

## ARC KSS research funding approach

This document provides an overview of the ARC KSS research values and priorities for collaborative applied research funded or supported by ARC KSS in Kent, Surrey and Sussex.

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### Introducing NIHR and ARC KSS

The [National Institute for Health Research \(NIHR\)](#) is the nation's largest funder of health and care research and provides the people, facilities and technology that enables research to thrive. NIHR's mission is to improve the health and wealth of the nation through research. The NIHR was established in 2006 and is primarily funded by the Department of Health and Social Care.

[NIHR Applied Research Collaborations \(ARCs\)](#) support applied health and care research that responds to, and meets, the needs of local populations and local health and care systems. The NIHR ARC Kent, Surrey and Sussex is one of 15 ARCs across England, part of a £135 million investment by the NIHR to improve the health and care of patients and the public.

[ARC KSS](#) is made up of local providers of NHS services, local providers of care services, NHS commissioners, local authorities, universities, private companies and charities. These collaborations work together to conduct high quality, generalisable, applied health and care research that addresses the specific health or care issues in their region.

NIHR ARCs also work towards increasing the implementation of research findings into practice. The 15 ARCs work collaboratively to address national research priorities, with individual ARCs providing national leadership in their areas of expertise.



Figure 1: NIHR ARC's map

**ARC KSS aims and research values**

*Box 1: Overarching goals of ARC KSS taken from the NIHR application form.*

***“...improve the quality, quantity, relevance and appropriate use of applied health and social care research, with a particular focus on coastal deprivation where early life indicators of physical and mental health are particularly poor.”*** (p.11)

with a particular goal to:

***“...support local service transformation and develop effective out of hospital care for people living in this Region and nationally”*** (p.12)

and to:

***“...deliver research that embodies the principles of co-production of knowledge, and application of high quality methodological research approaches to meet the needs of our local population and key national needs combined with an emphasis on timely and relevant knowledge transfer.”*** (p.12)

ARC KSS aims to:

In order to develop research that matters, ARC KSS is committed to promoting and supporting research that improves health and care for local people. This is underpinned by five core values:

**Who will ARC KSS fund to do applied research?**

As part of our commitment to promote research within the region, ARC KSS has established a regional research funding programme. We aim to support applied health or social care research that is aligned with our research themes and priorities below. Research must be conducted within or by ARC KSS partner organisations. Research conducted within the region to inform health and social care services and the benefit of the public in Kent, Surrey and Sussex will be prioritised for ARC KSS funding.

*Box 2: ARC KSS core research values.*

**ARC KSS RESEARCH VALUES**

**1. Applied research focused on outcomes that improve:**

**2. Implementation of applied research evidence to change practice for the better**

**3. Research that improves:**

HEALTH, WELLBEING AND SOCIAL CARE	QUALITY, ACCESS AND REACH of CARE	PREVENTION and HEALTH PROMOTION
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**4. Good value for money – focused on the 4 E’s (economy, efficiency, effectiveness or equity)**

**5. Research promotes collaboration through engagement with:**

**How ARC KSS will prioritise applied research?**

**1. Close alignment to ARC KSS themes**

ARC KSS is committed to supporting applied research activity that aligns with our core values and our 8 research themes (see Appendix below for a detailed description of our research themes and subthemes):

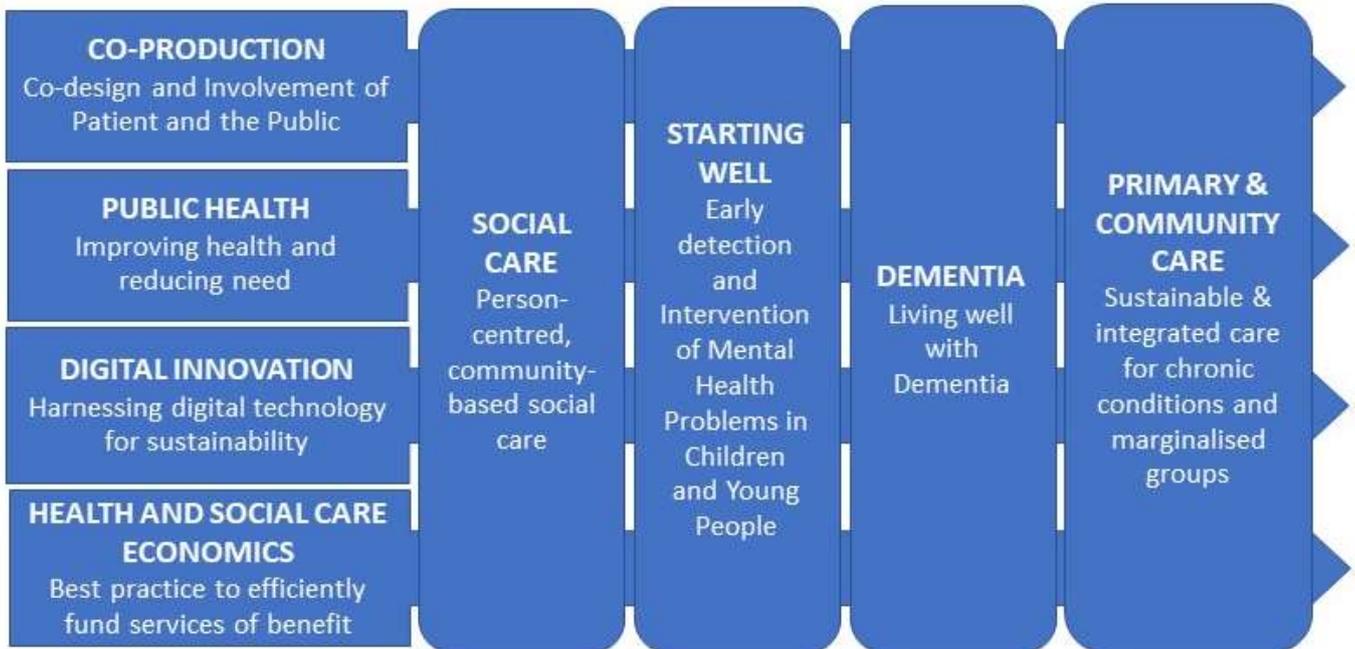


Figure 2: ARC KSS core (vertical) and cross-cutting (horizontal) themes.

**2. Funding research for impact**

ARC KSS fund and support applied health and social care research which creates impact at local, regional, national, and international levels to ensure future infrastructure funding. Based on the impact measures detailed in the original application and the findings from a systematic review of CLAHRCs (published in 2018)<sup>1</sup>, ARC KSS will prioritise applied research with potential to generate the following impact:

- PPI engagement<sup>2</sup> - intended beneficiaries (especially vulnerable groups at greatest risk) have been engaged in research conducted and/or co-design and co-production of research with beneficiaries.
- Impact on quality and safety of local health and social care services
- Engagement with and influence on policy at different levels (institutional, local, regional, and national)
- Engagement with/influence on health and social care practice, with a focus on service transformation
- Engagement with the KSS academic network
- Evidence of sustainable growth of the local research ecosystem and scale up, including engagement with other partners/research partners outside of the KSS academic network
- Evidence of improved health and well-being, with a focus on “effective out of hospital care for people living KSS Region and nationally” (as committed to in original funding application)
- Value for money/ Value of additional funds leveraged

<sup>1</sup> Kislov R, Wilson PM, Knowles S, Boaden R. Learning from the emergence of NIHR Collaborations for Leadership in Applied Health Research and Care (CLAHRCs): a systematic review of evaluations. *Implement Sci.* 2018;13(1):111. Published 2018 Aug 15. doi:10.1186/s13012-018-0805-y

<sup>2</sup> The NIHR encourages active and participatory Community **Engagement** and Involvement (**CEI**; more commonly known in the UK as **PPI** - ‘Patient and Public Involvement and **Engagement**’) that empowers communities and fosters co-production of research.

- Long term sustainability - evidence of how research projects/grants awarded are considering long term sustainability

**APPENDIX: Detailed theme descriptions in ARC KSS application (subject to annual review):**

## **Social Care**

The demand for social care is rising as the population ages and where increases in healthy life expectancy falls short of increases in total life expectancy. Public funding for social care has fallen in real terms alongside an increasing elderly population. Changes in family caring availability is also significant, particularly an increase in numbers of older carers. There are increasing demands for social care spanning from children's services (especially looked-after children in (KSS) to services supporting older people. 61% of looked after children are in care due to abuse or neglect, with a lasting impact on their social and health care needs, particularly support for mental health needs. Among individuals aged 60 +years, 58% report to have one long-term health condition costing health and social services some £3,000 per individual.

Policy is increasingly focused on integrated person-centred community-based care, with greater emphasis on outcomes among children, young adults and older people as a solution to financial challenges. While there are initiatives to better integrate health and social care, the evidence base on effectiveness and cost-effectiveness of social care, and on care system organisation and funding, shows substantial scope for development.

**Aim:** to undertake research on social care and how changes in service provision impacts on service users, their families and carers and on other, capitalising on the development of the Kent Integrated Dataset and the current development of the Surrey and Sussex Integrated Dataset.

**Sub-themes:**

- 1. Effectiveness and sustainability of person-centred social care. Reviewing existing evidence to** explore important issues spanning children's social care to older people, including informal carers.
- 2. New models of person-centred social care.** There has been a recent resurgence of the ideas of 'asset-based' approaches. Working with the Co-production theme, we will identify potential new models of care and appropriate methods for evaluation.
- 3. Cost-effectiveness of person-centred social care.** NICE has also been asked to consider cost-effectiveness (CE) of social care but there are conceptual issues in assessing CE of social care. We will work with the Health and Social Care Economics theme, local and national partners to help develop understanding of social care CE analysis.
- 4. Risk factors, variation and inequalities in person-centred social care.** Use of secondary data analysis focusing on the impact of avoidable long-term conditions and multi-morbidity on the need for social care and (in)equality in social care, which is likely to differ markedly from the situation in health care.

## **Starting Well: Early detection and intervention of mental health problems in children and adolescent**

Providing effective support for children and young people involves adopting context specific initiatives. Policy guidance such as the Five Year forward for mental health, and the recent Green paper suggest that new services and interventions are needed for young people with mental illness, yet the evidence base is lacking. There is a need to work across various agencies: NHS and social care services: schools and third sector providers. A one size fits all, universal approach to intervention is unlikely to be successful. A variety of groups have their own distinctive and specific mental health and developmental needs. Underpinning early detection and intervention by careful targeting and shaping of assessment and intervention to individual needs and age may provide the way forward. Research underpinning assessment and intervention development needs to work collaboratively with young service users and their families, co-producing and shaping interventions consistent with their choices and under their control.

This topic is highly relevant to patients, public and diverse communities and the local health and care system. The topic is at the highest policy priority with prominence in most recent policy documentation including Five Year Forward for Mental Health and parliamentary policy documents. The need in this area is also highlighted by particular problems related self-harm in a number of our coastal communities and higher numbers of children in school with emotional problems. These needs are reflected in local plans and demands placed on NHS, social and educational providers in the South East Region.

**Aim:** To inform the early detection and intervention of mental health problems of young people through: a) identify screening strategies for young people at particular risk, b) identify critical periods for the delivery of intervention to these young people, and c) help shape targeted, preventative and developmentally appropriate interventions.

### **Subthemes:**

- 1. Severe mental health problems in adolescence, intellectual disabilities and autistic spectrum disorders**
- 2. School-based interventions**
- 3. Parenting**

## Living well with dementia

KSS has a higher proportion of older people and the number of older people is growing faster than the English average. The region also has a higher proportion of people with dementia and the numbers are continuing to grow. This places significant demands not just on primary and community services but also social care services and secondary care. People with dementia are more at risk of preventable co-morbidities presenting important challenges for developing care services that combine prevention - from a health and social care perspective – as well as appropriate community-based care, treatment and support.

**Aim:** To become a leading region for dementia research requiring clinical populations and build research capacity and expertise to lead research.

### Sub-themes:

1. **Enabling routine outcome measurement in dementia to evaluate models of provision of memory assessment services** – developing and evaluating systems embedding patient centred outcome measures (PCOMs) into routine practice to determine whether treatments and services provided improve quality of life.
2. **Enabling successful physical and cognitive aging for people living with co-morbidities** – evaluating health and care challenges faced by people growing older with co-morbidities including physical frailty, multi-morbidity and neurocognitive disorder.
3. **Empowering general and community hospitals to manage people with dementia well and the transition from hospital to home (or care home)** – development, delivery and evaluation of a systematic package of support for people with dementia and carers
4. **Exploring and exploiting the potential of assistive technology to improve quality of life of people with dementia** – in collaboration with industry, developing and evaluating untapped potential for assistive technology to improve the quality of life of people with dementia and carers and support them in their homes.

Within the Dementia theme, ARC KSS is also keen to support applied health research in palliative care and ageing focussed on sustainable care in these settings.

## Primary and community health services

The ARC KSS region has rapidly growing levels of frail, multi-morbid and complex individuals, including homeless people, living in socially-deprived coastal areas who are more likely to be subject to polypharmacy that require management and support in primary care. This places significant strains on GP practices and community services exacerbated by problems of recruitment and retention and the high proportion of GPs and nurses due to retire within 10 years. These areas already have high patient/GP ratios and surgery closures are a particular issue. There is a need for more contextualised understanding of the best ways to support patients and their carers/families in these areas.

Evidence is needed on what constitutes appropriate care packages and how these should be delivered for our population. People often present with poorly defined medically explained symptoms and demand services for which there is no evidence-base; and there is uncertainty about which mix of skills and services would work best for whom and where in what integrated organisational structure. Research is needed to understand these situations and the inter-relationships between different primary and community care services and secondary, social care etc. and how

Despite most contacts occurring primary care little is known about what supports service sustainability. Without a sustainable primary care sector there will be detrimental impacts on secondary care. The KSSARC will address this evidence gap, looking at primary care and its interfaces with hospitals and social care, for instance around 'overdiagnosis' (see Choosing Wisely). The ARCKSS demographic combined with a unique integrated informatics infrastructure (Kent, and the Surrey and Sussex Integrated databases – KID, SSID) form an ideal location for the ARC enabling a focus on increasing the sustainability of regional primary care.

**Aim:** to complete the setting-up of a world-first regional primary care sustainability facility able to follow and involve people with complex needs system-wide, and support continuous learning of sustainable care across settings.

### Sub-themes:

1. **Sustainable care for Marginalised Groups.** Supporting care from an improvement agenda taking local exemplars of sustainable care and test effective conversations with stakeholders to enable patients and carers to take control of their care. Placing the needs of our patients and public first, we will build on innovations in NHS data analytics/interfaces, and the data integration initiatives for a place-based "Learning Healthcare System".
2. **Supporting people to live well with chronic conditions.** Research with potential for managing demand through supporting self-care and prevention, building on internationally recognised developments and interventions with a focus on developing management systems to ensure sustainable care and treatment.
3. **Service redesign and integrated care.** We will undertake research on the organisation of primary and community care services building on existing local, national and international research on service integration. We will extend current research on workforce and explore the possibilities for integrated Health and Social Care Partnerships to serve the people in the region.

## Co-production

The Five Year Forward View recognised the vital contribution of people and communities in shaping services. Co-production in health and social care involves service users co-designing services, interventions, or being actively involved in their own care, for example self-management. Co-production has been identified as a new approach to involving the public in health and social care research (INVOLVE 2018). This broad range is represented in Bovaird's (2007) matrix of co-production which provides theoretical underpinning and rationale for 3 sub-themes:

1. **Co-producing health & well-being** including self-management, shared decision-making, innovation co-design.
2. **Co-producing health and social care services** including involvement/participation in organisations, governance and commissioning.
3. **Co-production of research** including links to operational PCIEP within the ARC

**Aim:** To develop an evolutionary co-production research programme that supports research implementation, the core themes, and advances the conceptualisation, evidence base and operationalisation of co-production.

## Public Health

Recognising the strategic requirement for prevention in the Social Care Act 2014, and its central role in delivering the NHS Five Year Forward View we will prioritise structural interventions to improve health and reduce service needs among older adults with co-morbidity, and younger populations at times of transition. Our focus reflects local health patterns in that coastal communities of Kent and Sussex mostly experience markedly worse health and wellbeing than other parts of our region with high rates of mental health problems, obesity, smoking, alcohol and recreational substance use. These challenges predominate in areas relatively isolated by geography and economic consequences of high unemployment, alongside very elderly populations vulnerable to isolation and often moved here in retirement. Looked after children (LAC) and unaccompanied migrant minors form a substantial vulnerable population, particularly in Kent.

We will focus on four sub-themes:

1. **Mental and physical health dynamics including nutrition, obesity in families with young children** to include maternal mental health, breastfeeding, sleep promotion and other factors impacting on future health and life chances including employability
2. **Substance use in relation to mental health, sexual health and blood borne viruses** in adolescents and young adults, including interactions with risk of and management of HIV, sexually transmitted infections, hepatitis C including the emerging contribution of chemsex to substance use
3. **Social prescribing and preventive interventions for the mental and physical health of elderly people living at home or in residential or nursing care settings**; active facilitation of meaningful non-pharmacological health promoting activities that can reduce unnecessary hospital admission, particularly in dementia
4. **The physical, mental and sexual health of looked after children/young people (LAC) and under 25s living separated from primary family/kinship groups** recognising Kent's LAC numbers local and relocated, unaccompanied migrant minors, and unmet health needs of this group

**Aim:** To develop, evaluate and initiate scale up of community and digitally focussed interventions delivery through social care, NHS, families and relationships to prevent adverse health outcomes in early, adult and later life.

## Digital Innovation

Digital innovations are required to address an ageing population's health challenges, who will need to be cared for out of hospital by technology enhanced social and primary care services. Digital innovation is also needed because social and primary care workforce and services are facing unprecedented pressures; digital innovation may be the only route for sustainable services.

Population and health data should inform our Primary and Community Health Services and other ARC themes, where through national changes such as the "Primary Care Home" health care is being aligned to population health. Our joined-up data should be able to inform which pathways through complex systems are cost effective.

**One stop shop for digital innovation.** KSS has one of the oldest populations in the country and whole range of socio-economic status with many people becoming co-morbid at greater age than the rest of the UK. We are the perfect testbed for digital innovation, but high costs and complex barriers make studies slow and costly. We need to break this down and present a rapid cost-effective route to implement innovative studies.

**Aim:** Our overall aim is to harness digital innovations to create a sustainable health system.

### Sub-themes:

1. **Lower costs trials: The NHS and wider health community needs lower cost clinical trials – we will pilot trials using low cost dashboard-based technologies.** Well-designed lower cost trials, where follow-up is possible through routine data is critical to answering questions about: (1) The effectiveness of digital innovations; (2) detecting and reducing unwarranted variation; (3) comparing pathways of care.
2. **Technology to support older peoples' care in the community. Evidence synthesis and protocol development of the use of digital innovation to support dementia care.** We have some of the most advanced technologies internationally across our region. We will draw these together and conduct an evidence-synthesis on their utilisation across a range of projects. We will develop a study protocol of how these technologies might best be tested and evaluated in practice – looking at total clinical and societal impact.
3. **Modernising public health, charting care pathways across health and social care. Observational studies and protocol development around social care interventions that reduce health care utilisation.** We will commission an observational study in KID selecting areas where the impact of a social care intervention on health utilisation can be evaluated.
4. **Create a repository of digital innovation resources and requirements. Create a readily searchable catalogue of resources, scalable to national level.** Using experience from European projects of creating online digital resource descriptors and repositories to facilitate collaboration, we would do the same for KSS, and potentially wider to point researchers to the right resource. The goal is to work with KSS CRN, AHSN, and CTUs to create a single signpost to the right trial/test site; and to facilitate collaborative working across digital innovation KSS sites.
5. **Social prescribing and social care intervention evaluation.** Working with the Public Health Theme seek support for studies looking at what characteristics of social prescription and social care intervention have impact on the health system.

## Economics of Health and Social Care

The Health and Social Care Economics research is a major ARCKSS strength and this theme will support commissioning and decision making within services, providing evidence to show effects and beneficiaries in different projects, costs and value for money. It will contribute to dissemination of findings to policy makers locally and nationally, so that best practice can be adopted, and funds are allocated efficiently, for ultimate benefit to service users and public.

We will support ARC themes in their strategy delivery by providing an economics perspective on projects they propose or deliver. To ensure full account is taken of economic implications of research projects, we will work collaboratively across all the other themes and be involved in three ways:

1. **Reviewing and analysing the status of the research issue in question.** Using available data, primary enquiry and /or literature review, the economic burden for the patient group, clinical area and sector (primary, acute, public health, social care) will be explored. The potential to reduce economic burden and save public money will be calculated and assessed in the light of possible patient/client benefit and wider gains for the workforce or society, to inform the selection of ARC projects.
2. **Providing advice on details of the design of research proposals in any theme to ensure that the economic effects and impact for the NHS, public health or social care agencies can be properly captured.** A detailed economic analysis plan will be produced, consistent with other aspects of the project, and using methodologies appropriate to the topic area. The selection of outcome measures will be monitored to ensure they are sensitive and suitable for showing economic impact.
3. **Undertaking the economic analysis for any ARC project.** An economist will work closely with the multidisciplinary research team in throughout the duration of each project to oversee the collection of the data, perform the economic analysis and contribute to the writing up of the report and dissemination activities.

**Aim:** To ensure that Health and Social Economics is embedded in each of the ARC themes.