Oxford AHSN Year 9 Q3 Report

For the quarter ending 30 December 2020

Cover image:
Unique education and training programme for midwives and student midwives improves safety for mothers and babies in low-risk labour (see case study on page- 8)

Pictured left to right: Christine Harding - Royal Berkshire Hospital; Eileen Dudley - Oxford AHSN; Wendy Randall - Oxford University Hospitals

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Chief Executive's Review

As I write this review we are at the peak of the second wave of the pandemic and our NHS partners are managing more than twice the number of patients admitted during the first wave. The rapid response of the research community in Oxford and elsewhere to the first wave has delivered key advances in the treatment of Covid-19, particularly the demonstration in the RECOVERY trial that dexamethasone reduces mortality in patients requiring oxygen or ventilator support, along with increased use of non-invasive ventilation, proning and earlier recognition of hypoxia in the community. However, this welcome progress in treatments that reduce the mortality of severely ill patients has not reduced the impact on NHS acute services and the major demands on frontline NHS staff.

The development of covidoximetry@home (CO@home) services to monitor people in the community early in the course of disease and Covid virtual wards to monitor those discharged from hospital has been a key development in enabling the NHS to manage the current unprecedented demand on acute services. In the last quarter our major focus has been working with the South East Regional Medical Director's team and Wessex and Kent Surrey and Sussex AHSNs to accelerate the implementation of these service models across the South East Region. We have diverted additional staff from other work to support this programme led by the patient safety teams and supported by the Chief Operating Officers and Medical Directors of the three AHSNs and the National Deterioration Lead Dr Matt Inada Kim. To date over 2000 patients have been managed in CO@home services across the Oxford AHSN. These services will be critically important until the current wave is controlled, and vaccination programme has extended to protect all age groups at risk of hospitalisation from Covid-19. The service models that have been built to monitor patients at home provide a platform to develop remote monitoring care pathways for monitoring patients in the community with long term conditions.

The CO@home programme provides an exemplar of how other AHSN programmes could achieve rapid adoption and patient benefit. There was a clear NHS need identified in advance of the escalation in cases. The programme was supported by and developed with regional and local NHS teams, a clear evidence base with experience from early pilot sites, experienced expert clinical leadership, effective quality improvement and engagement plans, supported by tool kit/ "how to guides", and rapid and accurate data collection and reports coordinated by the Kent Surrey Sussex AHSN Insight Team.

We are also developing work to improve the management of other patients significantly impacted by the pandemic. Following our work in producing rapid guidance to support stroke service respond to the pandemic in collaboration with the national Getting It Right First Time (GIRFT) team, Primary Care Cardiovascular Society and Association of Directors of Public Health we have published two guides supporting primary care and integrated care systems overcome disruption of CVD prevention during the pandemic.

We continue to develop work on our three national programmes in implementing an early intervention eating disorder pathway for young adults, improving the diagnosis of ADHD, and improving lipid management and diagnosis of familial hypercholesterolaemia (FH). In the latter programme we are one of the pilot AHSNs who will introduce and evaluate child-parent cascade screening for FH testing one year olds at their routine vaccination visit with an additional heel prick test to identify those with high cholesterol and identify FH in the child and affected parent and relatives and prevent premature cardiac disease.

I have been asked to be Chair of the AHSN Network from April for the last two years of our current licence. This is an important period where we will be working as a network of 15 AHSNs with our partners and commissioners to develop our future strategy and inform renewal of the AHSN licence from April 2023.

Professor Gary Ford CBE FMedSci
CEO, Oxford AHSN

Oxford AHSN case studies

Case studies included in this report:

1: Patient Safety/Covid-19

AHSNs play key role in supporting patients with Covid-19 at home

Patient Safety Collaboratives (PSCs), which sit within AHSNs, have been commissioned by NHS England/Improvement to facilitate the roll-out of two major initiatives to support patients with Covid-19 at home. The initial task related to COVID Oximetry @home, a programme for people particularly at risk from Covid-19 to monitor their oxygen saturation levels at home with a pulse oximeter, supported by primary care. Escalation is triggered if the readings show early signs of deterioration (step up). Towards the end of 2020 three AHSNs – Oxford, Wessex and Kent Surrey Sussex – were approached by the NHS South East Medical Director to scale up this work at pace. More recently PSCs have also begun supporting a related programme – COVID virtual wards – an initiative enabling Covid-19 patients discharged from hospital to be monitored at home (step down). By the third week of January more than 2,000 patients in the Oxford AHSN region (Berkshire, Buckinghamshire and Oxfordshire) and almost 10,000 across the South East had been supported by one of these models. These numbers are continuing to increase significantly.

2: Patient Safety/Maternity and Neonatal

Unique midwife education and training programme improves safety for mothers and babies in low-risk labour

The Oxford AHSN has developed an innovative award-winning training package with consultant midwives at two trusts within the region. It is available to all midwives and midwifery students via a national on-line platform. The intelligent intermittent auscultation (IIA) interactive learning programme is the first to assess competency in intermittent auscultation to meet the requirements of the Saving Babies' Lives version 2 care bundle for reducing perinatal mortality. Uniquely, it incorporates simulated fetal heart sounds, enabling midwives to accurately assess how the baby is coping with the stress of contractions based on what they are hearing. This approach provides reassurance around well babies and prompts rapid escalation and a move to continuous electronic fetal monitoring if abnormalities are identified.

3: Economic Growth

Oxford AHSN helps four companies leverage more than £5m from national artificial intelligence award fund

The Artificial Intelligence (AI) in Health and Care Award - run by the Accelerated Access Collaborative (AAC) in partnership with NHSX and the National Institute for Health Research (NIHR) - will make £140m available over three years to accelerate testing and evaluation for AI technologies which can support the NHS. The initial focus was on screening, diagnosis, decision support and improving system efficiency. More than 500

companies applied in Round 1. The Oxford AHSN supported five of the 42 successful applicant leveraging funding totalling approximately £5m.

Oxford AHSN case study 1

Date: Q3 2021

Programme/Theme: Patient Safety/Covid-19

Title: AHSNs play key role in supporting patients with Covid-19 at home

Overall summary

Patient Safety Collaboratives (PSCs), which sit within AHSNs, have been commissioned by NHS England/Improvement to facilitate the roll-out of two major initiatives to support patients with Covid-19 at home. The initial task related to COVID Oximetry @home, a programme for people particularly at risk from Covid-19 to monitor their oxygen saturation levels at home with a pulse oximeter, supported by primary care. Escalation is triggered if the readings show early signs of deterioration (step up). Towards the end of 2020 three AHSNs – Oxford, Wessex and Kent Surrey Sussex – were approached by the NHS South East Medical Director to scale up this work at pace. More recently PSCs have also begun supporting a related programme – COVID virtual wards – an initiative enabling Covid-19 patients discharged from hospital to be monitored at home (step down). By the third week of January more than 2,000 patients in the Oxford AHSN region (Berkshire, Buckinghamshire and Oxfordshire) and almost 10,000 across the South East had been supported by one of these models. These numbers are continuing to increase significantly.

What is the challenge?

Detecting the early signs of deterioration in patients with confirmed or suspected Covid-19 is a significant challenge for health and social care teams. As patients at risk of poorer outcomes can be identified by reduced oxygen saturation levels, the ability to recognise early decreases in blood oxygen levels before the patient becomes symptomatic is vital. In addition, given the intense pressure on hospital beds, NHS England recommended in January 2021 that all integrated care systems (ICSs) immediately establish COVID virtual wards to support the earlier and safe discharge of Covid-19 inpatients.

What did we do?

COVID Oximetry @home (CO@h) describes an enhanced package of monitoring (symptoms and oxygen saturations) provided within a patient's own home (or usual residence) overseen by a multidisciplinary team from either the community or hospital. Across England tens of thousands of pulse oximeters are enabling patients at risk 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. Early experiences of implementing this approach have been linked to reductions in mortality, hospital length of stay and pressure on intensive care/critical care beds.[i]

To support the spread of these models of care that have been piloted around the country, the Oxford AHSN hosted a webinar in September 2020: 'Innovations in Covid-19 Patient Pathways' which showcased examples from around our region of innovative ways of assessing and managing patients with suspected

Covid-19 in the community. A recording is available here. In October 2020 we collaborated with colleagues from Wessex and Kent Surrey Sussex AHSNs and NHS England to implement this model of care across the NHS South East region following an approach from the NHS South East Medical Director to scale up this work at pace. A joint programme board was established. It continues to meet frequently. Matt Inada-Kim, the national deterioration lead, is a member of the programme board. In November 2020 NHS England/Improvement wrote to all clinical commissioning groups and trusts to encourage the development of local CO@h projects, following the publication of national guidance. This included the advice to follow the South East region approach to achieve rapid spread for this project.

What has been achieved?

National Learning Network meetings (registration required) have been held fortnightly from August. These are hosted by the Patient Safety Collaboratives and provide an opportunity for partners to share their models of care. A national toolkit was developed through this platform's Deterioration workspace. Resources from around the country were curated by a small group of AHSN colleagues including the three South East AHSNs. So far resources on this site have been viewed or downloaded almost 7,000 times. This workspace also includes an active discussion forum where evaluation reports from pilot sites are shared. These include Slough and Reading in our region and this evaluation from University College London. Details of the Slough project were provided by Lalitha Iyer at our webinar in September (see above). She has coordinated production of patient information including translation into several languages.

From 31 December 2020, all CCGs have gone live with Covid Oximetry @home pathways. The COVID Oximetry @home programme was featured on *BBC South Today* on 3 December 2020. It included an interview with a man with Covid-19 who was taken to hospital after his oxygen saturation level fell. More national and regional media coverage followed in January including:

- BBC national TV news (starts at 10:50)

- BBC Radio 4 Inside Health

What people said

"The implementation of Covid Oximetry @home, across all six system footprints that make up the SE region, would not have been possible without the support of the three regional AHSNs. From the outset, they have collaborated as one: drawing on their combined skills and expertise, working hand-in-glove with the regional digital team - and other partners - to deliver a comprehensive service, from scratch, to achieve impressive population of this innovative model of care to promptly identify patients who need hospital admission, and to monitor those who can be safely managed at home."
Dr Vaughan Lewis, South East Regional Medical Director, NHS England & NHS Improvement

"The Oxford AHSN was one of the key driving forces behind the setting up of the CO@h pathway at Bucks Healthcare and they are in the process of achieving the same feat in primary care. They had huge expertise in this sector, experience of having worked in other centres and, most importantly, a keen interest in getting it to work and work well. They were instrumental in the structure of the pathway, guided us through latest developments on this ever-changing topic and even provided expert administrative support. Further continued support in future is very welcome."
Dr Raghu Raju, Consultant Respiratory Physician at Buckinghamshire Healthcare NHS Trust

"The Oxford AHSN team has been incredible to work with. It is not often commissioners are offered proactive human resource and we have certainly welcomed the support. Jo Murray and her team have shared practical examples of successful delivery of virtual wards from elsewhere, they have been facilitative and allowed the Buckinghamshire team to develop a pathway that is bespoke for our population. Having the pre-existing project knowledge, experience, and hands-on admin, as well as strategic support, has ensured the prompt delivery of this national requirement. They have demonstrated the importance of shared system learning to improve and disseminate best practice. Thank you and we look forward to continuing collaborative efforts."

Dr Dal Sahota, Clinical Director for Unplanned Acute Care, Buckinghamshire Clinical Commissioning Group

What next?

A new programme has now been launched called COVID virtual wards, which is secondary care led and allows Covid-19 patients discharged from hospital to be monitored at home. These are already in place in hospitals across the Oxford AHSN region. A national toolkit, learning networks and national guidance have been rapidly developed, building on the success of the COVID Oximetry @home approach.

By the third week of January more than 2,000 patients in the Oxford AHSN region (Berkshire, Buckinghamshire and Oxfordshire) and almost 10,000 across the South East had been supported by one of these models. These numbers are continuing to increase significantly.

An Oxford AHSN webinar on 2 February focuses on both the primary and secondary care 'virtual ward' models. It is for anyone interested in supporting patients with Covid-19 at home. Further webinars are planned in March.

The AHSN Network co-hosted a webinar with the Royal College of General Practitioners on 12 January which provided an overview of COVID Oximetry @home for primary care. Watch a recording and find other resources on the AHSN Network website.

Contact

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[1] https://acutemedjournal.co.uk/wp-content/uploads/2020/11/p183-191-1.pdf

Oxford AHSN case study 2

Date: Q3 2O21

Programme/Theme: Patient Safety, Maternity and Neonatal

Title: Unique midwife education and training programme improves safety for mothers and babies in low-risk labour

Overall summary

The Oxford AHSN has developed an innovative award-winning training package with consultant midwives at two trusts within the region. It is available to all midwives and midwifery students via a national on-line platform. The intelligent intermittent auscultation (IIA) interactive learning programme is the first to assess competency in intermittent auscultation to meet the requirements of the Saving Babies' Lives version 2 care bundle for reducing perinatal mortality. Uniquely, it incorporates simulated fetal heart sounds, enabling midwives to accurately assess how the baby is coping with the stress of contractions based on what they are hearing. This approach provides reassurance around well babies and prompts rapid escalation and a move to continuous electronic fetal monitoring if abnormalities are identified.

What is the challenge?

Intermittent auscultation (IA) is a listening skill used by midwives to identify how the baby is coping with the stress of labour. It is the only means available to midwives who care for low risk women in labour to reassure themselves and the woman that the baby is coping with the stress of labour. It is a practical skill required of all midwives in any birth setting. A gap was identified in midwife training relating to accurately assessing competency in IA. An 'intelligent' approach was needed to improve the knowledge, skills and confidence of midwives – and the safety of mothers and babies.

What did we do?

The intelligent approach was the brainchild of consultant midwives Christine Harding (Royal Berkshire Hospital, Reading, pictured above, left) and Wendy Randall (Oxford University Hospitals, right). They developed the programme with patient safety and maternity experts at the Oxford AHSN/Patient Safety Collaborative. The OxSTaR Centre, the University of Oxford's medical simulation, research and teaching facility, played a key role in recording and integrated the range of simulated fetal heart sounds.

An innovative training and education programme was created and added to the Health Education England (HEE) e-LfH hub. It has been accessed more than 3,000 times. Supporting webinars created by the Oxford AHSN have had more than 1,000 views on YouTube and a short introductory video has been seen almost 8,000 times.

What has been achieved?

In November 2020 the IIA initiative received professional accreditation from the Royal College of Midwives.

At the 2020 HSJ Patient Safety Awards the initiative won the patient safety innovation of the year category and was highly commended in the education and training category. Eileen Dudley, Patient Safety Manager, is pictured with the main award.

In 2019 it won the Contribution to Midwifery Education at The British Journal of Midwifery Practice Awards and was judged the top poster submission at the National Maternity and Perinatal Audit/Each Baby Counts conference.

What people said

"Finally, midwives now have access to a national training platform for fetal monitoring in a low risk setting. I feel the standard of training is excellent and (will) no doubt improve outcomes for babies but also confidence for midwives providing intrapartum care in low risk settings."

Mandy Platt, Lead Midwife for clinical quality and service improvement at Tameside and Glossop Integrated Care NHS Foundation Trust

"It is already starting to become best practice and is clearly outstanding work that has already been well received by users and associated stakeholders. The project leads demonstrated a thirst for expansion and wider sharing of the benefits of the project."

HSJ Patient Safety Awards judges

What next?

We are in the final stages of a collaboration with eIntegrity, the global healthcare e-learning portal which works with HEE to deliver programmes designed and delivered by clinicians. We expect the release of the IIA programme for international access early in 2021.

We are starting to write up this work for publication and talking to experts about evaluation.

Contact

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Oxford AHSN case study 3

Date: Q3 2021

Programme/Theme: Economic Growth

Title: Oxford AHSN helps four companies leverage more than £5m from national artificial intelligence award fund

Overview summary

The Artificial Intelligence (AI) in Health and Care Award - run by the Accelerated Access Collaborative (AAC) in partnership with NHSX and the National Institute for Health Research (NIHR) - will make £140 million available over three years to accelerate testing and evaluation for AI technologies which can support the NHS. The initial focus was on screening, diagnosis, decision support and improving system efficiency – from technical feasibility to development and evaluation, real world testing and on to adoption and scale-up. More than 500 companies applied in Round 1. The Oxford AHSN supported five of the 42 successful applicants leveraging funding totalling approximately £5m.

What is the challenge?

Many companies have established relationships with the NHS, while others need help in finding clinical partners to evaluate their technologies. AHSNs play a pivotal role in linking companies to NHS organisations in response to identified needs and priorities. Companies also need help in scoping their applications in the context of a new funding mechanism. The AI in Health and Care Award was established to support innovation in artificial intelligence and machine learning, leading to faster and more personalised care. Each product supported by the award programme will undergo robust testing and independent evaluation to ensure they are effective, accurate, safe and value for money.

What did we do?

The Oxford AHSN provides expertise in patient and public involvement, health economics and conducting qualitative feasibility studies to understand key NHS stakeholder views.
The Oxford AHSN supported four of the 32 projects selected for a Phase 1 to 3 AI Award (covering the journey from technical feasibility through development and evaluation and on to real world testing). This amounted to £5m of funding leveraged.

A Phase 2 AI Award is intended to develop and evaluate prototypes and generate early clinical safety and efficacy data. The Oxford AHSN is working with BreatheOx, Caristo Diagnostics and Ufonia to produce an adoption strategy by carrying out pathway mapping, stakeholder analysis, health economics and, with the National Institute for Health Research, understanding the evidence framework for their AI technologies.

- **BreatheOx:** a small table-top device that can automatically monitor a range of symptoms and metrics without patients having to do or wear anything, helping to predict and prevent asthma attacks in children. This project will test the system within in the NHS to generate real world evidence of clinical benefit and economic value. Other partners include Birmingham Children's Hospital, Imperial College London and Asthma UK

- **Caristo Diagnostics:** the FatHealth technology is using standard CT scans combined with AI techniques to improve cardiometabolic risk evaluation by detecting fat tissue inflammation which can indicate a higher risk of developing diabetes or dying from heart disease. The project will analyse 20,000 CT scans to train the AI algorithm and help develop accurate risk predictions.

- **Ufonia:** this study will evaluate Ufonia's natural-language AI assistant and assess the acceptability of the autonomous telemedicine system used for follow-up phone calls for cataract patients. This study will include evaluation at two NHS hospitals.

A Phase 3 AI Award is intended to support first real-world testing in health and social care settings to develop further evidence of efficacy and preliminary proof of effectiveness, including evidence for routes to implementation to enable more rapid adoption.

Phase 4 is for medium stage AI technologies that have market authorisation but insufficient evidence to merit large-scale commissioning or deployment. Works is focused on supporting, stress testing and evaluating the AI technology within routine clinical or operational pathways to determine efficacy or accuracy, and clinical and economic impact.

The Oxford AHSN is working with **Ultromics** in Phase 3 and Phase 4 to assess automating coronary artery disease risk prediction in stress echocardiogram clinics to help more accurately diagnose heart problems such as blood vessel blockages. Assessment of the EchoGo Pro device will be carried out in 12 hospitals. In phase 4 the Oxford AHSN is evaluating the **Brainomix** e-Stroke Suite which uses AI methods to share real-time information and interpret acute stroke brain scans, helping doctors make the right choices about treatment and transfer.

What has been achieved?

All these projects are in the initial phases of work and updates will be provided later in 2021.

Contact

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Operational Review

Introduction

In Q3 we have formed a very productive and positive collaboration with Wessex and Kent Surrey Sussex AHSNs to deliver the rollout of COVID Oximetry @home (CO@h) and COVID Virtual Wards (CVW). We have also supported a linked programme – the role out of Inhealthcare digital remote monitoring solution, in collaboration with NHSX and the local ICSs. Each AHSN has supplemented its patient safety team with more resource and support from the Chief Operating Officers and Medical Directors. Our programme board has benefitted from contributions from Dr Matt Inada-Kim, national lead on deterioration and clinical lead for patient safety at Wessex AHSN. I have been chairing our programme board which meets three times a week with the Friday call with the Regional Medical Director. The work has drawn on the strengths of the three AHSNs and brought us closer to the Regional Medical Director's team and this bodes well for identifying and delivering against future priorities such as building on the COVID Virtual Wards to monitor patients with long-term conditions. To date 2,291 patients have been supported on CO@h and CVW in the Oxford AHSN region (about 10,000 across SE England so far). Oxford AHSN has also supported Milton Keynes University Hospital with its CO@h and CVW pathways and Inhealthcare solution. Engagement with the healthcare systems has been exceptional and attendance at the many shared learning events, both regional and national with the wider AHSN Network events is very high. The "how to" guides for CO@h and CVW developed by the SE AHSNs are being accessed by stakeholders constantly. The SE was the first region to have CO@h services in all its CCGs. Read more in the case study above.

The pressure on primary and secondary care in managing the healthcare of so many patients seriously ill with COVID, with so many staff off sick with COVID and with the added task of the largest vaccination programme ever undertaken by the NHS, engagement and decision-making has been affected and some of our innovation and improvement work has slowed down.

The switch to remote working and uses of Microsoft Teams has enabled rapid and effective collaboration locally, regionally and nationally. Teams has really helped run the regional CO@h and COVID Virtual Ward programme with KSS AHSN and Wessex AHSN and the NHSEI regional team. The AHSN staff have proven to be very resilient and flexible in their working despite the challenges of home working, home schooling and restrictions on normal life. We continue to run a wellbeing programme for our staff.

Three case studies are presented in this report:

- Patient Safety/COVID-19 - COVID Oximetry @home
- Patient Safety, Maternity and Neonatal - intelligent intermittent auscultation – award-winning innovation in collaboration with OUH and RBH
- Economic growth - Oxford AHSN helps four companies leverage more than £5m from national artificial intelligence award fund.

Original National programmes

Most of the seven national programmes brought forward from 2019/20 were disrupted by COVID-19 in Q1. Targets for AF Detect and Protect, Emergency Laparotomy, PINCER, PReCePT and SIM were achieved by Q4 2019/20. COVID-19 has disrupted AF and Emergency Laparotomy. We are not expecting increased uptake of ESCAPE-Pain across the Thames Valley. COVID-19 has effectively closed exercise classes for Q1 and Q2.

TCAM targets were not achieved by Q4 2019/20 as COVID-19 disrupted referrals at Buckinghamshire Healthcare. Royal Berkshire has developed an IT solution to accommodate TCAM, but the service is delayed due to COVID. Oxford University Hospitals has hesitated over a decision on TCAM. Thames Valley Police is implementing SIM in Reading and Oxford with Berkshire Healthcare and Oxford Health. There are 15 service users; 7 in Reading, a service signed off as equivalent to SIM. It's disappointing that for one minor governance issue the Oxford service, which is running well for service users, was not considered equivalent to SIM.

New national programmes for 2020/21 (see table below)

ADHD - QbTest is already implemented in Berkshire and Oxford. FREED (eating disorders) teams will 'soft launch' their service in April 2021. A South East FREED Support Network has been established to share good practice and help develop services. The CVD/lipid management programme – engagement with CCG and clinical CVD leads has started.

National innovation products (see tables below)

Heartflow, SecurAcath and SpaceOAR numbers are below target – largely due to impact of COVID on service provision. PlGF and PCSK9 inhibitors are on track. Cladribine is awaiting further instruction from the AAC.

Workforce Innovation
- Katie Lean started as our workforce programme manager in November, transferring from the Patient Safety team
- This quarter has been focused on building relationships within the BOB ICS and linking in with their people board commissioned to deliver the "We are the NHS, People Plan 2020/21". We are also supporting the national AHSN workforce task team, who have come together to effectively collaborate with NHS and social care staff in pathway redesign, digital and wellbeing.

Patient and Public Involvement
- First online focus groups with patients to support the development of an innovative AI triage system were held
- As part of the AHSN Network Reset Programme we have been working with Don Redding and AHSN partners to review patient experience and coproduction during COVID
- We are also working closely with the national lipids and cardiovascular disease programme, developing a PPI plan and providing input into the working groups.

Patient Safety Collaborative national programmes

The National Patient Safety Improvement Programme (NHSI) specification for Oct 2020-March 2022 was published in late December which details five main programmes of commissioned work for that period.

- **Covid Oximetry @home and Covid Virtual Wards**. Since early October we have been working at pace to support systems to develop these pathways in our local systems. We have worked in close collaboration with our AHSN colleagues in KSS and Wessex to quickly share learning, help develop local and national 'How To' guides, support and put on stakeholder webinars, provide bespoke support to each system, and regularly update the regional and national teams with progress, learning and identification of issues and risks. We are pleased to report that all systems now have

live CO@h services, and we are continuing to work with systems to optimise their use. We have also supported the rollout of COVID Virtual Wards. We are also working with NHSx, having successfully secured a bid for funding for a digital solution (Inhealthcare) to support CO@h for several systems, to roll out at pace. This solution should also be applicable to further out of hospital care in the longer term. See case study above.

- **Maternity and neonatal safety. Our Intelligent Intermittent Auscultation e-learning programme**, developed with Consultant Midwives from OUH and RBH, HEE and OxSTaR, won the HSJ Patient Safety Award for Innovation of the Year 2020 and its use is increasing across the country (see case study above). It is now being prepared for international distribution through the eIntegrity platform. In this period, we developed and conducted a review and evaluation of what went well and not so well during the first wave of the pandemic. This included a survey of all maternity and neonatal staff, with nearly 900 responses from across the region, available [here](#).

- **Tracheostomy**. From March 2020 we engaged with a rapid improvement programme in tracheostomy safety and the implementation of a care bundle in response to the emerging pandemic. All Trusts in our region now use the bundle and are linked to national resources and support.

- **Medicines Safety**. The aim of this workstream is to reduce harm caused by errors in the administration of medicines in care homes and improve the safety and experience of care for residents. We have been supporting care homes on several projects in collaboration with our AHSN colleagues. This includes a group for sharing learning and support for in-reach staff.

AHSN Network - new national programmes for 2020/21

Programme RAG for Q2	Contracted Metric	Plans	2020/21 target	Progress
Workforce theme	TBC	Plan: A Workforce Theme will be developed and agreed with BOB ICS by Q3, early consideration given to staff health and wellbeing. The Workforce Theme will draw on innovation, particularly digital technology from Oxford AHSNs programmes.	NA	NA
		Progress: Workforce programme manager in post and relationships building with BOB ICS people board. Enhanced Health and wellbeing hub evaluation commenced in BOB ICS region. Work within digital SE3/4 continues to evolve.		
Eating Disorders – early intervention	Number of patients benefitting from an early intervention first episode eating disorder programme	Early intervention for Eating Disorders (FREED) model is predicated on the existence of a dedicated Band 7 (0.6 WTE) FREED Champion to direct and implement the approach within the existing ED team. The provision of pump priming funding to enable the recruitment of FREED champions locally will present an opportunity to engage teams and encourage the adoption of the FREED approach in 2020/21.	TBC	N/A
		Progress: All eating disorder services have been engaged. Successful applications for NHSE/I funding were submitted by Berkshire Eating Disorder Service (BEDS) and the Buckinghamshire ED Team (Oxford Health). Both teams have booked their team members onto the required FREED training and are actively recruiting for FREED Champions locally. It is anticipated that the teams will 'soft launch' their FREED service in April 2021. A South East FREED Support Network has been created to share best practice and experience and encourage the development of a FREED service for Oxfordshire (and in Milton Keynes, potentially as an extension of the work in Bedfordshire & Luton). This is in addition to the assistance provided by SLaM colleagues and the FREED Network.		
Cardiovascular Disease	TBC	Plan: Develop Familial hypocholesteraemia and lipid management workstreams. Details of the plan have been worked up with national team over the last 2 quarters	TBC	NA
		Progress: Engagement with CCG and clinical CVD leads started. Meetings with national team to discuss project structures Engagement in FH parent/child screening project		
Attention Deficit and Hyperactivity Diagnosis (ADHD)	Number of diagnoses of ADHD made using a continuous performance test product	Plan: work with NHS trusts to improve the process and speed of diagnosis of ADHD and appropriate use of computer-based tests (measuring attention, impulsivity and activity) to assist with diagnosis.	86	0
		Progress: Engagement work is now ongoing with several units looking to implement No new sites have yet implemented QbTest though we have at least one which is planning to do so. We do not yet know the new numbers of tests that are proposed		

AHSN Network 2018/19-2019/20 (original) national programmes – completing and sustaining plans for 2020/21

Programme RAG rating for 20/21	Contracted Metric	Plans to complete and sustain (DELIVERED – indicates delivered by March 2020)	2020/21 target	2020/21 progress
AF	Number of previously unknown AF patients diagnosed with AF	**DELIVERED**. AF Detect and Protect targets exceeded for 2019/20. Risk to sustain: The significant and sustained reduction in face to face contacts in primary care is likely to lead to a reduction in the number of new AF detected (against trajectory). Various approaches to detecting AF during the COVID-19 period being investigated and discussed with partners. 2020/21 target remains at risk	4,000	TBC
Emergency Laparotomy	Number of emergency laparotomies in hospitals implementing the pathway	**DELIVERED**. Two-year target exceeded for 2018/20. 2019/20 target exceeded. Whilst emergency surgery continues during the COVID-19 pandemic, anaesthetists are in front-line response and capacity to sustain the NELA audit is significantly compromised. Hospitals recording their audit data has been delayed by the pandemic and the Q3 data will not be returned until the end of this month at the earliest.	912	777
ESCAPE-Pain	Number of people completing the ESCAPE-PAIN programme	**NOT DELIVERED**. Despite wholesale engagement across the healthcare system take up is minimal. This is not expected to change. Sites providing the programme are within the leisure sector, but due to COVID-19, the programme is not being delivered.	25	0
PINCER	Number of GP practices adopting PINCER	**DELIVERED**. Two-year target exceeded with 4 CCGs participating, 206 GP practices adopting, and 250 people trained. Reduction in at risk patients identified in at least one prescribing safety indicator is 2,338 or 18.4%. 1,819 (30.6%) patients at risk patients with indicators associated with a GI bleed were also identified. Training has been provided in November and December 2020 to two cohorts of PCN Pharmacists. Sustainability and handover to CCGs/ICS is currently being planned.	204	206
PReCePT	Number of additional mothers where MgSO4 given	**DELIVERED**. Two-year target met and sustained. Some expectation COVID-19 would affect numbers but local data showed 92% for 2020 (target 85%)	8	10

Programme RAG rating for 20/21	Contracted Metric	Plans to complete and sustain (DELIVERED – indicates delivered by March 2020)	2020/21 target	2020/21 progress
SIM	Number of high-intensity service users covered by SIM	**DELIVERED**. Reading service delivered. Equivalence testing delayed in Oxford by some COVID related issues. We continue to support two localities, which between them support 15 service users, with adoption but equivalence testing not yet completed	8	7 in equivalent service, plus 10 in service awaiting equivalence testing
TCAM	Number of completed referrals using TCAM	**NOT DELIVERED**. In initial phase of COVID-19 community pharmacies overwhelmed and 'completion' rate fell to zero. Buckinghamshire Healthcare referrals lower than plan. Royal Berkshire is planning on launching soon after development of an IT solution. OUH considering the solution for patients discharged to care homes	1,679	313

AHSN Network – national innovation products for 2020/21

Programme RAG rating for 20/21	Contracted Metric	2020/21 target	2020/21 progress by Q3
Heartflow	No of Heartflow scans appropriately used	569	100
SecurAcath	No units sold	5,500	1,492
SpaceOAR hydrogel prostate cancer spacer	No of patients injected with SpaceOAR hydrogel – uptake has been impacted by COVID-19	48	15
Placental growth factor tests for pre-eclampsia	No of placental growth factor test kits supplied	1,861	1,750
PCSK9i	Half the number of PCSK9i devices dispensed	247	233
Cladribine	No of unique patient Blueteq approvals for treatment with cladribine	28	Not available

Oxford AHSN is leading on asthma biologics national deployment for the AHSN Network. IN Q3 the focus was on engagement and preparation for the rollout. The work overlaps with FeNO testing which is led by Wessex AHSN.

AHSN Network- Regional Programmes 2020/21

Programme	Background	Plan and progress
Sleepio – led by Oxford	Clinically evidenced CBT for insomnia delivered via online sleep improvement programme. Widespread adoption across the Thames Valley. Big Health made the system free for NHS staff to December 2020. An extension to April 2021 is being established to continue free access. The six Primary Care Networks in North Hampshire CCG have partnered with Big Health to embed Sleepio in primary care. Training for clinicians and support staff was delivered. Offer of Sleepio launched on 1st October 2020 within that geography.	Engaging with KSS and Wessex AHSN colleagues to establish priorities and outcomes for the project across the South East. Sleepio has been made available (alongside Daylight, Headspace, and Unmind) for NHS England staff, presenting an opportunity to explore the beneficial impact on the healthcare workforce. Stakeholder engagement sought among commissioners, clinicians and medicines optimisation leads.
S12 Solutions – led by Wessex	S12 Solutions is an app and website that connects Approved Mental Health Professional (AMHPs) with available, local s.12 approved doctors. S12 Solutions allows AMHPs access to up-to-date contact information; allows s.12 approved doctors to share their general location (base postcode), availability, specialisms, gender and languages in real-time and process claims. The solution is user friendly and training is provided. Widespread in Wessex, some uptake in KSS and Oxford regions	Stakeholder engagement Attended the SE Region ICS Mental Health Board Wessex evaluation document
Remote Monitoring in Care Homes – led by KSS	Current Health is a passive remote patient monitoring wearable device which supports clinicians to monitor, manage and engage with their patients inside or outside of the clinical setting – specifically in their own homes or in care homes. It is a continuous monitoring device with integration into the electronic medical record. Status in SE: Well-adopted in Kent & Medway – possibility to scale. Other solutions exist and can be factored in to spread and scale implementation	Bring together group from 3 AHSNs and identify technologies that can enable remote monitoring for various conditions. Map status engage stakeholders and identify gaps that can be supported.
Covid oximetry @ home and COVID Virtual Ward – joint delivery KSS,	Part of our Patient Safety Collaborative commission, the aim of this national workstream is to reduce avoidable harm for patients who may be at risk of or experiencing physical deterioration in acute and community settings. NHS E/I South East Medical Director asked the three SE AHSNs if the programme could be	All CCGs have a CO@h service. All acute have a CVW service. More than 2,000 patients have been supported so far. Work continues to optimise the services. Work continues to support rollout of Inhealthcare

Programme	Background	Plan and progress
Oxford and Wessex	accelerated ahead of the surge in COVID-19 cases There are two pilots in the Oxford AHSN region.	digital solution to support remote monitoring
AI Stroke Decision making evaluation	Working with Brainomix, the TITAN project has delivered (within the Thames Valley) the country's first AI-enabled regional stroke network (see case study 1). Building on this, AI assisted diagnostic tools have been further rolled out across the SE Region, as part of the COVID-19 response. Brainomix has also been successful in the National AI in Health & Care awards (AAC/NHSX). Securing the work being undertaken within the TITAN network and allowing the further establishment of networks across the UK.	Commissioned by NHSE, the Oxford AHSN is a leading on the evaluation of the of the SE roll out, using both quantitative and qualitative analysis. This work has started with a planned 1-year finish date. A more detailed analysis is planned for the TITAN network, incorporating some economic data. The Oxford AHSN was successful in a bid for the national evaluation of the Brainomix AI in Health Care award.

NB all the programmes meet the criteria for Workforce programmes - digital, pathway transformation and productivity. We have formed a programme board with KSS and Wessex AHSNs to deliver Sleepio, S12, Remote Monitoring and COVID Virtual Ward (Oximetry @home).

Local programmes – Theme 1 - COVID-19 potential Digital and Technology
   o **New guidance for stroke services to adapt during COVID-19**. We have worked with colleagues from all the local stroke units, the ARC, the National Director for CVD Prevention, GIRFT and NHS E/I to develop practical implementation guidelines to support stroke services to adapt during the COVID-19 pandemic. In Q3 guidance was produced on Cardiovascular disease prevention for primary care and Cardiovascular disease prevention during and after the COVID-19 pandemic. More details here: https://www.oxfordahsn.org/our-work/covid-19/covid-19-case-studies/overcoming-disruption-to-cardiovascular-disease-prevention-services/
   o **AI imaging software** implemented: An evaluation has been agreed with NHSE and leads from GIRFT on implementation of AI Imaging software that is currently being deployed and is anticipated to potentially have a positive impact on factors that affect clinical and patient outcomes. This activity is ongoing and will continue for at least a year.
   o **Stroke AI imaging**. For the 18 months we have been working with the Thames Valley stroke network to design, develop and deliver a mechanical thrombectomy service across the system. This project is called TITAN: (Thrombectomy Innovation and Transformation Network). It is a quality improvement project, looking at all aspects of the pathway. We now have the second best 'door in door out' times in the country; with an aim to be first.
   o Part of this development has been working with Brainomix, to introduce their AI software, to aid clinicians in the interpretation of complex brain imaging of patients with a stroke. A full rollout of the AI decision support tools was achieved in the summer and had the distinction of being the first system wide roll out of such AI in the UK (see case study three at the beginning of the report).

o   In addition, Brainomix has won a prestigious NHSX AI in Health and Care award. Securing continued funding of this project, and further roll out across the UK.

o   The Oxford AHSN has been successful in securing a competitive bid to undertake the evaluation of the Brainomix NHSX award and will be running this alongside a local evaluation of the TITAN work, and a SE region evaluation of Stroke AI.

Local programmes – Theme 2 COVID-19 potential – Local Support (e.g. where AHSN staff are redeployed to support direct response to COVID-19

o   **Long COVID.** In addition to the usual support offered to IAPT services the Anxiety and Depression (IAPT) Network responded to COVID related challenges and supported the national IAPT team in the set-up of national webinars aimed at training IAPT staff to deliver treatment for Long COVID as part of an MDT.

o   **Electronic Repeat Dispensing** (eRD). At the start of the COVID-19 pandemic (March 2020), Oxford AHSN and local Medicine Optimisation teams prioritised support to increase the uptake or eRD. In December 2020 eRD was agreed to be adopted as a regional workforce programme by the South East three (SE3) AHSNs - although the meeting with the regional medical director was postponed so not yet signed off my regional team.

o   Impact of the initial phase of the COVID-19 planning on the provision of **post-acute stroke services** – JWA with Bayer and all BOB ICS Trusts

o   **Redeployment of non-clinical staff** - The Director of Strategic and Industry Partnerships programme is on secondment until May 2021, evaluating testing innovations for Professor Dame Sue Hill, Chief Scientific Officer for England.

Local programmes – Theme 3 - COVID-19 potential – Additional AHSN Support

o   **Sleepio** has been selected is one of three regional programmes for rollout across the South East – see table on Regional programmes

o   **PPE** – sourcing, reprocessing and sustainability. With eight other AHSNs we have formed a Community of Interest on sustainability with sub-committee on reusable PPE. With Wessex we are showcasing best practice and PPE innovation with Trusts from around the country, e.g. the PeRSo hood, the OxfordBox (also advised on commercialisation), reprocessing gowns and N95 masks with hydrogen peroxide. We are linked with the NHS Sustainability Development Unit and the Director of the central PPE Make team to promote sourcing of reusable PPE in the UK to improve supply chain resilience, reduce the environmental harm of single use plastics and support economic growth. We are working with procurement leads and environmental sustainability leads in the region.

Local programmes – Theme 4 - no COVID-19 potential (summary from three programmes – PS&CI, CIA and SIP)

o   **Adopting Innovation and Managing Change in Healthcare Settings Programme**
The programme was successfully delivered online, for the first time, to 60 students, some of whom were from Primary Care.

o   **eMaps** - A free promotional offer took place and the eMaps team delivered a session at a 'health innovations across borders' public health on-line seminar. The 'Healthcare in Europe report' was launched on the platform. eMaps was featured in the Boehringer Ingelheim guide and Erlangen University purchased UK, Germany and USA bulk content and the eMaps team presented at the University's Reimbursement Seminar.

- o **Bone health** - The contract between PRIMIS and the University of Oxford was finalised at the end of Q3, which will enable the contract between the AHSN and PRIMIS to be completed early in Q4.
- o **Elastomeric devices** - This quarter focused on finalising the implementation support document, which has received internal sign off from OUH. This document captures the outcomes and lessons from OUH and aims to help other Trusts understand the potential benefits of the device and to assist with implementation. A couple of Trusts have expressed an interest and meetings are to be scheduled early in Q4.
- o **Medicines Optimisation** - an opioid prescribing data pack has been produced with comparative data from all the national data sets that publish opioid prescribing indicators. This has been circulated to regional Medicines Optimisation leads.
- o **Polypharmacy -** Action learning sets delivered online to the original cohort. Full breakdown of participants per CCG can be found within the CIA report.
- o **Lipid Management pathways/PCSK9i**: As of Jan 2021, activity on both projects has been bought to a stop due to rising COVID-19 disruption.
- o **Evaluation - AI software South East**: This programme is a South East regional evaluation of the impact of new technologies in artificial intelligence algorithms and efficiencies in image sharing as applied to acute stroke services.
- o **Strategic and Industry Partnerships** continues to undertake the four core activities commissioned by the Office for Life Sciences: communicating local priorities, innovator support and signposting, evaluation in a real-world setting, adoption and diffusion.
  Highlights:
  - Five case studies were chosen for the next Office for Life Sciences economic growth brochure include:
    - **True Colours IBD**, successfully introduced real time data collection through a web-based system into clinical care for patients with ulcerative colitis or Crohn's disease.
    - **J&J Partnership –** working together to support the development of new MedTech and digital healthcare innovations.
    - **The Oxford AHSN Accelerator** 2020 Programme
    - **AI in Health and Care Award** – 32 projects selected for a Phase 1-3 AI Award, Oxford AHSN is supporting four of these companies. Projects being supported by Oxford AHSN have leveraged over £5m funding.

- o **Ufonia** – Interviews held with Ophthalmology stakeholders. Transcripts were analysed and formed the basis of the report. Results of the barrier to adoption study were also submitted to Ufonia.
- o **IMPACCT funded by EIT-Health –** Oxford AHSN and IMPACCT clinical partners hosted an ideation workshop in preparation for a training and education work package due to take place later in the year.
- o **Oxford Safe Birth (OxSBirth) Fit for Labour test** - Barrier to adoption study undertaken. Literature review performed to map the care pathway for women in labour, and a visual representation of the care pathway. Semi structured interviews held. Final report submitted, and an Early Stage

Economic Evaluation will be conducted to assess the economic value of implementing the Fit for Labour test in the labour management pathway.

- o **Releaf Seated**: Binding Sciences have created "Releaf Seated" to aid patients suffering from urinary incontinence (UI). Releaf Seated is a handheld, easy to use portable urinal made from a reusable collar design attached to a disposable replaceable superabsorbent bag. Preparatory work on the barriers to adoption report for Releaf Seated began in Q3.

- o **Innovate UK funded project Purines for Rapid Identification of Stroke Mimics (PRISM) Sarissa Biomedical** - 12 clinicians interviewed to discuss the required sensitivity and specificity of the test, and what the potential clinical utility of the test could be. An interim report was collated for the company to use as part of their Board meeting, with a complete report being completed imminently.

Finance

Commissioning income currently shows core funding; further contract variations (e.g. PSC) expected in Q4 will be reflected in our forecast when agreed. Our Programme expenditure makes up 78% of our total expenditure (min 75%). We have been recruiting to support our programmes and appointed one internally and the remaining three are expected at the end of Q4 and are reflected in the forecast variance.

Model Period Beginning	01-Apr-20	01-Apr-20
Model Period Ending	31-Mar-21	31-Mar-21
Financial Year Ending	**2020**	**2020**
INCOME (REVENUE)	Opening Plan	Forecast
Commissioning Income - NHS England Master Licence	2,723,650	2,723,650
Commissioning Income - Office of Life Sciences	830,300	830,300
Commissioning Income NHSI - PSC	447,058	447,058
Other Income - Partner Contributions	330,000	332,130
Other Income - Recharges to Accelerare/Cogentis	42,375	42,375
Other Income - Health Education England	0	0
Other Income - PSC	0	4,088
Other Income - Digital First South East	0	74,022
Other Income - Patient Safety Collaborative	0	97
Other Income - Clinical Innovation Adoption	479,036	348,229
Other income - Strategic & Industry Partnerships	483,224	305,286
Other Income - PPIEE	40,000	24,070
Total income	**5,375,643**	**5,131,305**
AHSN FUNDING OF ACTIVITIES	Opening Plan	Forecast
Patient Safety	537,518	503,933
Clinical Improvement	198,492	159,419
Clinical Innovation Adoption	1,516,596	1,370,318
Strategic & Industry Partnerships	1,344,402	1,344,108
Community Involvement & Workforce Innovation	303,244	282,659
Communications, events and sponsorship	139,123	133,868
Contribution to AHSN Network	150,000	168,032
Covid Activity	0	5,582
Programmes and themes	**4,189,375**	**3,967,918**
CORPORATE		
Pay costs	720,877	725,944
Non-pay costs	465,391	437,442
Total Corporate Costs	**1,186,268**	**1,163,386**
General Contingency	0	0
Total expenditure	**5,375,643**	**5,131,305**
Net Income/Expenditure	**0**	**-0**

Risks and Issues

Risks and issues log (Appendix A)

Dr Paul Durrands ACA CMILT, Chief Operating Officer, Oxford AHSN

Patient Safety and Clinical Improvement (PS&CI)

The Patient Safety and Clinical Improvement team have worked flexibly over this Quarter to try to appropriately help the system with the demands of the pandemic as it has developed, with a significant amount of our resource dedicated to the rapid implementation of out of hospital care for Covid patients as detailed below, in collaboration with a number of our Oxford AHSN colleagues, making the best use of the varied skills our organisation has.

The National Patient Safety Improvement Programme (NHSI) specification for Oct 2020-March 2022 was also published in late December which details five main programmes of commissioned work for that period. We are currently working on a pragmatic plan detailing our approach which will be submitted shortly to NHSI.

COVID Oximetry @Home and COVID Virtual Wards

Since early October we have been working at pace to support systems to develop and implement COVID Oximetry @home services (CO@H). The 'CO@H' package of care involves the remote monitoring of people who have contracted Covid who are more at risk of developing severe symptoms individual's condition, through providing regular contact with a local health care team who will reassess the person's symptoms (including oxygen saturation levels). This close monitoring enables the individual to remain at their usual place of residence whilst allowing early signs of deterioration to be identified and escalated quickly and appropriately.

We have worked in close collaboration with our AHSN colleagues in KSS and Wessex to quickly share learning, help develop local and national 'How To' guides, support and put on stakeholder webinars, provide bespoke support to each system, and regularly update the Regional and National teams with progress, learning and identification of issues and risks. We are pleased to report that all systems now have live CO@H services, and we are continuing to work with systems to optimise their use.

We are also working with NHSX, having successfully secured a bid for funding for a digital solution (Inhealthcare) to support CO@H for several systems, to roll out at pace. This solution should also be applicable to further out of hospital care in the longer term.

In a similar manner, we are also supporting the rapid implementation of the Covid Virtual Ward model (CVW) from the beginning of January. This model is normally operated by secondary care and provides a step-down mechanism, to enable earlier and safe discharge of patients with a higher level of clinical support than offered through the COVID Oximetry @home model. Patients are provided with a pulse oximeter, agreed remote monitoring arrangements and additional care and support as required.

Upcoming webinar: NHS South East region COVID Oximetry @home and virtual wards, 2 Feb 2021

Tracheostomy

From March 2020 we engaged with a rapid improvement programme in tracheostomy safety and the implementation of a care bundle in response to the emerging pandemic. All Trusts in our region now use the bundle and are linked to national resources and support. We will continue to be flexible in supporting

any further requirements in this area, including supporting a regular forum for sharing learning between clinicians in the region.

Maternal and Neonatal Safety

The overall ambition of this workstream is to improve the safety and outcomes of maternal and neonatal care by reducing unwarranted variation and provide a high-quality healthcare experience for all women, babies and families across maternity care settings in England. This aim includes improving outcomes and experience of care, addressing the national ambition of reducing rates of maternal deaths, stillbirths, neonatal deaths and brain injuries that occur during or soon after birth by 50% by 2025.

In this period, we developed and conducted a review and evaluation of what went well and not so well during the first wave of the pandemic. This included a survey of all maternity and neonatal staff, with nearly 900 responses from across the region, available here. Changes in service delivery and the impact on mothers, babies, partners, families and staff were all considered in the report which acknowledges the significant efforts made by trusts to respond to service user feedback while managing rapidly changing guidance. The report supports co-producing services, increasing collaboration across organisations to share best practice more effectively, reduce regional variations and maintain quality and safety through future waves of the pandemic and recovery. Key factors in enabling the introduction of innovations which were identified by respondents included national focus and priorities, positive attitude, less bureaucracy, agile working, communication and leadership, a sense of urgency and fewer distractions. Many of these enablers should be possible in more 'normal' times too.

Our Intelligent Intermittent Auscultation e-learning programme, developed with Consultant Midwives from OUH and RBH, HEE and OxSTAR, won the HSJ Patient Safety Award for Innovation of the Year 2020 and its use is increasing across the country (see Case Study). It is now being prepared for international distribution through the E-Integrity platform.

Over the next period we will be focussing on elements of care that improve outcomes for preterm babies and testing a universal Maternity Early Warning Score (MEWS) to better identify deterioration.

Medicines Safety and Care Homes

The aim of this workstream is to reduce harm because of errors in the administration of medicines in Care Homes and improve the safety and experience of care for residents. We have been supporting Care Homes on several projects in collaboration with our AHSN colleagues. This includes a group for sharing learning and support for In-Reach staff. We have been planning for the next phase of this work, which will consist of the development of a Care Homes Patient Safety Network, testing and spreading interventions.
In addition, we are scoping potential interventions with regard to the prescribing of Opioids as the starting point for a programme in this area.
Work supporting RESTORE2 (tool for identifying soft signs of deterioration) in Care Homes slowed, but not stopped, during this period because of competing demands on Care Homes.

Mental Health

We have continued with our work on national programmes and a number of local programmes. As well as these we continue to work with the other teams in the AHSN on Mental Health related work.

Focus ADHD – National Programme

This national programme aims to improve the assessment process for Attention Deficit Hyperactivity Disorder (ADHD). The outcomes of the national programme are:
- Increase in the number of children and young people who have an objectives assessment as part of the clinical assessment.
- Reduction in time for assessment and decision making (from first referral to decision to diagnose/rule out).
- Reduction in number of outpatient appointments between referral and diagnosis
- Reduction in nurse observation visits in schools
- Improved patient / family satisfaction / experience
- Improved clinician satisfaction and confidence in diagnosing or excluding ADHD.

One of the main elements of the programme is implementation of a computerised objective test, QbTest. The QbTest is already implemented in Berkshire and Oxford, so we are working with our other areas to facilitate discussions on adopting this test.

Serenity Integrated Mentoring (SIM) – National Programme

This national programme sought to introduce close proactive working between police and mental health teams to support some of the most vulnerable members of our communities who struggle with repeat mental health crises. We continue to support two localities with adoption of a similar programme based on a version in place in Hampshire. One of these localities has recently achieved equivalence against the nationally published 12 core elements of high-quality care for the prevention of repeat mental health crises.

S12 Solutions – Local Programme

S12 Solutions is a platform that has been developed to assist Approved Mental Health Professionals (AMHPs) with setting up Mental health Act (MHA) assessments, and doctors to claim for participating in them. It is one of the innovations supported by the SE Regional AHSNs as part of their collaborative regional spread and adoption and has been adopted widely across English CCGs.
We presented on S12 Solutions at a recent ICS meeting and followed this up with interviews with AMHPs to determine what challenges and issues are faced locally in setting up assessments and any known problems in doctors being paid for their work. A draft paper summarising the position has been presented to CCG MH Commissioners.

Anxiety and Depression – Local Programme

In addition to the usual support offered to IAPT services the Anxiety and Depression (IAPT) Network responded to COVID related challenges and supported the national IAPT team in the set-up of national webinars aimed at training IAPT staff to deliver treatment for Long COVID as part of an MDT. Because of increased levels of anxiety and depression in our communities and therefore more complex conversations

with service users, the network also initiated work on delivering bespoke training and support to volunteers and their managers who are supporting vulnerable older adults through lock down. The commissioning of a pocket guide aimed at these volunteers and entitled 'Supporting vulnerable adults' is also part of this programme – it is planned that this guide will be relevant to non-Covid times as well.

Network for Care Homes In-reach Teams who work with People with Dementia – Local Programme
We continue to support this network. In the early days of the pandemic this network was meeting frequently to share experiences of the members' support for care homes during this very difficult time. During October we were joined by Dr Sian Roberts who is Clinical Lead for Dementia in SE Region NHSE/I, and who spoke about Primary Care Networks (PCNs) and their future role in care homes. The Enhanced Health in Care Homes framework is a significant element of the PCNs' work outlined in the NHS Long Term Plan and requires a Multidisciplinary Team (MDT) approach.

Clinical Innovation Adoption (CIA)

During September to December there was a brief opportunity to reflect on wave 2 impact on services and to support reset, hence CVD guidance activities initiated and a collaboration project with Bayer to improve Stroke rehabilitation activities. These activities were undertaken with a view to create some level of resilience where possible. This included looking at considering some of the changes that could be accelerated such as electronic Repeat Dispensing Services (eRDs).

There was also an opportunity to return to our key activities which involve deployment and planning. Engagement was returning to normality such as Asthma Biologics, CVD as frontline clinicians were keen to focus on opportunities to improve services.

Key achievements included:

- Collaborative working within the SE Region to introduce the 3 selected projects, with Sleepio led by the CIA team; Launched in October 2020, this has resulted in 612 registrations, 341 CBT starts, and the remission rate is 48% (n=79).
- The team has supported the Inhealthcare deployments by offering system support on implementation requirement checks such as set up for system governance, identification of users, appointment of clinical safety officer, quality assessment and helping to unblock barriers.
- TCAM has picked up at Buckinghamshire Healthcare with 535 referrals with 59% being converted by the Community Pharmacists into appointments with patients.
- CIA Team was selected to be the Technology Specific Evaluation Team (TSET) for the Brainomix NHSX AI Award and will be working with 7 Integrated Stroke Diagnostic Networks (IDSNs) across the UK (includes Scotland). This will generate improvements in these stroke networks with evaluative feedback.
- 41 GPs attended the Action Learning Sets delivered through the Poly Pharmacy workstream to support understanding around the complex issues of stopping inappropriate medicines safely and will also help Primary Care Networks deliver the Medicines Optimisation elements of the Direct Enhanced Service.
- The Adopting Innovation and Managing Change in Healthcare Settings Programme was successfully provided online to 60 students, some of whom are from Primary Care.

Activities linked to COVID-19 response wave 2

Supporting Stroke Services and CVD Prevention

(1) Guidance for stroke services and CVD prevention stakeholders during the COVID-19 Pandemic

Background: During the COVID-19 pandemic, Oxford AHSN has worked collaboratively with Getting It Right First Time and other partners (including the Primary Care Cardiovascular Society) to develop a range of pragmatic guidance to support teams during the COVID-19 pandemic. Guidance includes:

- Adapting stroke services during the COVID-19 pandemic (May 2020)
- Restoration and recovery for stroke services (July 2020)

- Cardiovascular disease prevention for primary care (October 2020)
- Cardiovascular disease prevention during and after the COVID-19 pandemic (guidance for systems) (December 2020)

Activities planned for Q4
- Publicising the final set of guidance
- Webinar to support guidance

(2) Management of stroke patients discharged during the COVID-19 pandemic (reset)

Background: During the early stages of the COVID-19 pandemic, there was a requirement to create or free up bed capacity for the predicted high numbers of admissions of patients with COVID-19. Many stroke inpatients were discharged earlier in their recovery than usual and there have been concerns expressed across the stroke community that this cohort of patients may not have had the same access to rehabilitation and follow-up care as those discharged pre-COVID-19.

The aim of the project is to use a combination of data and qualitative analysis to provide an in-depth understanding of the impact of the initial phase of the COVID-19 planning on the provision of post-acute stroke services. This will enable the NHS to identify potential solutions and system changes to optimise current and future patient care.

The project will be delivered through a Joint Working Agreement (JWA) between Bayer and Oxford AHSN.

Activity during Q3: Data sharing agreements developed with Trusts. Engagement with staff working in rehabilitation services and several interviews carried out.

Engagement: Royal Berkshire, Oxford University Hospitals, Buckinghamshire Healthcare, Berkshire Healthcare, Oxford Health, Bayer, Thames Valley Stroke forum.

Expected outcomes: An understanding of the impact of early discharge from acute stroke units and Emergency Departments to inform future planning. Root cause analysis to enable identification of factors that need to be addressed.

Activity next quarter: Data analysis and qualitative interviews.

Electronic Repeat Dispensing (eRD)

At the start of the COVID-19 pandemic (March 2020), Oxford AHSN and local Medicine Optimisation teams prioritised support to increase the uptake or eRD. This was triggered by NHS England/Improvement guidance to Primary Care to convert all suitable patients onto eRD when their next repeat prescription was due. The benefits being reduced footfall into GP Practices; reduced workload for prescribers and controlled management of the supply chain reducing the number of temporarily unavailable medicines. Successful implementation of eRD has been reported to save up to 46 mins of GP time a day through more efficient management of the repeat prescription reauthorisation process.

Additional information is available at: https://clinicalinnovation.org.uk/project/electronic-repeat-dispensing/

Activity during Q3

In December 2020 eRD was agreed to be adopted as a regional workforce programme by the South East three (SE3) AHSNs (NB meeting with regional medical director was cancelled so not signed off yet). An initial meeting of the eRD and workforce leads for the SE3 was planned for January to decide joint activity and metrics.

Engagement
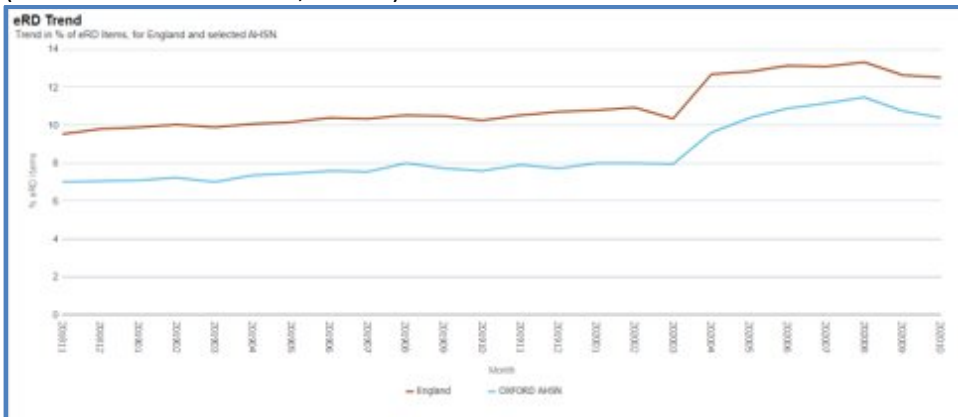
Clinical Commissioning Groups that are supporting eRD
Berkshire West CCG
Buckinghamshire CCG
East Berkshire CCG
Milton Keynes CCG
Oxfordshire CCG

Progress

From March 2020 when support was prioritised there has been a steady increase in eRD uptake rates both at a national, and an AHSN level. A peak was reached in August when the % of eRD items compared to all items, was were 13% nationally, and 11% across Thames Valley. The latest data (Oct 2020) shows a decline following this peak with % rates at 12.52% nationally and 10.40% across Thames Valley.

Figure 1. eRD Trend

(Axes titles: % eRD items; month)

There is a wide variation in uptake rates across the CCGs. When considered in terms of % eRD terms the range varies form 14.57%, which is above the national average, to 6.21%. In terms of patients on eRD, the range varies from 10.07% to 1.53%.

Figure 2. CCGs by items and patients.

Commissioner / Provider	% Items	% Patients
EAST BERKSHIRE CCG	14.57	6.17
OXFORDSHIRE CCG	11.93	3.78
BERKSHIRE WEST CCG	10.67	10.07
BUCKINGHAMSHIRE CCG	6.91	5.05
MILTON KEYNES CCG	6.21	1.53

Next Quarter Q4

To meet with the three South East AHSNs eRD and workforce leads, to jointly produce a plan to decide next steps, outcomes and metrics.

National programmes

CVD Prevention (National)

Background: The AHSN CVD prevention programme aims to build on the AF programme and incorporate hypertension and lipid management. In year one, all AHSNs will work on the lipid management pathway with a small number of AHSNs also working on case finding and optimisation for familial hypercholesterolemia.

Progress to date:

The project launched in October 2020
- Stakeholder engagement is ongoing through various forums and through direct conversation with CCG CVD leads.
- Three national meetings and workshops have been attended
- National metrics have been developed (by the national team) and are awaiting ratification
- Oxford AHSN has applied to be one of the pilot sites for child-parent screening for familial hypercholesterolaemia

Activity next quarter

Planning will continue. Progress in Q4 is likely to be slower than anticipated due to the impact of the COVID-19 second wave and the vaccination programme on primary care capacity to engage.

FREED (First episode Rapid Early intervention for Eating Disorders) (National)

FREED is an innovative, evidence-based, specialist care package for 16 to 25 year olds with a first episode eating disorder of less than three years duration. FREED aims to overcome barriers to early treatment and recovery and provides highly co-ordinated early care, with a central focus on reducing the duration of an untreated disorder. It consists of a service model and a care package.

Funding from NHSE/I to help establish FREED services in England have enabled Berkshire Eating Disorders Service and Buckinghamshire's ED service to begin preparations to recruit a FREED Champion and offer a service from April 2021.

 Colleagues from both services are booked onto online FREED training in accordance with expectations this month and both are actively recruiting Champions.

 A South East FREED Support Network has been established to share good practice and help develop services.

PINCER

Supporting pharmacists and GPs to identify patients at risk from their medications and helping them take the right action Prescribing errors in general practice are an expensive, preventable cause of safety

incidents, illness, hospitalisations and even deaths. Serious errors affect one in 550 prescription items, while hazardous prescribing in general practice contributes to around 1 in 25 hospital admissions.

Led by primary care pharmacists and pharmacy technicians, AHSNs rolled out the PINCER intervention nationally in 2018-20. It involves searching GP clinical systems using computerised prescribing safety indicators to identify patients at risk from their medications and then taking acting to correct them.

Further information about the PINCER programme is available at www.ahsnnetwork.com/pincer

Activity during Q3

Four Action Learning Sets were delivered by Oxford AHSN during November and December 2020 to 31 Primary Care Network (PCN) and Practice Pharmacists.

A draft regional sustainability plan was developed and discussed with PRIMIS. Discussions on national support following completion of the AHSN rollout were discussed with the national AHSN Medicines Optimisation Leads Group.

Engagement

Clinical Commissioning Groups that have adopted

Berkshire West CCG

Buckinghamshire CCG

Milton Keynes CCG

Oxfordshire CCG

Progress

As of April 2020, PINCER has reduced the risk of a serious adverse event in at least one PINCER indicator in 2,338 patients. Table 1. PRIMIS is producing an update of these figures, however these were not available at the time of reporting.

Table 1. Change in number of at-risk patients in at least one indicator (April 2020)

AHSN	Number of practices (n)	Baseline*		Latest **		Change in absolute number of at-risk patients (n)	% change in absolute number of at-risk patients (%)	Change in prevalence per 1,000 patients (n)
		Numerator (n)	Prevalence per 1,000 patients (n)	Numerator (n)	Prevalence per 1,000 patients (n)			
East Midlands	109	6,179	6.78	5,627	6.14	-552	-8.9	-0.64
Eastern	50	4,570	8.58	3,954	7.38	-616	-13.5	-1.20
Health Innovation Network	78	4,262	4.94	3,595	4.10	-667	-15.6	-0.84
Imperial College Health Partners	45	1,734	5.35	1,484	4.55	-250	-14.4	-0.80
Innovation Agency	37	2,672	9.67	2,188	8.32	-484	-18.1	-1.35
Kent Surrey Sussex	43	4,713	10.30	3,917	8.42	-796	-16.9	-1.88
Oxford	133	12,709	8.11	10,371	6.45	-2,338	-18.4	-1.66
South West	54	6,843	11.43	5,359	8.90	-1,484	-21.7	-2.53
UCL Partners	83	4,094	6.29	3,338	5.07	-756	-18.5	-1.22
Wessex	202	25,663	10.98	22,222	9.38	-3,441	-13.4	-1.60
West Midlands	16	1,016	7.14	878	6.14	-138	-13.6	-1.00
West of England	153	13,473	8.08	11,590	6.83	-1,883	-14.0	-1.25
Yorkshire & Humber	57	4834	8.36	4852	8.35	18	0.4	-0.01
Total	1060	92,762	8.51	79,375	7.19	-13,387	-14.4	-1.32

*Baseline total practice population = 10,906,453
**Latest total practice population = 11,043,137
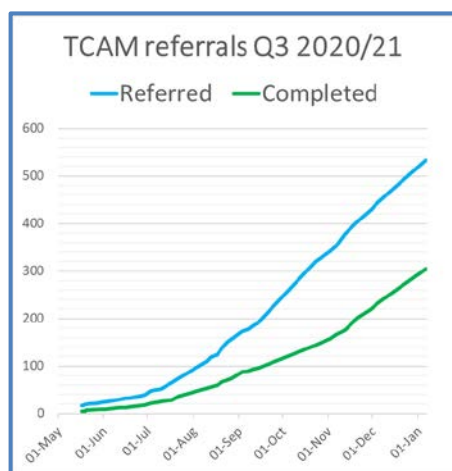
Next Quarter Q4

NHS England/Improvement recommendations on the national sustainability plan for PINCER post March 2021 is pending. Based on this, the AHSN will hand over the ongoing management of PINCER to individual Clinical Commissioning Groups or, to the Integrated Care System. This will also embed PINCER into local systems and ensure that progress made to date is sustained.

Transfers of Care Around Medicines (TCAM)

Help for patients who need extra support with prescribed medicines when they leave hospital

When some patients leave hospital, they need extra support taking their prescribed medicines. This may be because their medicines have changed, or they need support taking their medicines safely and effectively. 30-70% of patients experience unintentional changes to their treatment, or an error is made because of a miscommunication.
 This issue is addressed through TCAM. When patients discharged from hospital are identified as needing extra support, they are referred through a safe and secure digital platform for advice from their local community pharmacist.

TCAM referrals Q3 2020/21

- **535** referrals made by trust
- **313** 'completed' in community
- A conversation rate of **59%**

Trust	Status	Saving on readmission charges to TRUST	Saving on readmission charges to CCG	Local Health Economy TOTAL SAVINGS
Buckinghamshire Healthcare	Adopted	**£267,949**	**£318,960**	**£580,975**
Royal Berkshire	Launch spring 2021	n/a	n/a	n/a
Oxford University Hospitals	In progress	n/a	n/a	n/a

Next Quarter Q4

Ensure information transferred through TCAM aligns with the new Discharge Medicines Service (DMS) – (a new contractual 'essential service' for community pharmacy); Launch TCAM at Royal Berkshire (at risk due to COVID-19); Support Oxford University Hospitals with implementation**.**

Emergency Laparotomy Collaborative (ELC)

Emergency laparotomy is high risk, major surgery that disproportionally challenges acute providers with significant lengths of stay, post-surgical complications and rates of mortality. The programme aimed to promote the adoption of best practices across the length of the pathway, associated with improved outcomes and heightened efficiencies in service delivery.

Impact

The ELC programme within the Oxford AHSN footprint, just prior to the pandemic, was showing improvements across all hospitals performing this high-risk surgery, with comparison nationally in some metrics, together with increasing attendance at the regional ELC meetings. The impact of the pandemic on this body of work has been profound, not least because anaesthetic colleagues have been in the front-line response. The pandemic has delayed national audit data returns and the data for Q3 is not available at the time of writing.

Re-set: **Significantly the critical path to sustainability of best practice has, by necessity, been paused, but all providers have been made aware of the measures required, if the adoption of best practices are to be fully attained and sustained**.

This project is now complete from the perspective of national targets and local delivery. However, when services ultimately re-start, revisiting the conversation for senior support for the critical path to sustainability, would offer the greatest chance to enable and retain attainment of best practice.

AI Award Technology Specific Evaluation Team for Brainomix

Oxford AHSN is engaged in activities involving the application of stroke artificial intelligence (AI) decision support tools at three levels of scale.

Nationally there exists an imperative to form Integrated Stroke Delivery Networks (ISDNs) which includes the provision and standardisation of mechanical thrombectomy services to patients diagnosed with acute ischaemic stroke. Locally, in Thames Valley and the surround, the TITaN group are supporting the ISDN development locally with quality improvement activities, including becoming the first stroke network nationally to adopt the AI decision support tools.
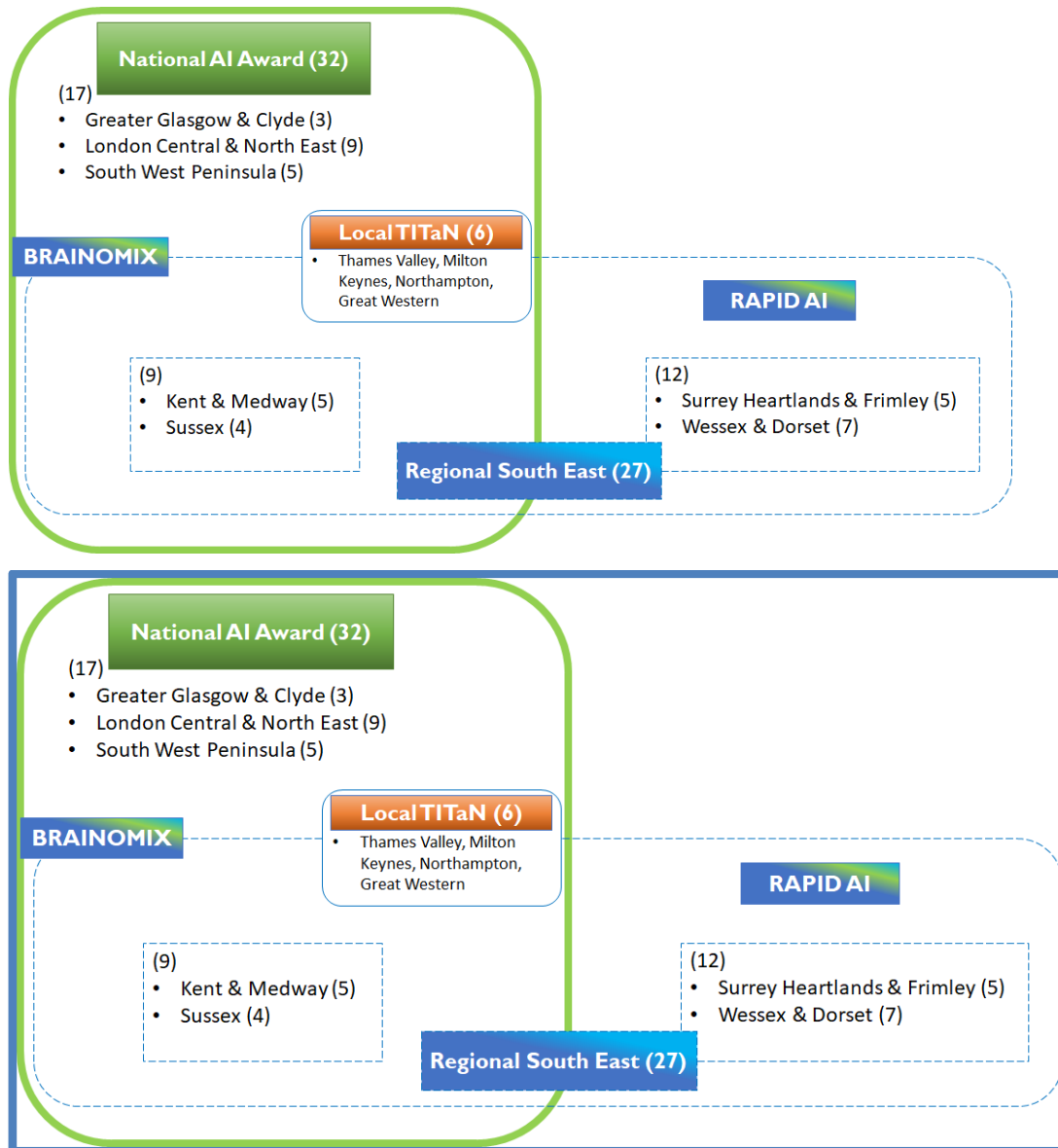
NHS England South East requested that Oxford AHSN undertake a real-world analysis of the impact of the introduction of the AI technology into acute stroke pathways across five ISDN footprints; in which two provider technology companies, Brainomix and RAPID AI have been selected by clinical teams (see diagram).
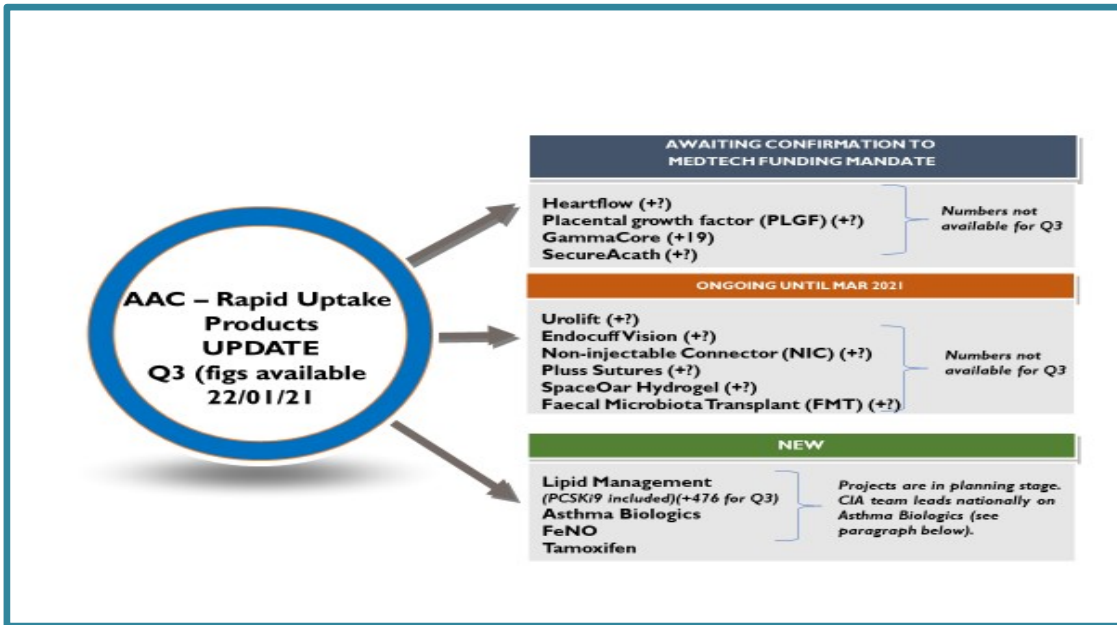
The National AI Award run through an AAC-NHSX partnership and as part of the AI Labs development, selected Brainomix as one of the ten Phase 4 technologies receiving the Award in Wave 1. Oxford AHSN applied and was selected to become the technology specific evaluation team (TSET) for Brainomix. Seven ISDNs (including three from the South East evaluation) are in-scope for the AI Award Evaluation.

The real-world evaluation seeks to determine the impact the technology has on access to reperfusion therapies, the delivery of reperfusion therapies, patient outcomes, the acceptability of the technology to clinical teams and the ease of implementation of the technology.

The South East evaluation will take place during 2021; the AI Award evaluation will proceed over three years.
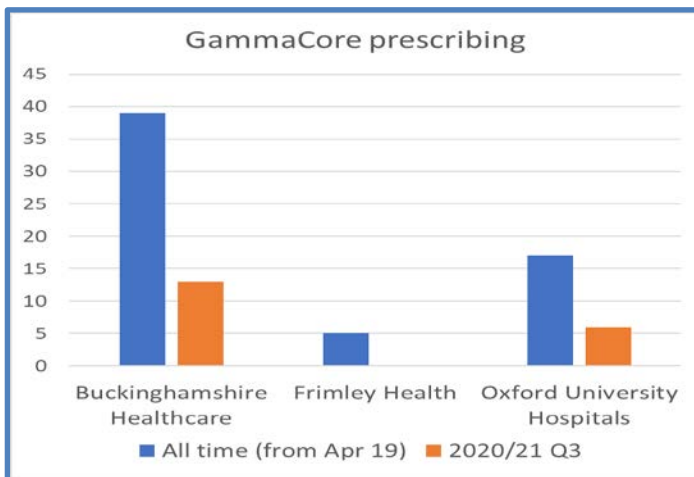
Diagram showing AI deployment/evaluation activities

Accelerated Access Collaborative Update

AAC continued: GammaCore – Spotlight Product

GammaCore (non-invasive vagus nerve stimulator) is a non-drug treatment for adults who suffer from primary headache conditions such as cluster headache and migraine. Prescribing rates suffered in 2020/21 due to uncertainty of continued funding.

Confirmation that that GammaCore is to be listed as a product on the NHSEI MedTech Funding Mandate (MTFM) received in December 2020. 61 prescriptions of GammaCore have been issued since launch in April 2019. 19 prescriptions in 2020/12 at end of Q3.
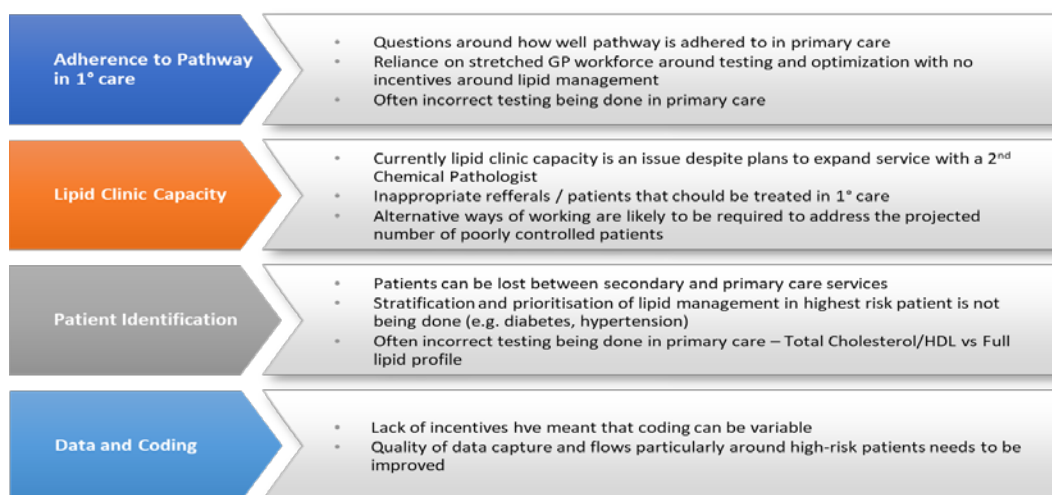
Next Quarter Q4:

Work with Trusts and ElectroCore (the company that makes GammaCore) to ensure the smooth transition from the current funding mechanism (ITP) over to the MTFM.

AAC continued: PCSK9i – Spotlight Product

PCSK9 inhibitors (PCSK9i) are lipid lowering drug to treat high cholesterol levels and reduce the risk of cardiovascular disease (CVD), including heart attack or stroke, in patients with the genetic disease Familial Hypercholesterolaemia, or those who have had a previous CVD event.

Oxford AHSN has been working on this initiative since Sept 2019 and supporting local teams to focus on the programme

- Supported 2 successful Pathway Transformation Fund applications at Royal Berkshire Hospital and in primary care through Bucks CCG
- Engaged with all 5 lipidology departments in the Thames Valley to understand barriers to patient identification, work-up and PCSK9i prescribing
- Identified several potential barriers (see below)
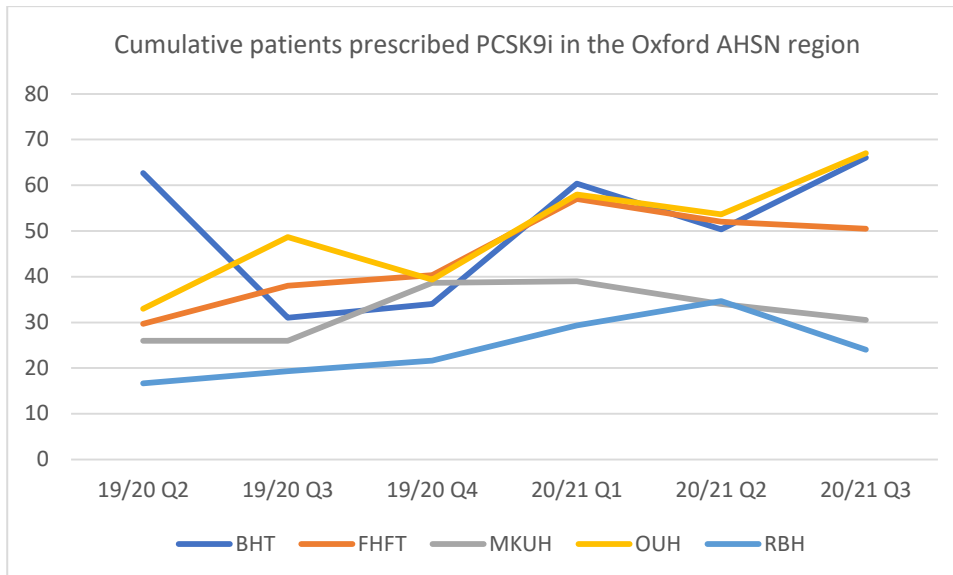

During Q3:

- After COVID-19 delays both PTF project teams were re-engaged and activity recommenced
- PTF Buckinghamshire – Pharmacist-led lipid management clinic in development
    - Contracting and funding now in place
    - Pharmacists recruited, and back-fill arranged
    - Target patient cohorts confirmed for case finding, and case finding tool identified
    - Early adopter sites identified
- PTF Royal Berkshire Hospital – Novel Cardiac rehab-led lipid management pathway
    - Project team assembled
    - Contracting and funding now in place
- As of Jan 2021, activity on both projects has been bought to a stop due to rising COVID-19 disruption.

Next steps Q4

- Identify opportunities for QI work on lipid pathways whilst ongoing COVID-19 disruption continues.
- All sites will be contacted at end of Feb 2021 to discuss plans for the reinitiating of the programme.
- PTF Buckinghamshire
  - Finalise Information Governance arrangements
  - Fully develop and sign off Clinical SOPs
  - On-boarding with early adopter sites
- PTF Royal Berkshire Hospital
  - Recruit clinical staff
  - Develop pathway and protocols
  - Confirm IG arrangements

Progress against targets

- Contract target for PCSK9i RUP is 247 eligible and appropriate patients receiving PCSK9i
- As of 2020/21Q3, 233 patients were receiving PCSK9i from sites in the Oxford AHSN region
- Looking at prescribing over time, 3 out of 5 sites saw a drop in prescribing over recent 2 quarters, which is reportedly due to COVID-19 disruption (see figure below)

Cumulative patients prescribed PCSK9i in the Oxford AHSN region

- Q4 will continue to be a struggle for most sites with COVID-19, whilst we need to offer access to only 14 more patients across the 5 trusts in the region, COVID-19 delays will put this number at risk.

New AAC Activities

Asthma Biologics

CIA team is leading on the Asthma Biologics National deployment working closely with the SIP team.

During Q3:

A supplier, with wider engagement groups (national respiratory/CCGs) and AHSN briefing meetings were held in October. Delivery groups for tasks are set up. Questionnaire for baselining Tertiary activities is in draft awaiting approval from clinical leads. We started work on AB toolkit for national spread and training requirements. Held a National Working Group and all priorities areas are making progress. Prepared draft

metrics and sub-metrics awaiting clinical lead sign off. Working Group agreed to delay Pathway Transformation Funding deadline for submissions due to c-19; awaiting the NAPOG decision.

Next steps Q4

Ongoing national activities around the 12 priorities.

FeNO Testing: Met with Wessex to discuss overlap with Asthma Biologics activities in the Primary Care space. The primary consideration is communications with AHSNs (which have been and will be held jointly), and with Primary Care. The CIA Team is in the process of planning Regional activities for FeNO testing.

Lipid Management: This AAC activity is reported in the CVD Prevention section (page 32 above).

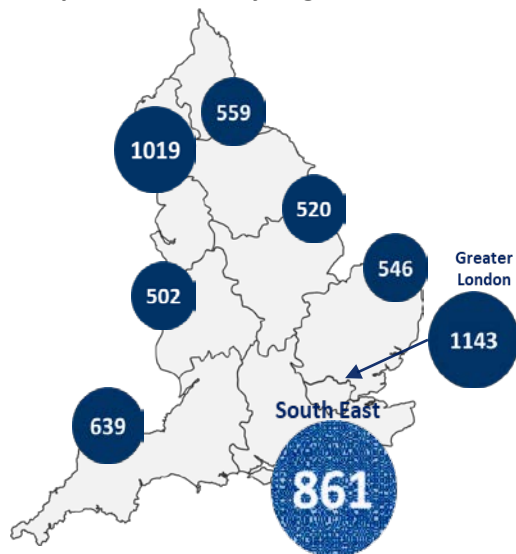**Tamoxifen, Cladribine:** Awaiting further instruction from AAC.

South East Regional and Local Projects

Regional
Sleepio – deployment to the SE Region – NEW

Clinically evidenced CBT for insomnia delivered via online sleep improvement programme. Widespread adoption across the Thames Valley. The online digital therapeutic is now being offered to all NHS England staff (alongside Daylight, Headspace, and Unmind) in response to the COVID-19 pandemic.

No of Sleepio CBT starts by Region

Sleep	Anxiety	Mood
2.8	2.6	2.1

Baseline mental health and sleep scores at start of the programme for NHS Staff in the South East

58% Improvement in insomnia among NHS staff within the South East region

The six Primary Care Networks in North Hampshire CCG have partnered with Big Health to embed Sleepio in primary care. Launched in October 2020 this has resulted in 612 registrations, 341 CBT starts, and the remission rate is 48% (n=79).

Other opportunities to expand this approach within the South East Region are being explored (with colleagues from KSS AHSN and Wessex AHSN) and a formula for calculating the potential cost for Sleepio (by population) has been developed with Big Health, offering a degree of certainty/clarification which – to this point – has been absent.

Engagement with Medicines Optimisation Leads to explore potential for reducing prescriptions for hypnotic and anxiolytic medication using Sleepio.

Since the Innovate UK project in the Thames Valley concluded, an additional c.3,000 individuals have commenced the CBT element of Sleepio within the area (taking the total from c.7,500 to c.10,500).

Polypharmacy Action Learning Sets

Polypharmacy, the concurrent use of multiple medications, has been described as a significant public health challenge. It increases the likelihood of adverse effects, with a significant impact on health outcomes and expenditure on health care resources. Polypharmacy is a key part of the WHO Global Challenge to reduce harm from medication errors by 50%.

[Medication Safety in Polypharmacy. World Health Organization.](#)
The local polypharmacy project included the adoption and spread of the Polypharmacy Action Learning Sets developed by Wessex AHSN and Health Education England. The aim was to help GPs understand the complex issues surrounding stopping inappropriate medicines safely and will also help Primary Care Networks deliver the Medicines Optimisation elements of the Direct Enhanced Service.

Activity during Q3

The Action Learning Sets were delivered as three half day sessions. Session 1 was delivered pre-COVID-1919 as a face-to face session to 45 GPs and Pharmacists. This was delivered in March 2020. In Q3, the sessions were reformatted to enable them to be delivered remotely online. These were delivered to the original cohort in September and October 2020. The breakdown of participants per CCG is shown in table 1.

Table 1. Participants per CCG

Total number of participants	41
Berkshire West	10
Buckinghamshire	9
East Berkshire	3
Milton Keynes	1
Oxfordshire	18

Next Quarter Q4

To scope if there is resource available to deliver the Action Learning Sets again to a second cohort of participants across Thames Valley.

LOCAL – Inappropriate High-Dose Opiate Prescriptions for Non-Cancer Pain

This initiative is one of the elements of the Medicines Safety Improvement Programme.

The aim of this initiative is to reduce harm from opioid medicines by reducing high dose prescribing (>120mg oral Morphine eq.), for non-cancer pain by 50%, by March 2024.

This work stream will initially conduct a diagnostic phase to identify effective interventions that lead to a reduction in opioid prescribing for chronic non-cancer pain. This will be done by carrying out a semi-
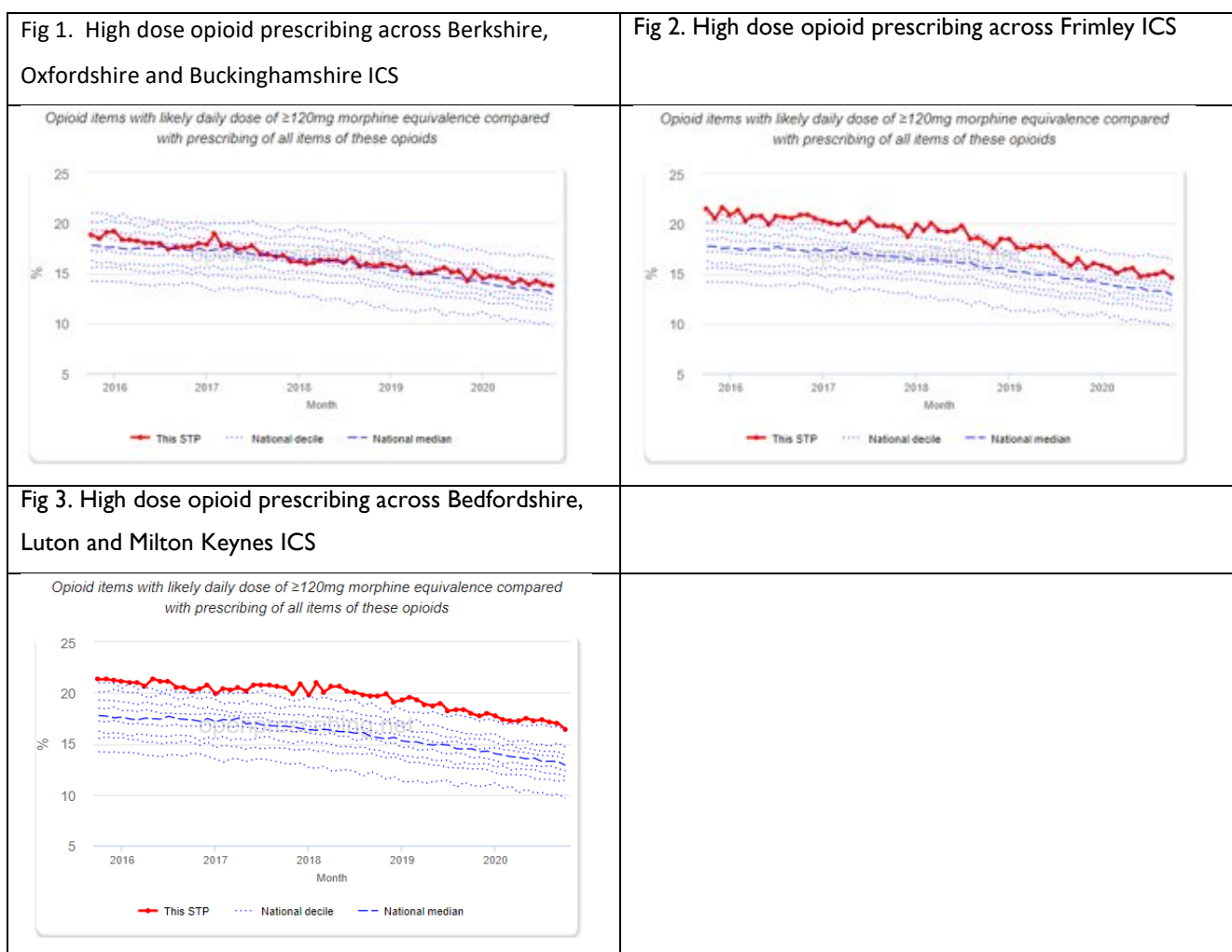
structured interview with people that have led on local initiatives. The aim is to identify and submit five locally delivered initiative to NHS England for consideration for national adoption and spread.

Activity during Q3

The national working group decided a joint approach to the diagnostic phase of this project. In December 2020, a request was sent to Thames Valley Medicines Optimisation, pain management and addiction service leads to signpost the AHSN to any local initiatives that were being delivered to reduce high dose opioid prescribing for chronic cancer pain.

Open prescribing data was also accessed to determine base line prescribing Practice in this area at ICS level. Figure 1,2 +3.

Fig 1. High dose opioid prescribing across Berkshire, Oxfordshire and Buckinghamshire ICS	Fig 2. High dose opioid prescribing across Frimley ICS
Fig 3. High dose opioid prescribing across Bedfordshire, Luton and Milton Keynes ICS	

Progress

Two interviews have been carried out to date. One with Berkshire West CCG and a second with Oxford University Hospitals NHS FT. A further two are planned.

Next Quarter Q4

To carry out the two planned interviews and to re-circulate the original request and identify additional local initiatives that could potentially be submitted.

Bone Health

Background: This is a primary care-based medicines optimisation project that aims to improve the management of patients with osteoporosis who are at high risk of sustaining a fragility fracture. A similar project is also being deployed by four other AHSNs who are collaborating to deliver the "Northern Bone Health Programme".

The AHSN is working collaboratively with the University of Oxford and PRIMIS to initiate a local project with GP practices to ensure patients with osteoporosis are managed in accordance with NICE guidelines and are optimised on treatment. The project will include a review of patient and clinician education and identification of potential gaps.

Activity in last quarter: Work this quarter focused on progressing and finalising the contracts with the University of Oxford and PRIMIS. The contract between PRIMIS and the University of Oxford was finalised at the end of Q3, which will enable the contract between the AHSN and PRIMIS to be completed early in Q4.

Work was undertaken to seek patients' views on patient information. Through engagement with the Fracture Liaison Service at OUH, patients were sent flyers asking for their participation in a discussion on this topic.

Plans for next quarter:

- Finalise contract between the AHSN and PRIMIS

- Finalise and sign off case finding 'know-how' within the osteoporosis tool

- Development of supporting materials for participating GP practices

- Engagement with GP practices to participate in the project

- Developing plans and timeframes to commence within GP practices

Elastomeric Devices

Background: Elastomeric devices are small, single use pumps used to administer medication such as IV antibiotics or chemotherapy and can be used in patients' homes. As the pressure on hospitals beds is significant, Trusts are keen to explore alternative ways to treat patients safely and effectively that either can facilitate an earlier discharge from hospital or prevent an admission to hospital. Elastomeric devices could be used to support both the discharge of patients who would otherwise remain in hospital purely to receive IV antibiotics, and to support the prevention of admissions for such patients.

Activity in last quarter: This quarter focused on finalised the implementation support document, which has received internal sign off from OUH. This document captures the outcomes and lessons from OUH and aims to help other Trusts understand the potential benefits of the device and to assist with implementation.

At the end of Q3, a summary of the work undertaken with OUH was sent to all Trusts in the region with the offer of support should Trusts be interested in exploring this work further. A couple of Trusts have expressed an interest and meetings are to be scheduled early in Q4.

Plans for next quarter:

- Schedule meetings with interested Trusts

- Work with interested Trusts to explore potential for introducing the device

- Meet with OUH procurement to discuss project and engagement with NHS Supply Chain

Benign Prostatic Hyperplasia (BPH) Patient Information Videos

Background: BPH, or enlarged prostate, is a common and progressive condition in which the prostate becomes enlarged, which can result in the urethra being squeezed or partly blocked making it difficult for a man to pass urine. There are several different treatment options ranging from lifestyle changes to surgery, depending on the severity of symptoms. Provision of comprehensive information regarding the condition and treatment options is important to enable men to make informed decisions regarding their treatment. Oxford AHSN is working collaboratively with OUH, and with funding from NHSE, to create a suite of short videos for patients with BPH covering all topics associated with the condition, such as anatomy, symptoms, clinical assessments and treatment options.

Activity in last quarter: Following a pause in this project due to COVID-19, work this quarter has focused on creating the flat text for each video. The content for which will take account of the learning and insights from the patient and clinicians interviews undertaken earlier in the year. An 'invitation to quote' was sent to potential suppliers, with quotes submitted by the end of December.

Plans for next quarter: Q4 will begin with reviewing the submitted quotes and selecting a preferred supplier. Following this, work will start on creating the videos which is anticipated will continue into early Q1 2021/22.

Excellence in Heart Failure

Background: Excellence in Heart Failure aims to improve medicines optimisation for heart failure patients in primary care.

Activity in last quarter: Delivery of the project was put on hold at the end of March 2020 due to COVID-19 and the need to reduce face to face contact with patients. Stakeholder meetings were held in July and August 2020 to discuss the changes required to the heart failure pathway during the COVID-19 period and the ways in which the project may need to adapt. Project restart has been delayed by the COVID-19 second wave.

Plans for next quarter:

- Restart project when Primary Care is ready to engage

- Establish health economic model and business case tool

- Finalise toolkit for adoption

The Adopting Innovation and Managing Change in Healthcare Settings Programme

'Helping healthcare professionals identify and introduce new ways of improving patient care and to teach about innovation adoption/quality improvement and managing change within health care settings'

238
Healthcare staff engaged

Students come from Primary care, PCNs, Trusts hospitals, secondary care, community and commissioners within the region

Remote learning
To provide flexibility to healthcare staff.

9
Nine cohorts
delivered to date.

Cohort nine commenced in September 2020 and this has been delivered online. The online offering was considered in response to the COVID-19 situation and accommodating the need of the students, which are all NHS and healthcare professionals. This set up will remain until the foreseeable future.

Cohort eight and cohort nine have put forward a wide range of projects and ideas, during the poster day last December, which collectively addressed varying challenges within the Healthcare system and aimed to provide possible solutions. This was attended by members of the Clinical Innovation Adoption team of the Oxford AHSN who provided feedback and input for the students.

Cohort 10 will commence in February 2021 and recruitment is now in progress.

NIHR Applied Research Collaboration Oxford and Thames Valley

The Oxford and Thames Valley ARC (OxTV ARC) is working closely with the Oxford AHSN to implement ARC outputs into practise across the Oxford AHSN region and where appropriate across the South East and nationally.

Priorities for the OxTV ARC	Six major research themes
- Improve patient outcomes across the Oxford AHSN region - Provide high-quality evidence of clinical and cost effectiveness - Lead evidence –based implementation nationally - Develop new services addressing key NHS and public health priorities - Improve regional and national capacity to conduct, high- quality world-class health and social care research	- Disease prevention through health behaviour change - Patient self-management - Mental health across the life course - Improving health and social care - Applied digital health - Novel methods to aid and evaluate implementation

Scope and key activities (October 2020-December 2020)

- 44 projects/ studies supported by the ARC (including 8 additional projects relating to COVID-19)
- Member of ARC team supported University FACTS study (The Feasibility and Acceptability of community COVID-19 rapid Testing Strategies)
- 5 DPhil students started with the ARC working across all the themes
- NIHR virtual informal site visit (06/11/2020) to assess progress against the conditions placed by NIHR on granting the OxTV ARC award. NIHR were impressed by progress made by the ARC teams
- Joint bid with OUH for HEE funding to run a James Lind Alliance Priority Setting Partnership in Acute Nursing, to complement the one already running for Community Nursing
- Richard McManus (ARC Theme 2 lead) and Gary Ford involved with the development of new guidance for primary care on CVD (Cardiovascular disease) prevention during COVID-19 pandemic for primary care teams and Integrated Care Systems. This is a jointly lead project working with GIRFT (Getting it Right First Time). The document was published in October 2020 CVD Services in Pandemic Guidance for Primary Care Teams. The same team are now working on system level guidance for CVD prevention during COVID-19, potentially including information from ARC Theme 1 work around reducing saturated fat and salt.

Engagement: The ARC core team continue to develop relationships with existing stakeholders and partners, along with engaging with new ones. This includes signing new partners up to the collaboration agreement.

Links have been made with the ARC managers and implementation operational leads in the NHS South East region, to support cross working with the 3 AHSNs in the region.

Potential Impact: Projects and studies within the OxTV ARC are predominantly in the early stages of research or evaluation. More detail will be added about impact over the duration of the ARC.
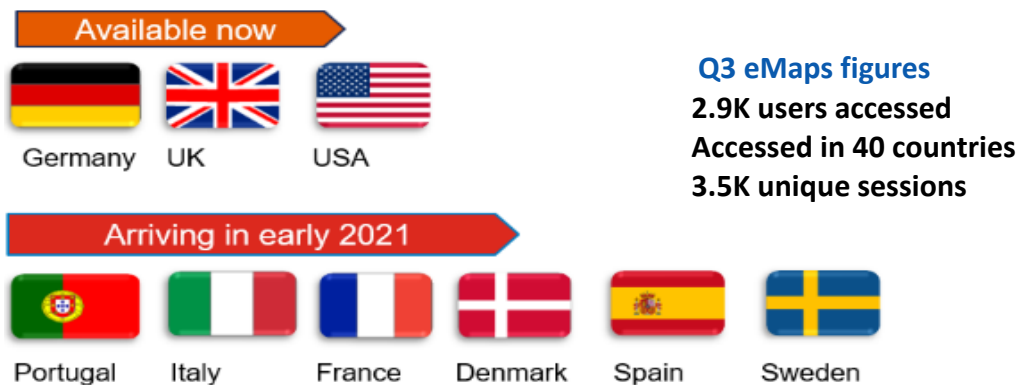
Plan for next quarter

- Preparation for the formal review by NIHR in April 2021, to assess continuation of funding of the OxTV ARC. The outcome of this is expected July 2021.
- Hold next round of discussions between the ARC theme leads and AHSN (Gary/ Tracey and OxTV ARC Implementation Manager) to discuss progress in relation to potential adoption projects.
- Working with HEE to see if the ARC can support the running and delivery of the HEE/NIHR ICAP (internship +/- pre/post doc bridging programmes FY 20/21), there is up to £40k funding available to support this programme.
- The ARCs have all each been awarded an additional £125k (December 2020-March 2022) to support the Beneficial Changes Network. We are still awaiting clarity on what this funding can be used for and what the expectations around delivery are.
- A national implementation network is being established by OxTV ARC and North West Coast ARC.

International activities

European Market Access for Partners (eMaps)

eMaps is a digital platform developed to support Life Science innovators and entrepreneurs access healthcare markets across Europe in the areas of Drugs, Digital Health and Diagnostic and Medical Devices. It provides information and advice on regulation reimbursement and adoption.

Available now

Germany   UK   USA

Q3 eMaps figures
2.9K users accessed
Accessed in 40 countries
3.5K unique sessions

Arriving in early 2021

Portugal   Italy   France   Denmark   Spain   Sweden

Activities in last quarter: Platform development with German and US partners was completed for MedTech and Digital Health modules along with marketing / comms. Progress review meetings continued with the Portugal and Italy partners. A free promotional offer took place and the eMaps team delivered a session at a 'health innovations across borders' public health on-line seminar. The 'Healthcare in Europe report' was launched on the platform. eMaps was featured in the Boehringer Ingelheim guide and Erlangen University purchased UK, Germany and USA bulk content and the eMaps team presented at the University's Reimbursement Seminar.

Activities next quarter: All content to be submitted by Portuguese and Italian partners and uploaded by the developers followed by review, update, marketing and launch. To source and attend online events for promotion of the platform. Digital marketing and promotional activities to commence which will strengthen the eMaps brand. ABHI experts will commence filming short videos.

Strategic and Industry Partnerships (SIP)

Scientific Advice. Our Director, Julie Hart, has extended her secondment with the Department of Health and Social Care (DHSC) for a further six months, until April 2021, as part of their Track and Trace Team. Julie is currently one of the five Core Scientific Advisers to the Technologies Validation Group (TVG), and triages Covid-19 diagnostics so that they may be progressed through the appropriate validation process. Further details of Julie's work can be found in the previous Quarterly report.

Strategic and Industry Partnerships update on the Office for Life Sciences Local Implementation Plan.

Core Function: Identify need and communicate demand

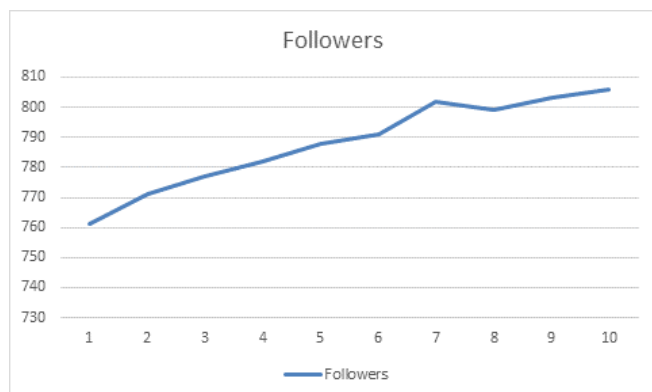**Programme 1: Marketing communications (Lead: Ruby Urwin)**

Objective: Strategic and Industry Partnership Programme will run local needs based driven calls through the Innovation Exchange and increase its online presence through social media activities and Search Engine Optimisation of new content added to the website along with development of three case studies per quarter from evaluation and economic growth activities with diffusion via the appropriate channels (e.g., Atlas, OLS brochure).

During the last three months four case studies have been submitted. These case studies were:

- TrueColours IBD - The Oxford AHSN Inflammatory Bowel Disease (IBD) Network has successfully introduced real-time data collection through a web-based system into clinical care for patients with ulcerative colitis or Crohn's disease. Over 1600 patients now record symptoms (daily or weekly), quality of life (fortnightly) and internationally agreed patient reported outcomes (PROMs, quarterly), through validated indices.
- Johnson and Johnson Partnership - The Oxford AHSN and J&J are working together to support the development of new MedTech and digital healthcare innovations, develop a vibrant culture of entrepreneurship within the Oxford AHSN region and foster a collaborative ecosystem of partners across life sciences, digital health, and health and social care to accelerate the development and adoption of innovations.
- Oxford AHSN Accelerator 2020 - The Oxford AHSN Accelerator programme is an intensive eight-week programme focused on developing start-ups, helping companies to build a robust, tested value proposition and identify their key stakeholders within the health care and life sciences environments.
- AI in Health and Care Award – The Oxford AHSN provides expertise in public and patient involvement, health economics and conducting qualitative feasibility studies to understand key NHS stakeholder views. 32 projects were selected for a Phase 1 to 3 AI Award and the Oxford AHSN is supporting four of these companies. Phase 4 is intended to identify medium stage AI technologies that have market authorisation but insufficient evidence to merit large-scale

commissioning or deployment. The projects that Oxford AHSN are supporting have leveraged over £5million in funding.

Twitter followers have steadily increased month on month.

The two most successful tweets over the last three months were focusing on the Oxford AHSN 2020 Accelerator programme.

Programme 2: Needs analysis (Lead: Mamta Bajre)

Objectives: To help innovators to understand and match health care needs and priorities, the Market Access team with work with innovators to help them understand the evidence requirements for their technologies to facilitate adoption.

Ufonia project funded by Innovate UK: Ufonia is an Artificial Intelligence company developing an automated speech-based service to contact patients who have undergone cataract surgery to assess their eye health and need for further follow up. The aim of this technology is to increase patient satisfaction of follow up care and relieve clinician burden as an increasingly ageing population affects workload demands.

Lauren Hudson has worked with Buckinghamshire Healthcare to perform a Barrier to Adoption Study to assess the acceptability, utility, and benefit (especially with regards to patient outcomes) of the AI platform for integration into the post-operative ophthalmology pathway.

In Q3 the interviews with Ophthalmology stakeholders were completed. The transcripts were analysed thematically to form the basis of the report and the results of the barrier to adoption study were submitted in a report to Ufonia.

Preparatory work for a Ufonia / AHSN workshop also began in Q3 with identification of suitable key opinion leaders and stakeholders. The Workshop will consider themes identified in the report and collect views on utility, commissioning, and adoption of the AI platform. The workshop is planned to be held virtually in Q4.

IMPACCT funded by EIT-Health: The Immune Profiling of ICU Patients to address Chronic Critical illness and ensure healthy ageing (IMPACCT) project is funded by the European Institute of Innovation and Technology in Health (EIT-Health) and aims to evaluate the usefulness of an innovative diagnostic test, the Immune Profiling Panel (IPP), in stratifying critically ill patients who have sepsis. Although the use of emergency bundles has drastically improved the rates of survival in the first 24 to 48 hours, patients are still at high risk of death from infection due a persistent immunosuppression that makes them more vulnerable to acquiring Hospital Induced Infections (HAI) and deterioration.

The IPP, developed by the French diagnostics company BioMerieux, is an innovative RNA-based diagnostic device that could help identify those patients with a compromised immune system and help the clinician in predicting those at increased risk of HAI and/or mortality.

The project comprises a prospective observational study in 6 centres in the UK, France and Sweden. Lauren Hudson and Florence Serres are providing Market Access support and have been collecting views and insights about the usefulness of the IPP in the care pathway from Health Care Professionals working in the Intensive Care Units (ICU), as well as that of payers involved in a range of commissioning roles, during Q2 and Q3 through semi-structured interviews and online surveys. Over 200 stakeholders were contacted, and although engagement was low due to COVID priorities, the deliverable of securing feedback from UK ICU doctors was completed.

An ideation workshop was run jointly between OAHSN and the IMPACCT clinical partners in preparation for a training and education work package due to take place later in 2021. The workshop provided an opportunity to identify key elements that will form the basis of the education and training material for clinicians and how best to address some of these key issues raised by the stakeholders as well as how to best position the IPP to clinicians.

Oxford Safe Birth (OxSBirth) Fit for Labour test: The Oxford Safe Birth (OxSBirth) fit for labour test is a clinical decision-support tool designed for midwives/obstetricians to use at the onset of labour to identify a baby at risk of brain damage or death due to lack of oxygen during childbirth so that a Caesarean section can be performed in a timely manner. The software analyses 60min of CTG around the onset of labour in the context of multiple clinical risk factors relating to mother and baby.

A barrier to adoption study was undertaken with obstetricians and midwives for assessing the potential utility and barriers to adoption for the OxSBirth fit for labour test for use in labour management. An initial literature review was performed to map the care pathway for women in labour and a visual representation of the care pathway, with and without the implementation of the fit for labour test, was developed with the help of available literature. The graphical representation of the care pathway was used to guide the interviews, based around semi-structured questionnaires.

The final report was prepared and submitted. Early-Stage Economic Evaluation will be conducted to assess the economic value of implementing the Fit for Labour test in the labour management pathway.

Releaf Seated: Binding Sciences have created "Releaf Seated" to aid patients suffering from urinary incontinence (UI). Releaf Seated is a handheld, easy to use portable urinal made from a reusable collar design attached to a disposable replaceable superabsorbent bag.

Preparatory work on the barriers to adoption report for Releaf Seated began in Q3. Following a literature search and clinical pathway mapping, a semi structured discussion guide will be prepared for stakeholder's interview. The interview recordings will be transcribed with statistical analysis leading to a final report being prepared.

Amyloid PET scan for Alzheimer's disease: Oxford AHSN conducted an early economic evaluation to investigate the cost consequences of the proposed use of amyloid PET for the early diagnosis and management of Alzheimer disease (AD) patients at the Imperial College Healthcare NHS Trust (ICHT) memory clinic in the UK.

ICHT is the leading Trust in the UK and Europe for the clinical use of amyloid PET. Decision to perform clinical amyloid PET is based on a case-by-case discussion within a Cognitive Neuroradiology Multidisciplinary Team and referrals are in line with the amyloid Imaging Taskforce 2013 recommendation. To date, about 400 patients have undergone clinical amyloid PET imaging at ICHT as part of their diagnostic workup.

A decision analytic model was created based on the real word data collected at ICHT. The analysis was conducted to assess the probable cost consequences of implementing amyloid PET imaging in the AD diagnostic pathway at memory clinic and to provide an overview of the potential cost reduction of the overall costs of diagnosing AD with amyloid PET in the diagnostic pathway. The report was prepared and submitted.

Core Function 2: Signposting

Programme 1: Accelerator (Lead: Matthew Lawrence)

Objectives: Run Oxford AHSN Accelerator Programme. Support third year of operation of the Buckinghamshire Life Sciences Innovation Centre and the digital health community in Oxford through The Hill.

Eight innovator companies took part in the final eight-week Accelerator programme of the 2020 Oxford AHSN Accelerator Programme. MetaGuideX, an Oxford Brookes cancer diagnostics spin-out company, was awarded the winner of the year's programme on 27 November 2020 and is now undertaking further development and investment discussions. The other companies remain supported by Oxford AHSN and BioCity in their development journey. The other companies were:

- Titan GTX: TITaN GTX is an ideas stage biotech that has developed several novel routes to modify cell lines for augmented lentiviral vector production (LVV).
- Detrauma: Detrauma is a mental health app designed to deliver trauma (PTSD) treatment to people without access to a therapist.
- Lumino: Lumino has a clear social purpose. Our mission is to make life healthier and happier for everyone. The core principle is simple: there are enormous opportunities to improve our mental and physical health, afforded to us by the technologies of the digital era, but these opportunities are underused. We want to change that.
- Sapien Health: cross-platform technology that allows doctors, health coaches, and patients stay connected wherever they go. Health markers like weight, blood pressure, and blood glucose are tracked daily with wireless devices automatically.
- Medsearch: MSUK is a specialist medical research consultancy that supports innovative research by use of digital technologies and through our experts to offer solutions to support clinical development, medical affairs activities and pharmacovigilance reporting
- Ademen: Ademen are developing an easy-to-use digital stethoscope solution for remote auscultation examination.
- Incubeats: Incubeats solution imitates womb soundscape for Premature babies, customised with mother's voice and heartbeat.

Bucks HSC Ventures is commencing cohort 3 of their programme with direct support and assistance from Oxford AHSN and other local partners in the Buckinghamshire area including the Buckinghamshire Healthcare NHS Trust and the Thames Valley Buckinghamshire LEP.

Programme 2: R&D (Lead: Julie Hart)

Objectives: Pursue funding through collaborative working with industry and NHS partners to research diagnostic and AI solutions and make relevant bids.

The total awarded to the Strategic and Industry Partnerships team from the National Institute of Health Research for the Artificial Intelligence Phase 1-3 awards is £188,338, supporting Phase 2 bids from Caristo Diagnostics, Ufonia and Albus, and a Phase 3 award from Ultromics. Project lead for these projects is Julie Hart supported by Dr Mamta Bajre and the Market Access team. The Strategic and Industry Partnerships team have also supported Ultromics in their bid for a Phase 4 award, which the team will not actively contribute to.

Ultromics Limited – 24 months - ~£1.3 million total award.
EchoGo Pro: NHS Impact for Automating Coronary Artery Disease Risk Prediction in Stress Echocardiogram Clinics.
This project aims to show that EchoGo Pro helps doctors to more reliably diagnose heart disease using a stress echocardiogram ("stress echo").
A stress echo looks at the patient's heart under normal conditions (at rest) and when the patient's heart is working harder or "under stress", for example after exercise. EchoGo Pro uses artificial intelligence to analyse stress echo scans to provide a report to the diagnosing clinician to enable them to make a diagnosis more quickly and accurately. This earlier diagnosis will allow patients to get the treatment they need earlier, without undergoing unnecessary tests.
This project is currently in the planning stage and is expected to commence in Q1 2021-22.

Ufonia – 18 months - ~£500k total award.
Autonomous Telemedicine – Cataract Surgery Follow-up at two NHS Trusts.
This project will develop evidence that will support the safe deployment of Ufonia's automated telemedicine platform to deliver calls to cataract surgery patients at two large NHS hospital trusts. Ufonia proposes to replace routine clinical follow-up with DORA – a natural language AI assistant delivered via a regular telephone call, initially looking at cataract surgery follow up in Buckinghamshire Healthcare NHS Trust. This proposed study will implement DORA in addition to the current standard of care for a cohort of patients at Imperial College Healthcare Trust and Oxford University Hospitals NHS Foundation Trust, with DORA's decision making being compared against an expert clinician. The project will also test the acceptability of the solution with patients and clinicians, as well as the health economic benefits.

BreatheOx Limited – 36 months - ~£1.5 million total awards.
Prediction and prevention of Asthma attacks in Children.
Acute asthma attacks remain a leading cause of unplanned hospital admissions, emergency visits and missed school days. Early recognition and management of deterioration in asthma control can prevent attacks and emergencies. A device uses motion sensors to capture small movements when a child breathes, and acoustic sensors to capture other clinical symptoms. The aim of the project is to further develop algorithms and clinical decision-support tools for the early detection of asthma attacks in children by capturing the early warning signs through continuous long-term monitoring. The team will work to demonstrate value in NHS care pathways and generating real-world evidence of clinical and economic value. This project is still currently in the planning phase.

Caristo Diagnostics Limited – 36 months - ~£1.4 million total award.

Artificial Intelligence to improve Cardiometabolic Risk Evaluation using CT (ACRE-CT)

Fat tissue (adipose tissue) can become inflamed. This inflamed tissue can be a critical factor in the major complications of diabetes such as cardiovascular disease (CVD). But not all fat tissue is considered 'harmful'. The risk factor relates to where in the body it is situated, and the biological characteristics of the fat. Currently, none of the routine scans or tests can identify inflammation in fat tissue. This study will focus on how best to detect this tissue using routine scans. FatHealth, detects fat tissue inflammation using new artificial intelligence techniques applied to routine computed tomography ('CT') scans. FatHealth can identify people who may be at risk of developing diabetes, and people with diabetes who are at high risk of death from cardiovascular disease. By the end of the project, our intention is to have FatHealth adopted into routine use, thereby saving the NHS considerable costs and improving the lives of many at-risk patients.

Innovate UK Sustainable Development Fund

Binding Sciences - 9 months - ~£280K total award

This project aims to reduce COVID-19 infection risk, and hence the likelihood of hospital admission, among urinary incontinence sufferers, particularly the elderly and infirm, and their carers, reducing the need for repeated and close contact between them and key workers. Minimising avoidable, unnecessary call on the resources of health and social care providers in pandemics is essential to increasing their resilience. Releaf 2 is made from vegetable-based fibre or resin and starch-based film, is fully compostable. For those with voluntary control, it is a replacement for current ad hoc toileting products, and their imitators, the majority of which are neither biodegradable nor usable when seated. The objective is to complete the development of Releaf 2 as a user-validated, CE-marked, market-ready device, supported by fully costed manufacturing and assembly specifications and backed by a validated business case for its adoption by the NHS based on an evaluation in Buckinghamshire Healthcare NHS Trust.

Programme 3: Company support (Lead: Matthew Lawrence)

Objectives: Help companies to develop innovative solutions that meet healthcare needs; direct companies to local resources and support companies coming through Health Tech Connect, innovator portal and direct to AHSN

Oxford AHSN and the other 14 AHSNs are now mandatory accessors of submissions to the Health Tech Connect portal. Matthew Lawrence and Ashley Aitken work with the other AHSNs to carry out first stage reviews of various proposals and provide signposting and guidance to local companies and those coming through the portal.

First stage reviews of Axial3D (a surgical tool for modelling of anatomical structures) and Smartcrowding (a capacity and demand management tool for hospitals and health systems) have been carried out and shared with the wider Health Tech Connect AHSN group.

No. of companies supported (October-December) – 24

Core Function 3: Broker Real World Evaluation.

Programme 1: Artificial Intelligence (Flora Hatahintwali)

Objectives: We will participate in the real-world evaluation of 4 exemplar projects under NCIMI banner and identify new opportunities for real world evaluation around early diagnosis of cancer.

The National Consortium of Intelligent Medical Imaging (NCIMI) is a network of 14 NHS hospital trusts across the United Kingdom, 10 industry partners with expertise in the field of Artificial Intelligence (AI) and medical imaging, three charity partners to provide insight into patients experience plus world leading academic researchers and clinical leaders. NCIMI's goal is to build a pipeline for innovation to allow new medical imaging AI tools to be developed, tested, validated, and adopted into the NHS. NCIMI partners are working on 11 exemplar projects delivering intelligent medical imaging solutions to address unmet needs across several diseases and chronic health conditions such as cancer, heart disease and metabolic health.

Oxford Academic Health Science Network (Oxford AHSN) is one of the NCIMI partners and the Strategic and Industry Partnerships team is supporting four exemplar projects.

- Endometriosis: Aims to reduce the need for laparoscopic diagnoses by using non-invasive intelligent medical imaging solutions.
- Haemochromatosis (iron overload): Imaging can be used to assess liver iron content. This project would use Perspectum Diagnostics' technology as a non-invasive assessment of iron overload and associated liver damage.
- PET-CT Lymphoma reporting: using AI-based software to improve PET-CT image interpretation in lymphoma management by performing automated detection and segmentation of lymphoma lesions in PET/CT.
- AI in cardio-oncology: application of AI to echocardiography to identify and predict cancer therapy-related cardiac dysfunction.

Programme 2: Cancer (Lead: Marianna Lepetyukh)

The SIP team has been supporting Oxford AHSNs Medical Director, Guy Rooney, who is leading on Cancer Programme in ongoing discussions to define a programme of work with the Thames Valley Cancer Alliance (TVCA) through participation at the monthly Rapid Diagnostic Service (RDS) working group meetings.

Programme 3: Diagnostics (Lead: Ashley Aitken)
Objectives: Evaluation of new diagnostics for stroke, COPD and asthma. Evaluation of new diagnostics for management of patients in the community and hospitals during COVID-19 recovery phase.

Innovate UK funded project Purines for Rapid Identification of Stroke Mimics (PRISM) Sarissa Biomedical
30% of stroke patients go unrecognised in A&E; 50% of suspected stroke patients identified by paramedics turn out to have mimic conditions; and up to 17% of patients receiving thrombolysis (an expensive and potentially hazardous treatment) have not had a stroke. Accurate identification of stroke and mimic patients in ambulances and A&E departments would lead to improved patient outcomes and better use of limited specialist resources. Sarissa Biomedical is working with researchers and NHS services to develop a simple Point of Care Diagnostic blood test (SMARTChip) which measures blood purine levels.

Q3 activity: The Strategic and Industry Partnerships team has interviewed 12 clinicians to discuss the required sensitivity and specificity of the test, and what the potential clinical utility of the test could be. An interim report was collated for the company to use as part of their Board meeting, with a complete report being completed imminently.

Innovate UK funded project COPD Exacerbation Alert for patient stratification Mologic

In the UK COPD exacerbations account for 15% of all medical admissions, 1 million bed days and an annual NHS expenditure of £500M [NICE 2010]. Mologic has developed two products for patient stratification for COPD. These are simple urine-based tests like the familiar home pregnancy test kits. The first test, Headstart, will clearly identify or confirm the first signs of exacerbation with enough reliability and clarity for the patient to know when to take medication and when to seek medical attention. The second product is Rightstart, for use at home or in primary care to identify whether to use antibiotics or corticosteroids. Early identification of COPD exacerbation has the potential to reduce the severity of exacerbations by allowing faster treatment and reducing the need for GP and emergency visits to A&E. Use of Rightstart to identify the cause of the exacerbation helps ensure the correct treatment is given and has the potential to reduce unnecessary antibiotic treatment which supports the UK governments strategies for Antimicrobial Stewardship.

This work has slowed over the last quarter, as the remaining work packages are dependent on the continuing recruitment of patients which has not proceeded as planned due to Covid-19. Interviews exploring barriers to adoption with the clinicians involved in the trial are currently being planned. The Oxford AHSN will continue to support this project beyond the end of the grant period to complete these interviews and the budget impact model which has also been delayed due to the lack of real-world evidence available from the trial.

Astra Zeneca Turbu+ Inhaler (Lead: Guy Checketts)

The objective of this RWE is to demonstrate that the addition of a digital intervention (Turbu+, Astra Zeneca) for Asthma or Asthma and COPD patients using Symbicort Turbohaler may support improvements in Asthma Health Outcomes.

At the end of November, 72 patients had been recruited with another 19 pending (target recruitment is 100+patients to complete the 6m live phase), deriving from a 23% conversion rate of suitable patients identified by the Modality Group of GP practices and contacted by Ashfield nurses. The end of the live phase id expected in June 2021, at which time health economic analysis on the outcomes will be performed and the final report written.

Programme 4: Sustainability (Lead: Carl Lynch)

Objectives: Evolve the AHSN business case to include recognition of the environmental benefits

Net Zero

The NHS published its Delivering a 'Net Zero' NHS report on the 1st of October 2020. The report sets very ambitious targets:
- For emissions the NHS controls directly: net zero by 2040, with an ambition to reach an 80% reduction by 2028 to 2032
- For emissions that the NHS can influence (incl. supply chain) net zero by 2045, with an ambition to reach an 80% reduction by 2036 to 2039.

The report identifies multi-million investment requirements (e.g. the need for £259 million for intelligent, real time energy monitoring and control). Capital budgets will be provided later. This report provides a clear focus for our sustainability work.

PPE Strategy

The national Personal Protection Equipment (PPE) Strategy report was published on 28 September 2020. The report states that UK based supply is anticipated to meet 70% of forecasted demand in December for all categories of PPE excluding gloves. Previously nearly all supplies came from China and South Asia. The report recognises the need to increase innovation and sustainability in PPE and this will be taken up by the AHSN Environmental Sustainability Community of Interest. The report also recognises the desire to move away from disposable by default and assess new types of PPE that are designed for reuse from the outset, particularly through UK manufacturing.

We are actively working with the National PPE team and the National PPE Innovation and Sustainability Hub particularly on innovative and reusable PPE.

The AHSN Network Environmental Sustainability Community of Interest (COI)

This group was established in August 2020 and is now developing a strategy in the context of the NHS Net Zero report. Innovation has been identified as a key area of focus. Around nine AHSNs are actively engaged in this forum. We have taken a lead role within the PPE sub-group.

Engagement with Trusts

We are now actively engaged with the following local Trusts on sustainability. Currently identifying and prioritising specific projects on which to collaborate.

- Oxford University Hospitals
- Oxford Health
- Frimley Health
- South Central Ambulance Services
- Berkshire Healthcare

Engagement with Partners

- Advanced Oxford: contributed a 'Greening the NHS' chapter to their report 'Powering up the Green Recovery'
- Oxfordshire LEP: presented to their Clean Growth sub-group. Linking with Oxford Brookes University about improving energy efficiency in older NHS buildings
- Sustainable Healthcare Coalition: working together using their Care Pathway Carbon Calculator to produce a pre-eclampsia case study

Sustainability Toolkit

Building upon a recent training session with Oxford AHSN colleagues where the Sustainability toolkit was presented and demonstrated to now encourage its adoption to help measure the environmental impact of Oxford AHSN programmes

Future key areas of focus

- Innovation – to assist Trusts in meeting their Net Zero targets
- Reusable PPE
- Reducing NHS travel – to reduce CO_2 emissions and to reduce air pollution
- Reducing patient travel – to reduce CO_2 emissions and to reduce air pollution
- Influencing policy – especially in sustainable procurement
- Addressing supply chain barriers to the adoption of innovative and sustainable products
- Reducing waste

Core Function 4: Support Adoption and Spread.

National Programme Support for the Accelerated Access Collaborative

Objective: To support to more quickly adopt clinically and cost-effective innovations, to ensure patients get access to the best new treatments and technologies. As part of the AAC's work to support stronger adoption and spread of proven innovations, the AAC has selected a range of late-stage innovations (post-NICE appraisal) to accelerate uptake in the NHS – 'Rapid Uptake Products' (RUPs).

Asthma Biologics: (Marianna Lepetyukh)

Marianna Lepetyukh has been providing project leadership in support of the CIA team, who are leading on the national deployment of the AAC's Asthma Biologics project.

Programme 1: Maternity (Lead: Guy Checketts)

Objectives: Continue roll out of PlGF-based testing across and take over national role.
- National adoption continues with nearly 90 Trusts now having adopted
- Focus in Q3 has been on coordinating the efforts of the AHSN network and manufacturers preparing / supporting Trusts through the transition from ITP funding to provision of PlGF-based testing under the MedTech Funding Mandate (MTFM) that is due in April 2021
- The MTFM itself is still not signed off but is expected by the end of January

Programme 2: Point of Care (Lead: Ashley Aitken)

Objectives: Roll out evaluation projects to aid triage and assessment of acute patients with POC testing.

This programme is currently on hold in light of Covid-19 and the pressures that the system is currently facing, which make it difficult to plan or roll out evaluations.

Programme 3: Gastroenterology (Lead: Marianna Lepetyukh)

Objectives: Support the roll out of faecal calprotectin algorithm.

Project now ceased as cancelled by OUH, but it successfully enrolled over 1600 patients during its course and reached the point of being adopted by a second Trust.

Faecal Calprotectin

Having achieved adoption in the initial GP network in Aylesbury, recent focus has been on trying to measure the impact of the new FCal pathway. Due to the difficulty in tracking patient data across primary and secondary care areas and therefore the ability to prove the positive impact of the revised pathway that has been verbally communicated, activity on this project has now effectively ceased.

Research & Development (R&D)

The AHSNs R & D work aims to create an environment where every clinical encounter can contribute to research. We have excellent working relationships with the Universities across the Network and beyond and with the National Institute for Health Research (NIHR) bodies.

Key work in Q3 included the November meeting of the Oversight Committee with strong attendance from the Region. A presentation from the University of Buckingham from Harim Sellahewa, Dean of Computing, was particularly interesting, highlighting work in AI and its applicability in clinical areas. It was agreed presentations would continue to be a feature of forthcoming meetings and the meetings would also include the following:

Update on plans, priorities and approach of BOB-ICS; Public Health and Social Care; Milton Keynes University Hospital Research and medical school links with Buckingham. An assessment on AI and Tech/Knowledge exchange across the across the AHSN would also be discussed. Oxford Academic Health Partners would present on its strategic plan and priorities in 2021. The Oversight Group agreed that the website information would be updated.

The Terms of Reference were reviewed and agreed; the key points are included below:

To identify, encourage and provide opportunities for collaboration and information sharing between NHS and university partners across the Oxford AHSN in all aspects of R & D impacting on health, health care, social care and public health.

- To liaise closely with NIHR regional infrastructure including the Biomedical Research Centres, Local Clinical Research Network, the Oxford Applied Health Research Collaboration and the Oxford MIC to ensure sharing of information and opportunities
- To influence the strategy for R & D through engagement with the NHS and academic stakeholders, and particularly in support for the NHS Trust Directors of R & D
- To share examples and information on, for example COVID 19, presenting and collating exemplars from across the region.
- To share information on national policy, local initiatives and events that can benefit the whole R & D community, for example, the work of the BOB ICS and developments in Public Health, and to contribute to development
- To provide support, (through the Chairman, AHSN CEO, and other members) to individual organisations or groups of organisations wishing to take forward specific initiatives
- To explore opportunities around research skills, education and training for current and future workforce
- To understand the R & D activities and portfolios of individual HEI and NHS organisations

Work has continued with the Oxford Academic Health Partners particularly in support of the forthcoming application for the renewals of the Oxford University Hospitals and Oxford Health BRCs due to start formally in April 2021.

Community Involvement and Workforce Innovation

Oxford AHSN Programmes

We are working closely with the internal pipeline development project to support how we routinely embed and record cross cutting activities, such as community involvement and workforce in all our work.

We have run our first online focus groups with patients to support the development of an innovative AI triage system.

National AHSN Programmes

As part of the AHSN Network Reset Programme we have been working with Don Redding and AHSN partners to review patient experience and coproduction during Covid. This has included review of the literature, a series of interviews and a roundtable discussion with patients and professionals. The report will be published in early 2021.

We are also working closely with the national lipids and cardiovascular disease programme, developing a PPI plan and providing input into the working groups.

Training and development

We ran a series of well attended webinars for public and professionals looking at aspects of working with seldom heard groups. The initial three webinars focused LGBTQ; learning disabilities and sensory impairment. We will run further focused events in 2021.

Workforce Innovation

The workforce innovation theme is evolving within the Oxford AHSN to support the national agenda, BOB/Frimley Integrated Care Systems (ICS) regionally and to identify and spread innovations to address workforce challenges.

We welcomed Katie Lean as the workforce programme manager in November (pictured Left). Katie will work closely with the Director of workforce innovation

Sian Rees (pictured right) to build a robust and evidenced based programme.

This quarter has been focused on building relationships within the BOB ICS and linking in with their people board commissioned to deliver the "We are the NHS, People Plan 2020/21". We are also supporting the national AHSN workforce task team, who have come together to effectively collaborate with NHS and social care staff in pathway re-design, digital and wellbeing.

Workforce across the BOB ICS

The BOB ICS people strategy and plan are working in five themes. Theme four (Retention) has been awarded funding to design and develop 2 hubs to facilitate staff wellbeing. The first one addresses psychological wellbeing and the second is enhanced occupational health and wellbeing. Oxford AHSN is leading the mixed methods evaluation of the physical wellbeing and initial interviews have commenced with local health and wellbeing leads which will then extend to staff, capturing what they need to support them in the workplace. This will enable BOB ICS to identify the need regionally and then real-world evaluation can support the evolution of the hubs.

The Covid-19 pandemic has highlighted the need for flexible working and one where there is equity across the region. We are supporting Human Resource Directors from each Trust to unify pathways, starting with the design and development of focus groups to hear from staff what is important to them. This also sits under the Retention BOB ICS people plan strategy theme.

Workforce across the South East

The South East AHSNs (Kent, Surrey and Sussex; Wessex; Oxford) are working together to support the spread and adoption of four evidence based digital innovations across the region. These innovations are Sleepio, S12, electronic repeat prescribing and remote monitoring in care homes. Each of these innovations can improve either the health and wellbeing of frontline staff or improve workflows to reduce time taken in patient pathways. Metrics for these programmes have been designed in collaboration together.

Workforce Nationally

NHSE/I commissioned report on the roll-out of national interventions to support staff health and wellbeing was distributed regionally to promote learning from Covid-19 wave one. This work was undertaken in collaboration with North East, North Cumbria AHSN and South London Health Innovation Network. A mixed methods evaluation including a survey and qualitative interviews were undertaken. This highlighted that both the physical and psychological wellbeing of staff suffered during wave one of Covid-19. Staff generally were overwhelmed with resources, had little time to access them; yet what they wanted was to genuinely feel cared for in their organisations. This valuable piece of work will inform future planning for workforce wellbeing.

Stakeholder Engagement and Communications

During the third quarter of 2020/21 we continued to adjust to the new world of online interactions. Hundreds of people attended our wide-ranging webinars – from innovation in personal protective equipment to masterclasses for midwives on our award-winning training programme developed in partnership with senior clinicians (see case study at the front of this report).

We also ran a series of workshops with a focus on involving seldom heard groups – looking at sensory impairment, learning disability and LGBTQ+ issues. Recordings from all these webinars were made available to those unable to attend them live. We also contributed to regional and national webinars run by partners in the NHS, research and industry.

In some ways we have strengthened our connections through virtual working. Our teams now have more opportunities to get together. One of these is a weekly session sharing learning and successes. This expanded during Q3 with slots offered to a range of external partners from other AHSNs, industry, research and the NHS.

Through the pandemic our overarching objective has been to redirect our skills and expertise where they are most needed in the regional health system and beyond. There's a growing bank of examples of how we are doing this on our website. These include supporting patients with Covid-19 at home, speeding up stroke care and new guidance for cardiovascular disease prevention services.

We also successfully delivered our annual Accelerator programme for healthcare start-ups online for the first time.

We continue to grow our social media presence. We hit a new monthly high with 67,000 impressions in November on the @OxfordAHSN Twitter account. We also launched a weekly 'Meet the team' feature via the hashtag #teamOxfordAHSN. This also ran in parallel on our LinkedIn account which is on track to double its followers in 2020/21. We continue to publish a monthly email stakeholder newsletter.

More details of our events and publications since April 2020 are provided in the table below.

Events and publications 2020/21

Month	Event	Publication
May		Adapting stroke services in the pandemic practical guidance
		Evaluation of adoption of digital therapeutics at scale paper published in BMJ Innovations, based on Sleepio
June	Summer programme for innovators, Bucks HSC Ventures (continued to July)	
	Webinar: Update on research and innovation infrastructure, chaired by Gary Ford, part of the HSRUK conference	
		Training resource launched on Health Education England e-learning platform for primary care clinicians on preventing stroke related to atrial fibrillation

Month	Event	Publication
	Webinar: Writing for lay audiences	
	Patient workshop on bone health	
July	Webinar: Supporting stroke services through the pandemic	Supporting stroke services in the restoration and recovery phase of the pandemic, second practical guide
	Commercialisation workshops, Oxford AHSN Accelerator programme with BioCity	
August	TCAM medicines optimisation workshop for Berkshire community pharmacists	
September	Practical innovators programme cohort 9 starts with Bucks New University	
	Market discovery pre-accelerator workshops, Oxford AHSN Accelerator	
	Webinar: Covid-19 patient pathways	
	Oxford AHSN Accelerator programme pitch day (invite only)	
	Webinar: Spreading digital innovation in the NHS – a Sleepio case study	
October		Oxford AHSN Q2 report
	Oxford AHSN Accelerator Programme runs to November	
November	HSJ Patient Safety Awards – midwives training package based on fetal heart sounds shortlisted in three categories	
	Oxford AHSN Accelerator final pitch and awards day	
Nov/Dec	Seldom heard webinar series	
January	The Hill cancer briefing for innovators/pharmaceutical companies	
February	Covid oximetry @home/Covid virtual wards	
	OLS Brexit briefing	
		Oxford AHSN Q3 report
March		

Appendix A - Risks Register & Issues Log

Risks Register

#	Programme	Risk	Description of Impact	Likelihood	Impact	Time	Mitigating Action	Owner	Actioner	Date	Date mitigated	RAG
1	Oxford AHSN Corporate	Failure to establish culture of partnership and collaboration across the region	Insufficient engagement of clinicians, commissioner universities and industry.	Low	Med	ongoing	Stakeholder and communication strategy for the AHSN. Each project has an engagement plan, including patient involvement.	AHSN Chief Executive	Programme SROs	06-Sep 13	Ongoing	GREEN
2	Oxford AHSN Corporate	Failure to sustain the AHSN	Programme activities cease	Low	Med	ongoing	NHS England has re-licensed all AHSNs. NHSI has confirmed funding to March 2023. Actively pursued industry partnerships and grants. NHSI increased funding for PSCs in 20/21	AHSN Chief Operating Officer	AHSN Chief Operating Officer	31-Jul 14	Ongoing	GREEN
3	Oxford AHSN Corporate	National Programmes delivery	Reputation Protect breach of contract.	Low	Med	ongoing	Robust engagement plans in place. Five of seven programmes delivered. However, COVID-19 has slowed down TCAM and Escape-Pain.	AHSN Chief Operating Officer	AHSN Chief Operating Officer	19-Feb 18	Ongoing	AMBER
E3	Oxford AHSN Corporate	Diversity and inclusion	Perpetuate inequality either in our own team or in our work across the region	Low	Med	ongoing	Oxford AHSN has Signed up to the AHSN Network D&I pledge. Unconscious bias training for staff. Ensure adhere to OUH policies on recruitment. Ensure programmes consider inequalities in programme design and implementation. Staff unconscious bias training.	AHSN Chief Operating Officer	Director for Communities and Workforce Innovation	June 2020	Ongoing	GREEN

Issues Log

#	Programme	Issue	Severity	Area Impacted	Resolving Action	Owner	Actioner	Date	Status	Date Resolved
1	Oxford AHSN Corporate	Lack of awareness by local partners and national stakeholders of progress and achievements of the AHSN	Low	Engagement	Overarching comms strategy. Level of engagement monitored across all programme and themes. Website refreshed regularly visits per month increasing. Twitter followers and newsletter subscribers increasing. Oxford AHSN stakeholder survey. Quarterly report sent to all key stakeholders. Electronic Newsletter to stakeholders. Oxford AHSN organise and participation stakeholder events. Participation in ICS and STPs committee structures. Closer working with Regional NHS/I team and COVID cell structures Attendance at Regional Mental Health Board to present regional mental health programmes	AHSN Chief Operating Officer	Head of Communications	19 Jan 18	90% complete	Ongoing
2	Oxford AHSN Corporate	Staff health and wellbeing during the COVID-19 pandemic		Staff	In line with government and OUH guideless our staff are asked to work from home unless it is not possible. Staff are subject to a personal risk assessment in accordance with OUH policy. We have made taken measures to ensure social distancing and infection control in the office for those staff who choose to work there. Staff wellbeing is monitored by our senior HR Manager and a programme of wellbeing and resilience training courses has been extended. Staff communications were stepped up when the office was closed. Regular team calls are held to report progress, undertake training and development and hold social events online. Quarterly Team Get Together online in place of an annual team Away Day is being held each quarter. Staff have been surveyed and the consensus is that home working and using Teams works for most people – although everyone misses the social interaction of the workplace.	AHSN Chief Operating Officer	AHSN Chief Operating Officer	17 March 2020	90% complete	Ongoing

Appendix B - Oxford AHSN case studies published in quarterly reports 2018-2020

Annual Year	Case Study Topic
2020/2021	Harnessing AI technology to speed up stroke care and reduce costs
	Spreading digital innovation in the NHS and supporting the workforce
	Keeping frail elderly people out of hospital - decreasing risk of Covid-19 infection
	Supporting stroke services through the pandemic
	Supporting NHS personal protective equipment needs (PPE)
	Improving timely observation of vital signs of deterioration in care homes
	Improving detection and management of atrial fibrillation (AF)
2019/2020	Thousands more pregnant women benefit from test to rule out pre-eclampsia following national rollout led by the Oxford AHSN
	Supporting leadership and collaboration in medicines optimization
	Paddle – Psychological therapy support app helps patients steer a course to recovery
	Adoption and spread of a quality improvement programme to prevent cerebral palsy in preterm labour (PReCePT)
	Preventing prescribing errors with PINCER

Annual Year	Case Study Topic
	Feasibility study for introducing a new rapid point-of-care HIV test into sexual health clinics (Owen Mumford)
	Healthcare tech company's expansion and Stock Exchange listing enabled by Oxford AHSN expertise
	Oxford AHSN support enables AI company to leverage £700,000 of grant funding (Ufonia)
	The Oxford AHSN assists Fujifilm in real-world evaluation of point of care flu test
2018/2019	Learning together through a regional patient-centered event to improve sepsis support and information
	Improving detection and management of atrial fibrillation
	Understanding the impact of a new model of urgent care within a GP practice
	AHSN-led collaboration brings multi-million-pound investment to Buckinghamshire and supports SMEs to meet health and social care needs
	Better diagnosis of pre-eclampsia improves patient safety and reduces burden on maternity services
	Patient forum helps improve NHS services for people with anxiety and depression
	Healthcare tech company's expansion and Stock Exchange listing enabled by Oxford AHSN expertise

Annual Year	Case Study Topic
	Unique point of care blood test speeds up clinical decision-making improves quality of care and reduces costs
	AHSNs come together to create new sepsis identification tool
	Spreading best practice in dementia through webinar programme

More case studies can be found on our website. We usually include three in each of our quarterly reports. We have been producing these since 2014. You can find them here: https://www.oxfordahsn.org/about-us/documents/quarterly-reports.

i https://acutemedjournal.co.uk/wp-content/uploads/2020/11/p183-191-1.pdf