement in research; and (4) disseminate the outputs of MHDRC research to the rest of the council as part of business as usual. The aim will be to recruit research champions across departments and directorates to ensure a good spread across the council.
4. **MHDRC bulletin** providing a monthly report of MHDRC activities and outputs. The bulletin will also provide a platform to communicate research and development opportunities to council colleagues

(3) Local health system and partners: We propose to use our established relationships, strengthened during Covid response and recovery, across the local health system for KTE opportunities. Specifically:

- A member of Medway Council's cabinet will present an annual review of research activity to the **Integrated Care Board** each year. This will ensure that the local health system is kept informed about research that is being undertaken in Medway and will provide an opportunity for the health system to contribute ideas and opportunities for collaborative research.
- **ICS Prevention Group, Population Health Management Group and Turning the Tide Group** will provide strategic platforms for KTE and facilitate engagement with partners. This also provides value to the local health system beyond Medway Council, as it provides opportunities for KTE, exploring joint research opportunities and sharing outputs that are applicable to the wider health landscape.
- **Joint Research Collaborative** (JRC); a community of research colleagues from across Kent and Medway health and social care including practitioners and academics, will also be used to disseminate knowledge, including (1) presentations at the annual JRC conference to showcase MHDRC outputs; (2) hosting MHDRC outputs on the JRC website, with links to MHDRC website; (3) regular input, presentations and agenda items to disseminate MHDRC activities and outputs to the JRC to facilitate KTE with local research colleagues; (4) MHDRC research team membership on the network.

(4) Regional: MHDRC will make the most of established relationships with regional research partners including ARC KSS and local CRN. ARC KSS, a £9M plus £7M matched-funded NIHR

infrastructure partnership, will provide a vehicle for engagement and implementation of evidence across all member organisations covering a population of approximately four million people. The ARC KSS Director is closely involved with and supports this application (see letters of support). The Regional Director OHID SE & Regional Director of Public Health NHSEI SE will chair the Scientific Advisory Group, and Medway Council chairs the South East regional coordinating group, established following the Covid response, in which best practice has been shared.

(5) Networking with other HDRCs: It is important that funded HDRCs create a network for knowledge exchange, sharing learning and building research capacity through collaborative research applications. Given the focus of the HDRC programme on research to address health inequalities, we anticipate overlap with other HDRCs, even if they have different local priorities. HDRCs working together will mean that research is more likely to be relevant to a broader range of contexts, and may increase statistical power, where relevant. MDHRC will take an active role in building this network of HDRCs. To facilitate this, we have costed one HDRC networking event to be hosted at Medway and to include two colleagues from each of the five HDRCs. This will be an opportunity to build and strengthen partnerships between the HDRCs that are valuable to disseminating knowledge, facilitating joint national research projects and creating opportunities to spread learning from HDRC sites to other local authorities. Alongside this, we have budgeted for travel for two MHDRC colleagues to attend HDRC networking events each year at other HDRC sites.

(6) National: we will use the following to facilitate national KTE activities: (1) national local government engagement platforms, e.g., the Local Government Association, for communication of research findings; (2) conference contributions and academic publications to share learning to professional and scientific peers, including publications and conference contributions by council officers who are not from the public health department, i.e. departments that are related to the wider determinants of health; (3) dissemination to the Cabinet Office-led *What Works Network*, an initiative that aims to improve the way government and other public sector organisations create, share and use (or 'generate, translate and adopt') high quality evidence in decision-making[1]. We will also host a virtual MHDRC conference (Year 5) to showcase MHDRC outputs nationally and invite the other HDRCs to present their research outputs to share learning.

In summary, the likely outputs resulting from the above activities include research summaries/videos/infographics for local communities including translated materials (for each research priority theme; briefing papers (for council meetings); guidelines (for council activities and services); peer-reviewed publications (aiming for 12 with a focus on open-access); presentations at conferences or networking events; articles in local government publications and *What Works Network*; and a virtual conference led by MHDRC to showcase activity, outputs and learning.

3.5.2 Monitoring and Evaluation of WS4

Monitoring: Measures of success include: (1) number of presentations each year about the work of MHDRC at regional or national conferences; (2) attendance by MHDRC Executive Team at meetings with HDRCs to discuss learning, progress and challenges; (3) number of council boards and committees, that mention MHDRC research; (4) number of articles submitted to local government journals or websites o; (5) number of abstracts and manuscripts submitted to scientific conferences and journals (6) number of engagement activities with local communities.

Evaluation: The success of WS4 will be evaluated by assessing: (1) implementation against aims, objectives; (2) facilitators and barriers to KTE to identify opportunities for learning and best practice; (3) reflections from key audiences on KTE activities. We will also track impact of research findings in terms of changes in council policy or investments. We will also evaluate the effectiveness of our co-production activities. The evaluation will be delivered in Year 5.

[1] https://www.gov.uk/guidance/what-works-network

3.5.3 Anticipated impact

Impact on Medway Council becoming a research-active organisation

During the 5-year funding period, we expect to see improvements in indicators that demonstrate Medway Council becoming a research-active organisation. These indicators are outlined under 'monitoring' for each workstream and in the logic model, and include:

(1) **increased capacity** e.g., an increasing number of primary research projects, evidence syntheses that change council policy and/or practice and funding applications completed by council officers
(2) **increased capability** e.g., number of council officers trained in research methods and/or applying for development opportunities including shadowing, fellowships and scholarships
(3) **increased recognition that research can improve council services** e.g., number of council meetings that reference MHDRC activity/outputs and positive perceptions by council leaders and senior officers that research improves health and wellbeing in Medway
(4) **increased perception that research addresses practical problems** e.g., an increasing number of research projects delivered in high priority areas, increased agreement by council officers and senior officers that research in Medway solves practical problems and KTE activities delivered to local communities.
(5) **Increased recognition of staff beyond public health of the value of research and their roles in improving health and wellbeing** e.g., increasing number of council papers that cited health, wellbeing and health inequalities and research projects involving non-traditional public health academic departments at universities.
(6) **better use of public money through improved services.** This should result in improved measures in the council plan monitoring framework.

Anticipated impact on health and wellbeing

During the 5-year funding period, we expect to see improvements in indicators of priority areas of health and health inequalities, as identified by our research prioritisation process in WS1. Possible indicators may include weight management, services for people with learning disabilities and wellbeing/social isolation. Possible indicators are presented below:

Possible indicator	**Medway**	**Best in England**
Adults overweight and obesity	71.6%	41.6%
Smoking at the time of delivery	13.4%	1.8%
Adults with learning disability having a health check	39.7%	87.2%
Social isolation: adult carers who have as much social contact as they would like (18+)	25.1%	45.7%

Source: Public Health Fingertips

5-10 years we expect to see significant improvements in several areas related to the wider determinants of health, the exact areas will be determined by our prioritisation exercise, but may include, for example, reductions in A&E attendances for respiratory conditions in children, or increased health checks in underserved communities.

Beyond 10 years, we expect to see improvements in long-term indicators including reducing the gap in life expectancy, prevalence of long-term conditions and mental health for people in the most deprived areas of Medway compared to the least deprived, and non-communicable diseases such as type 2 diabetes, obesity, and cardiovascular disease.

4. How will MHDRC change research culture in the local authority?

A public sector organisation with a research culture may be defined as one that

- acknowledges the key role of research evidence in decision-making throughout the organisation, differentiating between high and low quality evidence and applying research findings appropriately.[16]
- values what it can contribute to building the evidence base.

- resources staff to generate knowledge to fuel innovation, ultimately to improve value for the public.

MHDRC will learn from the scientific evidence on how to achieve organisational culture change[17] and the development of research culture that has been achieved in health services in England since the 1994 Culyer Report.[18] This has involved, among other things, the development of leadership for research, prioritisation frameworks, staff capacity building, research infrastructure, disentangling the costs of service delivery from research delivery, research funding schemes that are relevant to health services research, and a statutory requirement to carry out research in NHS trusts.[19,20] Specifically in democratic organisations, such as local authorities, engagement of councillors and the public in achieving organisational change is also critical.

Organisational change to promote research has led to a great increase in research activity in English health services with benefits over and above growing the evidence base: health organisations with high levels of research activity have better patient outcomes and have a better reputation, more inward investment and better staff recruitment and retention.[21,22] It seems likely that similar benefits from a change in research culture will arise in local government.

Research findings will inform the development of policy by being built into the planning, commissioning and democratic governance processes of the council. This will work in two ways: strategic and operational. High-level strategic decisions are enacted in the council through papers that are taken to the appropriate committee(s) for scrutiny and approval. To support their case, council officers will include the findings of research in such papers for the corporate management team, overview and scrutiny committees and cabinet, where high-level decisions are made. Including more research findings will mean that strategic decisions will be based on better evidence. The influence of such papers will be stronger when they contain more research findings. Where a piece of research is conducted with or by a given service or department the findings will used to inform their business plans, which are revised annually. This will mean that operational delivery will be improved, leading to better health and wellbeing outcomes.

To promote organisational research culture in Medway Council

- we have completed preliminary work during our research in 2020 to identify barriers to research culture development[5] and we have developed this further in our logic model (Attachment 5 and set out in section 1.3).
- we have developed a five-year strategy to achieve change with incremental stages and set out a process to align research with organisational strategy collaboratively with stakeholders, including councillors and the public.
- we have included several success measures (outlined in our Logic Model – attachment 5) that focus on the use of research and evidence in council decisions to demonstrate a shift in culture. For example, the number of Medway Council cabinet, health and wellbeing board, and overview and scrutiny committee papers that reference research conducted via the HDRC increases by 50% each year; increases in perceptions that research produces useable results (i.e., influences decision-making); and increases in council leaders' and senior officers' perceptions that research improves health and wellbeing.
- to promote organisational leadership for research, we have achieved the commitment of senior council officers as co-applicants and achieved the support of the Director of Public Health, the Chief Executive and key councillors (see letters of support) and we will continue to build on this through our governance structures.
- we have set out plans for staff engagement and development, at middle management and practitioner level, for example, through our training programmes and Research Champion roles, as described above. Training will include, in its learning objectives, developing an understanding of the importance of routine use of evidence and practitioners' and organisations' roles in generating new knowledge through research as well as specific technical research skills. In addition, we aspire that research activities are included in council officers' job plans and objectives.
- we have set out a PPIE strategy that will involve and engage members of the public and promote co-production of the prioritisation framework and of research itself.

As a result of the research culture change, the council will attract employees with a passion for research ('attraction-selection-attrition'[23]) which will promote sustainability.

Our ambition is not only to change culture so that Medway Council is a research-active organisation, but to ensure this shift in culture is sustained and spread. We will work collaboratively across our region and nationally to disseminate our learning to other local authorities and set standards for other councils.

5. Public involvement, engagement and co-production (PPIE)

Our PPIE approach is fully articulated in the PPIE section of this application. PPIE is at the heart of MHDRC, at all levels of the project lifecycle and throughout every level of the structure from oversight and scrutiny to operational delivery (see PPIE section of the submission). To ensure effective PPIE, we will have:

(1) **An experienced Lay Co-Applicant** (RP; 2 days a month) with demonstrable experience in voicing challenges to improve local authority policies, practices and services and ensure the public voice is heard (particularly from underserved communities). RP has significant personal experience of threats to health (i.e., long-term unemployment). RP will be fully integrated into MHDRC Executive Team and be responsible for several key activities including, but not limited to (1) co-creating MHDRC strategies, plans and processes (including the research prioritisation process); (2) co-chairing PAG; (3) serving as a member of the Executive Team and Board; (4) co-creating PPIE monitoring, evaluation and impact frameworks.

(2) **PAG** consisting of approximately eight members who live, work and/or study in Medway from Year 1 (4 members in Year 0). Recruitment will focus on underserved communities (see WS0.1 and WS1). As recommended by members of the public when developing this proposal, focus will be on recruiting PAG members who can be a 'trumpet' to amplify the voices of the communities they represent, e.g., community leaders, to maximise the public voice. In Year 1, the PAG will include people who represent the communities identified by PPIE in the development of this proposal, e.g., LGBTQ, minority ethnic and long-term unemployed communities etc. Also, as recommended, the PAG will have a 'rolling' membership where members will serve 12 months to create space for other representatives of local communities. PAG will meet quarterly and be co-chaired by RP and the PPIE Advisor (University of Kent). PAG will (1) co-create MHDRC strategy and plans, e.g., communication and engagement plan, dissemination plan, etc.; (2) co-create the research prioritisation process and engaging in these activities to identify research priorities; (3) provide input into MHDRC projects and funding applications, e.g., providing PPIE in development of proposals and as lay co-applicants; (4) support (e.g., co-delivering) elements of the research development and training programme; and (5) co-create mechanisms of evaluation and dissemination.

(3) **Three public representatives at MHDRC Board** to ensure the public voice is embedded into strategic decision-making and informs the direction of MHDRC. This includes RP and two members of the PAG on a rotating basis to ensure a diversity of voices and experiences.

(4) **Public integration in COP** to ensure the public voice is embedded in each MHDRC priority research.

Monitoring and evaluation

An impact log will be used to record all PPIE activities and what happened as a result. As HDRCs are innovative, it is particularly key to evaluate the PPIE model adopted and identify best practice. During Year 1, we will co-create an PPIE evaluation framework with the other funded HDRCs, which we envisage will follow realist methodology.

6. Evaluation and success

We will consider that we have been successful in creating a culture of conducting and using research in Medway Council if:

- There is sufficient capacity and capability in the council to conduct primary research, synthesise and use existing evidence, identify funding opportunities and submit bids (see detailed evaluations in WS2 and WS3)

- Research outputs are focussed on addressing practical problems faced by local authorities and council officers and senior leaders perceive that research can produce results in usable timeframes (see detailed evaluations in WS1 and WS3)
- Council leaders and senior officers appreciate how research approaches can lead to improved outcomes for the health of their residents and support research (see detailed evaluation in WS4)
- Beyond public health, other parts of the council recognise the value and magnitude of their role in improving health and wellbeing through their services and engage in research (see detailed evaluations in WS2, WS3 and WS4)

as demonstrated by the measures of success in the monitoring and evaluation sections of each workstream and in the logic model. Although each workstream includes an evaluation, an overall evaluation of MHDRC may require further conceptualisation of the indicators to measure a change in culture to ensure measurement of key facets including the council's values, activities and behaviours in relation to the routine use of and engagement in research and evidence.

7. MHDRC sustainability

MHDRC will aim to become sustainable beyond the initial six-year funding. Two important elements of sustainability will be funding the MHDRC team and maintaining the culture of using research to inform decisions. Staff turnover is inevitable, even desirable to bring new ideas and skills, and a continued culture of using research and sufficient funding, will make it easier recruit new staff, if needed. Maintaining the culture of research will require continued use of the approaches used to establish the culture of using research, as laid out in the workstreams above, with a key driver being the perception that councillors and senior officers have that conducting research leads to better decision-making, better public services and ultimately better health outcomes.

Successfully developing the research capability of colleagues across the Council will mean that Medway will be well-positioned to achieve financial sustainability through various approaches including:

1. **Funding for research from commercial opportunities**: MHDRC will explore commercial opportunities to fund research during and beyond the initial five-year funding. Examples may include digital solutions to support physical and/or mental health, and solutions to support the delivery of health to reduce health inequalities, e.g., innovations to reach certain communities and segmentation tools.
2. **Funding arising from organisational culture change**: MHDRC will make the most of future opportunities for local government (locally and nationally) to financially support research infrastructure and activity to help address health inequalities. By ensuring Medway Council is a research active organisation that routinely uses evidence to support activity, MHDRC will provide evidence to support the strategic direction and activity of the organisation so that it invests in high quality projects and provides value for money. The demonstration of the valuable outputs of MHDRC is designed to create a shift in culture with the ambition that this will be reflected in local government and/or public health core budgets longer-term.
3. **NIHR CRN portfolio studies**: MHDRC will support national portfolio studies. It is anticipated that NIHR's expanding of the eligibility criteria since 2018 to support health and care research taking place in non-NHS settings and the establishment of HDRCs nationally will provide opportunities for Medway to support these high-quality studies. CRN funding arising from recruitment to portfolio studies will contribute to MHDRC infrastructure costs beyond the initial five years of funding.
4. **NIHR and non-NIHR research funding streams:** MHDRC will apply to research funding streams that provide opportunities to support research relevant to addressing health inequalities and the wider determinants of health. MHDRC will attract interest from academic institutions through innovative knowledge and exchange activities (see WS4). This is already happening because of getting through to stage 2 of the HDRC application: for example, a proposal for a fellowship is being developed to compare Health Survey for England with the Medway Health and Wellbeing survey data. Successful funding from research funding streams

will provide an opportunity to employ, for example, fixed-term posts in MHDRC during and after the initial five-years of investment.

5. **Funding for fellowships and/or scholarships**: Supporting these career development opportunities, e.g., funded by Health Education England and/or NIHR, will help to create a sustainable future for research activity in Medway and attract new research interest and talent to the Council. MHDRC will also benefit from a strong partnership with KMMS and will host medical students to provide benefits including cross-fertilisation of skills and expertise between NHS and council settings. This, again, helps to create a sustainable future for research in Medway Council. Medway Council Public Health already co-funds a reader at the KMMS (GT; a co-applicant for this proposal), demonstrating commitment to this approach.

8. Timescales and milestones

A Gantt chart is provided (Attachment 4). Year 0 will focus on foundational work including developing a shared research vision; defining and identifying underserved communities; describing and building research-focused links with the third sector and underserved communities; and creating a Communications and Engagement Strategy across the collaboration. Year 1 will focus on WS1 which includes recruitment and setting up of MHDRC; co-creating strategies, plans and processes; identifying research priorities; setting up governance, oversight and monitoring; and strengthening collaborations. Research outputs will start to be delivered from Year 1 once the Research Team is in place. Years 2-4 will focus on designing and delivering the capacity, development and training programme (WS2) and building research and evidence (WS3). Year 5 will focus on knowledge transfer and exchange (WS4) and evaluation. Key milestones include identifying and defining underserved communities (October 2022); strengthening and building links with third sector (July 2023); appointing to full MHDRC (Sept 2024); initial prioritisation process completed (June 2024); agreeing procedures for research governance (June 2024; train first cohort of council staff (Sept 2024) and CoPs operational (Sept 2024).

9. Justification of costs

The costs of MHDRC have been carefully considered and co-produced by the proposed HDRC senior management team (see detail in 'Justification of Costs'). In sum:

1. **Foundation year (Year 0).** Funding has been requested to complete important preparatory work needed to (1) describe existing research-focused links with the third sector and underserved communities; (2) strengthen and build new research-focused links and develop a shared research vision; (3) developing a plan for research prioritisation; and (4) create a Communications and Engagement Strategy across the collaboration.
2. **Programme Director role.** This senior role is proposed at 0.6 FTE and will be filled by Dr David Whiting. If our proposal is successful, Medway Council will recruit a public health consultant to release Dr Whiting to provide 0.6 FTE to MHDRC. Retaining deputy directorship (0.4 FTE) will be beneficial to continuing senior influence within the council needed to achieve our ambitions.
3. **Most of the investment sits within Medway Council**. While partnerships will be key to delivering the MHDRC vision, most of the investment has been allocated to the council. This is essential if MHDRC is to be embedded within the council, rather than viewed as a separate entity and is necessary to secure buy-in from colleagues across council directorates. It also provides the financial means to build the structures and functions needed to achieve our vision (e.g., Comms and Engagement, Training and Development etc.). This will provide opportunities for internal secondments into MHDRC by colleagues from across the council which would serve to integrate MHDRC further into existing structures and networks, develop the research capabilities of existing staff and provide a broad range of experience.
4. **Investment in collaborations.** Partnerships are key to delivering the MHDRC vision. In recognition of this, we have proposed a good level of funding for University of Kent colleagues, including embedded roles that will provide opportunities for academics-into-practice. Academic skills and expertise are essential to the successful delivery of our vision and ensures a robust, valid and ethical approach to research and evidence to influence policy, practice and delivery. This marriage between council and academia is vital to shift culture because it ensures

research is focused on practical problems faced by councils but is also robust, well considered and high-quality.

5. **Investment in PPIE**. MHDRC recognises the key role that PPIE plays in all aspects to achieve our ambition; from strategy development to shaping important research projects. As such, it has been important to propose suitable investment to support these activities. Therefore, 22% of the proposed budget will be invested in PPIE.
6. **Investment in knowledge transfer and exchange (KTE) activities**. KTE activities are essential to create a legacy where evidence is routinely and sustainably adopted in Medway Council and so requires sufficient investment. See WS4'.

9. Safeguarding and ethics

This proposal is to fund research infrastructure and as such, the overall project does not require ethical approval. However, individual research projects (funded or in-house) led by MHDRC will require ethical approval, and this will be provided by the University of Kent's ethics committee. Safeguarding, regulatory and ethical issues will be overseen by the Research Governance and Compliance pillar in MHDRC structure (Attachment 2) to ensure good ethical principles (e.g., informed consent, confidentiality, data protection) are applied consistently and to provide a point of contact for council colleagues. Research data will be held securely by Medway Council as the host for MHDRC in accordance with the Data Protection Act and security policies already set out by the organisation. Data may be shared with the University of Kent (either in pseudonymised form or if consented by participants), but this will be on a project-by-project basis and overseen by the Leadership Team and ethics committee. Where the Kernel linked data set is used, data protection and information governance procedures are built into the design and use of the Kernel.

10. Project team expertise

Dr David Whiting (DW; Programme Director): DW is an experienced Public Health Consultant and Deputy Director of Public Health with 10 years' experience with Medway Council. He spent 14 years working in population health research and community development for Newcastle University. He represents public health on the Council's Equality and Access Group, chaired by the Chief Executive, and the Strategic Risk Management Group. He is the lead for Medway's Joint Health and Wellbeing Strategy, and reports on this to the Health and Wellbeing Board. He is also a member of the Medway and Swale Population Health Management (PHM) Analytics Group, Medway and Swale PHM Steering Group, Kent and Medway PHM Analytics Group, and the Kent and Medway PHM Project management group. As Deputy Director he deputises for the Director of Public Health in a range of council, system, regional and national meetings.

Professor Lindsay Forbes (LF, Academic Lead): LF is an academic public health physician working for CHSS at the University of Kent, and before that was a Consultant in Public Health in the NHS (for PCTs and NHS Trusts) from 2004 to 2015. As well as leading a portfolio of research at CHSS, she is Co-Lead for Public Health Practitioner Communities and Networks for ARC-KSS, Public Health Specialty Lead for KSS CRN, an embedded consultant in Public Health at Kent County Council and an RDS-SE research adviser. LF also led the building public health research project[5] that has provided insight to develop this proposal.

Dee O'Rourke (DO; Wider Determinants Lead): Assistant Director at Medway Council, responsible for: Housing; Culture and Libraries; Sport, Heritage, Leisure and Tourism; Planning; and Building Control. She has a Master of Arts in Public Enterprise & Management – innovation and entrepreneurship, with a focus on a holistic approach to organisational leadership.

Dr Logan Manikam (LM: Capacity, Training and Development Lead): LM is a public health physician with 13 years of experience in policy and academia. He has worked across NHS Lambeth Primary Care Trust, Public Health England, Southwark Council, Guy's & St Thomas Hospital NHS Foundation Trust, Chatham House and NICE. Successfully completing a UK Department of Health funded Doctoral (PhD) Research Fellowship (£346,684) using big data, he has achieved excellence as evidenced by several NIHR awards (e.g., £898,778 Advanced Fellowship) a 2014 BMA Medical Academic Role Model Award (10 nationally) & 2012-13 NICE Scholarship (10 per year nationally).

Dr Gary Tse (GT, Deputy Capacity, Training and Development Lead): GT is Reader in Public Health at the KMMS and works for the Medway Council Public Health Department. He brings extensive epidemiological research experience (research design, management, data analysis and interpretation, and dissemination) and a track record of successfully leading research studies and grant applications in the field of cardiovascular risk prediction and epidemiology using large databases. He has long experience of lecturing in research methods and supervising research postgraduate students at the doctoral level. He heads an international research mentorship platform which has served more than 100 members globally, creating impact by increasing accessibility to research and improving gender equity.

Dr Sarah Hotham (SH, Senior Research Fellow): SH is an academic expert in applied public health research and behavioural psychology based at the University of Kent. She leads a portfolio of public health evaluations commissioned by local government including Kent, Medway and in London, including whole system obesity approaches, physical activity interventions and active travel initiatives. SH is also an embedded researcher in the public health team at Kent County Council where she is responsible for building research capacity. SH is a specialist Public Health Research Adviser for the NIHR and sits on the Steering Group of the Public Health Intervention Responsive Studies Team CONNECT to provide expert advice on the evaluations of public health initiatives.

Emma Hendricks (EH, Research Lead): EH is an experienced senior research and evaluation specialist with over 13 years' experience, primarily in public health, council, policing and health charity sector. EH is currently Senior Public Health Research Officer at Medway Council and leads a portfolio of public health research, including developing funding opportunities and in-house research projects, building relationships with academic institutions to facilitate joint research projects, developing the research skills of council staff and showcasing the value of public health research outputs.

Dr Amanda Bates (AB, PPIE Lead): AB is Patient and Public Involvement and Engagement Lead for CHSS at the University of Kent and a Chartered Psychologist. She has many years' experience in providing bespoke PPIE services to University of Kent researchers and set up and manages the University's Opening Doors Research Group, which is made up of members of the public who advise researchers and students on this aspect of their work.

11. Risks and mitigations

The following risks and mitigations have been identified:

Risk	Mitigation
No funding opportunities for research in priority theme areas	Focus on CRN portfolio studies that meet research theme area. Assess local, regional and national relevance of research areas as part of prioritisation process. Consider a broad range of funders for research including NIHR, the Health Foundation, ARCs etc.
Difficulties recruiting new staff to MHDRC	Liaise with local institutions (e.g., University of Kent, CCCU, KMMS) to identify suitable candidates. Provide flexible appointments which can be linked to local academia to increase attractiveness of the position. Provide opportunities for remote working to increase the reach of possible candidates.
Research is not a priority for middle managers in Medway Council	Include research-driven public health work in Job Descriptions for recruitment to various ranks within the Council. Showcase MHDRC activities and outputs at service manager (cross council) quarterly meetings.
There is not enough support from Medway Council to develop Communities of Practice (CoPs)	Encourage CoPs to be partnership focused so that their development is based on many partners (e.g., public, collaborators, researchers as well as council members). Include CoP development in MHDRC Research Champions in Medway

	Council role to build support. Report on progress of CoPs in Board reports to CMT to secure senior buy-in.
Central government funding of local authorities is significantly reduced from current levels	This should not affect the HDRC directly, but may have an impact on the wider determinants of health. Focus on areas to improve council efficiency.
Local authorities are reorganised and public health leaves local government, e.g. returns to the NHS	HDRC will continue to be hosted in the council, and will continue to work with public health colleagues
Central government is no longer committed to prioritising addressing health inequalities	This is likely to remain a local priority and will continue to be a focus
There is a serious outbreak of a new variant of COVID-19	This will disrupt the planned work, and may require a shift of focus of research to address the outbreak. Work that is able to done remotely will continue.