



NATIONAL INSTITUTE FOR HEALTH AND CARE RESEARCH – NHS ENGLAND AND NHS IMPROVEMENT DESIGNATED ACADEMIC HEALTH SCIENCE CENTRE

2022/23 ANNUAL REPORT

Note: Please note this form should be completed in font no smaller than 10-point Arial.

1. ACADEMIC HEALTH SCIENCE CENTRE DETAILS

Name of the National Institute for Health and Care Research (NIHR) – NHS England and NHS Improvement Academic Health Science Centre (AHSC):

King's Health Partners (KHP)

Contact details of the AHSC lead to whom any queries and feedback on this Annual Report will be referred:

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2. OVERVIEW OF ACTIVITIES (no more than 4 pages)

Please provide a brief overview of what the AHSC designation has helped deliver and achieve for the 2022/23 financial year, addressing the following points:

- 2a: Please summarise your key deliverables and achievements against the short, medium and long-term objectives as detailed in your full stage application (see table below).
- 2b: An overview of any significant developments or issues associated with the leadership, strategy and governance arrangements which might impact on the delivery of the aims and objectives of your AHSC.

In the provided Case Study Guidance and Form, please present 3 case studies, which highlight notable impact. In 2022/23 we are particularly interested in case studies that highlight the impact that the AHSC has had in one or more of the following areas:

- Facilitating use of technology e.g., demonstration of early implementation, use of realworld evidence to support decision making etc.
- Embedding research as part of business as usual in the health system
- Demonstration of how interoperable digital systems across research and clinical care for the benefit of patients and researchers are supported
- Demonstration of the 'value add' of the AHSC partnership in achieving positive change for patients and/or the healthcare system

Please demonstrate how AHSC designation has been central to delivery in these case studies.

2a: Summary of progress against objectives

Please state whether short term objectives are on track, or behind, and give a short summary of progress (up to 300 words per objective). Comments are optional for objectives that are on track

If progress has been made towards any medium- or long-term objectives, please provide an update here (optional - up to 300 words per objective).

Novel technologies, therapeutics and diagnostics

Short term objectives

AHSC Progress

Build capability and partnerships for cell and gene therapy

Delivery detailed in 2020/21 and 2021/22 annual reports: - specifically in cell therapies for cancer (Maher/Leucid) and for promotion of immune tolerance in autoimmunity and transplantation (Lecher/Quell), and gene therapy for dementia.

KHP received significant investment in capabilities for novel therapies and cell therapy facilities including £7m investment from LifeArc and Medical Research Council (MRC), with support from the Biotechnology and Biological Sciences Research Council (BBSRC) in King's College London's (KCL) Gene Therapy Innovation Hub.

KHP clinical-academic work and spinout creation demonstrates world-class capabilities:

- AstraZeneca entered an \$85m collaboration with <u>Quell</u>
 <u>Therapeutics</u> to develop engineered regulatory T-cell therapies for Type 1 Diabetes and Inflammatory Bowel Disease. Quell eligible to receive over \$2bn for development and commercialisation milestones.
- **Aviado Bio** is developing gene therapies for patients living with neurodegenerative disorders including dementia.
- Heqet Therapeutics received investment from sources including the European Research Council for cardiac regeneration.
- Takeda acquired <u>GammaDelta Therapeutics</u> to accelerate the development of therapies to address solid tumours.
- Considerable work in cardiovascular regeneration and awards in cell therapies.

KHP Haematology launched a study for the implementation of **Ascelus™** for digital health remote monitoring, and partners with **Bristol Myers Squibb** on age-related clonal haemopoiesis.

KCL's Translational Research Office (TRO), funded by Wellcome, advises researchers embarking on translational projects. The TRO hosts the Translational Academy and Commercial Development Fund, a funding scheme offering £10-50k to improve commercial-readiness of projects.

KCL's **Experimental Cancer Medicine Centre**, a new funding award, is developing cancer drugs, focusing on novel immunotherapies. Results from a phase I clinical trial demonstrate potential of **IgE antibody therapy** for cancer (*Spicer*, *J. Karagiannis*, *S et al*).

KHP Haematology saw the first patient proceed with treatment under the **TIARA trial** to treat aplastic anaemia.

KHP has had an instrumental role in the establishment of the **UK MND Research Institute**, to accelerate the search for a cure for MND.

Medium term objectives

Promote imaging technology and partnerships to improve

World-leading scientific, clinical, and commercial capabilities have been realised through partnerships and physical presence:

• The London Institute for Healthcare Engineering (LIHE), with

diagnostics and detection of disease and deliver surgical innovation, techniques and devices (Razavi/Ourselin/ Siemens/Medtronic).

- major co-investment, will open in 2023, co-locating academics, clinicians and the medtech sector's commercial innovation power.
- The Manufacture of Active Implants and Surgical
 Instruments (MAISI) Centre has opened established by KCL's School of Biomedical Engineering & Imaging Sciences, in partnership with UCL and Newcastle University, supported by a £5.2m Wellcome grant.
- KHP Cardiovascular & Respiratory Partnership launched <u>King's</u> Centre for Lung Health in June 2022.
- The KCL <u>Surgical & Interventional Engineering Validation</u> <u>Suite</u> opened at Guy's and St Thomas' NHS FT, expediting translational research from bench to bedside.

NHS-Galleri, a trial revolutionising cancer screening and early detection, has broken international records for set-up and recruitment [see case study 1].

KHP has been awarded funding (£12m embargoed and subject to formal confirmation) from the MRC to establish the UK's first total body PET clinical research facility.

KCL spin-out <u>Hypervision Surgical LTD</u> equips clinicians with computer-assisted tissue analysis for surgical precision.

The <u>London Medical Imaging & Al Centre for Value Based</u>
<u>Healthcare</u> is pioneering Al technology for the NHS including a spinout on Al ultrasound.

KHP secured £2.5m from EPSRC (Engineering and Physical Sciences Research Council) to establish KHP Digital Health Hub (DHH), for partners to access translational infrastructure [see case study 2].

KHP Neurosciences continues **Cogstack** - a clinical analytics platform, assisting real time patient management.

<u>Al Centre platform</u> AIDE, integrating AI models into clinical workflows, is live across six NHS partner Trusts.

King's College Hospital NHS FT and King's College Hospital Charity committed to raise funds for neurosurgical theatres for the **Centre for Precision Neurosurgery**, set to be Europe's largest neurosurgical medtech centre.

<u>DigitalHealth.London Accelerator</u> programme supported 20 companies and was named UKBAA Accelerator of the Year.

Long term objectives

Develop and promote early detection and novel interventions to reduce the burden of mental illness (Moss-Morris/COMPASS, Schmidt/FREED). The **NIHR Maudsley BRC** was awarded **£41m** to develop targeted treatments across for mental disorders and pain supporting <u>nine</u> research themes.

The **NIHR Maudsley BRC** will benefit from the Mental Health Mission (£42.7m) announced by the Office for Life Sciences and NIHR, for <u>data</u>, <u>digital and trials themes in mental health research</u> nationally.

Professor Jernej Ule was appointed Director at <u>UK Dementia Research</u> <u>Institute (UK DRI)</u> at KCL. UK DRI's contribution to dementia research was recognised by a panel of international experts. MRC committed £131m national funding as part of a £150m collective commitment for five years.

The <u>Pears Maudsley Centre for Children and Young People</u>, will colocate clinicians and researchers. £11.1m investment (award under

embargo) from Research England will create a clinical research facility within the centre.

<u>COMPASS Pathways</u> continues in partnership with the Institute of Psychiatry, Psychology and Neuroscience (IoPPN), KCL and South London and Maudsley NHS FT, launching the **Centre for Mental Health Research and Innovation**, accelerating **psychedelic research**.

South London and Maudsley NHS FT is pioneering **Point of Care** capillary blood testing with clozapine.

The Health Innovation Network supported multiple NHS trusts to adopt FREED, developed by South London and Maudsley NHS FT Trust and KCL:

- Benefitting 2,000 people nationally in 2020-23.
- Waiting times for assessment reduced by 32% and treatment by 41%.

KHP Neurosciences has advanced **novel treatment for glioblastomas**. The Phase 3 clinical trial demonstrated improved survival.

The <u>Centre for Innovative Therapeutics (C-FIT)</u>, a partnership between KCL, South London and Maudsley, and King's College Hospital NHS FTs, supports academic and commercial collaboration to develop medication and therapies for Central Nervous System (CNS) disorders.

The KCL Centre for Inflammation Biology Cancer Immunology (CIBCI) and Department of Immunology are working with the IoPPN on stress inflammation in the pathogenesis of depression and mental disorders.

Transforming system-wide quality improvement and outcomes

Short term objectives

AHSC Progress

Develop an Academic Health Sciences System to reduce system-wide health inequalities through shared expertise in improvement and implementation sciences. KHP leadership co-chairs three major programmes with SE London ICS:

- Population Health & Equity programme focuses on the <u>Vital 5</u>, data science for population health management, clinical management, and policy to reduce the burden of disease, address inequalities in health and improve health equity with a culturally appropriate approach. The inaugural population Health & Equity Conference in 2022 was attended by 180 people from six London boroughs.
- Diabetes & Obesity Delivery Board brings together patients, communities and clinicians across primary, community, secondary and tertiary care, and the voluntary sector to improve care pathways, translate research and improve health equity across six boroughs and six providers.
- Research & Innovation partnership works towards a community research collaborative with primary care teams across 6 London boroughs.

KHP Cardiovascular & Respiratory Partnership pioneered the **Cystic Fibrosis pathways** project, developing maternal services with interest from NHS England – London Maternity Clinical Networks, and Cystic Fibrosis Trust regarding influencing national guidelines.

KHP Women and Children's Health launched the **Knowledge Hub**, providing support for research development. **Ask the Institute** (generating **£450k** since inception) embeds research in the NHS to narrow gaps between best evidence and best practice.

KHP works with partners on the following:

- The KHP Mind & Body programme hosts a Quality Improvement Network with 890 people joining this year from across national and international membership, aiming to improve screening and treatment.
- Integration of Health Data Sciences, working with five ICSs and two other AHSCs and Queen Mary UoL to design and launch the One London Sub National Secure Data Environment, securing £10m growth fund for London plus £2m for the KHP AI Centre to lead advances in health AI. [see case study 2].
- The <u>NIHR ARC South London</u> collaboration, hosted by King's College Hospital NHS FT in collaboration with KCL, has <u>seven</u> <u>core areas of research.</u>

Medium term objectives

Work across our system to improve detection and control of hypertension, improve insulin control, reduce variation in physical health care of people with mental illness.

Significant strides have been made in improving **hypertension** outcomes for patients across SE London [see case study 3].

KHP Diabetes, Endocrinology and Obesity has improved insulin control through the following routes:

- Following a trial demonstrating the clinical and cost effectiveness
 of <u>HARPdoc</u>, a psychoeducational programme for people with
 hypoglycaemia, £30k funding was awarded to deliver the
 programme across SE London with potential to scale.
- Patients responded positive to a Dose Adjustment for Normal Eating (DAFNE) refresher pilot launched in 2022.
- Guy's and St Thomas' and King's College Hospital NHS FTs are pilot sites for a Diabetes Transition & Young Adult Service Expansion pilot, an NHS England programme to improve diabetes care.
- £99k funding from the Partnership Southwark Inequalities
 Fund was awarded for a targeted support programme for young adults with Type 2 diabetes.
- £88k was awarded to pilot a 12-month remote monitoring diabetes solution to keep people out of hospital post discharge.

The <u>IMPHS project</u> delivered by KHP Mind & Body has made an improved care for people with mental ill health:

- Consultant Connect enabled more than 500 South London and Maudsley NHS FT clinicians to access real time physical health guidance from clinicians across 60 acute specialties. 70% of queries resulted in the service user receiving physical health care from mental health clinicians, avoiding referrals or transfers.
- A Physical Health Clinic for inpatients responded to more than 200 referrals or case reviews with 29% people avoiding referral to physical health services by providing advice in situ or by optimising medication.
- Six webinars have been delivered to 74 participants.

Through KHP Cardiovascular & Respiratory Partnership, pharmacists at Royal Brompton & Harefield implemented standardisation of continuous infusions and **Guardrails** technology, medication safety and continuous quality improvement (CQI) software, designed specifically for intravenous infusions.

Long term objectives

Embed patient reported outcomes as part of a

KHP Mind & Body programme's <u>IMPARTS</u> mental health screening service is now live in 103 clinics across Guy's and St Thomas' NHS FT and King's College Hospital NHS FT. In 2022/23 there were **20,165**

digital offer to people in southeast London giving patients greater control over their health.

screening encounters.

KHP is a co-applicant on Lambeth Council's successful **HEART (NIHR HDRC)** award which will fund an innovative data linkage between mental health and social care.

Developed and evaluated **myHealthE** (MHE); a digital innovation, which automates remote collection of Patient-Reported Outcome Measures (PROMs) and integration into EHRs.

- myHealthE has been adapted to provide rapid triage, erecruitment to mental health digital therapy trials.
- The first of these is the NIHR OPTIMA study, where myHealthE
 provides rapid access at the point of NHS referral for eligible
 families to the STEPS parenting app, a digital platform for quick
 access to research and trials and effective treatment.
- myHealthE has been developed to scale efficiently and has been implemented in 12 NHS and Local Authority sites across the UK, with over 1,000 families enrolled, increasing by 50 families per week and with plans extended to further NHS Trusts.

<u>South London Listens</u>, working with citizens, service users and 150 community organisations to create a blueprint to build community resilience and improve mental health across south London, published an <u>impact report</u>. Delivery continues into year two of the action plan.

- 5,700 people engaged in the campaign.
- 600 people took part in an online survey.
- 56 **Be Well Hubs** now operate across South London.

<u>CogStack</u> was shortlisted for Best Al Product in Health and Outstanding Achievements & Research Contributions in Social Good at CogX 2022. CogStack has been:

- Highlighted as a <u>case study</u> by the Healthcare Financial Management Association.
- Adopted by more than 10 Trusts in the UK and internationally in the Netherlands, Australia, India, Spain, Chile, Mexico and Poland.

Work with partners in public health, local authorities and the ICS to improve health outcomes across the life course (long-term).

Through our **Population Health & Equity programme** we are collaborating with SE London ICS to deliver on this objective. To support monitoring, we have agreed to develop a population health dashboard to track over time metrics that enable assessment of improvement initiatives and impact on inequalities. Phase 1 of the project is underway using publicly available ONS data to track key markers from birth, such as vaccine uptake, to older adults such as life expectancy at 65.

KHP worked with Lewisham Health and Care Partners to conduct a Vital 5 audit, followed by a <u>deep dive into blood pressure</u>, using the integrated data set within Lewisham's population health platform, Oracle Health's HealtheIntent.

KHP Haematology created **South East London Plasma Cell Disorders** (**SEL PCD**) **Registry**: prospective research database, set to collect data on diagnosis, treatment, and outcomes for all patients with myeloma and related plasma cell disorders across three acute trusts in SE London.

eLIXIR 'born in south London' data platform, combines information from maternity, neonatal health records and blood samples at Guy's and St Thomas' and King's College Hospital NHS FTs, with mental health and primary care data. The study addresses relationships between maternal and child physical health and interactions with mental health.

Open-source mobile health and remote sensing technology platform, **RADAR-base** has use cases in mental and physical health. The platform

is used in more than 45 case studies, approximately 20 disease areas, has 120k study participants supporting 14 devices and apps, and enables studies of underrepresented groups. It underpins major EU programmes worth £50m including RADAR-CNS, RADAR-AD, BigData@Heart, AIMS-2 Trials, DynaMORE, and national projects including a £9.3m NIHR Long-Covid study.

KHP Diabetes, Endocrinology and Obesity is hosting the **Lancet Commission** on the Diagnostic Criteria of Clinical Obesity, to inform clinical decision-making and tackle the obesity epidemic, globally.

Leading urban population health

Short term objectives

AHSC Progress

Launch our Institute of Population Health integrating clinical, mental health and social sciences in primary research and intervention methodologies (as well as team-based learning). This includes specific activity in social science and mental health, led by our ESRC Centre for Society and Mental Health.

Professor Josip Car has been appointed Head of the School of Life Course & Population Sciences and Professor of Population and Digital Health Sciences in the Faculty of Life Sciences & Medicine (FoLSM). His research interests focus on how digital health and data science can transform individual and population health.

KCL's School of Life Science Course and Population Sciences:

- Stroke and Public Health themes within the <u>NIHR Applied</u> Research Collaboration (ARC) South London.
- Hosts the <u>NIHR Research Design Service London</u>, and the <u>NIHR Clinical Research Network National Speciality Cluster.</u>
- Offers a series of free and public seminars delivered by the Department of Population Health Sciences.

The **ESRC Centre for Society and Mental Health** pioneers a community engagement focus, emphasising patient voice and promoting a lifestyle and resilience as a valuable counterpoint to clinical treatment.

KHP Haematology's **Care Closer-to-Home** project, which involves the self-administration of sub-cutaneous systemic anti-cancer therapy at home has had extremely positive feedback from patients.

KHP Diabetes, Endocrinology & Obesity has supported our partners to deliver a Tailored Tier 2 Weight Management Programme **UpUp Living Lighter the African and Caribbean Way** for the Black African and Black Caribbean communities in Lewisham. The learning has led to the development of culturallu tailored Tier 2 provision across all six boroughs in SEL.

- 90% of participants agreed or strongly agreed that Up!Up! helped them feel supported in managing their health.
- Both weight and waistline reduced by a mean 4.5% in 12 weeks despite there being no focus on weight loss.

Medium term objectives

Ensure local patients are offered Mind & Body and Vital 5 screening routinely, as part of our shared system-wide population health strategy.

In 2022/23 KHP developed a strategic implementation framework for our **Population Health & Equity** programme which is a joint programme delivered in partnership with SEL ICS.

In KHP and colleagues from SE London Integrated Care Board (ICB) coordinated a health inequalities fund totalling £5.8m through our joint Population Health & Equity programme. This funding was directed to population health activities within our partners and local system focused on reducing disparities in access, experience and outcomes.

KHP's Vital 5 programme resulted in the joint programme between KHP and SE London ICS. This includes a commitment of £4m for system-wide work to address the Vital 5 (recurrently for 5 years). As part of our work in the Vital 5, we have secured funding from SE London ICS and Impact on

Urban Health to test The Vital 5 Check, which is a novel screening tool to detect tobacco dependence, hypertension [see case study 3], weight, mental illness and alcohol intake. We have screened >1,300 patients during piloting.

KHP Mind & Body programme has progressed efforts to reduce variation in the physical healthcare of people with mental illness and assessed patients for common mental and physical health conditions to enable prevention and early intervention:

- The Impact on Urban Health-funded <u>PEACS</u> (Pain: Equality of Care and Support in the Community) is part-way through delivering cycle 3 and has begun patient contact to enrol participants into cycle 4 (the final cycle of this first year).
- The target for the end of year 1 is to have supported 200 people from the black community to join the PEACS pathway, and at the halfway point we had provided support to 125 people from the black community.
- Feedback from patients and participants continues to be positive (view the reflections of two participants).

Connect the learning from our local communities with our global health work to further spread learning and skills to wider international communities.

KHP is ambitious for our future healthcare workforce – identifying our health people as a key strategic development domain, including the development of a KHP Education Strategy. Our ambition is to develop the capability and capacity of the KHP Learning Hub (159 courses) as an enabler of high-quality education. The Learning Hub hosts all our event recordings, including the international Meet the Expert weekly webinar series, which we launched in response to COVID-19 to rapidly share new clinical insights. 4,700 people joined the sessions over 18 months with contributions from leading clinicians and academics from around the world.

KHP Centre for Global Health was awarded £1.1m to further develop Somaliland programme from Qatar Foundation. The programme aims to improve the quality of care across six regional hospitals in addition to work taking place in Sierra Leone, the Democratic Republic of the Congo and Zambia.

A collaboration for Quality Improvement (QI) in Cancer care was initiated with Professor Pramesh, Director of the Tata Memorial Hospital and coordinator of the National Cancer Grid of India, a partnership of 250 cancer organisations. QI teams from King's College Hospital NHS FT and South London and Maudsley NHS FT are planning workshops for 2023/24.

KHP co-hosted an inaugural conference, **Innovation in the NHS and beyond**, attended by 115 people with world leading business school **INSEAD** and the **HIN** to showcase work from SEL and help improve our local systems leadership on the pillars of spread and adoption.

Long term objectives

Use our data and genomic capability to develop polygenic risk scores and improve targeted interventions in our communities (and in mental health). Develop data-driven platforms with linked health and social care records to inform a Learning Health System.

In 2022/23 King's Health Partners and SE London Integrated Care System (SEL ICS) launched a Blueprint and Delivery Plan for the transformation of health outcomes through data. KHP secured £2.5m investment from EPSRC to establish a KHP Digital Health Hub, for all health partners across the sector to access specialised translational infrastructure [see case study 2].

Pioneering research led by Professor Peter Sasieni, devised a blood test which can detect **50 types of cancer** before symptoms appear in a trial led by Cancer Research UK, the Cancer Prevention Trials Unit at KCL and Grail [see case study 1].

Rob Stewart, Jayati Das-Munshi and Ingrid Wolfe (IoPPN) are coapplicants on Lambeth Council's successful £5m HEART (NIHR HDRC) award which we anticipate will fund an innovative data linkage between mental health and social care.

KHP Neurosciences has launched a new £1.8m NIHR-funded study investigating how the first ever ultra-long term seizure recorder to improve epilepsy outcomes could reduce significant risk of harm for the 33% of patients with epilepsy whose condition cannot presently be controlled with medication.

The **VIEWER** (Visualisation & Interaction with Electronic Records) platform provides a route to operationalising NLP within the hospital settings, providing multidimensional clinical knowledge and patient information, intelligently filtered, and visually presented to improve patient outcomes. It won the Data Innovation Prize at the HETT Unexpected Innovation Awards and received a high commendation in the Best Mental Health Partnership with the NHS category at the HSJ awards.

The Isla SSI surveillance platform, designed to transform the patient experience in post-operative wound surveillance has been used across five hospital sites and with 6,000 patients. Pump prime funding (£68k) was awarded by King's Health Partners Cardiovascular and Respiratory Partnership Programme with additional investment was awarded via the NIHR Invention for Innovation (i4i) programme.

Workforce innovation and sustainability

Short term objectives

AHSC Progress

Develop accessible learning, including patient-focused and staff education, building on the strength of the KHP Education Academy to create a learning health community, locally and globally.

The **KHP-YouTube** partnership, generating £200k investment over two years, has produced a pioneering mental health video series called <u>Mind of the Matter</u>, aimed at prevention and offering credible patient information online. The series has had **104k views from 25 videos.**

KHP has taken a partnership approach to design the KHP Education Strategy, to launch in September 2023 focusing on:

- Health data sciences.
- Leadership across boundaries.
- Widening participation.
- Growing the <u>KHP Learning Hub</u>, hosting 159 courses on leadership, data, and digital skills for multi-professional teams.
- supporting clinical academic careers.

KHP Education works closely with the KCL's Clinical Academic Training Office (KCATO) and partners to develop the strategy. Eight Primary Care Webinars with **376** attendees have been facilitated to share learning across primary care in south east London.

KHP's Annual Conference 2022, Transforming Human Health – grand challenges in life sciences, partnerships, and collaboration, attracted $\bf 366$ attendees.

KHP Cardiovascular's **Home Spirometry Training Programme** pilot is live, receiving referrals for Interstitial Lung Disease patients moving onto a home spirometry pathway.

Podcast series **KHPHeamPearls**, launched July 2022, has over **800** plays and features interviews between Haematology Consultants and GPs. Four episodes covering Anaemia, B12, Blood Count and paraproteins are available on podcast-hosting platforms.

KHP launched an annual lecture series <u>Frontiers in Health</u>, in honour of former Executive Director, Professor Sir Robert Lechler. The inaugural

address looked at challenges, and innovations in healthcare.

KHP Women and Children's Health launched the <u>Essential Knowledge</u> <u>for Obstetric Medicine</u> KCL-accredited short course with a multi-professional simulation training component, **50** participants to date, generating £100k income to KCL.

KHP Women and Children's Health's **Adolescent Medicine short course** has been developed in escape room format via the KHP Learning Hub.

<u>DigitalHealth.London Evidence Generation Bootcamp</u> completed its first cohort, working in with academics and regulator experts from KHP and across the UK.

Medium term objectives

Harness our partnerships' power to increase research and education sessions across our diverse and multidisciplinary workforce to improve research engagement, staff retention and development throughout their careers.

5,814 people joined muti-disciplinary and multi-speciality in-person and virtual events and webinars in 2022/23. These are open access and available online and attract multidisciplinary audience across teams and international partners.

The 2022/23 calendar of sessions is available on the **KHP Learning Hub**. Highlights include:

- KHP Maternal Medicine webinar 2023 for primary care staff focussed on hypertension and diabetes, drugs in pregnancy, epilepsy and asthma in pregnancy, thyroid and metabolic disorders and perinatal mental health, with 159 attendees.
- The KHP Maternal Medicine Course in 2022, with 88 attendees.
- Women and Children's Health research seminar with 80 attendees.
- General Paediatrics Course 2023 with 90 attendees.
- Other educational events hosted in 2022 include Meet the Experts Global Clinical Seminar Series, What Matters Most 2022, Transfusion Camp for Haematology, Neuroscience clinicalacademic symposiums, Functional Neurological Disorders masterclass and neurorehabilitation webinars.

KHP Academic Surgery is improving surgical research and promoting early career surgical staff. In 2022/23, 12 Academic Surgical Ground Rounds have taken place with **383** attendees.

KHP promotes the contribution of NHS staff to education and research through formal awards of honorary academic status.

KHP Diabetes, Endocrinology and Obesity developed new **Diabetes Cognitive Behaviour Therapy (CBT) Post Graduate Certificate** launching in 2023.

KHP Women and Children's Health coordinates KHP-wide **delivery of simulation training** developed by London School of Paediatrics. In 2022 a **Paediatric Research Seminar** series delivered with the British Association for Child and Adolescent Public Health had an average of 60 clinicians attend. **Ask the Institute** is an advisory service providing expert support to embed research and realist-informed evaluation in clinical practice.

Research Engagement Network Diversity (REND), an NHS England funded project led by <u>Mabadiliko CIC</u> with KHP is increasing diversity of individuals involved in research, connecting community-based organisations.

KCATO offers advice, training, and development to build a thriving

pipeline of research-active health professionals.

Building on diversity and inclusion initiatives within our partnership (section 2 and annex), we will develop and evaluate approaches to enhance opportunities for black and minority ethnic staff and students.

KHP is striving for improvements across its EDI agenda, focusing on developing the KHP Education Strategy through a series of workshops and conversations with **129** people across our partners and local system.

EDI is a central focus of this work, to increase the **breadth and diversity of people** working within the partnership and closely with our partners and system on **widening participation**. Our partners share values which focus on embedding inclusive practices and cultures to improve services and patient outcomes, raise staff morale, and reduce staff turnover. We are adopting anti-racism policies and developing inclusive leaders through programmes and courses.

KCL hosted **Diversity Matters** training for staff and managers, delivered in partnership with Challenge Consultancy, with **808** staff attending sessions.

In response to insights provided by Centric Community Research KHP formed a partnership with SE London ICS and <u>Impact on Urban Health</u> to build trust in the healthcare system and achieve health equity for Black and other ethnic minoritised groups in south east London. Our focus has been improving the experience of people using mental health services.

South London and Maudsley NHS FT launched an anti-racism action plan, to address structural and institutional inequities as set out in its five-year strategy and will be leading anti-racism in mental health by 2026. As one of four NHS England <u>PCREF</u> (Patient and Carer Race Equality Framework) pilot sites, it is at the forefront of eliminating racial disparity for Black African and Caribbean citizens accessing mental health services. PCREF will be mandatory for mental health trusts in 2023/24.

KHP worked with <u>Mabadiliko CIC</u> to engage with people with diabetes from Black African and Caribbean and South Asian backgrounds and people living in areas with high deprivation, informing the development of a diabetes and obesity outcomes framework, and scaling the Vital 5 Check.

Long term objectives

Develop a compassionate, Mind & Body-trained workforce, who are data and technology skilled and thereby better able to lead advances in health, care and medical technology.

The KHP Digital Health Hub has been awarded £2.6m as part of Engineering and Physical Sciences Research Council investment. The Hub incorporates four King's faculties, all KHP NHS Trusts, 20 industry members and a further 10 organisations and NHS Trusts across the UK. It will support the development of new digital technologies and reduce the time it takes for these to benefit patients. KHP Education has identified health data sciences as a priority area.

All this work is underpinned by the KHP-SE London ICS Health Data Sciences Blueprint and delivery [see case study 2].

The **KHP Mind & Body Improvement Network** provides members with a platform to collaborate, innovate and deliver integrated mental and physical healthcare across the partnership and beyond to improve patient experience and quality of care:

- 100 members signed up to <u>Future NHS platform</u> and 965
 Community of Practice members share learning about a Mind & Body approach to care.
- Members have joined the Improvement Network from outside of KHP.
- In 2022/23, 9 Mind & Body <u>share & learn webinars</u> were delivered to **188** staff across the partnership.
- Level 1, Level 2 and Level 3 eLearning and simulation courses were delivered to 205 participants. IMPARTS five-day course (which includes MSc module credits) was attended by 30 staff from across SE and SW London.
- The open online course hosted on Future Learn reached 1,208 learners across the world.

KHP Diabetes, Endocrinology and Obesity's psychoeducation programme HARPdoc provides integrated mental and physical health support for adult patients with Type 1 Diabetes who experience problematic recurrent hypoglycaemia, particularly people who have not responded to other interventions.

The **Translational Research Office (TRO)** provides bespoke advice and support for researchers embarking on translational projects – from inception and strategic planning, preparation of funding applications to downstream support for funded translational projects.

2b: Overview of any significant developments or issues associated with the leadership, strategy and governance arrangements which might impact on the delivery of the aims and objectives of your AHSC.

Maturing our partnership approach towards an Academic Health Sciences System

In 2021/22, the KHP Annual report set out changes to governance to support the delivery of the KHP five-year strategy. Our work this year has focussed on further strengthening our governance and partnership approach to ensure foundations are in place to move from an Academic Health Sciences Centre model to an Academic Health Sciences System approach.

King's Health Partners is proposing a more integrated partnership model locally (connecting our HIN, SC1 and wider innovation pipeline partners) to ensure effective research translation and benefit for local citizens, working as an Academic Health Sciences *System*, as per the schematic set out in Figure 1.

Figure 1.

Academic health sciences systems: discovery to health to population to society



To ensure our progress is on track, in September 2022, the KHP Board commissioned an internal midterm assessment of the delivery of the current five-year strategy of the AHSC to understand strengths and areas of focus.

KHP has taken steps to strengthen our research partnership infrastructure, building on our existing assets to support role in the leadership of clinical medicine, research translation and clinical academic partnerships:

Leadership

Charles Alexander was appointed Chair of Guy's and St Thomas' NHS Foundation Trust and King's College Hospital NHS Foundation Trust following the end of Sir Hugh Taylor's term.

Strategy and governance

In June 2022, the NIHR Maudsley BRC was reaccredited and awarded £41m, the highest level of funding for any BRC focused on mental health.

The Guy's and St Thomas' BRC was not accredited for the next round of NIHR BRCs.

In response, the KHP Board moved to rethink and recalibrate experimental medicine platforms and take steps to strengthen infrastructure. This includes:

- Development and aggregation of our Translational Research Capabilities to support bio-medical research, training, and public involvement.
- Scoping the potential to form a Joint Research Management Office (JRMO) to support and streamline processes across our university and acute hospital partners, with strong connections to South London and Maudsley NHS FT and the IoPPN (aligned to the learning from the NIHR Maudsley BRC).
- Launching and mobilising SC1 Life Sciences Innovation District, to be a single front door for life sciences commercial engagement, partnership growth and urban regeneration, including partnership from local authorities. The four pillars of the newly launched SC1 strategy are:
 - Entrepreneurship enterprise providing start-ups, and SMEs with an established network from of support from academic and clinical experts.
 - Creative partnerships fostering collaborative public-private partnerships.
 - Employment and skills leveraging local talent and creating pathways into the sector.
 - Real estate with positive impact establishing a spectrum of adaptable spaces responsive to the needs of start-ups, SMEs, and multi-national organisations.
- Providing bespoke advice and support for researchers embarking on translational projects through the Translational Research Office (TRO). Dr Mike Lyne joined the TRO as Director of Translation in May 2023. The TRO:

- o Hosts the Translational Academy, a training programme in translational research.
- Co-ordinates Commercial Development Fund (CDF), an internal funding scheme offering £10-50K to improve the near-term commercial-readiness of translational research projects.
- King's Clinical Academic Training Office (KCATO) launched in May 2022, offering advice, best
 practice and information on academic careers, recruitment, training and development for all health
 professionals across all stages of research training as well as support for grant applications and
 funding.

Mid-term assessment

- The KHP Board commissioned an internal Mid Term Assessment of the delivery of the current five-year strategy of the AHSC to understand strengths and areas of focus, as well as an external review to consider future clinical academic leadership arrangements across the partners to enable the above cross-partner leadership.
- Within the existing five-year strategy, the King's Health Partners Board and partners will focus resources and investment on three interconnected priorities: **personalised health**, **health data sciences**, and **population health** with a strong emphasis on **integrating mental and physical health** within and between these priorities (see Figure 2).
- These priorities will be supported through three development domains: life sciences commercial
 activities, including through the continued development of our SC1 Innovation District and KHP
 Ventures; health people, including through the launch of our new education strategy and
 connected to King's College London's clinical academic training office; and systems leadership,
 including supporting the SE London Integrated Care System in developing our research and
 innovation strategy.

Figure 2.

King's Health Partners Board priority domains



Personalised Health

- Discovery science to translation
- Advanced therapies
- platforms
 Genomic medicine
- Med Tech science and healthcare engineering



Health Data Sciences

Health Data Science Blueprint and Delivery Plan, focusing on:

- Governance and delivery
- Technical capability and integration
- Culture, capacity and capability



Population Health

Delivered through joint programme, focusing on:

- Population Health Management
- Vital 5 addressing burden of disease
- Improving health equity
- Climate, sustainability and health

Transforming Health and Life Sciences through a Mind & Body approach



Life Sciences (Commercial)

Partnerships to advance innovation, including SC1 and KHP Ventures



Health People

- Launch KHP Education Strategy 2023-28
- Launch partnership programme for workforce digital development plan
- Mobilise the KHP Learning Hub national and international use

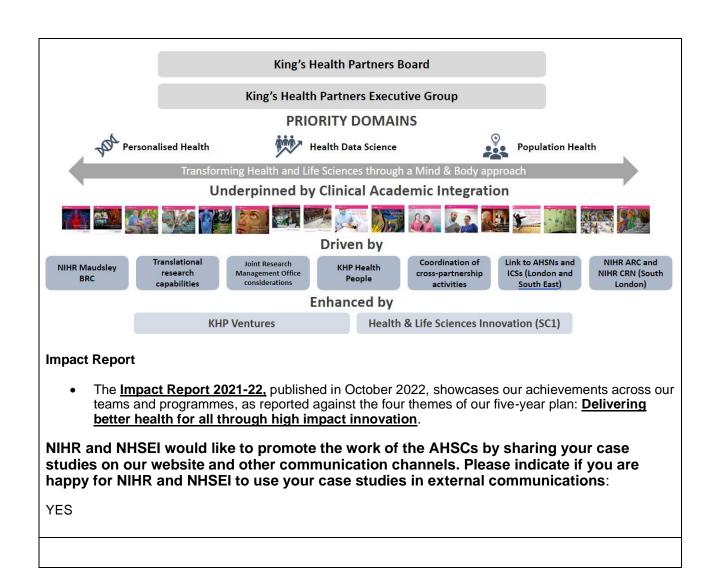


System Leadership

Health outcomes improved through joined-up research and innovation, developing sustainable system partnership

- To ensure the continued delivery of our strategy and ensure impact for our patients, local people and staff, the King's Health Partners Board has formally adopted the NIHR logic model for AHSCs as the impact framework for reporting on and understanding progress through the AHSC.
- Strengthening our clinical academic infrastructure (see Figure 3) and integration will support KHP to deliver on our priority areas.

Figure 3.



The completed AHSC Annual Report 2022/23 must be submitted via email, to the NIHR CCF Infrastructure mailbox: ccf-infrastructure-team@nihr.ac.uk copying the Research Manager Mandy Tsang <a href="mailto:mai

The Annual Report aims to capture progress against the stated objectives, specific themes and work programmes as set out in your application, in order for the Department of Health and Social Care and NHSE/I to be able to understand the overall progress of the AHSCs. However, please note that we will not be providing feedback on the AHSC Annual Reports.

The key NIHR CCF contact for the NIHR 2022/2023 Annual Report, to whom all queries should be addressed (copying in ccf-infrastructure-team@nihr.ac.uk) is:

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