

**NATIONAL INSTITUTE FOR HEALTH RESEARCH – NHS ENGLAND AND NHS  
IMPROVEMENT DESIGNATED  
ACADEMIC HEALTH SCIENCE CENTRE  
2020/21 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 Research (NIHR) – NHS England and NHS Improvement Academic Health Science Centre (AHSC):**

King's Health Partners

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

**Name:** Professor Richard Trembath

**Job Title:** Executive Director

**Address:** King's Health Partners, Ground Floor, Counting House, Guy's Hospital  
London, SE1 9RT

**E-mail:** [Richard.Trembath@kcl.ac.uk](mailto:Richard.Trembath@kcl.ac.uk), copy [Jill.Lockett@kcl.ac.uk](mailto:Jill.Lockett@kcl.ac.uk)

**Tel:** 020 848 8045

**2. OVERVIEW OF ACTIVITIES**

**Please provide a brief overview of what the AHSC designation has helped deliver and achieve for the 2020/21 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.**

**Please also attach 3 case studies which highlight notable impact, these should be no more than a single page of A4 each. In 2020/21 we are particularly interested in case studies that highlight the impact that the AHSC has had in one or more of the following areas:**

- Contribution to national response to Covid-19 and its resultant impact
- The adoption and spread of research and innovation, including the adoption of practices informed by national COVID-19 research trials
- Improving Equality, Diversity and Inclusion culture across their organisations; and
- Reducing health inequalities

**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).

### 2a(i): Novel technologies, therapeutics and diagnostics

Short term objectives	AHSC Progress
<p>Build capability and partnerships for cell and gene therapy - 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</p>	<p>King's Health Partners (KHP) is on track with its short-term objectives and has made significant progress towards its medium and long-term objectives accelerating the development of novel technologies, therapeutics and diagnostics.</p> <p>To support pre-clinical development and spinout creation in advanced cell and gene therapies, we have now opened our new <a href="#">Advanced Therapies Accelerator</a> (£10m, Research England). Following its success, KHP was awarded <a href="#">additional funding for national expansion and coordination with UK Advanced Therapies</a>. KHP has also recruited renowned expert Professor Robin Ali to lead KHP in this area.</p> <p>KHP was awarded £6m funding by the Medical Research Council (MRC), LifeArc, Biotechnology and Biological Sciences Research Council to create a <a href="#">Gene Therapy Innovation Hub</a> to rapidly deliver GMP Adeno-associated virus capabilities, while increasing GMP lentivirus manufacturing capacity. To drive innovation KHP is investing in new production technologies, leading a training programme (including the successful partnership with the University of Pennsylvania to deliver an Advanced Therapies 5-day virtual intensive) and expanding our cell therapy manufacturing capabilities.</p> <p>KHP has driven the development of new advanced therapies programmes across a range of stages, including pre-clinical to clinical transition (£10m awarded by the MRC Developmental Pathway Funding Scheme (DPFS), for retinal, liver and kidney cell therapies). We have developed strategic partnerships with industry - particularly GSK and USB Medical - and nurtured successful spinouts including Neurogeneus (gene therapy for</p>

	<p>neurodegeneration), Fibrodyne (cell therapy for scarring), <a href="#">Quell Therapeutics</a> (cell therapy for transplant tolerance and autoimmunity), and <a href="#">Adaptate</a>, alongside making further investment (totalling c.£52m) into recent spinouts.</p> <p>Advanced therapies clinical research will form a major strategic priority in the Guy's and St Thomas' NHS Foundation Trust (GSTT) Biomedical Research Centre (BRC) application (due Oct 2021), providing substantial enhancement of our clinical research capabilities in a secure and sustainable format.</p>
<b>Medium term objectives</b>	
<p>Promote imaging technology and partnerships to improve diagnostics and detection of disease and deliver surgical innovation, techniques and devices (Razavi/Ourselin/Siemens/Medtronic)</p>	<p>KHP has transformed its research facilities, clinical links, research programmes and industry partnerships in medical technology (MedTech) since accreditation.</p> <p>Our <a href="#">Department of Surgical &amp; Interventional Engineering</a> incorporates a £10m mock operating theatre to develop new surgical technology, in addition to a unique (in the UK) "clean room" medical devices manufacturing facility (including £5m from Wellcome), co-located in a major hospital to develop technologies in partnership. Supporting its partnerships, KHP is constructing the Research England-funded (£16m) <a href="#">London Institute for Healthcare Engineering</a> specifically to harness ingenuity and collaboration between industry, university and the NHS.</p> <p>Leading the exploration of applying Artificial Intelligence (AI) to healthcare, KHP is expanding its <a href="#">AI Centre for Value-Based Healthcare</a> to a total of 4 universities, 6 industry partners, 11 SMEs and 11 NHS Trusts across the south east (with £16m from Office for Life Sciences). This Centre is leading the redesign of c.15 clinical pathways to improve outcomes and reduce costs.</p> <p>KHP has actively created and developed strategic industry partnerships in MedTech, including a new theme of low-field MRI in our collaboration with Siemens Healthineers. Notably, King's College London (KCL) and GSTT are the only academic and NHS partners with the new NVIDIA supercomputer Cambridge-1 – the <a href="#">UK's most powerful supercomputer</a> – and are leading the early "demonstrator" programmes which will use MRI brain scans to generate synthetic brain images to support research into earlier and more accurate diagnosis.</p> <p>KHP has a very healthy pipeline of clinically relevant innovation in MedTech, including 3 recent NIHR i4i awards, and the successful spinout <a href="#">Hypervision Surgical</a>, which uses photonics alongside AI to guide cancer surgery. MedTech clinical research will form a major strategic priority in the GSTT BRC application.</p> <p>Finally, <a href="#">KHP Academic Surgery programme</a> has worked with company Proximie to use technology to deliver surgical innovation, <a href="#">transmitting live surgery</a> to allow virtual collaboration.</p>
<b>Long term objectives</b>	
<p>Develop and promote early detection and</p>	<p>KHP has pioneered the development and delivery of novel interventions for mental illness, with a particular focus on digital</p>

<p>novel interventions to reduce the burden of mental illness (Moss-Morris/COMPASS, Schmidt/FREED)</p>	<p>therapeutics to overcome barriers to access.</p> <p>KHP has developed a new digital therapy for paranoia (MRC DPFS), and invested in therapeutics such as <a href="#">COMPASS</a>, (KCL Moss-Morris) a novel digital therapeutic. With therapist support, COMPASS treats illness-related anxiety and depression for people with long-term physical health conditions. This is being tested in 8 NHS services and a national trial in which people self-refer via 5 charities (including Crohn's &amp; Colitis UK, MS Society and Kidney Care UK). Early results show improvements in outcomes of depression, anxiety, distress and functioning. COMPASS is CE marked as a Class I medical device and KCL is exploring commercialisation avenues.</p> <p>Construction is progressing of the new <a href="#">Pears Maudsley Centre for Children &amp; Young People</a>, a collaboration between KCL and South London and Maudsley NHS Foundation Trust (SLaM), to provide a dedicated facility to improve services and research into mental health issues facing children and young people. This research is supported by 2 new awards (£4m each), including through the UK Research and Innovation Adolescent Mental Health and Developing Mind programme.</p> <p>More broadly, KHP has established the Economic and Social Research Council (<a href="#">ESRC</a>) Centre for Society &amp; Mental Health, seeking to bring fresh insights from the social sciences into psychiatry/psychology, and vice versa. During the pandemic the Centre has commissioned a rapid review, published 61 academic papers, delivered 3 blogs, 6 podcasts, and obtained over £1m in grant funding to support COVID-19 related research.</p> <p>KHP also leads several national priority programmes in mental health data science and co-lead the national COVID-CNS programme (COVID-19 neurology).</p> <p>Lastly, mental health clinical research, including early detection and novel interventions, will also form a major strategic priority in the Maudsley BRC application.</p>
<p><b>2a(ii): Transforming system-wide quality improvement and outcomes</b></p>	
<p><b>Short term objectives</b></p>	<p><b>AHSC Progress</b></p>
<p>Develop an Academic Health Sciences System to reduce system-wide health inequalities through shared expertise in improvement and implementation sciences</p>	<p>KHP has significantly progressed development of the Academic Health Sciences System with partners and networks.</p> <p>Our collaborations facilitating this include numerous partnerships mentioned in other sections, in addition to jointly founding 'SC1' Innovation District to develop a world-class health science innovation community.</p> <p>Leveraging our global networks, we have shared experience and expertise nationally and globally, including (in addition to training mentioned in other sections):</p> <ul style="list-style-type: none"> <li>• KHP launched <b>over 60</b> new COVID-19-related joint research projects and activities, e.g., helping adult social care centres to unlock lockdown.</li> </ul>

	<ul style="list-style-type: none"> <li>• The <a href="#">Centre for Implementation Science</a> (part of KHP, with the south London Applied Research Collaboration (ARC) and Health Innovation Network (HIN), supported the pandemic response, <b>recruited 28,200 study participants</b>, generated £1.2m research income, and disseminated research in 297 peer-reviewed papers.</li> <li>• Our clinical academic innovation workshops have welcomed <b>886 attendees</b> and global contributions.</li> <li>• <b>25 local people</b> worked with KHP and partners (including <a href="#">Urban Dandelion</a> to support the collective endeavours of our local community) to recommend personalised care solutions to NHS England (NHSE) for the COVID-19 response.</li> <li>• KHP runs the global Masterclass in Implementation Science (<b>70 delegates</b>) and the <a href="#">Annual UK Implementation Science Research Conference</a> (<b>200 delegates</b> annually).</li> </ul> <p>To continually strengthen our structures, in recent months KHP has undertaken a major <b>external governance review</b> to support delivery of <a href="#">our five-year plan</a> (section 2b) and appointed a <a href="#">new Independent Chair, Prof Lord Ajay Kakkar</a>.</p> <p>The KCL Improvement Science group examined implementation of pandemic-driven staff support programmes to generate lessons for NHS Trusts. KHP has also developed a ‘learning health system’ framework focused on the <a href="#">remote delivery of mental health services</a> across south London. Our clinical-academic network generates widely applicable learning regarding remote service delivery (part of the NHSEI London Evaluation Cell reporting to Gold Command) and has benefitted from NIHR investment (Beneficial Changes Network Scheme).</p>	
<p><b>Medium term objectives</b></p>		
<p>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</p>	<p>Pioneering the multidisciplinary <b>integration of mental and physical healthcare</b> across our partnership, the past year has seen KHP champion outcomes that matter to patients, including:</p> <ul style="list-style-type: none"> <li>• £546k funding to embed a psychosocial team in the critical care service at King’s College Hospital NHS Foundation Trust (KCH).</li> <li>• £1.7m funding for the <a href="#">Integrating Mental and Physical Healthcare Systems (IMPHS)</a> project at SLAM, which <a href="#">helped 66% of c.700 calls result in care being delivered in a mental health setting</a>, avoiding referral.</li> <li>• Supporting integration of care for adolescents and young people with epilepsy (with £210,000 grant), men with severe mental illness and erectile dysfunction (£200,000 grant), people with cystic fibrosis and eating disorders (£25,000) and people with Leukaemia (£460,000 grant).</li> <li>• Launching <a href="#">KHP’s Learning Disability Strategy</a>, and leading a new £1.75m multi-partner collaboration to support the National Learning Disability and Autism Programme, coordinating analysis into NHSE’s Learning Disability Mortality Review programme.</li> </ul> <p>With partners we have received designation and funding as one of 7 <a href="#">NHSE Early Implementer Sites</a>, delivering (with over 7,000 patients)</p>	

	<p>and evaluating the <b>Ottawa Model for smoking cessation</b> (2020-2022, finding a 28-34% success rate).</p> <p><a href="#">KHP Diabetes, Endocrinology and Obesity</a> (IDEO) working with partners and the Integrated Care System (ICS) received £463k funding to continue the <a href="#">pilot</a> for patients with Type 1 diabetes and disordered eating (T1DE), with over 40 patients showing improvements in HbA1c. IDEO also co-authored a revolutionary study on <b>Semaglutide Treatment Effect in People with obesity (STEP-1)</b> resulting in a third of participants achieving 20% weight loss, the <a href="#">first double-digit weight loss result for an obesity medication study</a>.</p> <p>KHP is hosting the new SEL-wide, <b>GP-led Clinical Effectiveness programme</b>, funded by primary care networks and SEL CCG, which adopts <a href="#">evidence-based practice and continuous quality improvement across primary care</a>. An early priority is hypertension and the joint KHP-ICS Population Health programme (section 2.a.iii).</p>
<p><b>Long term objectives</b></p>	
<p>Embed patient reported outcomes as part of a digital offer to people in south east London giving patients greater control over their health.</p>	<p>KHP is leading the development of patient reported outcomes measures (PROMs) across programmes, focusing initially on integrating mental and physical health measures in our <a href="#">Mind &amp; Body programme</a>. Responding to COVID-19, building on the Integrating Mental and Physical healthcare: Research, Training &amp; Services (<a href="#">IMPARTS</a>) programme, KHP successfully launched e-IMPARTS to remotely collect PROMs; now used in over 50 outpatient clinics (including post-COVID-19 services) since June 2021.</p> <p>Other work developing new models of care that embed outcomes that matter to patients involving our Institutes includes:</p> <ul style="list-style-type: none"> <li>• <a href="#">KHP Haematology's Care Closer to Home</a> programme empowers patients to choose how and where they receive care, including supporting haemato-oncology patients to self-administer sub-cutaneous Systemic Anti-Cancer Therapy at home; the development of a virtual multi-disciplinary clinic for people with chronic lymphocytic leukaemia, and a collaboration with Itecho Health, to lead on a clinical validation study into the effectiveness of remotely monitoring seven haematological conditions using the Ascelus™ app (funded under the NIHR I4I Challenge Awards).</li> <li>• IDEO is leading the development of (with £700k Innovative Medicine Initiative funding) <b>pan-European Health Outcomes Observatories</b> for type 1 and 2 diabetes (as part of EUR 10 million public-private partnership).</li> </ul> <p>Our <a href="#">Life Lines project</a> provided more than 1,400 Android devices to over 150 NHS hospitals in April 2020, supporting more than 100,000 virtual visits connecting families with their loved ones in intensive care, enabled through £2.4m philanthropic support and major commercial partnerships. Additionally, we have £350k funding to develop and evaluate a digitally enhanced intensive care recovery pathway, embedding digital innovation responding to COVID-19 into our long-term offer.</p>

<p>Work with partners in public health, local authorities and the ICS to improve health outcomes across the life course (long-term).</p>	<p>The <b>SEL-ICS KHP Population Health and Equality programme</b> was launched in 2020 with a joint Executive; early work supported system-wide 'Borough-Based COVID-19 Recovery Plan' (section 2.a.iii).</p> <p>KHP's <b>Children and Young People's Health Partnership</b> programme has progressed its <a href="#">targeted and universal approach to integrated care for children (adopted by NHSE as a population health management exemplar)</a>; for children with long-term conditions, this has already reduced emergency department contacts by 49%, non-elective admissions by 45%, and seen 60% of children achieve clinically-measurable health improvement.</p> <p><b>KHP Haematology</b> is progressing its development of a Sickle Cell Centre of Excellence to create meaningful change in the treatment of Sickle Cell Disease, locally and globally. KHP's Bristol Myers Squibb programme is leading investigations into how genetic and immunological changes in the blood are associated with disease outcomes through a new state-of-the-art laboratory and work creating one of the largest global datasets of its kind.</p> <p>The <a href="#">merger of the Royal Brompton &amp; Harefield with GSTT</a> (Feb 2021) is a key milestone in our mission to transform cardiovascular and respiratory care outcomes. The merger provides a platform for internationally competitive services and strong community services development.</p> <p>Across our health system the work on heart failure to support community patients and general practice continues at pace, improving experience, outcomes and staff confidence.</p> <p>During the pandemic our respiratory and palliative care teams worked with primary care, community services and local hospice teams to rapidly develop <a href="#">COVID-19 specific guidelines for oxygen use in the community, breathlessness and palliative care</a>, underpinning the launch of 'Hot Covid clinics' in the community and Long-COVID clinics in hospital.</p> <p>Working with the HIN, ARC, SEL ICS and St Christopher's Hospice, KHP also produced <a href="#">ethics guidance</a> to support clinicians to advocate for patients and promote and support good decision-making about care.</p>
<p><b>2a(iii): Leading urban population health</b></p>	
<p><b>Short term objectives</b></p>	<p><b>AHSC Progress</b></p>
<p>Launch our Institute of Population Health integrating clinical, mental health and social sciences in primary research and intervention methodologies (as well</p>	<p>The launch of our joint Population Health and Equality programme with SEL ICS provides the foundation for embedding primary research within our population health-level interventions.</p> <p>We have established a <b>Population Health and Equality Executive Group</b>, with healthcare system-wide executive representation (ICS CEO, Hospital CEO, Medical Director, General Practice), local authorities (Chief Executive, Director of Adult Services, Director of</p>

<p>as team-based learning). This includes specific activity in social science and mental health, led by our ESRC Centre for Society and Mental Health</p>	<p>Public Health) and academic research and is co-chaired by the AHSC Managing Director and ICS Chief Officer.</p> <p>The Group is planning comprehensive activities including on the <a href="#">‘Vital 5’ (tobacco dependency, alcohol, obesity, high blood pressure and mental health) drivers of poor health and inequalities</a>, establishing the South East London People Board for workforce support and applying the ‘Anchor Institutions’ concept to collectively leverage assets to better support communities.</p> <p>Recent Anchor Institution progress include hospitals adapting hiring practices and career paths for deprived groups, procuring from companies that hire locally and sustainably, primary care practices and community services offering apprenticeships and work experience and VCSE organisations offering support and funding for SMEs.</p> <p>The potential has been demonstrated through the <b>COVID-19 Symptom Study</b>, a <a href="#">pioneering, app-based study into COVID-19</a>. Using community symptom monitoring, the app provides <a href="#">near-real-time estimates of COVID-19</a> incidence and experience to inform the UK Government’s decisions. With over a million registrants on the day it launched, the app now has almost 5 million users, generating over 40 scientific discoveries and linked 35 symptoms with COVID-19, including anosmia. Recent research using the app data has generated insights into vaccine efficacy, vaccine hesitancy, understanding of variants and Long-COVID.</p> <p>Considering Long-Covid, KHP together with the SEL ICS, produced <a href="#">the first Long-COVID guidance</a> for patients, in addition to developing Long-COVID clinics and local network services.</p>
<p><b>Medium term objectives</b></p>	
<p>Ensure local patients are offered Mind &amp; Body and Vital 5 screening routinely, as part of our shared system-wide population health strategy (medium-term)</p>	<p>KHP’s collaboration with <a href="#">Clinical Effectiveness (CE) SEL</a> is critical to support the screening of the <a href="#">Vital 5</a> within patients known to primary care, standardising the templates used in EMIS for long-term condition management. Templates within one borough already incorporate Vital 5 screening and this will expand across south east London through CESEL.</p> <p>Our joint Population Health and Equality programme includes a focus on prevention, using the lens of the <a href="#">Vital 5</a>. Initially focusing on high blood pressure to test the blueprint, we are creating system-wide pilots that span the spectrum from screening to primary and secondary prevention (detect-protect-perfect) along with stakeholders from voluntary groups, community groups, community, primary and secondary care.</p> <p>KHP will leverage its development of <a href="#">eIMPARTS</a>, which enables the collection of individual-level data on patients’ bio-psycho-social</p>



	<p>needs, to provide access to data to support population health management. The programme collects data on PROMs, on both physical and mental health symptoms, as well as condition-specific measures, aligning with the <a href="#">Vital 5</a> programme. There have been 4 publications utilising IMPARTS data in 2020-21, which has been successful as a programme in securing £700k funding for a 2.5-year project to expand and test use in primary care.</p> <p>KHP's renowned Mind &amp; Body programme has begun work to develop a framework (for all types of healthcare organisations) for good integration of mind and body, including routine screening, delivery of care, involvement of patients and communities, staff health and wellbeing, training, and governance.</p> <p>Together the SEL ICS, KHP and HIN have launched a system wide Diabetes &amp; Obesity Delivery Board to improve care pathways, reduce variation and improve translation of research findings into care. We are working with industry partners to promote improved device use and value-based healthcare across metabolic disease and obesity.</p>	
<p>Connect the learning from our local communities with our global health work to further spread learning and skills to wider international communities</p>	<p><a href="#">King's Global Health Partnerships</a> (KGHP) has pivoted its focus towards the global pandemic response. In Africa, volunteers continue to remotely offer advice and training to healthcare providers in Somaliland and DR Congo, and support responses in Sierra Leone by offering <a href="#">vital learning</a>. To share learning throughout the pandemic, KGHP <a href="#">volunteers featured in national news</a> on their experiences during the Ebola epidemic and resulting pandemic preparedness.</p> <p>Recently, KHP partnered with the South Asian Health Foundation to support their webinar series sharing COVID-19 knowledge between India and the UK. <a href="#">One exchange was viewed by millions on India Today TV</a>. All COVID-19 seminars and resources (including our global Meet the Expert global clinical seminar series, with <b>4,000 attendees</b>) have been collated on <a href="#">our globally accessible e-learning platform the Learning Hub</a> (which has 14,000 registered users).</p> <p>Outside of pandemic support, over 50 volunteers from across KHP have delivered 11 online courses to over 320 medical, nursing and midwifery students in <a href="#">Somaliland</a>. In Zambia we are supporting <a href="#">improvements in maternal and neonatal health</a>.</p> <p>A portfolio of research grants is enabling vital work in Sierra Leone, including the NIHR-funded Stroke in Sierra Leone research programme developing one of the largest stroke registries in Africa. The NIHR-funded Health Systems Strengthening research programme has supported an assessment of the surgical ecosystem, and an European and Developing Countries Clinical Trial funded programme is facilitating capacity support for the national research ethics committee.</p>	

	<p>Lastly, KHP is developing and implementing (£3m grant, NIHR Global Health Group) simple scalable solutions to reduce maternal mortality (KCL, Shennan).</p>
<b>Long term objectives</b>	
<p>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</p>	<p>In agreement with cross-system partners, KHP will apply a population health management (PHM) approach to all work, rapidly implementing the South East London Data Service to enable this. During the pandemic we pivoted this focus to establish an Equality in Vaccination task force. Enriched by community focussed interviews, this work led to a £2m partnership programme to research and act on medical scepticism and trust more broadly.</p> <p>This PHM approach will be bolstered in future by the implementation of <a href="#">Epic as a single new integrated electronic health record system across GSTT and KCH</a>.</p> <p>Additionally, KHP conducted research into the use of <a href="#">Polygenic Risk Scores (PRSs) to discriminate cases of ankylosing spondylitis</a> from healthy controls and individuals with chronic back pain (Brown, KCL). Following this work, Professor Brown is coordinating national collaborative programs in research in polygenic risk scores as clinical tools, and he continues to contribute to Our Future Health which will be the <a href="#">UK's largest ever health research programme</a>. We also launched the largest ever (NIHR-funded) <a href="#">study of eating disorders in England</a> (KCL, Breeno to expand research and accelerate treatments.</p> <p>SLaM (Maudsley BRC) - has developed a psychosis dashboard, VIEWER, which uses Clinical Record Interactive Search data modelling methods to extract clinically focussed data for patients with psychosis from local clinical data. Results are picked up by SLAM CogStack (<a href="#">our award-winning AI information retrieval and extraction platform</a>) – and have had results within neurotoxin dosing for tariffs, all females of child-bearing age prescribed sodium valproate and the first Seizure Clinical Audit. The programme also received key funding including on <a href="#">DATAMIND, a Hub for Mental Health Informatics Research Development</a>. Finally, KCL is co-leading an MRC funded <a href="#">mental health data-hub</a> which will extend applied informatics across the UK (Stewart).</p>
<b>2a(iv): Workforce innovation and sustainability</b>	
<b>Short term objectives</b>	<b>AHSC Progress</b>
<p>Develop accessible learning, including patient-focused and staff education, building on the strength of the KHP Education Academy to create a learning health</p>	<p>In a swift response to COVID-19, KHP grouped vital resources on our Learning Hub, including those for redeployed staff and developed the <a href="#">Meet the Expert series with the European University Hospital Alliance</a>.</p> <p>Working with SEL CCG and HIN to facilitate SEL-wide learning and exchange, we hosted a series of primary care webinars (led by Dr</p>

<p>community, locally and globally</p>	<p>Rachna Chowla, the first GP to join the KHP Executive, 490 people joined or viewed) sharing COVID-19 and non-COVID-19 knowledge.</p> <p>Expanding our offer through partnership with Royal Brompton and Harefield following its merger, the Cardiovascular and Respiratory Partnership Programme has delivered virtual short courses and developed a virtual training calendar so trainees can access all opportunities irrespective of their work venue..</p> <p>KHP (with KCL’s Business School) successfully bid to deliver HEE East of Anglia leadership and management training and have built on our online 15 credit module in Clinical Leadership to develop an online short course for primary and secondary care staff and global learners.</p> <p>Our Mind and Body programme developed patient-facing self-help resources for people with health conditions (over 12,000 views), and mindfulness resources were offered across SEL through the <a href="#">Mindfulness for All platform</a> (over 300 meditation video views).</p> <p>KHP Haematology continues holding and planning a range of preceptorships (including on CAR-T, Sickle Cell and Infection in the Immuno-compromised), and a 3-day National Transfusion Practitioner Conference (with over 150 attendees daily). The Institute will also deliver a new Post Graduate Certificate in Haematology.</p> <p>KHP Neurosciences has developed a <a href="#">Functional Neurological Disorder</a> (FND) Masterclass (over 200 attendees in 2020), run a Clinical-Academic seminar programme and recruited to the first <a href="#">national Clinical Fellowship in Neuro-oncology for a neurologist</a>.</p> <p>Additionally, <a href="#">Prof Stephanie Amiel</a> (KCL) was given an award at Diabetes UK 2021 to honour her significant role in revolutionising understanding of hypoglycaemia and delivering diabetes structured education.</p>
<p><b>Medium term objectives</b></p>	
<p>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</p>	<p>KHP’s research capacity training is now delivered online, including, with the University of California San Francisco, the <a href="#">Designing Clinical Research course</a> for healthcare professionals. We have also extended our online Clinical Innovation Programme to developing countries (supported by the Global Engagement Fund).</p> <p>KHP codeveloped educational resources with primary care including organisational development and a course for social prescribers for young people.</p> <p>Our GSTT hubs for education include: “Workforce” (for nursing and midwifery): effective recruitment and retention strategies; “Practice Innovation” for innovation in clinical practice, and “Research and Education”; creating a learning and development culture with a potential Nightingale Nurse and Midwife award.</p> <p>KHP established its <a href="#">“Realising your Potential”</a> programme for staff to develop their careers through workshops, applications and interview skills training, networking and careers conversations.</p>

	<p>This year, the King’s Health Sciences Doctoral Training Centre’s Clinical Academic Training Hub has provided careers support, training and information for early-stage clinical researchers (predominantly doctoral students). <a href="#">The Hub</a> showcases the diversity of our clinical academic community through researcher profiles and runs network-building events. Priority areas were identified through wide consultation, including with students, academic leads and pre-doctoral NIHR Clinical Training Fellows at both GSTT and Maudsley BRCs.</p> <p>Through our partnerships, we will build on this Hub to launch the <b>King’s Clinical Academic Training Office (KCATO)</b>. <a href="#">The KCATO</a> will be a centralised pan-professional liaison and academic training hub which acts as a single point of contact for advice, best practice and information on academic careers, recruitment, training and development for academic clinicians at all stages of training. It will support clinical academic research training at individual, cohort, network and institutional levels as well as offering input into the national agenda.</p>
<p>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</p>	<p>KHP is committed to supporting its partners with diversity and inclusion initiatives. Its progress in supporting equality was recently recognised, Professor Lucy Chappell and Dr Caroline Jolley were nominated as the British Medical Association (BMA) <a href="#">role models for Women in Academic Medicine</a> and KCL was awarded the <a href="#">Athena Swan Silver Award</a> from Advance HE.</p> <p>Our <a href="#">discover healthcare website</a> was created to help recruitment into hard-to-reach professions, and last year over 20,000 unique users visited the site demonstrating the demand for this as a resource and its success in reaching the target audience.</p> <p>On the website, the “getting involved” tab is the most accessed section, with apprenticeship opportunities and summer schools presenting as most popular. As part of the National Health and Wellbeing support, GSTT launched individually tailored coaching for black and minority ethnic staff. Other initiatives include a black and minority ethnic forum, an action pledge to demonstrate commitment to positive action and ensure fairness in recruitment and retention.</p> <p>Additionally, a suite of “Positive Pathways” careers and development programmes was launched, in addition to reverse mentoring and the introduction of inclusion agents who support staff to receive equitable career progression opportunities.</p> <p><a href="#">King’s Civic Charter</a> sets out KCL’s commitment to support our communities experiencing challenging disadvantages and inequality through co-produced research, teaching and service activities. KCL’s <a href="#">award-winning Civic Leadership Academy</a> enhances opportunities for minoritised students through leadership development while contributing to the work of local community organisations. In its pilot year (2019-20), 80% of the cohort of second year undergraduate students were from minority backgrounds and 70% identified as an ethnic minority. Over a year, Civic Scholars commit to 240 hours of service through placements with community partners and take part in a leadership development curriculum to become <a href="#">highly employable, civically minded and engaged people</a>.</p>

<b>Long term objectives</b>	
<p>Develop a compassionate, Mind &amp; Body-trained workforce, who are data and technology skilled and thereby better able to lead advances in health, care and medical technology</p>	<p>Over <a href="#">900 Mind &amp; Body Champions</a> have been recruited across the KHP partnership, undertaking relevant training and becoming advocates in their area for the importance of treating mental and physical health as one.</p> <p>KHP Mind &amp; Body supported a range of staff wellbeing initiatives, including staff support programmes, development of resources and the launch of the <a href="#">Mindfulness for All</a> platform. The staff support programme at KCH, supported by Mind &amp; Body, was the <a href="#">winner of the HSJ Awards 2020 Workforce Initiative of the Year</a>.</p> <p>The IMPARTS Short Course “<a href="#">Integrating Care: Depression, Anxiety and Physical Illness</a>” is hosted on Future Learn, which allows people nationally and globally to access the course. Across 4 runs of the course, there was 14,512 UK enrolments and 12,474 non-UK enrolments across 150 countries.</p> <p>Co-developed with clinicians from primary care and Affina organisational development (OD) we launched an OD, course for primary care including webinars in compassionate leadership (Michael West, Senior Visiting Fellow at the King’s Fund). Those taking part will become team coaches and work with their practices or primary care networks, as they focus on OD. After independent evaluation of the pilot and any appropriate modifications, KHP aims to role this out nationally.</p> <p>Additionally, KHP is increasing capacity to deliver virtual simulation training, particularly for surgeons and nurses where appropriate use of technology supports excellent care. With the Faculty of Natural Mathematical and Engineering Science (NMES), we are delivering a course on Demystifying AI for Clinicians and developing with KCL Online Professional Education CPD in AI, Big data and Ethics. We have established a <a href="#">Clinical Innovator Programme</a> with NMES, in which clinicians are paired with scientists to develop technological solutions to relevant clinical problems at low cost to better improve healthcare outcomes.</p>

**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.**

In the last year KHP initiated a governance review, to create governance oversight and delivery focus for the 4 delivery themes of the KHP five-year plan, tighten structures, introduce wider membership and partners and consider relationships with the wider Integrated Care System and Collaborative structure. In addition to focussed discussion with our senior leadership teams, an External Advisory Group was established to offer perspectives from other AHSCs and similar partnership teams nationally and internationally. Following this review, KHP’s governance structures and system has been updated and improved, and we have appointed a [new Independent Chair for the KHP Board](#).

Other key appointments affecting KHP leadership have included:

- Professor Lucy Chappell (Professor of Obstetrics KCL/GSTT) has been appointed as the next [Chief Scientific Adviser](#) for the Department of Health and Social Care (DHSC).
- Professor Jane Sandall CBE has been appointed as NHS England and Improvement’s [Head](#)

[of Midwifery Research](#). In this role, Professor Sandall is designing and leading the midwifery research strategy for NHS England and NHS Improvement on behalf of the Chief Midwifery Officer for England.

- Dr Nicola Byrne, formerly Deputy Medical Director, Caldicott Guardian and Chief Information Officer (CCIO) at South London and Maudsley NHS Foundation Trust, was appointed [National Data Guardian](#) for Health and Social Care in England.
- Dr Ingrid Wolfe, Consultant in Child Public Health at Evelina London Women's and Children's Healthcare, and Director of the Children and Young People's Health Partnership, was appointed to [lead the KHP Women and Children's Health](#). As Director of the Institute, Dr Wolfe led a refresh the [Institute strategy](#) orienting it towards greater clinical-academic integration.

Additionally, on 1<sup>st</sup> February 2021, [GSTT merged with Royal Brompton and Harefield NHS Foundation](#), as part of realising the KHP Cardiovascular and Respiratory Partnership vision for heart and lung care. Royal Brompton and Harefield is now a [Clinical Group](#) in the expanded GSTT with integration work underway.

The combined expertise of clinical and academic heart and lung expertise and experience across the AHSC is now unparalleled and includes one of the largest and strongest academic healthcare organisations in Europe. Cardiovascular and respiratory clinical and academic colleagues across the AHSC have been working together across research, education and improving care for several years.

The continuation and strengthening of this work will hugely support delivery of our objectives as will the strengthened leadership capabilities and experience. There are also opportunities to be able to work with a much larger number of patients and strengthen existing relationships with Imperial College London, meaning our networks will be well-placed to lead research in heart and lung disease.

KHP is formally on track with its objectives and on a number of areas the partnership is significantly ahead on progress. Our staff have been recognised for outstanding work across the partnership through several awards, including the renowned [Brain Prize](#) awarded to Professor Peter Goadsby for his migraine research, [our award as a Tessa Jowell Centre of Excellence for brain tumour care](#), [Professor Sir Simon Wessely elected to the Fellowship of the Royal Society](#) and [two colleagues being appointed as Senior Investigators for NIHR](#). Our staff across the partnership have worked tirelessly throughout the year, with several recognitions in the [New Year's Honours list](#) for services to midwifery, autism, medical education, critical care and services during the COVID-19 response, in addition to recent [recognitions in the Queen's Birthday Honours](#).

Reflecting on the recent Government Life Sciences strategy, KHP's is ideally placed to deliver against the Government Life Science Vision's 7 "missions", bringing together outstanding clinical services and world-class health research to drive transformational improvements in health outcomes. With over 600 currently active [clinical trials](#) across KHP, we are a powerhouse of innovation and translation. The 7 missions align with our current priorities and provide a framework for KHP's future strategy, as follows:

**1. Improving translational capabilities in neurodegeneration and dementia.**

Our spinout company work on neurodegeneration (Neurogeneus), EU-Innovative Medicines Initiative programme RADAR-AD working with industry partners to explore mobile and digital technologies to improve the assessment of Alzheimer's Disease, with significant translational research capabilities at the Maudsley BRC (see section 2a.i).

**2. Enabling early diagnosis and treatments, including immune therapies such as cancer vaccines**

Our world-class phenotyping ('omics) facilities at GSTT BRC, [NVIDIA Cambridge-1 supercomputer partnership](#), and our Innovate UK AI Centre are supporting early diagnosis and treatments, including in cancer as exemplified by our CRUK Early Detection Programme and "Smart Trials" partnerships with GSK and UCB. Our GMP cell and gene therapy manufacturing

facilities provide unique infrastructure for novel therapeutic approaches, and our CRUK and BHF Centres support both underpinning innovation and translational research. Additionally, KHP is the host of the South East Genomic Laboratory Hub and GMSA. The GSTT BRC is actively pursuing high throughput functional genomics screens to assess variants of unknown significance, and KHP co-leads the BRC/hospital arm of the Our Future Health PRC study (see section 2a.iii).

3. Sustaining the UK position in novel vaccine discovery development and manufacturing. Our MRC/LifeArc Gene Therapy Innovation Hub will create a nationally leading GMP manufacturing capability for viral vectors and support major contributions to existing and future infectious diseases challenges.

4. **Treatment and prevention of cardiovascular diseases and its major risk factors, including obesity.**

Our British Heart Foundation Centre of Excellence (the largest in the UK) will offer research to support the treatment and prevention of cardiovascular diseases and its major risk factors, including obesity. The merger between GSTT and the Royal Brompton and Harefield will create one of the largest and strongest academic healthcare organisations in Europe in cardiovascular and respiratory research (see section 2a.ii).

5. **Reducing mortality and morbidity from respiratory disease in the UK and globally.**

This merger will also support our leading role in respiratory research nationally and globally, and KHP has taken a lead in post-COVID-19 respiratory treatment and rehabilitation (see section 2a.ii).

6. **Addressing the underlying biology of ageing.**

Much of our research and clinical activity at KHP is relevant to ageing; Ageing Research at King's (ARK) will offer exemplary research on the biology of ageing, from the basic mechanisms in biogerontology to clinical translation and the social impact of ageing.

7. **Increasing the understanding of mental health conditions, including work to redefine diseases and develop translational tools to address them.**

Mental health is demonstrably a priority for KHP and a unique strength for ongoing investment. SLaM and its academic counterpart the Institute of Psychiatry, Psychology and Neuroscience are internationally leading in this field, transforming understanding and treatment through experimental medicine and data science (including digital therapeutics). The Maudsley BRC provides an outstanding mental health-focused translational infrastructure, supporting programmes such as the Wellcome Psychosis Flagship, IMI programmes including the largest programme on autism (AIMS2-TRIALS) and mobile health (RADAR-CNS and AD), and MRC [Mental Health Data Hub](#), among much more.

NIHR and NHSEI would like to promote the work of the AHSCs by sharing your case studies on our website and other communication channels. Please indicate if you are not happy for NIHR and NHSEI to use your case studies in external communications (YES)

The completed AHSC Annual Report 2020/21 must be submitted via email, to the NIHR CCF Infrastructure mailbox: [ccf-infrastructure-team@nihr.ac.uk](mailto:ccf-infrastructure-team@nihr.ac.uk) copying the senior programme manager Julie Bieles ([julie.bieles@nihr.ac.uk](mailto:julie.bieles@nihr.ac.uk)) by 1pm on **Monday 26 July 2021**.

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 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 AHSC lead is required to sign off (electronically) the Annual Report and case studies to confirm that the information provided in the Narrative report is accurate since this is required by the Department of Health and Social Care. NIHR CCF will send the relevant documents (Docu-sign) to AHSC lead after receiving the Annual Report and case studies.

The key NIHR CCF contact for the NIHR 2020/2021 Annual Report, to whom all queries should be addressed (copying in [ccf-infrastructure-team@nihr.ac.uk](mailto:ccf-infrastructure-team@nihr.ac.uk)) is:

Julie Bieles  
Infrastructure and Faculty  
NIHR Central Commissioning Facility  
Email: [julie.bieles@nhr.ac.uk](mailto:julie.bieles@nhr.ac.uk)  
Tel: 020 8843 8140