

NIHR APPLIED RESEARCH COLLABORATIONS (ARCs)

Annual Report (1 April 2021 to 31 March 2022)

<u>Note</u>: The accompanying *NIHR ARC – Guidance on Completion of Annual Report for Period 01 April 2021 to 31 March 2022* contains essential guidance on the information you need to provide when completing this document.

Please complete the form using a font size no smaller than 10 point (Arial). Please submit as a Word Document.

1. NIHR ARC Details

Name of the NIHR Applied Research Collaborations (ARC):

Name, job title, address, email and telephone number of an individual to whom any queries on this Progress Report will be referred:

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2. Declarations and Signatures

Name and address of the NHS Organisation administering the NIHR ARC award:

Name: King's College Hospital NHS Foundation Trust

Address: Denmark Hill, London, SE5 9RS

Name of the Chief Executive of the NHS organisation: Professor Clive Kay

I hereby confirm, as Chief Executive of the NHS organisation administering the NIHR Applied Research Collaboration award, that this Progress Report has been completed in accordance with the guidance issued by the Department of Health and Social Care and provides an accurate representation of the activities of the NIHR ARC; and hereby assign all Intellectual Property rights to which I am/we are legally entitled in the Reports defined in the Contract for this award between myself/ourselves and the Secretary of State for Health and Social Care to the Secretar

Signature of Chief Executive: Date: Date:

3. Overview of Activities (no more than 1500 words)

NIHR ARC South London has successfully recruited <u>8,147 participants to studies</u> and <u>published 350 peer-reviewed papers</u> this reporting year (2021/22). Since the start of the ARC programme, we have <u>leveraged</u> <u>£31.6m of external research funding</u>, and published 724 research papers.

The ARC is having a direct impact on local services and people (see section 5). In 2021/22, our:

- Maternity and perinatal mental health highlighted in the <u>BMJ</u> the importance of including mental health near-miss indicators in national surveillance of severe maternal morbidity and mortality. <u>Their findings</u> were cited by Royal College of Psychiatrists and NHS England.
- Applied informatics researchers have monitored the response of mental health services in south London during the pandemic, <u>working with Trusts to establish weekly research priorities, including symptom profiles and crisis management</u>. This analysis has informed national policymaking.
- Public health and multimorbidity researchers successfully developed a remote version of the HEAL-D
 programme for managing type 2 diabetes in local African and Caribbean communities. This has been
 commissioned by both Integrated Care Systems (ICS) in south London.

In this reporting year, ARC South London has made excellent progress against its objectives (see below).

Short-term aims (years 1-2)

Objective 1: Identifying research project milestones and pathways to impact (<u>completed</u>, <u>reported</u> <u>AR 20/21</u>)

Objective 2: Establishing the ARC's governance structures (completed, reported AR 20/21)

- There has been a change in the ARC's senior leadership. Emeritus Professor Peter Littlejohns (King's College London) has stepped down as deputy Director of the ARC. Littlejohns will continue leading the ARC's public health and multimorbidity theme.
- Zoë Lelliott (programme development lead at the South London Mental Health Partnership and formerly
 deputy Chief Executive at the Health Innovation Network (HIN), our AHSN, was appointed as the ARC's
 new deputy Director in October 2022. Lelliott continues as implementation and involvement co-lead for
 the ARC. This appointment further strengthens the ARC's implementation activities.
- The Centre for Implementation Science (CIS) at King's College London (KCL) (set up under CLAHRC) oversees the ARC's cross-cutting and methodological work. In the Research Excellence Framework 2021, reviewers assessing KCL's public health and services research <u>highlighted the CIS as one of "the strongest aspects of the [research] environment" with its "focus on implementation and impact"</u>.

Objective 3: Achieving first-year theme milestones and deliverables (completed)

All ARC themes have <u>successfully delivered their milestones and deliverables for year one, including those</u> <u>delayed by Covid-19</u>, with all projects on track with original aims.

Objective 4: Specific mechanisms to ensure ARC addresses needs of local population and systems (completed, reported AR 20/21)

We have developed a range of mechanisms to ensure we address the changing needs of the local population and health and social care system. Our research is responding to local needs:

- We are researching the <u>long-term impact of Covid</u>, including support for people living with long-Covid, evaluating the care home response and post-pandemic maternity care planning
- Our Equity Diversity and Inclusion (EDI) working group, co-chaired by Dr Josephine Ocloo, the ARC's EDI lead, and the ARC's Director (Thornicroft) has:
- <u>Implemented major changes to reflect our commitment to EDI</u>. On the ARC's Board and Executive, we have increased the diversity of public and staff members, particularly from Black, Asian and minority ethnic groups and disability organisations. <u>Eight new members joined</u> in January 2022
- Developed an equality monitoring form to collect EDI data across the ARC
- Held talks and presentations around EDI issues, including racism in mental health, and research on palliative care services and their response to ethnic minority groups with Covid-19
- Ocloo chairs ARC South London's <u>public research panel</u>. The panel met six times in 2021/22, and has <u>influenced project design and delivery</u>, and had very positive feedback from researchers

- We are collaborating with Ruth Hutt, Director of Public Health in Lambeth on an NIHR bid to create the Lambeth Health Determinants Research and Evaluation Network, a new research infrastructure focused on the wider determinants of health and effective use of data
- We are working with Health Innovation Network (south London AHSN), North Thames AHSN, and south London mental health trusts, evaluating the <u>impact of a rapid shift to remote consultations in mental</u> <u>health</u> in a new **action learning health system initiative with NHS England (London)**

The ARC's Implementation and Involvement team has been working to meet the objectives of the Involvement Strategy (see section 6) and embed local involvement across the ARC. For example:

- Held regular meetings for the ARC's Involvement Learning Network and Involvement Advisory Group
- Held an Insights into Implementation seminar (October 2021) for ARC researchers

Our researchers regularly consult with the local community and health and care systems to ensure research is designed around the needs of local people and services (see section 4). For example:

- Our maternity and perinatal mental health theme held an event <u>exploring the latest research evidence on</u> <u>midwifery continuity of carer</u>, attended by more than 250 maternity stakeholders
- Our social care theme <u>surveyed day centres in south London</u>, receiving 40+ responses, to determine key themes and research priorities
- Our children and young people theme held <u>co-design workshops</u> with local PPIE groups, paediatrics services, commissioners, and public health officials
- At our <u>Active Involvement in Research event</u> in November 2021, 65+ local people, patients, service users, carers and researchers explored how to <u>co-produce research with diverse communities</u>

Objective 5: Establishing a thematic symposium series by end of year 2 (<u>completed</u>, <u>reported AR</u> <u>20/21</u>)

We have successfully developed our annual Inside Research <u>thematic symposium series</u> engaging diverse local communities in our research, and working closely with ARC themes and partners. In 2021/22, we held three seminars, increasing engagement with each seminar:

- June 2021 explored how the ARC's applied health research is supporting people with <u>multiple long-term conditions and reducing health inequalities</u>, attended by 63 people. <u>100% of attendees rated this event 'good' or 'very good'</u>
- November 2021 addressed how the ARC is using <u>participatory and community-based approached to</u> <u>tackle health and care inequalities</u>, attended by 110 people, with very positive feedback, eg: "Amazing insight into participatory and community-based approaches from the webinar tonight. We must do more to diversify and democratise research." (Becky Barron, attendee)
- March 2022 focused on how the ARC is using <u>health data and applied informatics to address health</u> and care inequalities, attended by 170 people

Objective 6: Establishing regular meetings with health and social care delivery partners (<u>completed</u>, <u>reported AR 20/21</u>)

In addition to meetings with delivery partners reported in AR 20/21, this year:

- Our King's Improvement Science (KIS) team meets regularly with the quality improvement leads for King's College Hospital and South London and Maudsley NHS (SLaM) trusts. The KIS Partnership Steering Group meets with NHS trusts in SE London, King's Health Partners, the HIN and the ARC SL.
- Thornicroft joined the HIN's (AHSN) Board
- HIN's CEO (Das-Gupta) joined the ARC's Board.
- Sevdalis and Henderson are joint academic leads for evaluation within the Quality Centre at SLaM

Our research themes meet regularly with health and social care delivery partners. For example, our:

- Social care theme <u>meets regularly with HIN to develop work on day centre priorities</u>, especially on how to build their sustainability
- Social care theme <u>meets fortnightly with the London Association of Directors of Adult Social Services</u> <u>Proud for Care Board</u>; they meet providers and stakeholders at their regular forums on day services and care homes, they also have regular meetings with <u>Age UK London</u>
- Children and young people theme meets regularly with local services, commissioners, and public health officials, gathering information on health needs and service gaps
- Maternity and perinatal mental health theme meet monthly with Lambeth Early Action Partnership

Prioritising research for implementation to improve services and health outcomes

The ARC's implementation and involvement team (co-led by Lelliott and Natasha Curran (HIN)) selected two ARC projects for implementation support across south London, addressing palliative care and diabetes: <u>Breathlessness Support Service</u>, and <u>Healthy Eating and Active Lifestyles for Diabetes (HEAL-D)</u>.

Objective 7: Establish 'implementation champions' (completed, reported AR 20/21)

- Implementation champions in all ARC research themes. Meet twice a year.
- I&I team provide support to implementation champions, for example, helping PPI research theme spread the adoption of the Therapeutic Engagement Questionnaire (TEQ) in mental health trusts.
- Appointed an Implementation Manager in May 2021, working across the ARC and HIN.

Medium-term aims (years 3-4)

Objective 8: Launch Annual Implementation Science Week (on track)

On track with plans for implementation science week. In June-July 2022, we are holding the international two-day <u>Implementation Science Conference</u> and four-day <u>Masterclass</u> online (see section 7).

Objective 9: Launch online educational courses in implementation science (on track)

We are making very good progress with our online educational offering in implementation science. We plan to launch <u>our online module in implementation science in Oct/Nov 2022</u> (see section 4).

Long-term aims (years 4-5)

Objective 10: Establish South London Research Academy training 100+ researchers annually by year 5 (on track)

Our <u>South London Applied Research Academy</u> launched in January 2022, led by Professor Prescilla Harries (SGUL). The programme consists of 19 online training sessions. There were 52 participants in the first cohort, completing in June 2022. We will recruit a second cohort later in 2022. <u>We expect to complete this aim early (by end of year 4)</u>.

Objective 11: Complete all proposed research projects and deliverables (on track)

We plan to complete all proposed core research projects and deliverables by end of the funding period, in addition to more than 60 new Covid-related projects initiated as part of ARC programme by the end of year 5.

	heme Title	Theme Progress
Alcohol		
<u>S</u>	nort-term	<u>Short-term</u>
1.	Evaluate the impact of psychosocial interventions in reducing alcohol harm in patients with acute alcoholic liver disease.	 Objective 1 (completed) Completed a systematic review of RCTs investigating 'The efficacy of psychosocial interventions for reduction of alcohol use among patients presenting alcohol-related liver disease' (January 2022) This work has provided the background information for the development of a Contingency Management manual
2.	Validate and evaluate different wearable transdermal alcohol sensors and associated apps.	 Objective 2 (completed) Completed validity testing of two devices (BACtrack Skyn from BACtrack and BARE from Smart Start Inc) in a laboratory setting with 32 non-problematic heavy drinking adults in good medical health Analysis of this validation testing is ongoing and a paper has been submitted to the international conference: Lisbon Addiction 2022 Completed two systematic reviews: 'Accuracy of wearable transdermal alcohol sensors: A systematic review' (accepted for the Journal of Medical Internet Research)

4. Progress Made in Each Research & Cross-cutting Themes (no more than 500 words per theme)

		 'Acceptability and feasibility of transdermal alcohol sensors: A systematic review' (under review in Addiction Biology)
3.	New research initiated.	 Objective 3 (completed) Findings of systematic review (objective 1) have informed the planning of a qualitative study 'Assessing patient views on capability, opportunity, and motivation on treatment adherence in patients with alcohol related liver disease' We conducted initial PPI work to inform the protocol for a feasibility study evaluating wearable transdermal alcohol sensors and associated apps Further consultation work has been carried out with clinical experts to assess the potential of these devices in clinical settings and potential barriers to implementation
4.	Impact.	 Objective 4 (completed) Alcohol Assertive Outreach Trial (AAOT) research has been included in forthcoming DHSC draft clinical guidelines, due for publication later in 2022 AAOT treatment model has been funded by commissioners in Lambeth and Southwark as a core clinical activity
M	edium-term	Medium term
5.	To assess the effectiveness and cost-effectiveness of interventions in acute alcoholic liver disease	 Objective 5 (completed). Alcohol Dependence and Adherence to Medications (ADAM) trial (adopted project) analysis is completed Final report submitted to NIHR (November 2021) Results show that the contingency management intervention is both clinically effective and cost effective
6.	To assess the acceptability and feasibility of their use among a sample of harmful and dependent alcohol users	 Objective 6 (completed) AAOT trial is complete. We are analysing the data and plan to submit main trial publications later in 2022 We are working with clinical trainees in SLaM and two MSc students on an analysis of the clinical comorbidities and contact with mental health services in the AAOT trial cohort through a case note review
7.	To identify the most cost- effective methods of implementation	 Objective 7 (on track) We are exploring wider implementation of AAOT in south London with the support of SLaM NHS Trust as part of a dual diagnosis service development and with HIN implementation support for the AAOT service model across south London We are exploring the potential of AAOT to be included in a national implementation project for patients with addiction and mental health comorbidities as part of the NIHR Mental Health Implementation Network (MHIN) (see section 13)
8.	To create opportunities for research students at masters and doctoral level to work with and receive supervision from the team.	 Objective 8 (completed) We have 3 PhDs linked to ARC work (reported AR2020/21)

Long-term	Long-term
 To identify optimal methods of implementation and health economic impact of implementation 	 Objective 9 (on track) We aim to achieve this at end of the work on implementation (see objective 7)
10. To estimate the health economic impact of implementation	 Objective 10 (on track) Amy Wolstenholme's PhD on the health economic outcomes of the AAOT trial and data collection is complete Expect economic analysis completed by August 2022
 To identify optimal methods of integration into clinical care. 	 Objective 11 (on track) (See objective 7 on AAOT project proposed in MHIN)
Applied informatics - cross cutting	
<u>Short-term</u>	<u>Short-term</u>
1. Form a virtual AIH hub across the ARC's research and cross- cutting themes (linking to other ARCs nationally) to support the use of digital, M-health, informatics tools and approved linkages in ARC research, including evaluation of the implementation and effectiveness of actionable analytics in clinical practice.	 Objective 1 (completed, reported AR20/21) Applied Informatics Hub (AIH) has been widely disseminated, including through NIHR ARC Applied Digital National Network. AIH includes a new <u>capacity building section</u> highlighting training opportunities and a <u>PPI section</u> listing opportunities for public involvement in digital health research
2. Consolidate applied informatics collaborations with proposed North Thames (CRIS, Cogstack, Discovery) and East of England (CRATE, Cogstack) ARCs.	 Objective 2 (completed) Consolidated collaborations with ARCs East of England and North Thames – eg, collaborated with 10 mental health trusts to document changes in mental health service use and mortality during Covid-19 lockdown
<u>Medium-term</u>	Medium-term
 Extend AIH exemplar projects to: Evaluate the effectiveness of software prompts in reducing inequalities in atrial fibrillation management (Lambeth Datanet, CRIS) 	 Objectives 3 and 4 (on track) Evaluating the implementation and effectiveness of analytics in clinical practice in atrial fibrillation (AF) management Conducted systematic review on prevalence, management, and outcomes of AF in people with serious mental illness (SMI) Conducted observational study at King's College Hospital to evaluate anticoagulation prescription trends among people with AF and SMI Observational study underway in South London and Maudsley NHS (SLaM) using CRIS data. Collaborating with clinical colleagues on protocol to assess feasibility of electronic clinical decision support system (eCDSS) to prompt assessment for anticoagulation in AF
5. Design and undertake an in- silico evaluation of the effectiveness of the CogStack dysglycaemia algorithm in	 Objective 5 (on track): Trialling eCDSS for dysglycaemia management with CogStack and clinical informatics and digital teams at SLaM

	reducing rates of glucose dysregulation and extend the methodology to other conditions	 Evaluating eCDSS feasibility, acceptability, implementation and cost eCDSS approved by NHS clinical digital safety team Paper on technical feasibility of eCDSS under review
6.	Develop and evaluate early warning systems to identify patients with multimorbidity, repeat admissions and poor symptom control who need palliative and end of life care.	 Objective 6 (completed): Extensive collaborations with ARC end of life care theme include: <u>Retrospective study</u> of association of primary and community care services with emergency visits and hospital admissions at the end of life in people with cancer <u>Study examining acute care utilisation</u> towards end of life and the place of death for patients with SMI Analysis of data to explore geographic variations in end-of-life hospitalisations for patients with SMI <u>Analysis of language</u> used in healthcare at the end of life
7.	Assess ARC clinical trials for feasibility in silico evaluation of external validity and complete grant application to combine randomised, selected, trial data with non-randomised, inclusive, real-world observational data	 Objective 7 (on track) Using King's College Hospital's electronic health record data and CogStack to emulate cardiovascular randomised clinical trials Aim is to optimise analysis of data to generate real-world evidence to inform clinical decisions and improve care
8.	Work with the capacity building theme to develop training in applied informatics research	 Objective 8 (completed): Collated training and development opportunities in applied informatics and promoted through AIH and national networks
9.	Work with the social care and public health and multimorbidities themes to build on cross-system digital links identified through the One London LHCRE to scope applied informatics research opportunities	 Objective 9 (completed): Held meetings with ARC social care theme and One London Local Healthcare Records Exemplar to expand quality of data collected in social care in south London Working with South London Care Home Research Group on how medical records can better identify people in care homes Working with ARC public health and multimorbidity theme, co-supervising PhD on AF
10.	Develop an exemplar cross- ARC project.	 Objective 10 (completed): With ARCs Northwest London and North Thames, and Health Innovation Network (AHSN), working to determine effect of remote working on outcomes across primary and secondary care in cardiology and mental health. Set up <u>action learning system</u> With ARC Northwest London, working to increase comparability of cross-system informatics
Lo	ong-term	Long-term
11.	Evidence-based contributions to health and social care planning, and local and national digital strategies	 Objective 11 (completed) Analysing clinical records and service data to monitor response of mental health services in south London during pandemic Working with local Trusts to establish weekly research priorities. Multiple pre-prints and papers informed DHSC, NHSE and London decision-making

12. Successful collaborative, cross- ARC research projects and grant applications.	Objective 12 (completed): See objectives 2 and 10, exemplars of effective cross-ARC collaboration, and 4, 5, and 6 for ARC South London collaboration
Capacity building – cross cutting	<u>Short-term</u>
 <u>Short-term</u> Researchers Expand our successful portfolio of modules, courses and degree programmes in implementation science and applied health research methods to include health and social care economics, methodology, quality improvement methods and design thinking, consolidating relevant provision from our ARC South London partners 	 Objective 1 (completed) Completed development of our Implementation Science module (reported AR2020/21) Expanded our portfolio of training resources reflecting our expertise: Delivered our <u>Applied Research Winter School for PhD students</u> (December 2021) Delivered a 5-week programme on writing for research publications (postdocs) and a full day workshop on thesis writing (PhD students)
2. Provide at least two partly- funded PhD scholarships for which recipients will be recognised as NIHR infrastructure trainees and work with our ARC themes to recruit PhD/MD Res implementation doctoral fellows	 Objective 2 (completed) Completed our PhD scholarship scheme. Awards were made to: May Scott (palliative and end of life care theme) and Silverio (maternity and perinatal mental health theme)
 Evolve the CLAHRC's annual Implementation Science Masterclass and our new UK annual Implementation Science Research Conference, in conjunction with the ARC's implementation research theme (Sevdalis, Boaz). 	 Objective 3 (completed) (2020/21) Our annual Implementation Science Masterclass and Conference was held online over five days in June and July 2021 Preparations are underway for online delivery of our 2022 <u>Conference</u> and <u>Masterclass</u>
 Non-researchers Undertake a needs assessment of capacity building requirements in health and care, in collaboration with the HIN, the CIS and King's Improvement Science, St George's Improvement Academy, CCGs, health and social care provider organisations (section 24). This work will be used to develop a core programme of four 'research-ready' workshops to address these needs 	 Objective 4 (completed) (reported previously) Following evaluation of the Research Ready workshops pilot programme with the HIN, our plans for subsequent delivery have been reconfigured to use a 'flipped approach' where students are introduced to the learning material in advance of sessions to maximise the benefit of our research ready training for non-researchers in health and social care (see section 7)
 Develop a portfolio of engagement materials and events to raise awareness of the relevance and benefits of applied health research 	 Objective 5 (on track) We are setting up a virtual learning environment (see section 7) which will be used to host a range of learning materials (to be completed by April 2023)

6. Work closely with the implementation and engagement function (Lelliott) and implementation research theme (Sevdalis) and all our cross-cutting themes to deliver consolidated methodological advances and build capacity.

Medium-term

Researchers

- Establish our South London Applied Research Academy (section 23.1), providing mentorship and networking support for 100 researchers and staff (including NIHR academy members and associates)
- 8. Review and refresh our CLAHRC-established Implementation and Improvement Science MSc to enhance content and integration with other Master's-level provision within ARC academic partners.

Non-researchers

- Deliver a 'research-ready' programme of workshops across teams in health and care within our AHSN region
- Establish a 'knowledge exchange' summer school for non-researchers
- **11.** Organise research placements for researchers and non-researchers to develop their respective insights into applied health research and its application by end users.

Long-term

- 12. Using our capacity building infrastructure, support at least five predoctoral, three doctoral and eight postdoctoral fellows onto the next stage of their academic career through training, mentorship and research development
- **13.** Generate at least two impact evaluation studies for publication in peer-reviewed journals

Objective 6 (completed)

- We continue to work closely with the implementation and engagement theme through our work with the HIN
- We also work with implementation research theme to facilitate development and delivery of advice clinics and the Implementation Science Masterclass, Conference, and module

Medium term

Objective 7 (completed)

• Our <u>South London Applied Research Academy</u> launched in January 2022 following a call for participants in October 2021. The programme of 19 training sessions (52 participants) will conclude in June 2022. Second cohort will be recruited later in 2022

Objective 8 (on track)

- We aim to deliver the standalone online iteration of our module 'An Introduction in Implementation Science' in Autumn/Winter 2022 following sign-off of the collaboration partnership agreement.
- Planning integration of the module within postgraduate provision at Kingston University (an ARC academic partner)

Objective 9 (on track)

• Following a successful pilot, discussions have taken place with interested teams for the next phase of this programme (by Dec 2023) (see objective 4)

Objective 10 (on track)

 Planning to deliver our first Knowledge Exchange Winter School (by Nov/Dec 2022)

Objective 11 (on track)

• We intend to use our initiatives outlined above to act as a foundation for this aim by identifying potential non-researchers and placement providers with an interest in research placements (by Sept 2023)

Long-term

Objective 12 (on track)

• Seven PhD students have been appointed with partial funding from the ARC (recognised as NIHR infrastructure trainees). Eight postdoctoral fellows in social care, funded by the ARC. To be completed by end of funding period

Objective 13 (on track)

We aim to produce these publications based on research evaluation of our Research Ready programme (by Dec 2024)

	Launch an Annual Implementation Science Week – to include our current Implementation Masterclass and UK Implementation Science Conference, with a national forum for all ARC implementation leads, with further support from the UK Implementation Society (Boaz) (section 16.7). Non-researchers Evaluate our team-based approach to core research training for non- researchers and establish a model for roll-out at the national level, collaborating with other ARCs.	 Objective 14 (completed) Implementation Science Week (see objective 6) and national forum (cross-ARC group) Objective 15 (on track) To be achieved further into the delivery of the Research Ready training (by 2023/24)
Cł	nildren and young people	
<u>Sł</u>	nort-term	Short term
1.	Map current need, care provision, resources.	Objective 1 (completed): reported AR20/21
2.	Co-develop evidence-based screening tools and interventions with families and professionals.	 Objective 2 (completed) Have co-developed evidence-based screening tools and interventions (for projects 1 and 2) Project 1: Held three co-design workshops (Nov 2021 – Jan 2022) with PPIE groups, Evelina London Community Paediatrics/Neurodisability and complex paediatrics service teams, local commissioners, and public health consultants, gathering information on stakeholder views of health needs, service gaps and how to improve care Shortlisted feasible interventions (March 2022) Intervention development draws on systematic review Project 2: Held stakeholder workshops to understand delivery of universal Early Years assessments, and opportunities to co-design an improved risk assessment/decision support tool through Health Visiting teams Engaged with local stakeholders (eg Lambeth Early Action Partnership, local mental health providers, Early Years and Parenting Commissioning, Family Early Help) to understand support for Early Years development and school-readiness Working with analysts and civil servants in the Department for Levelling Up, Housing and Communities on the Supporting Families programme, towards collaborating on data sharing for early identification of families in need of help Both projects: Forming Active Learning Partnerships comprising commissioners, provider managers, clinicians, researchers, and families, for co-designing interventions and supporting adoption
M	edium-term	Medium term
3.	Test interventions in pilot trials.	 Objective 3 (completed) Our adopted project, Children and young people's health partnership (CYPHP), is a cluster-randomised controlled trial of a

	 new model of integrated care for children and young people in Southwark and Lambeth Completed recruitment and follow up (Dec 2021). More than 1,700 children, young people and families participated NHS service evaluation has demonstrated effectiveness in improving outcomes and reducing costs Model commissioned locally, regionally across Integrated Care System (ICS), and is an exemplar for population health management for CYP nationally Full results in 2022-23 Implementation plans and pilot trial protocols for core projects 1 and 2 (above) in place by June 2022
Long-term	Long term
4. Complete trials analysis, including outcomes, process, economic, and implementation evaluation	 Objective 4 (on track) Project 1: Systematic review searches and data extraction complete. Expect to submit for publication by Sept 2022. Evidence from systematic reviewing informed intervention design Working on additional systematic review assessing impact of incorporating community health workers into care teams for children with special healthcare needs CYPHP: trial analyses nearly complete, including child outcomes, health economics, process and implementation evaluation
 Produce implementation manuals, with the Centre for Implementation Science 	 Objective 5 (completed) CYPHP – Implementation commissioned locally and manuals developed for implementation into control sites, and for scale-up regionally and nationally
6. Share and disseminate findings locally, nationally, internationally	 Objective 6 (on track) Carried out longitudinal analysis using Millennium Cohort data revealing the impact of poverty and family adversity on adolescent health (Lancet) (Oracle adopted project)
 Collaborative and cross-ARC research and capacity building towards a sustainable programme of applied child health and social care research 	 Objective 7 (completed) Considerable progress collaborating across ARCs and building a sustainable programme of applied research for CYP Secured £2.1m as Chief Investigator for an NIHR i4i grant "TEAM care" leading a multisite trial of technology-enhanced integrated care asthma pathway Secured £0.75m from south-east London ICS towards the intervention and implementation of projects 1 and 2 across SE London Working with Health Innovation Network (AHSN) on sharing our learning about research translation and embedded applied research
Economics and biostatistics <u>Short-term</u>	Leadership: Professor Sabine Landau, joint lead of the theme has been on long-term sick leave. Dr Ioannis Bakolis, senior lecturer at King's College London has been covering in her absence with Dr Healey. The theme is on track with its aims and objectives: Short-term

1.	Identify areas of clinical research where we can apply evaluative methods and develop economic models based on care pathways focussing on multimorbidity and health service sustainability.	 Objective 1 (completed) Early phase economic evaluation of physical health clinic for inpatients with implementation science theme completed (reported 2020/21) Objective 2 (completed)
2.	Models to evaluate interventions developed in the ARC will be populated with appropriate cost and outcome data.	 Objective 2 (completed) Models to evaluate interventions: economic evaluation of scaling- up art-based therapies for south London population (SHAPER) has received a costed extension from the Wellcome Trust Three protocols of the different hybrid trials and one on the stroke study have been published (by September 2023)
3.	Identify novel health care pathways and interventions under the ARC health themes that require feasibility assessment or effectiveness evaluation.	 Objective 3 (completed) The theme are through to the second stage of NIHR HTA call for the <u>HEAL-D project</u> (a multicentre, randomised controlled trial – Healthy Eating and Active Lifestyles for Diabetes)
M	edium-term	Medium-term
4.	These models will form the basis for assessing the cost- effectiveness of new interventions designed to improve care pathways. Uncertainty around estimates will be addressed using state-of- the-art economic methodologies, including an exploration of the use of value of information analyses to optimise future research activity.	 Objective 4 (on track) By June 2022. Elixir project (joint work with the ARC's maternity and perinatal mental health theme): Incidence of domestic violence before, during and after the pandemic – a regression discontinuity design A data results paper is currently under review
5.	Provide statistical methodology and economic input to trials conducted within the ARC, jointly with the CIS.	 Objective 5 (on track) By Dec 2023. HARPdoc (with implementation science theme/ CIS): Hypoglycaemia Awareness Restoration Programme for People with Type 1 Diabetes and Problematic Hypoglycaemia Persisting Despite Optimised Self-care Two protocols published on trial, main trial paper is in press with Nature Communications and baseline paper is accepted/in press with Diabetologia. Three other papers are underway
6.	Conduct feasibility assessments or clinical evaluations of interventions or pathways using empirical trials or observational cohort data. It is envisaged that methods from the causal inference field, including quasi- experimental designs and mediation analysis will contribute to process evaluations to which the implementation research theme/CIS will contribute.	 Objective 6 (on track) By Dec 2022. Physical health clinics and Consultant connect (Improving mental health and physical health programme with SLaM). Work programme for evaluation and implementation drafted. We are using quasi-experimental methods (eg propensity scores) to evaluate the two services

Long-term		Long-term
7.	Successful peer-reviewed publications.	 Objective 7 (completed) Publications – see F&A report
8.	Successful collaborative and national, cross-ARC research projects and grant applications.	 Objective 8 (completed) Successful collaborations – NHS Check (applied informatics and ARC North Thames) (reported 2020/21) Soundlives (with ARC public health and multimorbidity theme): Improving the epidemiological evidence base for the effects of environmental pollutants on health in the UK across the life course
9.	Successful contribution to ARC short courses (section 16.3.) in methodology and economics	 Objective 9 (completed) Short courses – reported AR2020/21. Also contributed to implementation science masterclass on statistical methodology
10.	Contribute to capacity building in the specialist of social care research with the 2 social care economics postdoctoral positions, in collaboration with the NIHR School for Social Care Research, and the NIHR Social Care Incubator.	 Objective 10 (completed) Capacity building – (reported 2020/21). Also developing workshops on hybrid trials with implementation science theme
Im	plementation research	
<u>Sh</u>	ort-term	<u>Short-term</u>
1.	Provision of implementation research support to ARC themes.	 Objective 1 (completed) Collaborated on pandemic-related projects and new research bids (reported AR20/21) Launched theme advice clinics for implementation studies (Nov 2021)
2.	Co-produce research projects with PPI members.	 Objective 2 (completed) Co-designed activities with 30 people living with long Covid and 10 rehabilitation practitioners through the LISTEN project
3.	Identify social care implementation priorities with ARC theme (Manthorpe) and UKIS.	 Objective 3 (completed) Set up a collaboration agreement with former UKIS chair, Dr Deborah Ghate (2021), who is leading joint work between us and social care theme to adapt the ImpRes tool for use in social care implementation studies
4.	Launch biannual Implementation Research Seed Funding, with up to £10k offered to support turning innovative implementation ideas into research funding bids – across ARC partners.	 Objective 4 (on track) Our finances and pandemic pressures have prevented launching this initiative. We have instead offered in-kind support to ARC themes, in the form of advice clinics for implementation studies
5.	Work with the implementation and engagement function (section 12) and cross-cutting themes to deliver methodological advances and build capacity.	 Objective 5 (completed) Developed programme, questions and deliverables for a global virtual workshop, to be held with ARC biostatistics and economics theme on 'hybrid' evaluation designs in applied health research
6.	Lead annual Implementation Science Masterclass and UK	 Objective 6 (completed) The annual Implementation Science Research Conference was held on 15 and 16 July, under the theme, 'Supporting the

Implementation Science Research Conference.	 pandemic response? Implementation science in the time of Covid- 19'. Around 130 international delegates attended The annual Implementation Science Masterclass (postponed from 2020 due to Covid) was held over three consecutive Thursdays in June/July attracting 72 delegates from eight countries
 Lead on one ARC-wide implementation-themed workshop with ARC themes and local stakeholders. 	 Objective 7 (on track) To be designed with the implementation and engagement team (by July 2023)
Medium-term	<u>Medium-term</u>
 Complete and disseminate two key research projects 	 Objective 8 (completed) A core project, INSPECT, completed and the <u>Implementation</u> <u>Outcomes Instrument Repository</u> launched (July 2021). Since launch, it has been accessed by 550+ users worldwide including UK, USA, Australia, Canada and the Netherlands We completed <u>a systematic review of the literature evaluating the</u> <u>application of the RE-AIM planning and evaluation framework</u> Presented at the 7th International Centre for Behaviour Change Conference (November 2021)
 Produce at least four ARC-wide collaborative research bids 	 Objective 9 (completed) Four externally funded projects: National Insights Prioritisation Programme national project, with the HIN and ARC public health and multimorbidity theme; (ii) NIHR Mental Health Implementation Network; (iii) NIHR LISTEN trial on long COVID; (iv) NIHR RIVA on implementation models for domestic violence advisors within maternity units
 Recruit at least six PhD/MD Res implementation doctoral fellows 	 Objective 10 (on track) Recruited one PhD fellow (October 2021), fully funded through the LISS doctoral training programme. To be completed by Sep 2024
 Deliver workshops to enable PPI-members to become implementation research co- authors/-investigators 	 Objective 11 (on track) To be completed by Mar 2023 Several PPI colleagues said they preferred to be acknowledged rather than included as study co-authors/investigators We will establish level of need and project relevance before offering a tailored workshop or adopt different approaches
Long-term	Long-term
 Generate at least two impact case studies co-developed with providers/ commissioners and PPI members. 	 Objective 12 (on track) To be completed by Sep 2024
 Maintain an externally sustainable programme of implementation research 	 Objective 13 (completed) Academic leads have proactively sought and gained external funding to deliver implementation and hybrid effectiveness-implementation studies with colleagues within the ARC and across ARC partner organisations (and external partners)
 Collaborate with PPI members on research grants (co- investigators) and papers (co- authors) 	 Objective 14 (completed) We have strong PPIE collaboration across newly acquired grants and projects (eg NIHR LISTEN, MHIN and RIVA)

15.	Support at least two seed- funded implementation research proposals to full applications	Objective 15 (on track) to be completed by Sep 2024
16.	Co-lead a national implementation-improvement research platform across ARCs and partners (see national leadership section).	 Objective 16 (completed) We are among the founding members of the cross ARC CRIISTL network, including ARCs and AHSNs nationally (see section 8)
17.	Launch an Annual Implementation Science Week – including our current Implementation Masterclass and Conference; a further National Forum for all ARC implementation leads; and a UKIS Forum with focus on implementation tools for social care systems.	 Objective 17 (completed) Implementation Science Week (see objective 6) and national forum (cross-ARC CRIISTL group) UKIS forum for social care pending
	aternity and perinatal mental ealth	<u>Short-term</u>
Sł	<u>nort-term</u>	
1.	Convene PPI advisory group and consult with PPI stakeholders to ensure that voices of women and families are central to our work.	 Objective 1 (completed) Reported AR2020/1. Ongoing throughout programme
2.	Convene stakeholder advisory group and consolidate engagement strategy, identify and collaborate with implementation champions in NHS trusts, local and regional maternity structures.	 Objective 2 (completed) Reported AR2020/1. Ongoing throughout programme
3.	Complete the first two projects and plan a cross-ARC project starting in year 3.	 Objective 3 (completed) Project 1 - Models of maternity care for women living in areas of ethnic diversity and social disadvantage in south-east London. Analysis of outcomes published in BMJ Open Stage 2 is co-designed and collaborative research with Lambeth Early Action Partnership (LEAP). Invited case study submitted with LEAP to NIHR Under Served Communities Research Case Study. Completed. Project 2 - A quantitative investigation of electronic healthcare records of obstetric near-misses and near fatal self-harm in mental health care records linked with hospital admission data. Obstetric near misses among women with serious mental illness: data linkage cohort study Obtained two nationally funded cross-ARC projects from the Child Health and Maternity National Programme: ESMI-III: The Effectiveness and Implementation of Maternal Mental Health Services Collaborating with the ARC South Peninsula and ARC North West Coast. Phase One completed

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	Models of health-based Independent Domestic Violence Advisor provision within maternity settings – Children's health and Maternity and prevention. Collaborating with ARCs Yorkshire and Humber and South West Peninsula
 Gain external funding for PhD studentship. 	 Objective 4 (completed) Gained funding for four PhD studentships including: Silverio awarded an NIHR ARC SL PhD Studentship Khan awarded an Iolanthe Research fellowship (see objective 7)
5. New research initiated	 Objective 5 (completed) Dr Rayment-Jones received an NIHR Development and Skills Enhancement (DSE) data science award to explore health inequalities in maternal and newborn care and support to take this work forwards for grant application Dr Fernandez-Turienzo awarded an NIHR DSE in global health trials of complex interventions in maternal and newborn care
6. Impact	 Objective 6 (completed) (See section 5. Impact). Highlights include: Core project 1: Working with NHSE/I maternity transformation programme on continuity of care and contributed to <u>NHSE/I planning guidance on</u> implementation of continuity of care, and the NHS England Equity and Equality: Guidance for Local Maternity Systems. Core project 2: Our <u>BMJ Editorial</u> (Jan 2022) highlighted the importance of including mental health near miss indicators in national surveillance of severe maternal morbidity and mortality. Findings cited in the 2022 <u>RCoP Annual Report</u> and the NHS England <u>Equity and Equality: Guidance for Local Maternity</u> <u>Systems</u>
Medium-term	Medium-term
7. Gain external funding to extend an Australian NHMRC-funded international feasibility study to assess models of care for migrant and vulnerable women with NIHR CLAHRCs North Thames, NW Coast and Yorkshire and Humber.	 Objective 7 (completed) Gained funding for a range of research in this area including: Vowles, NIHR Pre-doctoral Clinical Academic Fellowship, Models of care for multimorbidity during pregnancy De Backer shortlisted for a PhD fellowship on care of women who are at risk of removal of their infant due to social care proceedings
8. Gain external funding for cross- ARC collaboration with proposed West Midlands, Greater Manchester and Oxford ARCs on models of care for women with multimorbidity, and on perinatal mental health with North Thames, PenARC, Newcastle, Oxford, North West Coast through external grants.	 Objective 8 (completed) Obtained funding for two cross ARC projects (commenced October 2021) (see objective 3) Projects funded through the National ARC Priority Programme
9. Dissemination through peer- reviewed publications, conferences, and social media.	 Objective 9 (completed) Published 83 peer-reviewed publications in the last six months (see F&A report)

	 Presented our research findings at 12 national and international conferences (see F&A report) We involve, engage and disseminate our research to the wider community through social media (closed Facebook, <u>Twitter</u> and WhatsApp group) and <u>blogs</u>
Long-term	Long-term
10. Inform care delivery across south London maternity and perinatal mental health services	 Objective 10 (on track) Ongoing throughout programme Our research on continuity of carer has informed the <u>NHSE/I</u> planning guidance on implementation of continuity of care, and the NHS England Equity and Equality: Guidance for Local Maternity Systems
 Inform scale-up nationally and health care guidelines and policy. 	 Objective 11 (on track) Ongoing throughout programme Project 20 and POPPIE cited and informed NHSE/I guidance on implementation of continuity of midwife care at scale and maternity equity and equality strategy (see section 5, impact)
Palliative and end of life care	Short term
 <u>Short term</u> 1. Understand clusters of multimorbidity, their geographical variation, relationships to health, social care and costs. 	 Objective 1 (completed) Explored trends in comorbidities for lung cancer decedents (Sep 2021) highlighting need for collaborative healthcare Initiated study examining role of ethnicity in opioid prescribing and health service use at end of life in cancer patients (Jan 2022)
2. Expand our existing collaborative into a PEoLC Outcomes Action Collaborative (OAC) embedding outcome measurement into practice, including social care settings.	 Objective 2 (completed) Expanded OAC locally and globally (300 members, growing by 30-50 members per year). December 2021, joined King's College Hospital Continuous Quality Improvement team to improve patient care, patient-centred outcomes and experience March 2022: joined patient-reported outcome measures forum for King's Health Partners March 2021: Hocaoglu working with US (Harvard) researchers to expand OAC across UK, USA and Cyprus, embedding outcome measurement into practice, including social care Substantial progress in embedding measurement in specific populations, including patients severely ill with Covid-19
 Develop and evaluate models or PEoLC spanning H&SC, focussed on multimorbidity to improve decision-making, care and outcomes. 	 f Objective 3 (completed) Identified common elements of service delivery models for people with advanced progressive conditions. These approaches aim to integrate holistic, multidisciplinary care earlier. EG: Short-term integrated palliative rehabilitation intervention for people newly diagnosed with thoracic cancer and New approach to pulmonary rehabilitation for people with COPD and frailty
 Use the results from above to launch national PEoLC collaborations and trials, including a national ARC Collaborative. Linking with ARC social care, public health, 	 Objective 4 (completed) As joint national leads for PEoLC, we launched local, national and international collaborations

	nformatics and implementation hemes to increase impact.	• Organised <u>national knowledge exchange events</u> bringing together 200+ stakeholders and cross-ARC public involvement activities, helping to secure funding (eg NIHR, EC HORIZON)
		Medium term
Med	lium-term	Objective 5 (on treak)
n a c ir	Understand individual, local and national impacts of the numbers and clusters of multimorbid conditions, and interactions with ndividual factors, on H&SC service use at EoL	 Objective 5 (on track) Modelled patterns of comorbidities for lung cancer patients Exploring impact of clusters on costs and service use using ONS data (to be completed by June 2023) Completed analysis of associations between multimorbidity and social care expenditures locally Examining impact of specific clusters on social care expenditures for patients who died in/out of hospital (to be completed by June 2023)
d a ti d	Establish evidence-based lecision support tools (DST) to act on outcomes data in real ime to improve care, access, lecision-making and cost- effectiveness in PEoLC in H&SC	 Objective 6 (on track) Published research with OAC members in New Zealand demonstrating feasibility of integrating outcome measures into clinical decision-making using machine learning and network analysis. Exploring collaboration with industry to develop apps October 2021: carried out consultation at researchers' exchange meeting, highlighting that data should accurately capture transition between community and hospital
tl n s	Combine above to understand he impact of multimorbidity on needs, outcomes, H&SC costs, service variation and triggers for PEoLC	 Objective 7 (on track) <u>INSPIRE trial</u> will test effectiveness of integrated short-term palliative rehabilitation for people with incurable cancer
le A C C P a	Establish a thriving world- eading collaborative for PEoLC ARC, joining researchers, elinicians, policy makers and commissioners, patients, the public, evaluating, developing and trialling cost-effective hterventions and care models.	 Objective 8 (completed) Working with ARC's health informatics team, published on <u>acute care utilisation towards EoL and place of death for patients with serious mental illness (SMI)</u> Expanding analysis using extracts from national Hospital Episode Statistics to explore geographic variations associated with health services use for patients with SMI Working with ARC economics, biostatistics and social care researchers to understand impact of care clusters on service use at end of life Members of HDR UK National Core Studies and British Heart Foundation Data Science Centre Consortium Launched national Palliative Rehabilitation Research Partnership, leading capacity building and research proposal development Secured NIHR funding to test brief remote primary care intervention for chronic breathlessness
<u>Lon</u>	<u>g-term</u>	Long-term
n e a a	Inderstand the impact of nultimorbidity on the effectiveness and cost- effectiveness of PEoLC in H&SC as a holistic care approach in alleviating symptoms, problems and suffering, using linked data	 Objective 9 (on track) Analysis of data of people with Covid-19 in England and Wales supported by palliative care services (CovPall) provided evidence on predictive value of multimorbidity in ensuring survival of people with severe Covid and referral to palliative care Obtained access to national linked data sets to further understand impact of multimorbidity

10.	and trials that are theoretically driven Create a step change in effective and cost-effective PEoLC locally and nationally, with long-lasting cooperation between commissioners, H&SC, policy makers, patients and practitioners.	 Objective 10 (on track) Worked with NHS England to produce implementation guidance for breathlessness services. NICE has now commissioned new clinical guidance for managing chronic breathlessness Commissioned by WHO Europe to produce policy brief on integrating rehabilitation into palliative care services Contributing to Marie Curie report on home deaths Influencing policy on clinical specialist palliative care services (see section 5)
	atient and public involvement search	
	nort-term	Short term
<u>31</u> 1.	Establish mechanisms for networking with key	Objective 1 (completed) We are actively networking with key stakeholders including:
	stakeholders, including other ARCs, BRCs, NHS Trusts, social care, public health and commissioners, considering the need for diversity and a focus on multimorbidity. Protocol development.	 ARCs – Kent, Surrey and Sussex and PenARC: developed a new approach to evaluation of PPI implementation Commissioners – Kent and Medway, SE & SW London CCGs NHS Trusts – seven mental health trusts on implementing therapeutic engagement questionnaire (TEQ) Biomedical Research Centres, and public health organisations, including Healthwatch in SE & SW London Researchers across ARC South London, including the public health and multimorbidity and social care themes, PPI coordinator and involvement team, Public Research Panel, and Centre for Public Engagement at Kingston University NIHR Centre for Engagement and Dissemination Mechanisms for PPI networking across NIHR infrastructure
2.	Item generation and development of an evidence- based, co-produced toolkit on optimising PPI in commissioning.	 Objective 2 (on track) Literature review to underpin toolkit compete Since developing the study there have been major changes: Covid-19, the merger of former CCGs into larger CCGs and Integrated Care Systems. As a result, we have reviewed the project plan (research sites and recruitment) We are recruiting lay individuals involved in PPI. The project no longer requires CCGs to facilitate recruitment. HRA approved These changes delayed data collection, but the project is on track and remains otherwise unchanged Items will be generated (Jan-May 2023) following data collection
3.	Embed the PPI national standards in our work and collaborate with the cross-ARC PPI coordinator and with other ARC research themes to establish PPI best practice.	 Objective 3 (completed) Working with ARC PPI co-ordinator and involvement team we have delivered evaluation frameworks for embedding PPI across the ARC to establish best practice
M	edium-term	Medium term
4.	Disseminate findings through peer-reviewed publications and	 Objective 4 (completed) Professor Chambers and Dr Papoulias organised the Centre for Public Engagement annual conference <u>Labour of love or</u>

	multiple channels, including third sector collaborators	 thankless work: what kind of work is PPI?' in December 2021 attended by 112 people including researchers, clinicians, managers, service users and lay contributors They presented findings from ARC research exploring the role of PPI leads / practitioners in research. This was one of the first settings to explore the labour of PPI in research and service provision, bringing together researchers, survivor researchers, lived experience practitioners and the public Papoulias has since published in <i>Social Science & Medicine</i> exploring labour exploitation in mental health research
5.	Pilot the evidence-based, co- produced toolkit	 Objective 5 (on track) We are collating, transcribing and analysing qualitative data These data will inform the statements/questions for the national online survey and development of toolkit
6.	Determine distinguishing features of PPI in practice, including facilitators and barriers.	 Objective 6 (on track) Papoulias' presentation at the CPE conference focused on distinguishing features of PPI in practice. They are working on a paper on the barriers and facilitators of the work of PPI leads in NIHR infrastructure grants
Lo	ong-term	Long term
7.	Identify the social reality of meaningful PPI and locate case studies of best practice to inform policy	 Objective 7 (on track) Papoulias' paper (above) identifies social reality of PPI Development and implementation (across 7+ mental health trusts) of Therapeutic Engagement Questionnaire (TEQ) is a case study of best PPI practice (featured on NHS site) TEQ is featured as part of CQC / Director of Nursing Forum guidance on reducing harm from ligatures on mental health wards (due July 2022) Developing an app-based version of TEQ
8.	Implement and evaluate the impact of the toolkit in various settings. Disseminate research findings to inform PPI capacity building for researchers and others not directly involved with research locally and nationally	 Objective 8 (on track) From data analysis, we plan for the development and testing of the toolkit: 1. Collate and integrate data 2. Project advisory group to scrutinise, modify and approve themes and structure. 3. Engage research participants. 4. Revise content. 5. Pilot and evaluate toolkit. 6. Digitise toolkit for integration and dissemination across commissioning
9.	Facilitate the adoption of a model of economic evaluation capable of reflecting the contributions of PPI in decision making across settings	 Objective 9 (on track) We are seeking guidance from health economic experts
m <u>SI</u>	ublic health and ultimorbidities h <u>ort-term</u> Diabetes	Short-term Diabetes

1.	Develop and pilot interventions reducing dietary energy intake to reduce T2D risk in people at- risk, particularly those of S. Asian, African and Caribbean origin.	 Objective 1 (completed) Developed new remote HEAL-D programme for management of T2D in local African and Caribbean communities <u>Commissioned by both Integrated Care Systems</u> (ICS) in south London. In total, 10 courses delivered (January-April 2022) and 10 courses planned (May 2022-March 2023) Developed, piloted and <u>evaluated</u> a school-based intervention increasing cereal fibre intake for early T2D prevention Developing family-based interventions in children to increase total dietary fibre and reduce energy intake for early T2D prevention
2.	Develop algorithms predicting development of T2D complications and associated multimorbidity, clarifying whether ethnicity, social status and mental health enhance prediction.	 Objective 2 (on track) Following up South London Diabetes study (SOUL-D) cohort analysing clinical information on T2D complications, morbidity and mental health
3.	Test algorithms in large-scale primary care datasets, embedded in culturally-tailored models of care.	 Objective 3 (on track) Follow-up data from SOUL-D is underpinning algorithms and screening tools to identify T2D patients at risk of complications and multimorbidity Investigating impact of pandemic on an ethnically diverse patient population with T2D, as well as multimorbidity
Vá 4.	ascular Estimate vascular risk and events and investigate how frequently stroke patients have myocardial infarctions (MI) and vice versa, outcomes across mental and physical domains.	 Vascular Objective 4 (completed) Used South London Stroke Register (SLSR) to estimate risks and outcomes in context of multimorbidity Recruited 181 new participants between Oct 2021 and March 2022 and have registered 22 recurrences for existing cohort Undertaken 437 follow-up interviews (81.2% completion) Study of acute coronary syndromes close to HRA approval
5.	Evaluate sociodemographic, acute case mix, follow-up data and associations with processes of care.	 Objective 5 (completed) Published 8 research papers exploring associations with processes of care (see publications) including on <u>stroke care in UK during pandemic</u>
6.	Identify gaps and opportunities for appropriate management; prevalence of morbidities and their drivers.	 Objective 6 (completed) Working with NHS England on the Long-Term Plan stroke pathway. Evidence gap review informed NHS <u>Research Demand Signalling report</u> (March 2022) Working with HDR UK, developing the 'phenomics' methodology and e-trial platform
Sı 7.	moking Identify what tobacco dependence treatment outcomes hospital patients and community mental health patients value the most. Evaluate barriers and facilitators to tobacco dependence treatment delivery and uptake in these settings.	 Smoking Objective 7 (on track) On track to identify barriers and facilitators to tobacco dependence treatment delivery and uptake in local NHS settings Interviewed 23 hospitalised patients (KCH and GSTT),13 patients from substance use settings, 6 from mental health services, and 8 tobacco dependence treatment advisers. Data collection ongoing

8. Evaluate the smoking and health outcomes of the CCG-commissioned acute medical tobacco dependence treatment pathways in KCH and GSTT.	 Objective 8 (completed) Completed evaluation of 298 patients in KCH and 511 patients in GSTT who received tobacco dependence treatment in hospital and their smoking status 6 months later. Developing larger study
 Public health 9. Analyse current prevention- orientated pathways 10. Expand current consultations with local adults and children to inform co-production of interventions to foster healthier places that address upstream determinants of multimorbid conditions. 	 Public health Objectives 9 and 10 (on track) As reported in AR 20/21, revised our aims due to restructure within KCL. Carrying out two new projects responding to Covid: Co-produced population health intervention in response to local needs identified during pandemic (project 1) Project assessing how major institutional change in public health has impacted on England's pandemic response (project 2) Researcher recruited (Sept 2021), multidisciplinary collaboration established, protocol agreed and ethics approval granted
Medium-term	<u>Medium-term</u>
Diabetes 11. Test the fidelity, effectiveness and cost-effectiveness of nutritional interventions for T2D prevention	 Diabetes Objective 11 (completed) Funding secured to examine scalability of HEAL-D programme Completed and reported investigation of fidelity of a school-based cereal fibre supplementation intervention for preventing T2D
12. Develop screening tools to identify patients at high T2D complication and comorbidity risks	 Objective 12 (on track) Follow-up of SOUL-D cohort enabling this Launched two major research projects on the prediction of T2D complications using retinal imaging, clinical and genetic factors
Vascular 13. Define the need and value of a post-acute vascular event review process	 Vascular Objective 13 (completed) After reviewing evidence on stroke care, identified little evidence for routine fixed-point assessment after stroke Examining stroke survivor and carers' needs and will propose new ways of assessing
 Develop an electronic Clinical Decision Support tool (eCDS) 	 Objective 14 (on track) Developing 'computable phenotypes' for decision making models and the patient / professional portal for decision support Developed a <u>Phenoflow portal</u>, storing executable definitions of phenotypes for range of diseases
15. Investigate how well the eCDS can be integrated into primary care EHR	 Objective 15 (completed) Our eCDS tools are being evaluated for early detection of cancer and reducing antibiotic prescribing in primary care in London and Manchester, with TPP's <u>SystmOne</u>
Smoking 16. Co-produce and evaluate training interventions for community mental health workers and non-healthcare workers	 Smoking Objective 16 (on track) We are codesigning a tobacco harm reduction toolkit for people accessing homeless services Our online training to promote smoking cessation and smokefree policies in SLaM mental health services has been updated

17. Support the development and evaluate the outcomes of a tobacco dependence treatment pathway in community mental health services	 Objective 17 (completed) Contributed to work led by NHS England & Improvement to develop metrics to assess implementation of tobacco dependency treatment pathways in acute and mental health hospitals Member of a national priority ARC network to evaluate tobacco dependence services Collaborating with National Centre for Smoking Cessation and Training and University of York to develop a national smoking cessation course for community mental health staff Collaborating with SLaM around evaluating smoking cessation outcomes post-hospital discharge
 Public health 18. Implement new interventions aimed at community action on air pollution and healthier streets to foster active travel, both within an evaluative framework. 	 Public health Objective 18 (on track) Working with Lambeth Council to co-design research exploring post-lockdown recovery needs of parents of young children in marginalised communities. Carrying out needs assessment (project 1) Completed literature review and interviews with 12 public health experts. Workshop with 18 public health experts in March 2022 (project 2)
Long-term	Long-term
<i>Diabetes</i> 19. Implement effective and cost- effective interventions for T2D prevention and risk prediction strategies for reducing T2D complications	 Diabetes Objective 19 (completed) HEAL-D implemented in South London ICSs Prospective SOUL-D data being collected which will allow testing of interventions based on risk prediction strategies New projects (above) will enable us to further address aim
Vascular 20. Test the feasibility of using data provenance technology to model the changes in NICE guidelines	 Vascular Objective 20 (on track) Following pilot projects with NICE, developing guideline-based decision support systems underpinned by our data provenance technology. Aim is to develop a computational representation of conflicting guidelines and use AI to recommended treatment
 Smoking 21. Develop a standardised integrated tobacco dependence treatment implementation toolkit for acute medicine, and mental health settings. 	 Smoking Objective 21 (on track) Setting up a KHP smoking cessation and tobacco harm reduction Community of Practice that will bring all the tobacco dependence advisers in SLaM, KCH and GSTT and researchers
 Public health 22. Ensure relevant research outputs are routinely embedded in ICS and LG prevention strategies. 	 Public health Objective 22 (on track) Intervention agreed by Lambeth Council (project 1) Submitted report to the UK Covid Inquiry (project 2) Evaluating South London Zero HIV Social Impact Bond to understand how multi-agency collaborations are driving innovations on HIV testing (27 interviews done, report written)
Social care Short-term	Short-term
 Undertake a mapping exercise to ascertain strengths and gaps in provision and resources 	 Objective 1 (completed) reported (2020/21) Published the main report of the Mapping and Community Engagement (MACE) study: The report had been downloaded 448 times in total (at 20/06/21)

	across south London. Such data are currently not available.	• A <u>blog introduced the report:</u> Green, C, Orellana, K, Manthorpe, J and Samsi, K. (2021) <u>Caring in company: a pre-Covid snapshot of</u> <u>day centres in south London: Report of a mapping exercise of</u> <u>publicly available information from four south London boroughs</u>
2.	Work with day services (utilising strong links with the sector e.g. Ladywell Day Centre in Lewisham) and local stakeholders to co-produce metrics on demand, provision and outcomes.	 Objective 2 (completed) A Day Centres Priorities Survey was designed and advertised. Received 40 responses from day centre stakeholders mainly in south London These were analysed and distilled into key themes/research priorities. A key priority has been identified and study designed around it A paper describing the methods and findings has been submitted to <i>International Journal of Care and Caring</i>
3.	Through interviews/observations with service users, family/friend carers, day centre managers, staff and volunteers, we will develop tools using these metrics for self-auditing, measuring stakeholder outcomes, and social return on investment (SROI). This innovation and its implementation will then be evaluated.	 Objective 3 (completed) reported 2020/21 Met with DHSC policymakers to discuss 'Helping adult day centres to unlock lockdown' reissued by the Social Care Institute for Excellence as DHSC guidance. Identified priorities amongst day centre sector by survey and consultation. This work will inform the development of tools that day centres may use for self-auditing and outcomes
M	edium-term	Medium term
4.	Generate wider community engagement through interviews with staff from local authorities, primary care services, homelessness and addictions services.	 Objective 4 (completed) Engagement has been in response to pressing research questions from local authorities and care providers, service users, carers and support services In October 2021, Caroline Green presented at HSCWRU's Mental Health and Social Care Annual Conference 2021 our review on <i>Learning from Safeguarding Reviews to improve mental health care</i> (work requested by London ADASS) Presented to the London group of Adult Safeguarding leads and
		to a pan-London care user group. The report has had over 200 downloads
5.	These will focus on the utility of information and communications with day service providers to assess if the earlier developments better explain the various day_services' impact and outcomes.	

<u>L</u> . 7.	Develop a model for SROI using the data collected in phases 1 and 2. This will be co-produced with day service leads from the localities, but also voluntary sector (e.g. Age UK, Homeless Link).	 Long term Objective 7 (on track) Priorities identified in the day centre study are being used as the basis for the next study which will involve continuous consultation with south London's social care sector to feed into this work This work will inform the development of tools and resources for day centres' use, eg for self-auditing, outcomes measurement and supportive resources such as case studies and evidence briefings The study was publicised at a joint conference with Age UK
8.	Disseminate findings widely. As well as local stakeholders mentioned above, we will work closely with national stakeholders (National Voices, Housing LIN, Think Local Act Personal, Care Provider Alliance, unions, professional bodies)	London Objective 8 (on track) • To follow on from the study (as above)

5. Impact on Healthcare Provision and Public Health (no more than 500 words)

Influencing policy on commissioning of palliative care services

An <u>amendment proposed to the Health and Care Bill that introduces a specific requirement for clinical</u> <u>specialist palliative care services to be commissioned by Integrated Care Boards in every part of England,</u> <u>was influenced by our palliative care research</u>, has received government support. The amendment (put forward by Baroness Finlay of Llandaff) was debated in the House of Lords in January 2022. Several peers cited ongoing research from the Marie Curie Better End of Life Programme, led by ARC researcher, Professor Katherine Sleeman, in support of the amendment. Findings from <u>two ARC studies</u> (CovPall and CovPall-connect) led by Professor Irene Higginson, the ARC's palliative and end of life care lead, informed the Better End of Life Care Reports 2021/22.

Using data analysis to inform mental healthcare and policy during the pandemic

Applied informatics researchers have monitored the response of mental health services in south London during the pandemic, working with South London and Maudsley NHS Foundation Trust to establish weekly research priorities, including service metrics, symptom profiles and effective crisis management. The researchers worked with 10 other mental healthcare providers across the UK to confirm trends in patient and service use data. Multiple pre-prints and papers informed Department of Health and Social Care, NHS England and London decision-making. The researchers also analysed patient health records and acute admissions data at King's College Hospital NHS Foundation Trust for predictors of Covid-19 outcomes. This established a Covid-19 risk score used for patients presenting with symptoms.

Informing the delivery of maternity care in England

Our maternity and perinatal mental health theme's research has informed the way services are being delivered in England:

- Our researchers have been working with the NHS England and Improvement maternity transformation programme on continuity of care and contributed to <u>NHSE/I planning guidance on implementation of continuity of care</u>, and the NHS England Equity and Equality: Guidance for Local Maternity Systems.
- Our <u>BMJ Editorial</u> (Jan 2022) highlighted the importance of including mental health near miss indicators in national surveillance of severe maternal morbidity and mortality. The findings were cited in the 2022 <u>Royal College of Psychiatrists Annual Report</u> and the NHS England <u>Equity and Equality: Guidance for Local Maternity Systems</u>.
- Feedback from our PPIE event for the <u>OptiBreech study</u> led to significant changes in wording that makes the priority of informed decision-making more central to the guidance. <u>Our research has been</u>

incorporated into local guidance for the management of vaginal breech births. At two of the sites, Breech Clinics have opened, including specialist midwife involvement.

Developing a remote programme to better manage type 2 diabetes in south London

Public health and multimorbidity researchers successfully developed a remote version of the HEAL-D programme for managing type 2 diabetes in local African and Caribbean communities. This has been commissioned by both Integrated Care Systems (ICS) in south-west and south-east London. So far, <u>10</u> courses have been delivered (January-April 2022) and <u>10</u> are planned (May 2022-March 2023).

Using health economics to inform geriatric assessment in elective vascular surgery

The ARC's health economists have carried out an evaluation of a preoperative Comprehensive Geriatric Assessment for older people undergoing elective vascular surgery (POPS) service. This <u>evaluation has been</u> instrumental in successfully scaling up the POPS services from Guy's and St Thomas' NHS Foundation Trust to 18 other hospitals across England and four in Australia.

6. Public and Community Involvement, Engagement and Participation (PCIEP) (no more than 1000 words)

6.1 Progress in implementing Involvement Strategy

Our progress in implementing the ARC's <u>Involvement Strategy</u> is outlined below against *areas of activity* and *specific activities* scheduled in 2021-22. These areas of activity overlap with the UK Standards for Public Involvement (Inclusive opportunities; Working together; Support and learning; Communications; Impact; Governance).

Strategy development

• *Strategy evaluated and updated at least every 12 months* (standard: 'Working together'): Six-monthly reports made on progress in ARC-wide involvement; strategy reviewed in March 2022.

Governance and accountability (standard: 'Governance'):

- Board and Executive meetings to have EDI and involvement as standing items: There is a standing agenda item for EDI at the ARC Executive and it is regularly discussed at the ARC Board. Additionally, since it is integral to the ARC's work, a number of research themes have started to incorporate EDI into theme presentations. We aim to develop this further, encouraging themes to take a strong lead on saying how they are addressing EDI.
- Establish involvement and community stakeholder member representation on both Board and Executive: In January 2022, two public contributors from the Involvement Advisory Group and two community organisational representatives (from Ladies in Waiting, a women's local community group and Mosaic Clubhouse, a community group in Lambeth supporting people with mental health) were appointed to the Board and Executive, playing an active role in these bodies.
- All themes to outline their involvement governance arrangements, including local champion and mechanisms for ensuring diversity (standard 'Working together'): Each theme has appointed an involvement champion. Arrangements vary, sometimes linked to the size of the theme. The involvement team meets with the champions, sends updates and provides support.

Establishing new PPI structures (standard: 'Governance'):

- Complete Terms of Reference (ToR) for Involvement Learning Network and Involvement Advisory Group: ToR developed for the Involvement Learning Network and Involvement Advisory Group
- Begin recruitment for Involvement Advisory Group: Recruitment process completed and diverse group established, with public and staff members
- *Establish Involvement Learning Network*: Public contributors and ARC staff invited to join, two sessions held (approx. 30 people attended).

- First meeting of Involvement Advisory Group: We hold quarterly meetings, <u>chaired by Rashmi Kumar</u>, <u>trustee of Lambeth Patients and Public Participation Group</u>, and Implementation and Involvement lead as vice-chair and working groups for specific issues.
- Business plan for continuation of public research panel: Resources identified.

Capacity building (standard: 'Support and learning'):

- *Provide guidance and links to resources on involvement during pandemic*: Resources circulated, including on remote working
- Develop role description for involvement champion: Completed
- Survey theme leads and involvement members re: current involvement practices and needs: Survey completed, varied needs identified
- Understand best practice and identify and develop guidance, and resources and training on involvement for: i) Theme leads ii) ARC researchers iii) involvement members (standard 'Inclusive opportunities'): Involvement Learning Network sessions held, focusing on evaluating involvement and on achieving more diverse involvement, tackling inequalities; signposting to key NIHR and other involvement resources on ARC website; Policy Press published free e-book on <u>COVID-19 and Co-Production</u> EDI lead was joint editor and author (involvement coordinator also contributed); 'Involving people from diverse communities in co-producing research' was focus of <u>Active Involvement in Research 2021</u> (attended by 65+ local patients, servicer users, carers, residents, research staff and PPI leads); delivered sessions on diverse and inclusive involvement at <u>ARC PhD Winter School</u> and <u>ARC Leadership Academy</u> as well as input to <u>NIHR academy event</u>; work ongoing with communications and capacity building to expand learning opportunities, resources and to signpost
- Co-design development pathways for public contributors to develop more in-depth expertise, eg in developing grant applications: Ideas generated, fed into joint work with capacity building theme to draw on relevant expertise

Resourcing (standard: 'Working together')

- All themes to allocate time for involvement champion role, and resource to remunerate public members: Recognising that limited resources may affect themes' ability to try new ways to broaden and deepen involvement, we set up the ARC South London Involvement Fund to help. Over £12k was provided to 10 ARC projects to support involvement (eg in the social care theme a <u>tea dance exploring</u> human right to social care which was held attended by 50 local people).
- Developed a <u>successful proposal with ARC Northwest London</u> to NIHR Centre for Engagement and Dissemination on understanding and strengthening regional infrastructure

Monitoring and evaluation (standard: 'Impact')

- Advisory / expert group to make recommendations to ARC Executive & Board re: measurement framework: Framework developed in consultation with themes, with emphasis on learning and improvement
- *Involvement measurement framework signed off by ARC board*: Signed off by Executive (agreed that Executive was more suitable than the Board as the framework links to operational delivery)
- Introduce "end of project reports" for all research studies to demonstrate how involvement has strengthened research: To be considered collaboratively with themes so not seen as an imposition, but instead an opportunity to reflect and improve
- Use impact case studies as part of evaluation including learning from failures, and present at Active Involvement in Research Day: Bi-annual reports and learning from Involvement Fund, as well as newsletter and web articles, among sources; will feed into Active Involvement in Research 2022

Communications (standard: 'Communications')

- *I&I team and communications team to identify best practice involvement case studies and impact examples:* Case studies (eg <u>LISTEN</u>) and impact examples (eg <u>maternity services research</u>) featured on website and shared through involvement e-newsletter, Twitter etc; to be further developed
- Communications team to work with themes and I&I team to expand dissemination of research findings to our diverse communities using range of channels and engaging formats to reach national and international audiences: Inside Research seminars (where involvement is emphasised) are among strategies for engaging diverse communities; communications team have worked with <u>ARC maternity</u> <u>researchers to communicate research results</u> on range of channels, including <u>Twitter</u> (with 4,414 impressions and 122 engagements) and Instagram, to reach new and diverse communities
- Develop regular feedback mechanisms between ARC involvement structures, Executive, Board and diverse communities to develop understanding and best practice (linked to evaluation framework): Feedback mechanisms established through governance structure. At leadership body meetings, chair invites questions and comments from public and community members; occasional conversations to enable sharing and feedback

6.2 Significant challenges or barriers

These include effects of pandemic, competing pressures for local people and digital exclusion (we have found that some people with health and care needs prefer online involvement); adequate resourcing (including staff time) an ongoing issue.

7. Academic Career Development (formerly Training) (no more than 1000 words)

7.1.1 (Short-term objective/milestone 1 completed)

- Successfully developed our online implementation science module (launching late 2022).
- Delivered two-day online Applied Research Winter School (Dec 2021) for 27 PhD students, tailored to public health and social care researchers. The 2022 Winter School will be hybrid, to enable networking and access.
- Successfully delivered a research publications writing programme for 20 postdoctoral and early career researchers (June 2021). Following positive feedback this will be offered in June 2022.
- Our well attended thesis writing workshops (September 2021) were facilitated by a Royal Literary Fellow. Following positive feedback this will be offered in September 2022.
- Delivered 'Research Aware' skills and methods workshops at St George's, University of London open to students on PgCert in Healthcare Research Skills & Methods and MRes Clin Research.
- Provided mentorship to applicants for NIHR Clinical Doctoral Research Fellowship (CDRF) and Predoctoral Clinical Academic Fellowship (PCAF) awards (<u>short-term objective 3 completed</u>).

7.1.2 (Short-term objective 4 competed/milestone 2). Our very popular annual Implementation Science Masterclass (8th year) and Implementation Science Research conference (5th year) were online events in June and July 2021, with over <u>250 delegates from 15 countries</u> (short-term objective 3 – completed). They are being held online in June and July 2022 (grown from 3 to 5.5 days).

7.1.3 Completed our pilot programme of Research Ready workshops for non-researchers designed in collaboration with the Health Innovation Network (AHSN) in 2021. After evaluation, we are planning to expand these to teams in our local healthcare delivery partners as hybrid sessions or delivered online using our new Virtual Learning Environment (Moodle) (<u>milestone 3 in progress</u>).

7.1.4 Work closely with the implementation research theme to facilitate our provision, including the Implementation Science Conference and Masterclass and our Research Ready workshops. We are developing resources with the ARC involvement co-ordinator and the implementation and involvement team for delivery through our Moodle. We work with the applied informatics theme to collate resources for research trainees for dissemination via the ARC website (milestone 3 completed).

NIHR Academy members (short-term objective 2 completed)

7.1.5 We provide integrated support including workshops, mentorship and mock interview panels to individuals applying for NIHR PCAF and CDRF awards.

7.1.6 (Short-term objective 4 completed) In addition to five PhD students with partial funding from the ARC reported last year, the capacity building theme has awarded two part-funded PhD Scholarships (recipients will be NIHR infrastructure trainees) (milestone 3.2 completed).

7.1.7 As reported, four postdoctoral fellows in social care have been funded this year and we have established a cross-theme peer support network, led by Kritika Samsi, a member of NIHR School for Social Care Research (SSCR) capacity building committee. Social care and public health research themes are in the capacity building steering group.

7.1.8 Completed the first iteration of South London Applied Research Academy in 2022, a year ahead of schedule, recruiting over 50 participants. The Academy successfully launched in January 2022 with a programme of workshops running to June 2022. The Academy provides mentorship and networking opportunities for researchers, including NIHR academy members and associates. Following positive feedback, we will expand the size of the Academy in coming years (milestone 4.1 completed).

7.1.9 Objectives for 2022/23:

- Successful delivery of 2022 Implementation Science Conference, Masterclass and PhD Winter School
- Develop our South London Applied Research Academy for next cohort
- Fund eight postdoctoral fellows working with social care focus across the ARC in 2022/23
- Develop our Moodle and library of resources to share content with ARC researchers
- Launch a Knowledge Exchange event for non-researchers working in health and social care and academic researchers in December 2022

7.2 Deviations

As reported, Covid-19 pressure meant we paused the needs analysis for our Research Ready workshop programme. We revised our plans by running a pilot programme for Health Innovation Network (HIN) innovation award recipients (April-Sept 2021). Following this, we revised our planned format to hybrid (online/in person) to enable flexible learning to suit non-researchers in health and social care.

7.3 Impact

Our writing workshops for early career researchers and PhD students are very well received by participants and oversubscribed. Our online 'Winter School' for PhD students attracted 27 participants in 2021 and the attendance rate was high. We will consider a hybrid approach for future events.

Our first South London Applied Research Academy programme has received positive feedback from participants, with an attendance rate of around 80% over six months. We will evaluate final feedback in July 2022 and assess longer-term impact by following up with participants one year after the programme.

7.4 Collaborations

- Research Ready workshops developed in collaboration with HIN.
- Online module in implementation science developed in partnership between ARC South London academic partners and University of East Anglia.
- Places on our Applied Research Winter School 2021 available to students in other ARCs and NIHR infrastructure.
- Exploring with ARC North East & North Cumbria opportunities to collaborate and share resources.
- Our Implementation Science Masterclass 2022 is delivered in collaboration with expert faculty from international partner institutions in five countries.

- Our Implementation Science Conference 2021 was developed in collaboration with UK Implementation Science Society, and other partners. This year it features <u>three international plenary</u> <u>speakers</u> and 10 international experts, from eight institutions delivering 'meet the expert' sessions.
- Worked with Lambeth Council on their NIHR stage 2 Health Determinant Research Collaboration (HDRC) application with the intention of future collaboration, whether or not the bid is successful.

7.5 Equality, Diversity & Inclusion

We support equity of opportunities through providing training online, with access to recordings and lectures to support flexible learning. We will also continue this flexible approach for our non-researcher training plans. We are in discussion with Dr Josephine Ocloo, ARC SL's Equity Diversity and Inclusion lead, to provide non-researcher training for our PPIE panel members. We also ran a PPIE and EDI training session for students in our PhD Winter School for the second year running, we will continue this in future. Our training is advertised to our NIHR colleagues and in the coming year we plan to monitor EDI data of participants and consider ways that we can enhance the inclusivity of our training.

7.6 Sharing best practice

We enhanced the flexibility of our training to accommodate needs of researchers and non-researchers. We swiftly responded to the pandemic moving our training online. This has led to increased participation and reaching a wider audience. We are developing an online library of resources to share with colleagues.

7.7 Expenditure on training

- Salary costs for four postdoctoral fellows in social care £264,663
- PhD stipends and tuition fees for 5 previously funded students £97,016
- PhD stipends and tuition fees for 2 students with Capacity Building theme scholarships £66,000
- Expenses for PhD Winter School £270
- Expenses for early career writing programme £2,780 + VAT = £3,336
- Expenses for PhD writing workshop £1,050

8. Links with NIHR Infrastructure (no more than 500 words)

We have extensive links and collaborations with NIHR infrastructure and the wider landscape. For example:

- ARC Director, Graham Thornicroft contributes to the ARC mental health networks (chair of advisory board) and is a board member of the south London AHSN
- Josephine Ocloo (I&E team) is part of the national NHSE Mental Health Equalities Committee and the Patient and Carer Race Equalities Framework Committee. She also serves on wider bodies to promote EDI in research and service improvement, including NHS England and the NIHR committee on EDI and public involvement
- Implementation research theme is part of a national, cross-ARC group of implementation scientists, (CrIISTL network) coordinated by the ARC Yorkshire and Humber
- Maternity and perinatal mental health theme have an ongoing collaboration with the Maudsley NIHR BRC for their project on 'Factors surrounding severe maternal morbidity and mortality among women with mental illness'.
- Dr Abigail Easter has completed the NIHR Emerging Leaders course
- Implementation and Engagement (I&E) theme has established links with the NIHR Centre for Engagement and Dissemination including collaborative webinars on the NIHR payment guidelines for PPIE (April – June 2021) at the Centre for Public Engagement, Joint Faculty of Kingston University and St George's University of London
- Public health theme members, Robson and McNeill are members of the NIHR Health Research Protection Unit in Environmental Exposures and Health. Goff is a member of the NIHR DART collaboration, established to ensure a step increase in the quality and quantity of research conducted across the country in diet, nutrition, physical activity and sedentary behaviours.
- Social care theme researchers participate in the NIHR ARC Social Work and Social Care Priority Network, with a first study complete (on the James Lind Alliance PSP influence) and a collaboration developed with ARC partners on evaluating Community Led Support.

- Prof Manthorpe is working with ARC North Thames as member of a doctoral supervisory committee (candidate Tiffany James). Prof Manthorpe is also a member of the ARC Mental Health National Priorities Network (MHIN) Executive.
- We appointed a new post-doctorate Research Associate (Dr Cat Forward) who is working on the funding awarded from the NIHR Priority Network on Ageing, Frailty and Dementia, to investigate falls in care homes (led by Prof Logan of University of Nottingham). We are leading the south London site.
- Dr Samsi. Social care theme was a member of the panel for Dementia Career Development Awards from the 3 NIHR Schools initiative (NIHR SSCR, NIHR SPHR, NIHR SPCR). An award was made from this fund and the post-doc will be based with the ARC SL social care theme. Jill Manthorpe is a member of the 3 Schools funding panel.
- Manthorpe is a member of the NIHR Multiple Long Term Conditions Oversight Group and the DHSC revisions of the Dementia Strategy advisory group. She is a member of the NIHR RfSC panel and the Senior Investigator and Advanced Fellowship panel.
- Economics and biostatistics theme works with NIHR School for Social Care Research
- Implementation science research theme are involved in the national AHSN-led NIPP programme, though close collaboration with the Heath Innovation Network (South London AHSN) who are leading the project on behalf of south London.
- The alcohol theme is working with the Maudsley BRC on the analysis of mortality data in alcohol related frequent attenders
- ARC SL board member Bajwah is the regional CRN specialty lead for Palliative Care. Palliative and end of life care theme, deputy lead Maddocks is on a task-finish group for Multiple Long-term Conditions within the NIHR Academy.
- Our project on research capability for non-researchers has been undertaken in collaboration with ARC colleagues in our AHSN.
- Palliative and end of life care theme collaborate with NIHR CRNs in North London, South London and Kent, Surrey and Sussex for their EMBED Care study
- ARC South London is represented on the South London CRN board

9. Links with Industry (no more than 500 words)

9.1 Please describe your Centre engagement with industry

Working with pharmaceuticals and biotechnology companies

Vascular researchers in the ARC's public health and multimorbidity theme have worked with a range of pharmaceutical and biotechnology companies during the reporting period. This includes:

- Metadvice, a global healthcare technology company specialising in clinical decision support. With Metadvice, they have received an Innovate UK SMART grant to develop a decision support system for cardiovascular, renal and metabolic diseases. Metadvice are also sponsoring two PhD studentships (50%) under King's College London's Centre for Doctoral Training in Data-Driven Health to undertake research related to the ARC's work on "Use of machine learning and clinical phenotyping to identify determinants and predict cardiovascular, renal and metabolic diseases risk using data from registries and electronic medical records" and "Advancing explainable human in the loop NLP analytics for clinical applications".
- GSK have funded three PhD studentships (50%) as part of King's College London's Centre for Doctoral Training in Data-Driven Health.
- Imosphere, a health data analytics company, on a joint European Health Data & Evidence Network grant on converting the South London Stroke Registry and Lambeth Data Net to the Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM) standard.

Working with medtech / devices companies

Our alcohol researchers are continuing their collaboration with Smart Start Inc, the developers of the alcohol transdermal sensor (BARE). They have a research agreement to use early release devices for the validation and feasibility studies in their study to validate and evaluate different wearable transdermal alcohol sensors and associated apps. The researchers have reached an agreement to use ten alcohol transdermal devices (prototypes). They have also identified an alternative product and supplier (BACtrack by Skyn). Both devices/suppliers were used in the validation study.

Non-life science companies

Our social care researchers work with a range of social care providers, including those from the private sector, to share outcomes from research and to facilitate new research opportunities. For example, private sector providers regularly attend the quarterly <u>Margaret Butterworth Care Home Forum</u> chaired by Dr Kritika Samsi – research is shared with an audience of care home staff, carers and others with an interest in care homes and improving the quality of care and life for people with dementia.

9.2 Key examples of working with small and medium enterprises (SMEs)

Our social care research theme works with a range of social care providers, including private SMEs. During the reporting period, social care researchers have worked with six UK-based SMEs:

- Barchester Care a care home manager from this company is a member of the social care theme's advisory group for its adopted study of ancillary workers in care homes.
- Investor Publishing Ltd the publisher of the *Journal of Dementia Care*. It also support the theme's research by publicising calls for participants and publishing our findings (eg Unlocking Lockdown). The *Journal of Dementia Care* has now (2021) moved to a Community Interest Company and the ARC's social care theme is a member of the support advisory group.
- Liquid Personnel a major social care locum / agency. Researchers in the social care them have undertaken webinars for Liquid Personnel on social work with adults.
- Care Point Services a domiciliary care provider based in south London. Our social care theme's work
 with Proud to Care campaign started by London Association of Directors of Adult Social Services
 (ADASS) includes work with Care Point services' manager who inspired and assisted with our Further
 Education and social care study. She then agreed to be a co-applicant on a successful NIHR study of
 home care at end of life (starting autumn 2022).
- Care Outlook, based in south London, is another major domiciliary provider we meet weekly with its
 owner to discuss care at home and possible areas of partnership, including plans for a local Social Care
 Academy to be funded by the Mayor of London.
- Chinara Enterprises Ltd a business training company. We work with Chinara Enterprises to provide bespoke training to social workers interested in re-joining the workforce and furthering their professional development, and we will be working with this company on the induction of recent international recruits.

9.3 Strategic partnerships during the financial year 2021/2022

i) New strategic partnership -

Our patient and public involvement research theme have begun a new strategic partnership with AlphaBiomics Ltd, a UK-based SME in the medtech/devices sector, as part of an adopted project on developing a microbiome-based predictive diagnostic of IBD biologics treatment outcomes (RxSelex project, NIHR i4i).

ii) Ongoing strategic partnerships -

Our alcohol theme has ongoing strategic partnerships with Skyn, producers of the wearable alcohol monitoring device BACtrak Skyn, and Smart Start.

9.4 Please provide brief details of key examples of studies active in financial year 2020/2021, as follows:

- 1. Contract commercial trials;
- 2. Industry collaborative research studies; and
- 3. Other academic commercial research.

There were none during this reporting period.

9.5 Please provide the number and key examples (including name of funder/grant scheme) of any partnerships or studies with industry which have led to further industry, public or charity research funding, including as part of consortia.

There were none during this reporting period.

9.6 Please provide brief details of key examples of agreements signed with industry including:

- 1. Non-Disclosure Agreements;
- 2. Model Trial Agreements, including mICRA and mCTAs.

There were none during this reporting period.

10. Co-Funding (no more than 500 words)

Within the reporting period the total amount of co-funding received by NIHR ARC South London was $\pounds 1,791,584$, in comparison to the NIHR ARC award of $\pounds 1,768,765$, providing a 101% co-funding equivalent. The co-funding received from health and social care member organisations was $\pounds 600,198$, which was 34% of the NIHR award and the contribution from university member organisations was $\pounds 1,191,386$. Our predicted co-funding for the life of the ARC now stands at $\pounds 8,935,997$ over five years. This equates to 99% of the level of funding provided by the NIHR.

King's Health Partners

The King's Health Partners (KHP) organisations (Guy's and St Thomas' NHS Foundation Trust, King's College London, King's College Hospitals NHS Foundation Trust, and South London and Maudsley NHS Foundation Trust) have committed to provide £125,000 in cash and £100,000 in kind per partner for each of the five years of the NIHR ARC programme to support research and implementation activities.

This contribution to the NIHR ARC South London's Centre for Implementation Science is enabling us to develop as a multidisciplinary team, specialising in all aspects of implementation and improvement science (research and implementation). The funding has supported King's Improvement Science, which is located within the Centre for Implementation Science. It comprises a specialist team of researchers who support health professionals and NHS managers who want to use recognised quality improvement methods for health service improvement in south-east London. The dedicated team of specialist implementation and improvement sciences to embed implementation and improvement science into their work.

ARC South London collaborating organisations

The in-kind contributions of £1,291,584 (£225,198 healthcare and £1,066,386 universities) from each of our partner organisations (St George's, University of London, St George's University Hospitals NHS Foundation Trust, Kingston University, Guy's and St Thomas' NHS Foundation Trust, King's College London, King's College Hospitals NHS Foundation Trust, and South London and Maudsley NHS Foundation Trust) has supported 101 administrative and research staff working across research and cross-cutting themes or core activities to support delivery of their work, to ensure that all ARC-related resources are used to provide the very best possible value for money in driving the agreed outputs and outcomes.

Our local Academic Health Science Network, the Health Innovation Network (HIN), has provided £62,823 during the reporting period. The contributions include strategic leadership, with members represented at Board and Executive-. The HIN's medical director, Dr Natasha Curran leads the implementation and engagement function for the ARC, Dr Andrew Walker is evaluation lead and Sophie Gibson is implementation and involvement manager.

There were no new partners or co-funding commitments during the reporting period.

11. Collaborative work with Academic Health Science Network (AHSN) (no more than 500 words)

ARC South London has enjoyed a close, collaborative relationship with its local AHSN, the Health Innovation Network (HIN), for almost a decade. There have been a range of joint projects and programmes during this time, with senior leadership cross-represented on each organisation's board.

Collaborating on evaluation

In the first phases of the Covid-19 pandemic, in common with other health and care services, the three mental health trusts in south London moved a range of services rapidly online. The ARC's implementation science and applied informatics themes, the co-funded King's Improvement Science research team, and the HIN's evaluation team were commissioned to jointly evaluate the impact of remote consultations on service users. This led to a major collaborative project, also involving the NIHR Mental Health Policy Research Unit. The <u>full report was published in September 2021</u>, and dissemination activities included a series of national webinars, run jointly with NHS England.

Co-produced research and implementation

Joint working has also been facilitated through the national joint programmes: the Beneficial Changes Network (BCN) and the National Innovation Prioritisation Programme (NIPP). In London, oversight and collaboration on these projects was facilitated through NHS England's regional group, known as the 'Evaluation Cell'. South London's BCN project focused on optimising integrated community palliative care (initially in care homes) to improve patient experience and reduce the impact on health and care services. South London researchers also supported the UCL Partners BCN remote consultations project, building on the learning from our evaluation of remote mental health services.

Our joint NIPP project is the ARC's HEAL-D programme: 'Evaluating the virtual delivery model and feasibility for national scale-up and spread of Healthy Eating & Active Lifestyles for Diabetes'. HEAL-D is a type 2 diabetes self-management programme, tailored for Black British adults, which aims to tackle ethnic inequalities in diabetes and healthcare access. The virtual delivery model has recently been commissioned by both Integrated Care Systems in south London. Evaluation is being carried out jointly by the HIN and the ARC's public health and multimorbidity theme. If the online model is shown to be effective, it could offer a sustainable approach for HEAL-D to be offered nationally.

Another example of substantial collaboration is the joint work between the HIN's evaluation team and the ARC's co-funded King's Improvement Science team to evaluate the scale up across south-east London of the remote monitoring service for patients with rheumatoid arthritis, led by Guy's and St Thomas' NHS Foundation Trust.

Sharing insights to develop capacity

The ARC's capacity building theme has also developed strong links with the HIN, supporting their objective of working with health and care practitioners. For example, they developed and delivered a package of support to HIN's Innovation Grants projects, aimed at improving the quality and impact of the projects, their evaluation, and the skills of the project teams. This included three training workshops around evaluation, logic models, and implementation science.

The ARC's Implementation and Involvement team has initiated joint seminars with HIN colleagues to present insights into the realities of implementing evidence-based interventions into practice. The first session explored two national case studies, with presenters sharing their experiences of developing, implementing and evaluating the scale up of research evidence.

12. NIHR ARC National Lead Area (no more than 300 words)

NIHR ARC National Lead for Palliative and End of Life Care

Supporting evidence generation and implementation beyond south London

- Generated and implemented evidence to support Covid-19 response. Our national (NIHR/MRC) collaborative studies (CovPall and CovPall Care homes) uncovered impacts of Covid-19 on service innovation and activity, care planning, role of volunteers, care of dying, rehabilitation services, staff experiences and equity for ethnic minority groups (25 papers in 2021/22).
- "<u>Better End of Life Care</u>" (Marie Curie) is a collaboration between ARCs South London and East of England and Hull-York University. Publications attracting significant public attention.
- NIHR RfPB grant investigating influence of ethnicity in opioid prescribing in UK end of life care is collaboration between ARCs South London and East of England
- NIHR programme grant 'PrimaryBreathe' to improve management of chronic breathlessness in primary care is led by ARC East of England, with ARCs South London, East Midlands, Yorkshire and Humber.

Informing NIHR ARC national priorities and national work

- We provide advice to NHS England and Improvement via the National Clinical Director for PEoLC; Department of Health and Social Care via Strategic Advisor for PEoLC; and the Care Quality Commission.
- Our Cicely Saunders International Action Plan recognises key challenges in UK's palliative care system and provides evidence-based solutions to tackle these, with engagement across sectors.

Catalysing collaborative approaches

In addition to collaborative approaches above, we have provided national capacity building opportunities to improve palliative care research and practice. Examples include:

- training on public involvement
- seminars on anticipatory prescribing and palliative care within care homes
- workshops on outcome measurement
- co-production workshops with public members
- seminars sharing learning from Covid-19 research.

Supporting areas where needs are greatest

The national collaborative work (above) is responding to areas of greatest need.

In response to an NIHR call for new palliative care research partnerships, we delivered a workshop in July 2021 to facilitate connections across stakeholders. Sixteen new partnerships were funded and launched in 2022, including three co-led by ARC South London:

- Palliative and end of life care in rural, coastal and low-income communities (with Exeter)
- Integration between primary and palliative care (with Sheffield)
- Functional loss and rehabilitation towards the end of life (with Nottingham).

NIHR ARC Mental Health and Wellbeing Collaboration

Funded with existing resources at each ARC's local level, the Mental Health and Wellbeing Collaboration (MHWBC), is co-led by ARCs East of England and South London. It aims to foster collaborations and new working relationships across mental health platforms in the 15 ARC regions.

Catalysing collaborative approaches

The MHWBC has hosted national meetings 3-4 times annually, attended by multidisciplinary mental health colleagues from across all 15 ARCs. Research collaborations are taking place. For example:

- a collaborative framework to evaluate and intervene on the wellbeing and mental health of NHS and social care staff following the Covid-19 pandemic
- collaborations across ARC child and adolescent mental health streams are well established with current grants already being delivered (e.g. <u>Far away from home | arc-em.nihr.ac.uk</u>).

In addition, the MHWBC is developing a range of new grant applications, and undertaking collaborative work on embedding diversity, equality and inclusion in mental health research.

Informing NIHR ARC national work: contribution to the MHIN

The MHWBC is contributing significantly to different work packages of the NIHR ARC National Priorities Mental Health Implementation Network (MHIN). The interaction between this Collaboration and the MHIN, has helped identify mental health needs, priorities and evidence-based solutions that will be evaluated by the MHIN. An MHIN ARC Reference Group has been established to bring together all 15 ARC mental health leads to advise on the shape of the MHIN workplan and to help in recruiting participating sites, with particular emphasis on regions under-served by mental health provision and research. Three senior members of the MHWBC have been recruited to serve on the MHIN Executive Committee on a rotational basis and representatives from other ARCs serve on the MHIN Advisory Board. As the MHIN work progresses we aim to foster collaborative research grant applications in priority areas identified by the MHIN prioritisation work, to enhance the role of the MHWBC and extend the work of MHIN beyond the current funding period.

13. National Priority Areas (no more than 1000 words)

Please list all the projects that underpin the NIHR ARC National Priority Area (NPA) that you are leading on using the table below. The purpose of the table is to provide a high-level introduction to each of the selected projects for the NPA so please use the minimum wording as possible.

Establishing the Mental Health Implementation Network (MHIN)

NIHR ARC National Priority Area for Mental Health, including Children and Young People's Mental Health, established the MHIN, co-led by ARCs South London and East of England.

1. MHIN objectives:

1.1 Objective: Convene a bespoke consortium of key cross-disciplinary, cross-sector, government, NGO, clinical, commissioner, academic, service user, carer, public and community stakeholders

Completed. We have:

- conducted mapping and engagement of key stakeholders
- established Mental Health and Wellbeing Collaboration (core-funded ARC mental health network convened by ARCs East of England and South London)
- established national Advisory Board of key stakeholders (chaired by Thornicroft, Director ARC SL)
- established MHIN ARC Reference Group, involving mental health leads from 15 ARCs (chaired by Peter Jones, Director ARC East of England)
- appointed PCIEP leads and coordinators
- ensured national ARC representation on our management groups: North-West Coast; Yorkshire and Humber; West Midlands; Kent, Surrey & Sussex; North East and North Cumbria
- held national launch event with 166 attendees, 67% from outside the lead ARC regions
- received positive feedback on the launch event and speakers were praised for their valuable contributions, particularly a presentation by expert by experience, Steve Gilbert OBE

1.2 Objective: Identify and prioritise service areas that require improvement to meet system/individual needs.

Completed. We have:

- Identified 23 relevant mental health prioritisation processes through literature review
- Conducted national survey of 190 stakeholders identifying 92 priority topics
- Used second survey and multi-criteria decision analysis with 30 multidisciplinary stakeholders to identify six priority topics for implementation

1.3 Objective: Identify evidence-based solutions to the prioritised problem areas that offer greatest opportunity.

Completed. We have:

- Selected three priority topics on basis of implementability and relevance to NHS and social care priorities:
- Community engagement systems for people from ethnic minority communities to improve access to mental health care (project 1)
- Improving Access to Psychological Therapies (IAPT)-style services for children and adolescents, especially in schools (project 2)
- Integrated protocols to manage physical and mental health care for people with substance use and co-occurring mental illness (project 3)

1.4 Objective: Identify and agree feasible methods for implementing evidence-based solutions and test their 'implementability' in sites, and support supra-regional/national implementation.

On track. We have:

- Identified evidence-based implementable solutions
- Establishing project groups
- Appointed project leads from ARCs South London, Kent Surrey & Sussex, North East and North Cumbria
- Further project lead recruitment to be completed in July 2022
- Launched expressions of interest to participate in projects (June 2022)
- Implementation will start in autumn 2022

1.5 Objective: Conduct formative and summative evaluations of 1-4.

On track. We have:

- Established evaluation workstream (June 2021)
- Appointed research team (three postdocs, AHSN implementation expert) (Jan-June 2022)
- Local research assistants in six participating ARCs will be appointed in Nov/Dec 2022
- Evaluation will take place starting in autumn 2022

2. Expected impact

- Identify/coproduce high-impact interventions for populations of high mental health need
- Develop clinical interventions and implementation strategies
- Establish proof of implementability in six ARC regions to inform national implementation
- Produce evidence of impact on mental health and quality of life; outcomes; and sustainability
- Establish sustainability of MHIN consortium

3. Project-level plans for engagement with stakeholders/PCIEP

- Inviting expressions of interest to participate in projects from ARCs, AHSNs, providers, charities, experts by experience, networks and organisations nationally
- Recruited two co-leads for involvement workstream, PPI coordinator, and equity, diversity and inclusion lead
- Contacted 55 user-led third sector organisations to invite involvement

4. Project-level ARC engagement with wider NIHR

- MHIN Reference Group maximises participation of 15 ARCs nationally, providing strategic advice on MHIN
- Established capacity building workstream to ensure training and development of MHIN collaboration. We will explore alignment with <u>NIHR mental health research incubator in Sept/Oct</u> <u>2022</u>

5. Supra-regional/national level structures to facilitate implementation

- Working with NHS England/Improvement to identify local/regional project management capacity to support implementation
- Engaged with mental health directors in NHSE/I to identify funding sources
- Prioritisation surveys ensured representation from NHSE/I, NIHR Translational Research Collaborations, NIHR Biomedical Research Centres, 33 national and local charities, and NHS Trusts
- Prioritised topics are aligned with NHS Mental Health Implementation Plan 2019-2024

Project 1: Community engagement systems for people from ethnic minority communities to improve access to mental health care

Note: Consortia for projects 1-3 includes each workstream, project groups, collaborating ARCs, provider organisations, third sector organisations and experts by experience.

1. **Consortia** for project 1 (see above)

2. Objectives:

- Prioritise key intervention and develop project group (on track)
- Develop implementation strategies and evaluation research protocol to increase accessibility of mental health services to people from minoritised communities (on track)

High-level activities:

- Planning prioritisation workshop for key stakeholders to select one intervention
- Recruiting project leads
- Project leads will work closely with stakeholders that respond to the expression of interest

3. Outcome measures to assess impact:

• Number of people from ethnic minority communities accessing mental health services

- Extent to which champions from ethnic minority communities are involved in the community engagement
- Further outcome measures to be determined as appropriate with implementation sites

Project 2: Improving Access to Psychological Therapies (IAPT)-style services for children and adolescents, especially in schools 1. **Consortia:** see 'note' in project 1 (project 2 has more emphasis on third-sector organisations) 2. Objectives: Setting up project groups and finalising key intervention (on track) • Improve the resilience and wellbeing of children and young people and reduce behaviour problems (on track) High-level activities: Planning prioritisation workshop for key stakeholders to select one intervention • Recruiting project leads Project leads will work closely with stakeholders that respond to the expression of interest 3. Outcome measures to assess impact: Number of children and young people accessing mental health services • Acceptability of interventions and the delivery methods by service user and provider organisations • Further outcome measures to be determined as appropriate with implementation sites • Project 3: Integrated protocols to manage physical and mental health care for people with substance use and co-occurring mental illness 1. Consortia: see 'note' in project 1 2. Objectives: Setting up project groups and finalising key interventions (on track) • Ensure more people using mental health services are screened, diagnosed and receive support for substance misuse (on track) • Improve access to integrated mental health and substance misuse services (on track) High-level activities: Planning prioritisation workshop for key stakeholders to select one intervention • Recruiting project leads • Project leads will work closely with stakeholders that respond to the expression of interest 3. Outcome measures to assess impact: Number of screenings of physical health conditions for people with co-occurring SMI and • substance misuse Improved access to physical health care interventions . Integration of mental health and substance misuse services • Further outcome measures to be determined as appropriate with implementation sites The completed Finance and Activity Report must be submitted via email to the CCF Infrastructure mailbox (ccf-

infrastructure-team@nihr.ac.uk) copying in the NIHR ARC Research Manager, (<u>bahar.arabzadeh@nihr.ac.uk</u>) no later than **1 pm on Thursday 26 May 2022.**

The Finance and Activity Report will be reviewed by CCF and returned to Centres for resolving queries. The ARCs will have time from the **24 June 2022** for reviewing and finalising the data - please ensure the relevant staff are available during this period. The final Finance and Activity Report should be returned by **1 pm on 8 July**

2022.

The completed Narrative Report and Added Value Examples must be submitted via email to the CCF Infrastructure mailbox (<u>ccf-infrastructure-team@nihr.ac.uk</u>) copying in the NIHR ARC Research Manager, (<u>bahar.arabzadeh@nihr.ac.uk</u>) no later than **1 pm on Thursday 30 June 2022.**

The Director and the Chief Executive of the NHS Organisation are required to sign off (electronically) the Annual Report on behalf of the NHS Organisation and confirm that the information provided in the Narrative and F&A reports is accurate since this is required by the Department of Health and Social Care. NIHR CCF will send the relevant documents (Docu-sign) to the Director and/or Chief Executive to sign after receiving both reports.