Kent Surrey Sussex
Academic Health Science
Network

Annual Review

2020–21

This year has been dominated by our collective response to COVID-19, and I would like to start by thanking everyone for their incredible efforts. I'd also like to acknowledge and remember the citizens and health care professionals who have died because of COVID-19.

While the year has brought personal and work challenges to us all, looking back I'm struck with the commitment and professionalism that individuals have shown during what have been very difficult times.

On an organisational level KSS AHSN has been supporting the health and social care system and helping to guide colleagues through a range of challenges, from the rapid introduction of remote triage and assessment to the successful spread of the Covid Oximetry @Home programme, which saw 100% of Clinical Commissioning Groups (CCGs) establish a fully operational pathway by early February 2021.

A flexible approach to support

Some of our staff were seconded to support the national response, and we've also offered assistance to our Integrated Care Systems (ICSs) on a range of bespoke projects – from supporting the shipment of tech to home workers in the early days, to arranging booking of COVID-19 vaccinations for patients at home, and the roll-out of remote monitoring technology.

With so much focus on COVID-19 activities we naturally saw a re-prioritisation of our plans for the year, and we continue to refine and expand our portfolio to support the system with pre-COVID-19 priorities as well as emerging challenges. This will see us bringing new nationally mandated innovation and initiatives to the region, whether that be through our work with the Accelerated Access Collaborative (AAC) or the wider AHSN Network.

System guides

Our close relationships with colleagues across the system has given us a valuable insight into the challenges they face. We've been able to guide all parts of the system to make the right connections to solve problems, and find and implement well-evidenced, beneficial and good value innovations that can ultimately achieve our shared aim to transform lives for patients and citizens.

As part of the 15-strong AHSN Network we've played an instrumental role in supporting the Network's work on the ground. But we've also been engaged behind the scenes, providing finance skills and data analytics intelligence that support the AHSN Network's work and strategic development.

Positive partnerships

Our role in supporting and guiding spans beyond the work of the AHSN Network – we work closely with a range of partners across England on projects that support our ambitions, understanding and influence across health and social care.

For example, we were a key sponsor of the South East Health Technologies Alliance (SEHTA) 2020 International Medtech Expo and Conference in September - an online event rather than the planned face-to-face show in March.

The event connected industry innovators with health and social care professionals, with both SEHTA and us able to showcase the support we can provide. We also used the occasion to call for innovative solutions to tackle challenges in learning disability and frailty.

As more events moved into the virtual space we were able to work with the AHSN Network and the Digital Health and Care Alliance (DHACA) to offer a series of webinars that supported digital innovators to respond to rapidly evolving system need in the face of the pandemic, and the focus on shifting to online consultations.

And our Medical Director, Des Holden, was involved with the late Donal O'Donoghue in the launch of the National Voices "What We Know Now" report, which gave compelling insight into the experiences of people using health and care services during the first wave of COVID-19, drawn from over 66,000 responses.

Looking forward

Our portfolio of national AHSN programmes continues to develop with support for the implementation of nine Accelerated Access Collaborative rapid uptake products that are NICE approved and support the NHS Long Term Plan key clinical priorities. Our Technology Navigation team is the national lead team for Gammacore, a non-drug treatment for adults who suffer from primary headache conditions such as cluster headache and migraine.

The coming year will also see an increased focus on reducing inequalities within our region through our Needs Articulation work as well as our involvement with the with the NIHR Kent Surrey Sussex Applied Research Collaboration (ARC KSS), building on its excellent rapid-research projects with hard-to-reach groups in the early stages of the pandemic.

We're also looking forward to supporting development of the new Surrey Heartlands Health Tech Accelerator, based at the University of Surrey, which will see a new Living Lab and network space in which clinicians, industry and citizens will be able

to co-create health and care solutions, thereby enabling innovation to reach more patients faster.

And there's also much excitement linked to our Strength in Places bid, which if successful will secure a contribution of £25m from the project's partners to drive the area's economic growth and build on Kent's life science expertise.

Remembering colleagues

Finally I'd like to make special reference to of our non-executive director Prof. Tricia McGregor who passed away after a short journey with cancer in June.

Tricia was a great ally of KSS AHSN since our formation in 2013 and a valued non-executive director with us and SECAMB.

She was also well known and well respected as Founder and Joint Managing Director at Central Surrey Health, the UK's first co-owned social enterprise from NHS services. She was awarded an MBE for services to social enterprises in 2011.

Her passion to improve services for patients, to empower staff and to embrace innovation is a huge loss to us all, and is an approach that all at KSS AHSN carry forward in their work.

Guy Boersma
Managing Director
KSS AHSN

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Delivery: COVID-19 response

The emergence of COVID-19 just before the start of the financial year changed the approaches and working practices of everyone working in health and social care.

Nationally the AHSN Network has been part of a coordinated response to identify and implement technologies and other interventions that respond to high priority need.

The year has been incredibly challenging, but we've been able to develop a range of strategies to support our partners to success. By listening to partners' needs we've been able to find new ways and places to deploy our expertise, joining colleagues to focus on the urgent needs of the system.

A collaborative approach

Collaborative working has been key to this, and the shared goal and common purpose of tackling COVID-19 has helped to reduce barriers that have traditionally been seen across the system.

At KSS AHSN we've been able to maximise the power of our collective network and knowledge, and combine this with our local expertise, capacity and connections.

Through a series of structured interviews early on into the pandemic we were able to support and guide system leaders, helping them to reflect on the impact of changes made in wave one on patient outcomes and experience, and offer insights on how to sustain the gains of the previous weeks and months.

The importance of our Patient Safety Collaborative

Kent Surrey Sussex Patient Safety Collaborative (KSS PSC) has been instrumental in supporting systems during COVID-19, building on existing networks and helping to deliver and guide at pace and with authority.

Through initiatives such as Covid Oximetry @Home and online triage and video consultations we've see the increasing importance of access to technology, which KSS AHSN has been well placed to facilitate, strongly supported by our understanding of the importance of data analytics and the added value that these insights can bring.

Case Study

Supporting secondary care: Attend Anywhere

The move to greater use of online triage and video consultation in the NHS has long been on the cards and in many areas was already underway, but since COVID-19 it has been rapidly accelerated.

Following the initial COVID-19 outbreak, Surrey Heartlands ICS rapidly embraced the roll out of virtual consultations to get services back up and running to continue to deliver frontline services to patients.

KSS AHSN worked with the Surrey Heartland's team to support the delivery of the Attend Anywhere video triage service, which enables patients to be seen by clinicians in a virtual clinic.

By building on the success of an early adopter project involving two of the system's acute trusts, Surrey Heartlands was at the forefront, revolutionising patient appointments and delivering care to people in the comfort of their own homes.

By bringing together four acute trusts, two community trusts and the county's mental health trust, video consulting rates rose significantly from 150 per week in early March 2020 to 5,500 per week in early July 2020.

Similar success was seen across Kent, Surrey and Sussex (KSS), with 300,393 Attend Anywhere consultations taking place in the year ending 31 March 2021.

As the fourth largest ICS in England, Sussex Partnership NHS Foundation Trust ranked as the highest user of AA nationally, with close to 144,000 consultations, while Surrey saw 107,000 consultations, with 49,000 in Kent.

Case Study

COVID-19 and respiratory

Pulmonary Rehabilitation (PR) is a vital exercise and education programme for people with lung disease, but when the COVID-19 lockdown came into effect in March 2020, all PR services were suspended.

The KSS PR Network rapidly identified that there was a need to support the establishment and implementation of virtual PR.

Clinicians from the region's 15 PR services were encouraged in fortnightly support video calls to move to virtual PR assessment and programme delivery, using virtual (digital or paper-based) platforms of their service's choosing.

As a result, all patients in need of PR across KSS are now being offered at least one virtual platform, with the majority of patients opting in to this approach.

Data driven implementation

To help clinicians understand the implementation of virtual PR we ran an e-survey from March to August 2020, which looked at clinical outcomes and acceptance and completion rates of virtual PR.

Full analysis was undertaken to help providers understand the implementation of the virtual methods. Results showed that the majority of patients opted to try a virtual platform, with paper-based platforms having a higher take-up than digital.

We continue to bring the network together to understand changes to PR delivery, and a follow up survey will be launched later in the year.

The KSS AHSN Respiratory Collaborative has also been instrumental in supporting clinical colleagues during the pandemic – its fortnightly Bite Size Breathing Matters newsletter played a key role in spreading effective and innovative practice during the pandemic, supporting rapid changes in practice and timely adoption of new pathways, with the primary aim of enabling safe patient care.

Cardiovascular Disease prevention

Early diagnosis of people with heart failure (HF), with prompt access to integrated services and specialist care, can help to cut emergency admissions, improve quality of life and give people the opportunity to live well for longer.

Patients with HF were identified as being clinically vulnerable if they contracted COVID-19. While acute and community HF services remained open during the pandemic, the route into those services via primary care was not always clear.

KSS AHSN supported the creation of a Primary Care HF Pathway to support GPs in sending potential HF patients for diagnostic tests, or to refer patients with a confirmed diagnosis of heart failure to specialist heart failure services for review.

The pathway was based on The Heart Failure Diagnostic and Treatment Pathway (based on NICE guidance) designed by Professor Ahmet Fuat, Darlington Primary Care Network, with support from Sussex Health and Care Partnership Heart Failure Sub-group.

The resulting pathway document was designed so that any Integrated Care Partnership (ICP) or. CCG in the country could adopt and personalise it with their own logos.

Cholesterol and Familial Hypercholesterolaemia (FH)

A new national programme to improve patient care and outcomes by effectively treating patients with hypercholesterolaemia launched at the start of the financial year.

The south-east AHSNs – Oxford, Wessex and KSS - are working closely with partner organisations to drive forward transforming lipid services across the south-east.

The programme aims to improve patient care and outcomes by improving FH detection from current 4% to 15% of the prevalent English population by 2023, and to optimise lipid management for at risk patients.

We continue to work collaboratively to drive the regional and local ICS priorities for transforming lipid and FH services, and are committed to working together to support the national programmes such as the National AAC/AHSN Lipid and FH Programme, the AAC Rapid Uptake Products (RUP) Lipid programme and other programmes developed in this area.

The approach will support a multidisciplinary workforce across KSS and more broadly across the south-east to increase FH identification, increase access to treatments and ensure end-to-end pathways are in place across primary and secondary care.

Remote monitoring: COVID virtual wards / Covid Oximetry @home

Patients from across KSS who had tested positive for COVID-19, or had symptoms that strongly suggested COVID-19, and were at high risk could access a national programme designed to provide an early-warning system if their condition worsens.

During the pandemic, reduced oxygen saturation levels have been shown to be a key identifier of deterioration in patients with confirmed or suspected COVID-19.

The programme, managed by NHS England and NHS Improvement, in partnership with NHSX and NHS Digital and supported by England's 15 PSCs, supports patients at risk of hospitalisation through COVID-19, as well as facilitating early and safe discharge for those who have been admitted.

Home Monitoring

Covid Oximetry @home uses pulse oximeters for patients to safely self-monitor their condition at home, providing an opportunity to detect a decline in their condition that might require hospital review and admission.

From a starting point of 20% of CCGs in November 2020, 100% had established a fully operational Covid Oximetry @home pathway by early February.

PSCs (hosted by Academic Health Science Networks) supported this rapid spread by working closely with CCGs in their region to offer quality improvement expertise, access to training and resources, data collection and evaluation, and by facilitating a national learning network.

Support In Secondary-Care

The COVID virtual ward model is a secondary-care-led initiative, using remote pulse oximetry monitoring to support early and safe discharge from hospital (step-down care) for COVID-19 patients.

Ursula Clarke, Patient Safety Lead, KSS PSC / KSS AHSN, said that all acute trusts across KSS now have access to both initiatives.

"Remote monitoring of COVID symptoms offers huge benefits to patients and the health care system, and it's been a privilege to be able to work alongside and support the system to implement Covid Oximetry @home and COVID Virtual Wards at such pace," she said.

"Combined, these approaches mean that patients can be at home where they can get better quicker within a familiar environment while they remain safe, knowing that the NHS continues to care for them closely."

The data behind the delivery

Access to high quality, timely information that made sense of a number of complex variables was key to successful planning for the rapid implementation of the COVID oximetry work.

From the start of the Covid Oximetry @Home work, KSS AHSN supported all three south-east AHSNs with the data needed to develop and implement effective service models.

This started with taking the raw data about laboratory confirmed COVID-19 cases by local authority area (issued weekly by the government) and mapping it to CCGs across the SE region, together with information on the numbers of people in the “at risk” and “at higher risk” groups, based on research using flu vaccination registers and shielding data.

By showing the data as maps and accessible visualisations we were able to engage CCGs with the Covid Oximetry @Home initiative, enabling them to see COVID-19 infection rates and then respond to increases.

Supporting planning

The approach was then further developed to help quantify patient eligibility for the Covid Oximetry @Home service. This was to enable commissioners to understand and plan for expected demand for the service, ordering more devices where needed based on the eligibility of anticipated patients.

The three AHSNs supported work to collect data about the number of devices being sent out, for mapping against the number of people eligible and to understand the service’s reach.

This analysis could then be used to help close any gaps in service provision and ensure that devices reach the right people. For CCGs, it surfaced any gaps, enabling the causes to be investigated and understood, such as lack of devices, staff shortages or any issues around the referral process.

Beyond Covid Oximetry @Home

The introduction of new technology has allowed system-level teams to scale-up remote monitoring at pace. It is proving a vital part of the response to the pandemic and is also helping systems to break new ground in terms of how remote monitoring is used to support patients in their primary place of residence.

There is clearly now an opportunity to embed technology-enabled remote care as a core part of the health and care offer in future. Plans are underway for @home models to be used for blood pressure monitoring, and support for other long-term conditions and patient groups that can be managed remotely is being investigated.

KSS Patient Safety Collaborative

Ursula Clarke, Senior Patient Safety Lead for KSS PSC, explains how her team adapted its approach to meet the emerging challenge of COVID-19.

With the extent and impact of COVID-19 becoming clear so quickly we realised that we needed to take a good look at our work streams to see how we could best help the NHS and citizens.

At that point we had a local implementation plan, and our commissioners guided us to looking at what could be covered with a light touch, supporting through sharing guidance and intelligence, as well as supporting any existing networks.

Changing priorities

Our medicines safety and emergency laparotomy work went to light touch and we delayed our mental health plans. We also placed respiratory on light touch, because at the time we weren't aware of the implications of Long Covid, though we maintained an active presence within the AHSNs respiratory network.

This left our commission with three main areas - safe tracheostomy care in adults; managing deterioration within maternity and neonates, supporting remote monitoring and the use of neonatal and maternity early warning scores; and managing deterioration in adults, through supporting recognition of deterioration outside acute environment and encouraging the use of Treatment Escalation Plans primarily in those towards the end of life and people in care homes.

Covid Oximetry @home

Covid Oximetry @home became the big project in the second half of the year. It was a truly collaborative approach, working closely across all levels with the PSCs and AHSNs from Wessex and Oxford.

Within KSS we assigned one member of staff to cover each county, which was a new way of working for us and worked very well. We were able to be a conduit of information and use our expertise in networking and shared learning to link the ICSs and Primary Care Networks (PCNs). We were also able to use our data analytics team to show how we could take a prospective probability on the number of possible referrals through modelling by reviewing the actual number of infections, the numbers of people who are vulnerable or were shielding, and then give a number as to how many people may need to be monitored through the programme.

We also worked with Oxford AHSN to create a toolkit on the NHS Futures website, which was amazing and everybody loved as they you could just go

to one place and get all the information they needed. I think the PSCs do toolkits really well, and this shows how we're able to support people by helping them to support themselves.

Networking

Over the year our approach was very much one of networking, of learning from others, and supporting others with information, which is very much how we've always run our Collaborative events.

During the year we learned a range of lessons that will be important as we move into the new financial year, with a more traditional portfolio of work.

One of the main learning is around effective digital engagement. Because of the rise of Zoom and Teams, we've been invited to many more meetings than we usually would. And we've also been able to use those platforms effectively to engage with our stakeholders on Quality Improvement initiatives - virtual meetings have allowed us to try out new approaches in a relaxed, safe setting. Lessons learned from this are helping us to develop new ways of working in the coming year and beyond, ensuring we retain the efficiency of online alongside the primacy of face to face when it comes to building social capital.

Greater collaboration

I was also delighted at how we were welcomed into acute trusts, primary care and the GP world with Covid Oximetry @ Home – they were all keen to be involved.

We arranged to talk with Critical Care Nurses and Tracheostomy Leads, and they were delighted because they needed somebody to talk to – from my experience of having led a very large specialist nurse and midwifery team, I know that these specialists can be very isolated, so to get them to talk to each other really helps them.

A forward view

As we approach the new financial year those light touch projects are now coming back into action, and we're going to build on the learnings we've gleaned through COVID-19 across our main areas of work – Maternity & Neonatal, Chronic obstructive pulmonary disease, Asthma, Tracheostomy, Emergency laparotomy, Safe medicines, Managing deterioration, and Mental health.

Ursula Clarke
Patient Safety Lead
KSS PSC

ARC – Rapid research linked to COVID-19

In summer 2020 the NIHR Applied Research Collaboration (ARC) KSS announced a funding call focused on tackling COVID-19. A key objective was to enable research to feed into system-wide transformation and reset/recovery planning across the region.

Researchers were invited to submit proposals that met the needs being expressed by the system and which supported meaningful public engagement during the COVID-19 outbreak. A total of nine projects were selected to receive funding.

Community voices

The findings from the research enabled the voices of several different communities to be heard more clearly. By giving voice to their experiences, challenges and needs – and with lockdown returning to England – the findings were used to inform the system's ongoing response to COVID-19.

Joining the dots

Taken together, the findings provided valuable insight into the impact of COVID-19, and the extent to which the system's response has been able to support some of the more vulnerable communities across KSS.

Research into action

Through the work of its four Implementation Managers and Lead, KSS AHSN has been instrumental in putting research findings into practice.

Working in co-production with community members, researchers and health professionals, researchers at Brighton and Sussex Medical School created leaflets in Hindi and Nepali that contain vital information about COVID-19.

Meanwhile the Beyond Lockdown Research Team, a partnership between University of Sussex and Creative Research Collective, looked at the impact of COVID-19 on the daily life and wellbeing of care leavers, focusing on what support they need as lockdown ends.

KSS AHSN is leading on the implementation of these findings and has compiled a toolkit of resources for those working with care leavers.

Guiding innovators

In response to the pandemic-driven changing needs of the health and care system, and the resulting implications for industry partners, we rapidly adapted our offer to innovators. This included providing services direct to innovators, as well as contributing to AHSN Network-wide endeavours.

By adapting the format of our Market Insight Briefings (MIB) – delivered in partnership with UCLP and SW AHSN – we were able to offer online rather than face to face sessions. Working with smaller groups at each one, we provided two sessions a month instead of our one regular monthly MIB. This enabled innovators to continue to engage with the material provided in the session and for us to tailor content to reflect the rapidly evolving situation.

A national approach to innovation

On behalf of the national AHSN Network, Wessex AHSN established and curated a database for products with potential applications in the response to COVID-19. We supported this work, continuing to add further innovations as they were identified through industry engagement. The range of innovation catalogued through this approach included mental health apps, remote monitoring or remote management products, diagnostics and PPE.

The database provided a crucial resource supporting the early-stage response to COVID-19 when the focus was on PPE and staff safety as the first wave hit. We were a significant contributor to this list over the year and also used it as and when further needs came in from the system to find products ready to be adopted.

Our industry engagement focused on advising companies on developing new products or adapting existing ones to support the system response. We were able to provide information and advice about how a product needed to be adapted or how the care pathway had now changed and the implications of that change for the company's value proposition.

Continued support

This work is still ongoing and likely to remain significant over the longer term post-COVID, as companies adapt to new models of care and revised system priorities. Keeping industry colleagues updated about system needs and re-designed pathways, and advising them on the problem their product or service needs to solve, is as key as adapting the products themselves.

Having a real understanding of NHS needs is paramount in order to provide the insights that industry need. For instance, many clinical teams used powered air-purifying respirators (PAPRs) at the beginning of the COVID-19 pandemic as they have the capability of providing ten times the nominal protection of an FFP3 mask and represent the best respiratory protective equipment available. However, many of the PAPRs on the market are re-purposed industrial devices that are not designed for clinical use, are expensive, and became hard to procure during the pandemic.

Double-diamond approach

We set up a design workshop with Trust staff, including PPE users and associated staff such as members of the infection control team. The workshop used the ‘Double-Diamond’ approach for design and problem solving. Double Diamond is a graphic representation of a design process model created in 2005 by the UK’s Design Council and uses four design principles:

1. **Put people first:** start with an understanding of the people using a service, their needs, strengths and aspirations.
2. **Communicate visually and inclusively:** help people gain a shared understanding of the problem and ideas.
3. **Collaborate and co-create:** work together and get inspired by what others do.
4. **Iterate, iterate, iterate:** do this to spot errors early, avoid risk and build confidence in ideas.

The workshop identified the problems associated with existing products and used them to define a problem statement. The next stage looked at how these issues could be addressed, followed by discussion about the relative importance of each solution, and the likelihood of success in addressing each problem. The outputs of this workshop could then be used to engage industry partners, innovators and researchers.

CARDMEDIC

An initiative to improve communications for COVID-19 patients in intensive care was accessed by 8,000 people in 50 countries across six continents – just under four weeks after the idea for the website was formed on April 1st.

Dr Rachael Grimaldi, NHS Anaesthetist at Brighton and Sussex University Hospitals NHS Trust, was inspired to create CARDMEDIC after seeing an interview on Sky News.

A UK patient who had survived COVID-19 described feeling terrified of not being able to understand what his healthcare providers were saying, due to the limitations of communicating through Personal Protective Equipment, such as face masks, visors and hoods.

Quick response

Dr Grimaldi came up with the idea of communication flashcards that use simple and succinct basic language to share information and describe the plan of action. Within 72 hours she had created a free website containing an A-Z index of the most common issues, and has been adding to it ever since.

Dr Grimaldi said that its rapid development has been made possible by the support of countless individuals and generous donation of time, services and expertise of individuals, businesses and organisations, including support from KSS AHSN, who have helped with funding and business advice.

"It was really helpful to receive that business management perspective from an organisation that understands the medical implication of the product. The team also helped us to think about future proofing CARDMEDIC, and suggested funding streams and opportunities for further promotion," she said.

BlueKit Medical

Prior to the COVID-19 outbreak Rebecca Porter, Managing Director at BlueKit Medical, took part in the Health Innovation Programme (HIP) – a comprehensive business support programme designed for healthcare and life science businesses at various stages of development.

In this blog extract, she reflects on how the programme helped her business to adapt to the challenges created by COVID-19. You can read the full piece here.

My dad worked as a theatre charge nurse and surgeon's assistant and set BlueKit Medical up as a life-long ambition, having realised that there was potential to improve the provision of surgical kits and procedure packs.

I joined the company to develop the business, looking at our product base and determining how we could better take it to market.

When I heard about the Health Innovation Programme (HIP) I realised that it was an amazing opportunity for the business, allowing us to revise our business plans and long-term strategy and to determine exactly what our offer was.

Supporting personal development

The HIP also offered the opportunity for personal evaluation, and I really valued the chance to learn how to properly pitch the business. After the course, and with follow-on support from KSS AHSN, I had a strong investment plan and was feeling confident enough to speak to my first potential investor. And then COVID-19 hit.

Sticking to our core business

We've always tailored our offering to match our customers' needs, and our approach during COVID-19 has been the same – we've looked at how our customers work, and we've put together packages that meet their needs in the current environment.

We're also making sure that we focus on our long-term goals such as increasing our channels of distribution and bidding for more tenders, and the contacts we've made during COVID-19 will help us to realise those aims.

While COVID-19 has caused us to challenge and change our way of working, having a strong understanding of our core business model has helped us to make positive, practical changes.

So yes, our first meeting with an investor was called off due to COVID-19, but the work we'd done in preparation meant we had a strong financial forecast. One of my first deals at the start of COVID-19 was facilitated by the bank extending my overdraft. We were also able to secure a bounce back loan which allowed us to have a little more cash flow – neither of these would've been possible without that depth of understanding I gained via the HIP.

Network support

We also received a lot of support from Nuala at KSS AHSN. She seems to know exactly where I'm coming from and what I'm having to contend with. Through the AHSN we've been able to reach a much wider network which has helped to open up potential new markets.

It's been a scary few months, but it's definitely been exciting and we've constantly had to entertain new things. But that's a real benefit of being a smaller company, some of the larger organisations are like oil tankers, they can't change course as quickly as we can.

BtG summer round table; MIBs online; March 2021 event

Taking advantage of the latest technology, products and services is crucial to improving health outcomes, the patient experience and the sustainability of the health and social care system.

But there's a challenge for health and social care staff to know what technologies are available. And it's also a challenge for product and technology developers (industry) to know what's needed.

Connecting industry

The AHSN Network's 'Bridging the Gap' services can help by connecting industry with the right people in the health and care sector. They are aimed at any health technology innovators and companies who are interested in accessing the NHS marketplace to improve health and care for patients and citizens, and those who have a product or service that is ready for scaling up.

The COVID-19 pandemic resulted in us reshaping these services and offering them to industry colleagues through online events and webinars.

By increasing the frequency of our Market Insight Briefings and delivering them online, we continued to help innovators to better understand and engage with:

- the NHS and wider health care market
- AHSNs, including their regional and national programmes, and our partners including:
  - Accelerated Access Collaborative
  - NHS Innovation Accelerator
  - SBRI Healthcare.

Lessons learned and lived experiences

In response to the unique challenges of innovating with a health system focused on pandemic response, in summer 2020 we convened a major roundtable discussion focused on lessons learned and lived experiences of industry during the pandemic. It was primarily an opportunity to hear from industry and capture insights that would be beneficial to take forward and inform NHS reset and recovery processes.

Organisations involved in the roundtable included the Accelerated Access Collaborative (AAC), the Association of British Health Industries (ABHI), the Association of the British Pharmaceutical Industry (ABPI), the British In Vitro Diagnostic Association (BIVDA), the Digital Health and Care Alliance (DHACA), Health Foundation, the NHS Confederation,

NHSX, the Office for Life Sciences (OLS), and Spirit Health Group.

Colette Goldrick, Executive Director, Strategy and Partnerships, ABPI, and Matt Whitty, CEO, AAC, both highlighted the need to evaluate what has worked well to ensure the system is retaining and embedding the right processes, and that this is done in a safe and sustainable way to maximise the outcomes for patients.

Matt also recognised three positives to emerge from the pandemic response, including the pace of delivering research and trials, the adoption of innovation at scale and partnership working – not just across the NHS and with industry, but collaboration between different companies.

A national approach

In March 2021 we held a national Bridging the Gap online event which saw almost 600 registrations to join two days of plenary and workshop sessions. The event included strategic updates and sessions designed to help innovators navigate the NHS, including information about the expertise and guidance on offer from the AHSN Network and its partners.

It featured a panel discussion that looked at how the NHS is currently working with innovators and some of the best ways to access information, support and advice.

Delegates were then able to join specialised workshops in which a series of expert panels and speakers considered some of the key challenges and how these can be overcome when seeking to work with or engage the NHS.

Supporting system reset and recovery

As part of NHS Reset, the NHS Confederation, the AHSN Network and The Health Foundation united to focus on how the health and care sector could work with staff, patients and the public to understand, translate and adapt the best of COVID-19-related innovations and initiatives into everyday practice – maintaining momentum, sharing what's working and improving people's care.

In September, The AHSN Network released its Digital and AI report: 'Lessons and Legacy from the COVID-19 Pandemic in Health and Care'. This included key findings from a short research study undertaken in June and July to understand how technology was acting as an enabler in reducing the care burden and coping with the COVID-19 crisis, as well as considering what should be sustained in the longer-term.

It set out that social care needs to be given the same weighting as the NHS to accelerate the move towards health and social care integration. Patient pathways need to be reconfigured to integrate NHS and social care around patient and citizen needs so that improved outcomes are the goal, with digital and data technologies as enablers – the means to the end, rather than the end in itself.

As well as contributing to the national reset and recovery agenda, we also supported regional colleagues and partners as they planned service delivery beyond the immediate challenges of the pandemic.

Rapid insights interviews with ICSs

In the first wave of the pandemic the health and care system rapidly mobilised new solutions in an unprecedented context. As the system started to look ahead to reset and recovery, it was vital for senior leaders to reflect on the impact of changes made in wave one on patient outcomes and experience. With government messaging about protecting the NHS and a weekly "clap for carers", it was apparent there was a changing dynamic between the public and public services whose implications needed to be thought through.

To support and guide system leaders through the challenging conjunction of pressures and time, KSS AHSN offered a series of structured interviews to help sustains the gains of the previous weeks and months.

These focused on:

- what went well and needs sustaining
- what went not so well and needs addressing
- what was paused and not missed
- how to work going forward: e.g. empowering local decision-taking?

Confidential interviews gave leaders the opportunity to reflect openly and honesty about their experiences and insights.

Identifying themes

In our reporting we highlighted a number of themes for further discussion that recurred during the interviews. These included looking at work around new priorities in the light of population health needs, addressing health inequalities – exacerbated in many cases by the pandemic - and sustaining community cohesion.

ICS partners were able to use the findings as the basis for discussion and decision making about reset priorities, and to inform further work on longer term strategic objectives. The work identified both beneficial changes that needed to be sustained, as well as areas for further work as the disproportionate impact on certain communities started to become more and more apparent.

Steve Flanagan, Chair of Surrey Heartlands Recovery Board and CEO of CSH (Surrey), said:

"It's been a really useful experience for people taking part in the interviews. Everyone found it cathartic and a good use of time. It got them thinking and talking about how to hold on to the gains."

Anne Tidmarsh, SRO for Workforce and Innovation for Kent and Medway, and the Design and Learning Centre, said that strong leadership played an essential part in helping teams and systems to deal with the pressures.

"With my workforce role in mind, I've been really interested in leadership during COVID-19, and what I've seen is that leaders in the system have been able to drop their professional clinical roles and have picked up completely different things that were needed and that they needed to do.

"It's been really heartening to see that everybody was prepared to drop organisational boundaries and do what was needed, and give leadership and not being hesitant."

Resetting urgent care

As the NHS restored services and reset following phase one of the response to COVID-19, we helped system leaders to reflect on the opportunities created by the changes made as part of the pandemic response – partly by the system and partly by citizens themselves.

For instance, digital solutions had enabled primary care to switch to online and video consultations. Equally significantly, citizen behaviour also changed, with far fewer people accessing care by attending an A&E department. A unique context provided the moment to look again at how a health and care system could maintain lower A&E attendances while still providing simple access to timely care.

Claire Fuller, Senior Responsible Officer, Surrey Heartlands Health and Care Partnership, summarised the changes:

"COVID-19 has meant that we have approached healthcare in a very different way in the UK, moving to Digital First and phone triage in primary care. We are very determined in Surrey Heartlands to explore how we can use the momentum of recent change to build a system that's even better adapted to people's needs, reaches everyone who needs our support, and empowers people to be more in control of their own health and well-being."

International learnings

A seminar hosted by KSS AHSN in May gave colleagues from Surrey Heartlands a chance to hear how Denmark changed access to urgent care in ways which provide timely care, manage demand and retain the support of the public.

As Guy Boersma, Managing Director, KSS AHSN, explains:

"We have longstanding links with Denmark who have a population with similar challenges. Nationally their approach has been very similar to the NHS: integration, collaboration, and the increased use of technology."

One of the biggest differences between the NHS and the Danish health system is how people access urgent care. Denmark used to experience the same difficulties as we see here in terms of increasing A&E attendances, long waiting times in A&E and a rising number of unplanned admissions.

The decision was taken to reduce the number of hospitals with A&E departments and to centralise specialist care on a small number of acute sites. The reduction in the number of hospitals with emergency departments is part of a much wider project that involves new hospital builds, completely re-designing the urgent care pathway and working with citizens to change the way they access the emergency department.

Our seminar was hosted by Guy and heard from a number of Danish colleagues to give a multi-disciplinary perspective:

- Hans Erik Henriksen, CEO at Healthcare DENMARK
- Prof. Mikkel Brabrand, A&E consultant in Southern Denmark's university hospital, and
- Mikkel Jacob, CEO of health technology company Systematic.

Transformational change

The Danish story shows how planned change, with the right technology, and supported by citizens, can result in transformational change at system-wide scale.

When COVID-19 forced the health and care system in the UK to accelerate its adoption of digital enablers, it also ignited thinking about the relationship between statutory bodies and their communities, with wider acceptance of the reality that the NHS and social care can't do everything. This brought two of the building blocks in the Danish model much closer, meaning that the NHS was able to look again at urgent care from a very different place.

Q funding to improve health check access for people with learning disabilities

In January we heard that we had been successful in securing £30,000 through the Q Exchange to build on the learning disability needs articulation work started in December 2019.

One of the key themes identified at the launch meeting was an ask for reasonable adjustments to become more mainstream to help people access care.

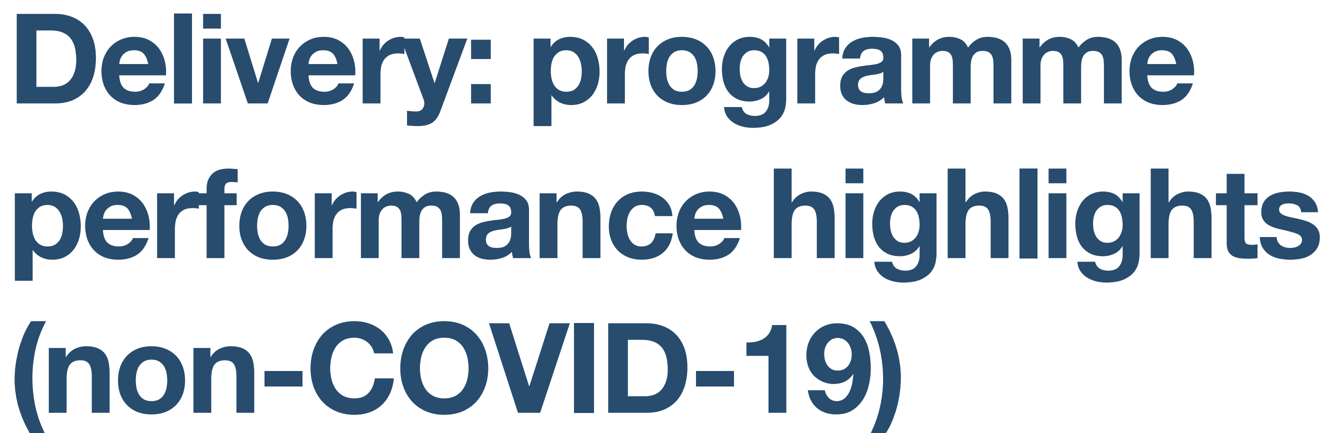
During COVID-19, when many services were paused to provide additional capacity in the response to the pandemic, people with learning disabilities experienced poorer outcomes than the general population for both mental and physical health.

We are using the Q funding to deliver a project focusing on supporting GPs to restart essential annual health checks using a blended approach of digital training and innovative social models from Surrey and Sussex ICSs.

The primary aim for the project is to build collaborative relationships across health, social and third sector partners to improve outcomes for people with learning disabilities. This will be achieved by ensuring reasonable adjustments underpin the annual health checks process, as well changing how people access parts of the health check depending on individual needs.

To ensure we continue to meet identified needs, new pathways will be co-produced with everyone who is involved in health checks including service users, working in partnership with the Surrey People's group, Sussex's Learning Disability Program Board and the KSS Learning Disability Community of Practice.

The successful My Social Time model, currently a virtual social engagement forum for young adults to provide peer to peer support, emotional health and wellbeing, will be expanded to include adults with learning disabilities. The model will be further strengthened by including SEN co-ordinators, Learning Disability Liaison Nurses and GP champions to deliver bespoke sessions to underpin the annual health check process.



Delivery: programme performance highlights (non-COVID-19)

Technology has a vital role to play in health care, but the NHS can find it hard to know what new innovations are out there or what impact they'll make. It’s also difficult for healthcare industry innovators to know exactly what the NHS needs and who to talk to.

Equally it’s hard for best practice or solutions to travel effectively from one NHS organisation to the next, or for health research to find a route into real world implementation.

That’s where AHSNSs come in – we guide people from all parts of the system to make the right connections to solve problems, and find and implement well-evidenced, beneficial and good value innovations that can ultimately transform lives for patients and citizens.

Case Study

TCAM

A new initiative to improve the transfer of care of patients' medication records between settings has been used by more than 900 patients since it was launched last year and is now available across KSS.

KSS AHSN has been leading the implementation of the Transfer of Care Around Medicines (TCAM) pathway across the region.

When some patients leave hospital, they can need extra support taking their prescribed medicines. This may be because their medicines have changed, or they need a bit of help taking their medicines safely and effectively.

The transfer of care process between care settings is also associated with an increased risk of harm, with 30-70% of patients experiencing unintentional changes to their treatment, or an error being made because of a miscommunication.

Keeping patients safe

TCAM aims to keep patients safe when they transfer between care settings, providing a seamless transfer of a patient's medicines information on discharge directly from the hospital to the patient's choice of community pharmacy.

TCAM was launched in East Sussex Healthcare NHS Trust (SHT) in April 2019, and since then six more trusts have joined.

Lisa James, Senior Programme Manager for Medicines Optimisation at KSS AHSN, said:

"TCAM is a great initiative that is being widely recognised as a supportive activity for efficient discharge, and I'm delighted that the service is now available in all three of our counties.

"By working alongside hospital trusts and community pharmacies we've been able to make sure that all partners involved in the transfer of medicines process are part of this pathway, working towards a common goal of supporting patients on discharge.

"We are now looking to extend the programme to include referrals to Care Home Pharmacy Teams to support local Care Home initiatives."

PINCER

KSS AHSN has supported the expansion of the use of PINCER across the region, which now sees more than 170 GP practices using the approach.

The PINCER intervention is led by primary care pharmacists and pharmacy technicians, and involves searching GP clinical systems using computerised prescribing safety indicators to identify patients at risk from their medications, and then acting to correct the problem.

Prescribing errors in general practice are an expensive, preventable cause of safety incidents, illness, hospitalisations and even deaths. Nationally, serious errors affect one in 550 prescription items, while hazardous prescribing in general practice contributes to around 1 in 25 hospital admissions.

By analysing data gathered nationally between Sept 2018 and April 2020, researchers have shown that more than 13,000 at-risk patients have been identified in at least one prescribing safety indicator nationally, with 796 across KSS.

This was the first programme we looked at through our inclusion lens, and showed that when KSS was segmented by Index of Multiple Deprivation, there was no difference in GP and practice uptake between least and most deprived areas.

Lisa Devine, Programme Manager at KSS AHSN, said that the research shows that where PINCER is being used there is a marked reduction in the number of patients at risk of a clinically important medication error.

"These results are incredibly encouraging, showing that the PINCER initiative can have a marked impact on patient safety. While PRIMIS develops a sustainable model for PINCER going forward, the AHSN is continuing to support the use of the PINCER tool locally, so that we can see a sustained, continuous improvement and benefits to patients."

Hexitime

Hexitime is an innovative national improvement timebank for the health and social care system. It allows staff from any organisation contributing to health and social care across the UK to share improvement ideas. It's free to join and members can then exchange their skills and experience to deliver care and service improvements. Members do not exchange money, but instead earn credits which they can use for further improvement activity.

KSS were an early adopter of Hexitime, supporting its growth and use across the region. This partnership enables the regional health and social care system to use Hexitime to encourage more people to take part in improvement work. It also provides the opportunity for colleagues across KSS and beyond to collaborate around the issues that matter to them.

KSS AHSN has been instrumental in building the regional partnership with Hexitime, bringing the additional opportunity to help steer the development of the platform for the benefit of organisations and systems, both regionally and across the UK.

National recognition

In March 2021, Hexitime was shortlisted for two HSJ awards ("People & Organisational Development Initiative of the Year" and "IT & Digital Innovation") in recognition of their work to bring timebanking innovation to support the health and care workforce to deliver service improvement nationally. They also picked up an award from West Midlands AHSN for "Workforce Innovation".

We see a strong alignment between the values of KSS AHSN and Hexitime. AHSN colleagues have become members of the Hexitime community to share our skills and learn from experts in other organisations.

"Hexitime levels the playing field, with connections and exchanges not based on hierarchy, title or seniority, but on skills and knowledge, demonstrating someone's function doesn't determine their value or the value of their skills and experience."

***George Anibaba**, Senior Programme Manager, KSS AHSN*

"Hexitime began working with KSS AHSN as a complete start-up.

"The AHSN has been hugely supportive of our journey as we grow as a business to support health and social care improvement. They were key to us becoming a social enterprise and gaining access to the specialist skills we needed, such as accountancy and business advice.

"Two years on, we have matured into a multi-award winning organisation with multiple contracts across health and social care and KSS AHSN continues to help us showcase our work to have greater impact with more clients."

***John Lodge**, Co-founder, Hexitime*

You can find out more about how Hexitime enables staff to exchange skills, expertise and ideas for health and care improvement here.

KSS Innovation Leads Network

Innovation leads at health and social care organisations face many challenges as they support their colleagues to innovate and take advantage of the best new practices or products.

In October 2020, we launched the KSS Innovation Leads Network (ILN) to support the region's innovation leads to get together to share their successes, problem-solve and ensure the benefits of innovation reach more people more quickly. It has a focus on supporting the adoption and spread of innovation; innovation culture and infrastructure; and innovation capability.

Delegates at the ILN launch meeting said the network should add value by:

- offering a mechanism for NHS providers to articulate top needs to get information about the most relevant innovations
- using the network to streamline governance and reduce duplication when implementing innovations
- giving visibility on funding calls and opportunities for innovation.

Quarterly network meetings and newsletters enable us to provide innovation leads with curated information about innovative products and services, guidance on accessing nationally funded programmes (such as the MedTech Funding Mandate) and advice on implementation support.

The creation of the ILN reflects some of the key learning from implementation science which highlights the importance of mobilising groups of individuals with shared vision and purpose to overcome common challenges and obstacles.

To find out more please contact John Lodge (johnlodge@nhs.net) or Charlotte Roberts (charlotte.roberts18@nhs.net)

Spread and adoption of supported innovations

The AHSN Network supports adoption of innovations identified by the Accelerated Access Collaborative and those that the AHSNs identify for national spread. It also identifies and supports the adoption of innovations on a regional and cross-regional basis. Innovations that have been through the Innovation Exchange locally are shared with the wider network where similar challenges exist.

Successes over the financial year include:

- **gammaCore** – a simple-to-use, handheld medical device that enables patients to self-administer discrete doses of non-invasive vagus nerve stimulation (nVNS) therapy to the neck for treatment of cluster headaches. Four hospitals within KSS are now offering this treatment, which means that patients can now be treated locally, quicker, without referral to London.
- **Cladribine** – an orally administered option for highly active relapsing-remitting MS, avoiding the need for infusions, and requires less frequent dosing and monitoring compared to other therapies. Previously only available at Brighton, access has now been widened to two further trusts meaning more patients from KSS can be treated locally.
- **S12** – a mobile application and website which helps mental health professionals efficiently complete the Mental Health Act (1983) process. We've worked with our three ICSs to support the implementation of S12, which delivers faster assessment of patients by offering access to a wide network of available doctors, including specialist clinicians and language speakers. S12 has now achieved full coverage across KSS.

Case Study

Placental Growth Factor test

Pre-eclampsia (PE) is a multisystem hypertensive disorder of pregnancy that affects approximately 3% of all pregnancies, however to date there has been no definitive test to diagnose PE.

If the disease is allowed to progress, it can result in maternal organ failure and foetal growth restriction and in some cases foetal or maternal death. Clinical teams therefore have a high degree of suspicion for the disease and a low threshold to admit pregnant women with suspected PE, placing unnecessary burden on the healthcare system and causing unnecessary anxiety for the woman and her family.

PIGF-based testing can help with clinical risk stratification for women with suspected pre-eclampsia, meaning they can be treated appropriately according to their need, improving both patient experience and outcomes and improving the use of scarce system resources.

Athina Lockyer, Programme Manager at KSS AHSN, gives a personal reflection on the AHSN's work to expand the use of the PIGF test across our region:

Over the last 18 months, I have had the privilege of working with suppliers, clinicians and labs across KSS (KSS) to facilitate the adoption and implementation of an innovative blood test, designed to support with the clinical diagnosis of pre-eclampsia in pregnant women.

The Placental Growth Factor test (PIGF) offered by both Quidel and Roche Diagnostics, can be used to highlight women who are likely to develop pre-eclampsia within 7-14 days. The blood test can be taken as part of routine bloods when women present at maternity triage or day assessment units and who are between 20 weeks and 34 weeks-plus-6-days pregnant.

The PIGF test is well placed to support clinicians feeling confident in their decision-making by providing an objective measurement to combine with other clinical symptoms and signs, such as high blood pressure, blurred vision, or high protein in urine. PIGF-based testing has a high negative predictive value (rule-out) for pre-eclampsia, meaning women who receive a negative diagnosis can be safely sent home.

Innovation Technology Payment programme

Under NHS England's Innovation Technology Payment programme, from April 2019 providers of maternity services were able to adopt and implement either the Quidel or Roche test fully funded, as NHSE centrally reimbursed the suppliers directly.

Within KSS, East Sussex were the first trust to implement the Roche sFLT/PIGF ratio test in August 2019, with trusts in Kent and Medway (Darent Valley, Medway Maritime, East Kent, and Maidstone and Tunbridge Wells) implementing during 2020. In Surrey, the Berkshire and Surrey Pathology Services, serving Ashford and St Peter's and Royal Surrey trusts, implemented the Quidel test in 2020.

Stop start challenges

COVID-19 threw into stark relief the requirement for safe and effective care, and reducing the need to admit pregnant women who were at increased risk of contracting the virus. However, for each site, traversing the pressure of COVID-19, pausing and then restarting services, changing priorities and implementing a new pathway has raised significant challenges. The dedication of the laboratory staff across our region to continue to deliver agreed turnaround times, the perseverance of clinicians to support raising awareness of the test in their departments and ensure their colleagues access training and the specialist support provided by Roche and Quidel have been humbling to witness.

AHSNs, including ourselves in KSS AHSN, have provided guidance to the clinicians and laboratories with navigating implementation, ensuring appropriate data is collected to measure local impact, supporting with SOP development, facilitating discussions between key stakeholders, sharing best practice and escalating concerns to our national ITP product lead for the AHSN Network.

MedTech Funding Mandate

The ITP programme came to an end on 31st March 2021, however testing will continue to be supported by local funding mechanisms under the MedTech Funding Mandate (MTFM), and NHS Standard Contract from 1st April 2021. This has given clinicians and laboratories the opportunity to revisit their local pathways and all sites who have adopted the test within the KSS region have chosen

to increase the availability of the test to 37 weeks gestation, to prevent unnecessary early inductions and twice weekly outpatient monitoring. Under the ITP programme, whilst the test is validated to use up to 37 weeks gestation, NICE guidance DG23 demonstrates the greatest cost savings across the health care system can be realised between 20 weeks and 34 weeks + 6 days and as such under the ITP programme this gestational range was used.

The change in policy from ITP to MTFM has resulted in collaborative work with trust finance departments and local commissioners, to ensure the transition between programmes has a minimal impact on patient safety and accessibility. Through the development of local business cases, Kent and Medway clinicians and pathologists have recognised a need to share best practice, pathways and service models between the four trusts and have agreed to the development of a collaborative network to explore pre-eclampsia service standardisation across the region.

Safer pregnancy

As I am starting maternity leave to welcome our first baby (the irony!) I feel confident in the knowledge that the collaborative partnership that has developed between the clinicians and pathologists with their chosen supplier will continue, and help to look after other women like me in KSS, ensuring we can work towards safer pregnancy experiences and better outcomes for growing families.

Real World Validation

We conduct Real World Validation of recently developed health products and programmes – pulling in clinical, procedural and outcome measures from colleagues and teams across KSS AHSN.

Real world validation is an important part of what we offer within the Innovation Exchange process. Exploring the clinical, technical, practical and financial factors of the solution in a real-world scenario enables a holistic evaluation as to how the product may operate within its intended setting.

We capture insights at several stages of a solution's pilot, from implementation through to impact, to identify where the product may be best implemented in the system.

Building upon a mixed method approach we incorporate health economic modelling, quantifying expected health and financial benefits and costs amongst several scenarios to inform decision making.

Findings from the Real World Validation are used to identify how the innovation may spread, highlighting appropriate areas for further adoption.

Case Study

Dr Julian – Connecting Patients And Therapists

KSS AHSN has worked with Dr Julian, an innovative mental healthcare platform, to produce a health economic model that compares outcomes between its offering and the current NHS Improving Access to Psychological Therapies (IAPT) service.

The Dr Julian app aims to increase accessibility of mental healthcare, connecting patients almost immediately to mental healthcare therapists by secure video/audio/text appointments.

The platform links into IAPT services in England, providing an alternative to face to face therapy in person by offering therapist appointments at the time that suits the person.

Using data across four providers currently using Dr Julian, and the extensive public IAPT dataset, the health economic modelling showed an NHS return of £1.33, and a total return (including social benefits) of £2.83 for every £1 spent over five-years.

The modelling also outlined a range of patient outcomes for Dr Julian, compared to the current NHS IAPT service approach.

KSS AHSN began supporting the team behind Dr Julian last summer, after its CEO attended one of our Market Insight Briefings.

These briefings are free 90-minute sessions designed to help healthcare innovators to understand the complexities of the NHS, develop their market access strategy, and mark the first stage of support available from the KSS AHSN Industry team.

Filling in the gaps

Through a series of 1:1 surgeries we were able to help Dr Julian to identify its value proposition, and review the evidence of outcomes, which showed a number of evidence gaps.

Nuala Foley, KSS AHSN's Industry Engagement Manager, said that KSS AHSN's Insights team was able to help close those gaps with a more robust independent evaluation.

"From the start KSS AHSN has acted as a critical friend to Dr Julian, providing insight and advice on a range of issues – from helping the team prepare for a key member of staff's maternity leave, to exploring potential new markets, and supporting an intern to develop a marketing strategy to engage with universities," she added.

"We're now working with them to use the health economic model effectively, as well as brokering conversation with the mental health trusts in the KSS region and feeding back value insight from commissioners and clinicians to the company."

Connecting Healthcare With Pando

KSS AHSN completed an in-depth evaluation to assess the impact of Pando – a clinical communications platform that offers a variety of features built for health and social care.

Created by NHS doctors, Pando helps NHS workers exchange patient information, make clinical decisions and manage their workload – making collaboration easy, fast and secure.

Its partnership with The AHSN Network has contributed significantly to investment leveraged and commercial progress. Pando has been able to create 20 jobs as a result of its growth and attracted £11million of investment.

Commenting on the evaluation, Dr Barney Gilbert, Founder of Pando, said:

“The evaluation work conducted by KSS AHSN was really impressive – professional, agile and thoughtful from start to finish.”

Demonstrating savings

KSS AHSN’s report showed that an acute Trust adopting Pando could save just under £1m (£922k) from in-year cash and non-cash savings, rising to £44 million should the application be rolled out across all acute Trusts nationally.

On a broader timeframe, this results in a five-year net present value savings of £6.9M at a trust-level and £340M nationally, should it be fully rolled out.

The vast majority of savings are attributed to time savings for the workforce (non-cash savings).

KSS AHSN continues working with Pando to support further adoption and spread. While the initial focus was clinical staff in acute settings, Pando is also looking towards allied healthcare professionals as well as administrative staff. The community care setting and primary care setting are also two areas to be explored.

AI and digital

The pandemic challenged services to rapidly adapt pathways for the digital environment. For some, this was logical next step or extension of existing plans, for others it was a complete refresh of the way they worked. Our ability to support the system with these new challenges was in part based on expertise developed through digital and AI projects already within over portfolio.

Work in this space is often confronted with new or additional issues to traditional service re-design. For instance, ensuring that digital services remain accessible and do not drive further exclusion and inequality. AI products can often be created or operate at the edge of known evidence and regulation; how can we ensure patient safety in this context?

In January 2021 we supported the NHS AI Lab (part of NHS X) with the "AI in health and care survey 2021" which aimed to identify core developments within the AI space and understand the settings AI-driven technologies are being developed for, as well as the importance of education, medical classification, ethics and wider system support for the deployment of these technologies.

Dr Indra Joshi, Director of AI at NHSX, summarised the importance of the survey, saying: "The NHS AI Lab is committed to accelerating the safe, ethical and effective adoption of AI in health and social care. The survey enables commissioners and innovators to help inform the Lab's work so the UK continues to be a leading place to develop and test AI-driven technologies at scale for use in health and care."

We take a look below at a couple of projects we supported during the course of the year where the primary driver was not the pandemic. They illustrate some of the complexities of work in this space, as well as the rewards that success can bring.

Exploring AI digital triage support tool in Surrey

Ashford and St Peter's Hospital NHS Foundation Trust sought to implement a large scale reconfiguration of their dermatology service in response to increasing service size and developing system priorities. Three years previously the service had rolled out dermatoscopes across GP surgeries, which worked well but was time consuming (20 min for 6 photos). In Spring 2020, COVID-19 meant GPs could see fewer patients in person and were asking them to take pictures at home, resulting in GPs viewing poor quality images and, to ensure patient safety, increasing two week referrals. This re-surfaced the need for pathway redesign.

The Transformation team at the Trust explored the options available,

including numerous pathway designs and innovations. Primary care/GP representatives were included at all stages, and the project has been clinician-led with support from commissioners, the Dermatology Improvement Collaborative and KSS AHSN.

We enabled introductions to a number of companies with potentially suitable innovations. The Trust were particularly keen on AI enabled technology as this showed potential to significantly reduce pressure on existing service. However stakeholder engagement surfaced queries about the early stage of the evidence base for AI dermatology and regulatory approval.

Although the Trust remained positive toward dermatology AI technology in principle, it was agreed that procurement and implementation would be paused until evidence and regulatory issues could be further clarified in favour of adoption.

The project highlights how, in some fields, technology is developing faster than written formal regulation and evidence. In order to ensure patient safety it is vital that innovation continues to be held to high standards of governance and regulation. Innovators, clinicians, researchers, professional bodies and regulatory agencies must continue to work closely, ensuring that technology is adequately regulated whilst patients receive the best available care.

We are continuing to work with the Trust to explore options, identify relevant innovations and develop the optimum pathway support with appropriate technological support.

Pilot of vital signs remote monitoring in care homes

The Whzan Blue Box was rolled out in selected care homes in Surrey on a 12-month pilot basis fully funded by Innovate UK and Whzan in exchange for set evaluation information.

Care homes are often staffed primarily by non-clinical staff. With the best of intentions this can mean staff have difficulty assessing the health of their residents and may either miss important signs or make unnecessary calls to NHS urgent care services. Care home residents with learning disabilities, or other obstacles to verbalising pain or discomfort, can have difficulty communicating needs to care givers, presenting further challenges to non-clinical staff in assessment.

The objective of piloting the Whzan Blue Box in a select number of care homes in Surrey was to support care home staff with early recognition of deterioration, effective communication and timely management (especially for residents with learning disabilities or communication difficulties) to make an assessment.

The Whzan Blue Box also offered support to care homes implementing RESTORE2, a physical deterioration and escalation tool, by enabling care home staff to measure vital signs used in assessment.

Key aims

The aim was to reduce unnecessary calls to urgent care service, or missing signs of deterioration. A further aim was to upskill non clinical care home staff to confidently and appropriately manage the health of residents.

Following introduction to the funded pilot offer, socialisation with ICPs and frailty/ care home leads, and checking necessary features such as GDPR compliance and CE marking, Surrey Heartlands ICS agreed to pilot in care homes in each ICP. Approximately 30 boxes have been placed in 27 care homes across Surrey Heartlands ICS to date.

A project lead was assigned by the ICS and bi-weekly project group meetings were arranged to include each ICP.

ICP leads identified suitable care homes and provided contact information to Whzan who arranged distribution of Blue Boxes. Receipt of Blue Box was followed by training tied to RESTORE2 training. Data collection needs were made clear.

The pilot ran from from September 2020 to October 2021, with evaluation data sent to Whzan for the Innovate UK evaluation, and a Surrey specific evaluation supported by KSS AHSN.

A positive impact

So far 63 care home staff have been trained on how to use the Whzan Blue Box with more to follow (unfortunately COVID-19 urgent response slowed down training due to redeployment of project team). Training activities have picked up and the team are beginning to see increased use by care homes that have been trained.

Outcomes are being measured on a regular basis and data is being gathered. So far indications are that there has been a positive impact on monitoring the health of care home residents as well as increased confidence in care home staff.

We're expecting to achieve results similar to the 'Well Connected Care Homes' report which observed eight care homes using Whzan and confirmed first year savings of over £756,000 in ambulance services and A&E attendances, and can reduce A&E attendances by over 70%, admissions by between 20-30% and 111 calls by 50%

"Every ICP is reporting Whzan as a success story" - ICS Project Manager

Investment and funding bids

A proposal that could bring £60million investment into the life sciences sector in Kent received a boost in August by securing £50,000 to develop the bid further. The money is seedcorn funding via UK Research and Innovation's flagship £236m Strength in Places Fund.

The bid, being led by KSS AHSN in a consortium that includes Discovery Park, LGC, Pfizer, and the University of Kent, will provide funding for an 'Accelerated Medicines Design and Development' (AMDD) project to be based in Discovery Park, Sandwich.

This would build on an existing concentration of research excellence associated with Pfizer and other companies at Discovery Park, alongside a network of partners.

Advanced digital tools are transforming our understanding of disease and the drug discovery process. The AMDD project intends to focus on the potential of digital technology to speed up the 'development' phases of work on new medicines.

Digital twins

Developing a medicine is currently a physical laboratory and experiment intensive process, often taking over a decade at significant cost. AMDD will bring end to end connectivity and integration of advanced data models and predictive tools to accelerate sophisticated dosage form design (enabling for example, 'digital twins' of products and processes in advance of physical development).

In addition, the bid aims to enhance the digital skills base, opening up opportunities to the existing workforce and the wider community through the development of a 'digital community lab'.

It will also develop a Kent and Medway Data Trust, enabling appropriate access to patient data from Kent's growing and diverse population to support research and innovation and drive greater 'patient centricity' into the medicines development process.

In particular it aims to enable new medicines for children to be developed faster. The advanced digital technologies that would be available through the project will help scientists to overcome some of the challenges and complexities that they regularly face when developing paediatric medicine.

Integration & Inequalities

Needs articulation and innovation

Innovation in health and social care is vital if care outcomes are to be improved or even maintained. It is innovation that will see care pathways become digitally- and information-enabled. In turn this will help define what the workforce of the future might look like – and hopefully attract people into the care professions with different skills and interests and different contributions to make.

Our work is all about transforming lives through innovation. Some of these innovations are mandated to KSS AHSN, as they are to all 15 AHSNs, and we are active in spreading these across the region. Some innovations we find ourselves, from partners within the national AHSN Network or from people and companies who contact us directly.

And some solutions that our population or health and care staff need are yet to be designed. Bringing people together to articulate these needs is the first step to bringing these solutions to life.

Calls to action

In September we launched calls to action around frailty and learning disability to third sector, industry and academia partners at the SEHTA 2020 International Medtech Expo and Conference.

For frailty, we were particularly interested in innovations that contribute to changing how we care for those with frailty, as well as looking upstream to how we can prevent or delay people becoming frail. Responses were fed into ARC KSS's Living Well with Dementia workstream.

The aim of the learning disability call was to determine how we could better support our region through delivering new approaches, support partners with their existing projects, or to find additional solutions for existing approaches.

This tied in to previous work from our Learning Disability Network, which had established at an earlier event that one of the key asks was for reasonable

adjustments to become more mainstream to help people access care.

In December we were delighted to secure £30,000 through the Q Exchange to improve health check access for people with learning disabilities. The successful My Social Time model, currently a virtual social engagement forum for young adults to provide peer to peer support, emotional health and wellbeing, will be expanded to include adults with learning disabilities.

Blended approach to annual health checks

During the pandemic, when many services have been paused to provide additional capacity, people with learning disabilities have experienced poorer outcomes than the general population for both mental and physical health.

This funding will deliver a project focusing on supporting GPs to restart essential annual health checks using a blended approach of digital training and innovative social models from Surrey and Sussex ICSs.

The primary aim for the project is to build collaborative relationships across health, social and third sector partners to improve outcomes for people with learning disabilities, by ensuring reasonable adjustments underpin the annual health checks process, as well changing how people access parts of the health check depending on individual needs.

Innovate 17 – Investigating place-based approaches to vulnerability

Many people live precarious lives, relying on scaffolding that acute challenges such as the COVID-19 pandemic, or the chronic challenges of being under-represented and under-served by standard health and social care offerings, can sweep away.

This precariousness can see people described or labelled as vulnerable, even though this is a term many of those so labelled might not recognise. The changes society in the UK has experienced have tipped many people into having physical, mental, and socio-economic wellbeing needs that are not being met.

Some of these needs and these people are recognised; many are not. They remain unseen and with the NHS looking at those most vulnerable to catching the virus itself, and thinking beds, and ventilators, and mass vaccination, while charities remain with many staff furloughed, for many of these people there is no helping hand.

These topics were investigated within a special edition of our Innovate digital magazine, which looked at 'vulnerability' in order to understand it better, share some examples of successful responses and consider how to develop our approach in the future.

Through three distinct articles we got beneath the label of 'vulnerable' and heard from a number of people working in this space, considering how we can respond in ways which meet the needs of people who all too often don't register on the radar of traditional health and care structures.

Building on the understanding shared by these experts, we looked at some of the pockets of success, examples of where work is already making - and continues to make - a difference to people's lives.

To conclude the edition, we pulled some of the strands and ingredients together to call for a more concerted approach to meeting the needs of the vulnerable and people whose lives are precariously balanced.

What can we learn from the pockets of success, what do they have in common and how can we use their examples as the basis on which to support the vulnerable more effectively?

▸ **Read Innovate**

Our funders

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