



Oxford AHSN Year 6 Q2 Report

For the quarter ending 30 September 2018

Cover image: A partnership including the Oxford Patient Safety Collaborative has developed a toolkit for identifying and treating sepsis which has been adopted by the NHS and is in the running for a national prize.

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"The Oxford AHSN and its Patient Safety Collaborative have provided invaluable support to us and the other NHS trusts in our region. Their accessible 'can-do' attitude and ability to see the bigger picture is increasingly persuading clinicians of the value of sharing excellence across, as well as within, our organisations which is leading to raised standards." Steve McManus, Chief Executive, Royal Berkshire NHS Foundation Trust

Chief Executive's Review

Relicensing

Relicensing negotiations with our three commissioners have progressed in the last quarter. The licence agreement for the next five years has been agreed with NHS England. We are awaiting formal feedback on our Local Implementation Plan submitted to the Office for Life Sciences. We have realigned our Strategic and Industry Partnerships (SIP) programme to deliver against the four core functions required by OLS. The NHS Improvement (Board) will decide in November whether Patient Safety Collaboratives (PSCs) are renewed and continue to be embedded with AHSNs after March 2019. NHSI commissioned a review of the 15 Patient Safety Collaboratives by PriceWaterhouseCoopers (PWC), which has recommended stronger direction from NHSI and focus by the PSCs on a small number of national programmes. Our PSC is well placed to deliver against the new specification which aligns well with most of our existing work. Dr Aidan Fowler, recently appointed NHSI Director for Patient Safety, had a very positive meeting with Steve McManus, Chair of the Patient Safety Oversight Group, and Katherine Edwards, Director of Patient Safety and Clinical Improvement.

Changes to the AHSN Senior Team and Board

The last quarter has seen changes in our senior team and Board. Dr Nick Scott-Ram has left the AHSN to join Sensyne Health, a newly created digital health company led by Lord Drayson. In his four years with us Nick has built a very strong and successful Strategic and Industry Partnerships programme and we wish him well as he returns to the life sciences industry. I am delighted that we have been able to appoint Julie Hart from within Nick's team to take over as Director of the programme. Mike Denis, Director of Information Strategy, also left the AHSN as regional interoperability and integration are now the responsibilities of the Local Health and Care Record Exemplar. I thank Nick and Mike for their many contributions over the last five years. Simon Greenstreet, Head of Communications and Public Affairs for Bayer in UK and Ireland, takes over as chair of the oversight group for SIP and joins the AHSN Board. I would also like to welcome Fiona Wise, Lead for the Buckinghamshire, Oxfordshire and Berkshire West Sustainability and Transformation Partnership, on to the Board.

Work programmes

We are making good progress with the five new national programmes with good engagement from partners across all the programmes. With the changes to the PSC specification we will need to place more emphasis on national patient safety programmes. I would like to assure our partners that the AHSN will continue to support a strong portfolio of local work which is vital to maintain the strong clinical engagement that we have established.

Professor Richard Hobbs led the submission of a bid for an NIHR Oxford and Thames Valley Applied Research Collaboration (ARC). ARCs will replace the existing CLAHRCs. Successfully designated ARCs will continue to be aligned to AHSN regions. They will undertake high quality health and care research, working across local health and care systems to support implementation of research and collectively to ensure national impact. If successfully designated we will work closely with the new ARC, with an implementation manager working between the ARC and AHSN teams to identify and implement solutions to meet the needs of the health and social care systems in our region.

Case studies

Our quarterly reports include case studies highlighting key work with partners. The first of the three case studies below explains how our Strategic and Industry Partnerships and Clinical Innovation Adoption programmes have supported a healthcare technology company to expand through support with its commercial strategy and partnering with the NHS. We managed the adoption by the NHS of technology from the University of Oxford and then supported the joint venture created with Oxford University Hospitals. Sensyne Health has raised £60m on the London stock market and has moved to new premises on the Oxford Science Park.

Our second case study describes our growing portfolio of point of care diagnostic test evaluations. Point of care diagnostics offer major opportunities to speed up clinical decision-making at the point of clinical need, and transform care pathways improving patient outcomes, experience and NHS efficiency.

The third case study comes from our Patient Safety and Clinical Improvement programme which brought together clinical leaders from our local acute providers to improve detection and management of sepsis. It also demonstrates the benefits of collaboration with other AHSNs. The Suspicion of Sepsis (SOS) Insight Dashboard enables hospitals to accurately measure how many patients are at risk of sepsis. It was created by Imperial College Health Partners building on the methodology for measuring sepsis published by the Oxford PSC last year, and with input from the West of England and Wessex AHSNs. Matt Inada-Kim, national advisor to NHS England on sepsis, praised the work of the Oxford PSC team led by Professor Charles Vincent in providing the methodological means to create the national sepsis dashboard.

Awards

The Patient Safety and Clinical Improvement programme's Good Hydration! quality improvement initiative started with a pilot study in four care homes within East Berkshire Clinical Commissioning Group in July 2016, with the aim to reduce urinary tract infection (UTI) hospital admissions by 5% each year through the introduction of seven structured drinks rounds per day and staff hydration training. To date there has been a 66% reduction in hospital admissions for UTIs. I would like to congratulate Patient Safety Manager Katie Lean and the team from Berkshire East winning another national award - the HSJ Patient Safety Award for Quality Improvement Initiative of the Year. The Good Hydration! initiative is now being taken up in other areas including Luton, Bedford and Milton Keynes. It also attracted the attention of Jonathan Ashworth MP, Shadow Secretary of State for Health and Social Care, when he came to a presentation at the Oxford Science Park.

Professor Gary Ford CBE, FMedSci, CEO, Oxford AHSN

Oxford AHSN case studies

Case studies included in this report:

- 1. Healthcare tech company's expansion and Stock Exchange listing enabled by Oxford AHSN expertise
- 2. Unique point of care blood test speeds up clinical decision-making, improves quality of care and reduces costs
- 3. AHSNs come together to create new sepsis identification tool

Oxford AHSN Case study 1

Date: Q2 2018/19

Programme/Theme: Strategic and Industry Partnerships

Title: Healthcare tech company's expansion and Stock Exchange listing enabled by Oxford AHSN expertise

Summary

The Oxford-based firm, Sensyne Health (formerly Drayson Health), uses artificial intelligence (AI) to develop medicines and aims to improve patient care through the analysis and commercialisation of real-world evidence from large databases of anonymised patient data in collaboration with NHS Trusts.

GDm-Health is a remote monitoring system for women who develop diabetes during pregnancy. Oxford AHSN support included developing a business plan, fine-tuning the product and establishing proof of concept by enabling expanded real-world testing from a single hospital site to hundreds of patients across four NHS trusts.

Enabled by the Oxford AHSN, the business headed by Lord (Paul) Drayson, <u>signed a five-year strategic research agreement</u> in July 2017 with the University of Oxford and the Oxford University Hospitals. The collaboration creates a pathway for the commercial development of digital health innovations invented and clinically validated by the University and the Trust and invests £5m back into patient care and research via a shared equity and royalties agreement with the University of Oxford and the Oxford University Hospitals.

Expertise from the Oxford AHSN fed into the development of a commercial strategy and investor road shows in July 2018, which raised £60m, to coincide with Sensyne Health's stock market debut in August 2018.

Challenge identified, and actions taken

SEND, GDm-Health and EDGE-COPD are all digital health products that use machine learning artificial intelligence software, developed at Oxford University's Institute of Biomedical Engineering, to analyse data and provide decision support and patient safety information to both patients and healthcare professionals. The products were <u>licensed exclusively to Drayson Health</u> in February 2017 for further development, testing and commercialisation. The products are designed to provide significant improvements in health outcomes for patients and reduce healthcare costs in the NHS. They have undergone significant clinical testing and validation involving over 80,000 patients and generated over 16 million data records to date. Results suggest that these technologies could deliver significant improvements in patient health outcomes and reduction in costs for the NHS.

How is the AHSN involved?

Oxford AHSN support included developing a business plan for GDm-Health, fine-tuning the product and establishing proof of concept by enabling expanded real-world testing from a single hospital site to hundreds of patients across four NHS trusts.

Sensyne Health

In 2017, the Oxford AHSN connected the product developers at the Oxford Biomedical Research Centre with Drayson Health (now Sensyne Health), leading to GDm-Health and other digital health products being licensed to the company and paving the way for further testing, evaluation, development, spread and commercialisation. This is leading to improved care, the creation of jobs and investment back into the NHS and research establishments where the concepts were originally developed.

Oxford AHSN expertise fed into the development of a commercial strategy and investor roadshows, which raised £60m. £5m is being invested back into patient care and research through Oxford University Hospitals and the University of Oxford.

Impacts / outcomes to date:

Financial impact:

- Up to 40 jobs will be created in 2019
- £5m will be invested back into patient care and research
- £60m raised through investor roadshows
- Stock Exchange Alternative Investment Market (AIM) listing 14 August 2018

Patient impact example:

Gestational diabetes mellitus (GDM) affects 5%-16% of all pregnancies in the UK and can lead to complications for the mother and baby if blood glucose is not tightly controlled. Women require hospital visits every 1-2 weeks. The cost and burden of GDM for both the NHS and the patient are high. GDm-Health has been extensively evaluated and is associated with fewer pre-term births, less reliance on medication, a significant reduction in caesarean sections (27 per cent compared with 46 per cent for those keeping traditional paper diaries), high patient satisfaction, better compliance with blood glucose monitoring, fewer clinic visits and more efficient use of staff time.

"Previously we would receive an email from the patient, then précis their readings, record those readings manually on paper records and then respond by email to the patient with medication/dose recommendations. This was laborious and allowed for transcribing errors. Oxford AHSN adapted the database to our needs, so we collect additional info on each patient at delivery and download it at the end of the year for audit purposes. This now takes approximately one day instead of six weeks. We would find it almost impossible to manage without the system now." – Rachel Crowley, Diabetes specialist midwife, Royal Berkshire Hospital, Reading (evaluation site)



Other impacts:

An evaluation of GDm-Health was included in an independent <u>evaluation of digital health apps</u> carried out by the York Health Economics Consortium in 2016 (see page 4).

Sensyne Health was one of the 30 companies featured in the AHSN Network Innovator Zone at the Health and Care Innovation Expo 2018 in Manchester, September 2018.

GDm-Health was featured on the BBC Radio 4 Today programme during Expo as an example of digital technology that should be spread and adopted more widely in the NHS ahead of Health Secretary Matt Hancock's keynote address at Expo on harnessing technology.

The GDm-Health system won the Best Digital Initiative award in the Quality in Care Diabetes Award 2014.

Learning to date

Collecting data for measuring both clinical and economic impact during a real-world evaluation is essential to inform the case for adoption and spread. Ensuring multi-stakeholder buy-in from the outset is also crucial to successful evaluation. These stakeholders include nurses, consultants, payers, finance managers and clinical directors.

Supporting quotes

Innovator

"Chronic disease affects the lives of millions of people as well as accounting for around 70% of NHS costs. Digital health technologies offer the potential to make a huge difference for these people and save money for the NHS. This highly innovative partnership will ensure that there is a pathway from invention to commercialisation for digital health products created in Oxford that will deliver benefits to patients and reinvestment back into the University and the NHS Trust."

Lord Paul Drayson, Chairman and CEO of Sensyne Health

AHSN

"Digital health has enormous potential to generate patient benefit and economic savings throughout the NHS. In Sensyne Health we have found a partner committed to commercialising these ground-breaking technologies that could have a significant impact on patients around the UK."

Julie Hart, Acting Director of Strategic and Industry Partnerships

She used the GDm-Health device to monitor her blood sugar levels.

Service user

"It was handy to know that I was in constant touch with somebody and that I would get a message if there was something to worry about. We live about an hour away so having fewer appointments as a result of using this kit helped a lot."

Vanessa Galli-Wara, was diagnosed with gestational diabetes towards the end of her first pregnancy.

Plans and timescales for adoption and spread

Oxford University Hospitals has implemented GDm-Health. Sites going live in October and November 2018 are the Royal Berkshire (Reading), Milton Keynes, Buckinghamshire Healthcare, Guy's (London) and Croydon. Sites going live in early January 2019 are Frimley, St George's and King's in London, Shrewsbury, Cumbria and Blackburn. Oxford AHSN will measure the health economic impact of implementation at the four sites in its region and create a budget impact model to facilitate wider adoption and spread.

An application has been made by Sensyne Health to NHS England for "Innovation and Technology Payment (ITP) 2019/20".

Start and end dates

The relationship started in 2014 as an Oxford AHSN Clinical Innovation Adoption project and progressed into a strategic partnership during 2017. During 2018, with increased capacity and capability at the Oxford AHSN, the partnership has continued to grow and strengthen. The strategic partnership and portfolio of projects forms a key part of the Local Implementation Plan.

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Oxford AHSN case study 2

Date: Q2 2018/19

Programme/Theme: Patient Safety and Clinical Improvement

Title: AHSNs come together to create new NHS sepsis identification tool

Summary

The NHS has launched a tool that for the first time accurately measures the number of patients admitted to hospital who are at risk of sepsis which is notoriously difficult to detect.

<u>The Suspicion of Sepsis (SOS) Insight Dashboard</u> enables all hospitals to accurately measure how many patients are at risk of sepsis. It was created by Imperial College Health Partners (ICHP) in collaboration with NHS England and NHS Improvement.

It builds on the <u>methodology for measuring sepsis</u> published by the Oxford Patient Safety Collaborative (PSC) last year. Matt Inada-Kim, national advisor to NHS England on sepsis, praised the work of the Oxford PSC team led by Professor Charles Vincent in starting the journey towards the creation of the national sepsis dashboard. The SOS dashboard partnership – which includes input from the West of England and Wessex AHSNs – is in the running for a national prize as a finalist in the "Enhancing care through sharing data and information" category of the 2018 HSJ Awards. The winners will be revealed in November.

Challenge identified

Sepsis is a life-threatening condition that claims approximately 37,000 lives a year, although the exact figure is difficult to determine as it is hard to identify. It is caused when the body responds poorly to a bacterial infection and attacks its own tissues and organs.

Actions taken

The new dashboard tool enables NHS staff – for the first time ever – to use reliable data to monitor and assess the impact of interventions on deteriorating patients with 'suspicion of sepsis'.

It focuses on measurement of interventions, which helps local teams determine which methods work best, and which may need to be spread more widely across their organisation.

The Oxford PSC laid the groundwork for the national sepsis dashboard by taking routine coding data and developing a pragmatic methodology to define and measure a broad range of infection presentations associated with a risk of sepsis.

Patient outcomes (e.g. mortality, length of stay, readmission rate, intensive care admissions) were assessed and compared over time and across organisations. This analysis enabled the identification of the most common and most high-risk infections.

The Oxford PSC established a regional sepsis collaborative in 2016 which led to the establishment of consistent regional patient pathways.

Impacts / outcomes to date

The Oxford PSC produced a 'how to' guide to support the spread of this approach.



Supporting quote

"Sepsis is a devastating condition that is notoriously tricky to diagnose, so I'm delighted to support this important new tool. Not only will it let clinicians understand the impact of different interventions for sepsis, but crucially, in the future it could help analyse which infections lead to sepsis more often. It is yet another example of how technology is improving patient care in the NHS."

Matt Hancock, Secretary of State for Health and Social Care

NHS England priorities addressed

- Care and Quality
- Health and Well Being

AHSN priorities covered

• Clinical: Patient safety

• System enabler: Data integration

Start and end dates

2016-ongoing

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Oxford AHSN case study 3

Date: Q2 2018/19

Programme/Theme: Strategic and Industry Partnerships

Title: Unique point of care blood test speeds up clinical decision-making, improves quality of care and

reduces costs

Summary

A new point of care blood testing device is being introduced into frontline NHS services after an evaluation at three hospitals showed that it reduced A&E waiting times and helped clinicians make quicker decisions and get it right first time.

The Oxford AHSN study found the device speeded up antibiotic prescribing decisions in three-quarters of cases involving common childhood illnesses such as fever and abdominal pain. It also improved the quality of care by enabling potentially life-threatening conditions such as sepsis to be identified earlier.

The study found that the Horiba Medical automated analyser delivered lab quality results on average three hours quicker than traditional lab tests. It also saved the NHS money - independent economic analysis identified potential combined net annual savings of more than £60,000 across the three hospitals largely through more efficient use of clinicians' time.



Wider application has been demonstrated and NHS organisations are now investing in the devices. They are contributing to streamlining diagnostic pathways in the community for frail elderly patients, enabling more care closer to home and easing pressure on A&E departments. Wider use of the automated analyser is being investigated relating to paediatric appendicitis.

Challenge identified

In emergency medicine blood tests are carried out when diagnosis is unclear to help with clinical decision-making around admission. A C-Reactive Protein (CRP) assay is a commonly used blood test, particularly as a potential proxy indicator for bacterial infection, often alongside a full blood count (FBC). The test is normally performed in a hospital laboratory which takes about 60-90 minutes. However, the time from needle to result can be considerably longer - up to several hours. CRP and FBC are commonly used in paediatric emergency care to assist clinical decision-making. CRP is also used as a proxy indicator for the presence or absence of bacterial infection. The Oxford AHSN chose to evaluate Horiba Medical's Microsemi CRP point of care device because it is an automated analyser uniquely capable of simultaneously measuring CRP and FBC, as well as offering the potential to speed up clinical decision-making, improve care and reduce NHS costs.

Actions taken

Following <u>publication of a series of Oxford AHSN reports</u> into variation in paediatric hospital admissions, technology was identified with the potential to address this issue.

A unique automated haematology analyser (the Horiba Microsemi CRP) was evaluated for three months at three paediatric emergency departments. The AHSN set up protocols, arranged equipment loans, facilitated training and provided project management.



The aim was to establish whether the device led to quicker diagnosis of common paediatric conditions including fever, limpness and abdominal pain, improved patient flow, reduced waiting time by speeding up assessment and reduced unnecessary antibiotic prescribing.

The Oxford AHSN also commissioned the York Health Economics Consortium to carry out an economic analysis which concluded that the device produced combined net annual savings of more than £60,000 across the three hospitals due to more efficient use of nurse and doctor time.

In June 2017 Oxford and West Midlands AHSN hosted an <u>event focusing on point of care diagnostics</u> attended by over 100 people including Keith Willett, Medical Director for Acute Care at NHS England. Contributors included one of the teams which tested the Horiba device.

Impact / outcomes to date

The Horiba Medical automated analyser points of care blood testing device reduced A&E waiting times and helped clinicians make quicker decisions and get it right first time. It detects infection and inflammation within four minutes of a pinprick test enabling immediate treatment or referral.

As a result, antibiotic prescribing decisions were speeded up in three-quarters of cases involving common childhood illnesses such as fever and abdominal pain. Quality of care also improved with potentially lifethreatening conditions such as sepsis identified earlier.

The device delivered lab quality results on average three hours quicker than traditional lab tests. In one emergency paediatric department an earlier decision could have been made in 87% of cases, saving an average of 109 minutes per case, significantly improving patient experience by reducing waiting times for sick children and their parents.

The study found that the device was an effective stratification tool identifying children needing specialist referral more quickly and could shorten the time to decision-making about antibiotic use. In one case a high CRP result prompted urgent registrar review and initiation of IV antibiotics. The child had pyelonephritis and use of the reduced the clinical decision-making time by 50 minutes.

It also saved the NHS money - independent economic analysis identified potential combined net annual savings of more than £60,000 across the three hospitals largely through more efficient use of clinicians' time. There are also potential savings from quicker treatment decisions when a delay could have adverse effects on the patient's condition.

Reduced waiting time for test results also improves patient flow, particularly at peak times, assisting service redesign.

The device found wider application supporting community frailty assessment pathways.

The study findings have been fed into the national antimicrobial medicines review.

The Oxford AHSN supported business case development to introduce the devices on the NHS frontline.

This initiative generated coverage in specialist media during 2018 including <u>Clinical Lab Products</u> and <u>Building</u> <u>Better Healthcare</u>. The Oxford AHSN has an ongoing connection with Horiba Medical and both work with BIVDA, the in vitro diagnostics technologies industry body.

Supporting quotes

"Oxford AHSN was a massive help in launching the Microsemi CRP in the UK market. They provided access to key opinion leaders as well as enabling a much broader and more in-depth evaluation study than we would have achieved without their support. As well as ensuring that the dataset is large enough to be statistically valid, the health economic study they commissioned also provided real weight when trying to place the instrumentation in a new market by breaking down barriers to adoption and demonstrating the financial as well as technical efficacy of the solution. We have seen increased interest in the instrument since the AHSN study."

Mandy Campbell, Sales and Marketing Manager, Horiba Medical

"Patients see it as an advantage. Before the analyser was installed, we sent our samples away via two collection slots. Of course, this meant that patients were not able to access their results until 1-2 days later, whereas now, we can perform a combined FBC and CRP, see a result within four minutes and take the relevant course of action almost immediately. It also means that patient samples don't get lost."

Shelagh Wojtowicz, Staff Nurse, Marlow Community Hub

"This is a unique technology addressing an unmet clinical need to better stratify paediatric and elderly patients by speeding up clinical decision-making, improving quality of care and reducing costs. Real world evaluation by the Oxford AHSN partners has helped to prove clinical utility and benefits and we would encourage other AHSNs to introduce the concept to their health partners."

Julie Hart, Acting Director of Strategic and Industry Partnerships, Oxford AHSN

Future plans

The Oxford AHSN is sharing the results of the evaluation in several ways both within and outside its region. Within the Oxford AHSN one trust has invested in the analysers and is using them to streamline existing diagnostic pathways in the community for frail elderly patients, enabling more care closer to home and easing pressure on A&E departments. At least one other trust is going through a procurement process. Wider use of the analyser is being investigated relating to paediatric appendicitis.

NHS England priorities addressed

- Care and Quality
- Funding and Efficiency
- Health and Well Being
- Driving Economic Growth

AHSN priorities covered

- Long-term conditions
- Patient safety

Start and end dates

Evaluation and assessment, 2016/17; roll-out ongoing

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Operational Review

Overall, Oxford AHSN is performing well – we are delivering the local programmes and we have made significant progress on engagement with local stakeholders to deliver the new national programmes.

Our host, Oxford University Hospitals, has signed the Master Licence Agreement with NHS England for a second five-year licence period. The PWC review of the Patient Safety Collaboratives recommends stronger direction form NHS Improvement and focus by the PSCs on a small number of national programmes. The new national specification for PSCs reflects the recommendations. Oxford AHSN's PSC is very well placed to deliver against the new specification – most of our existing work, eg Deteriorating Patient and Maternity Neonatal aligns well and we have a highly capable clinical team to manage the programme. The Office for Life Sciences (OLS) has not so far commented on the Local Implementation Plans from the AHSNs. We have realigned our Strategic and Industry Partnerships (SIP) programme to deliver against the four core functions required by OLS.

Our first case study above shows how our Strategic and Industry Partnerships and Clinical Innovation Adoption programmes have supported a healthcare technology company to expand through support with its commercial strategy and partnering with the NHS. We managed the adoption by the NHS of technology from the University of Oxford and then supported the joint venture created with Oxford University Hospitals. Sensyne Health has raised £60m on the London stock market and has moved to new premises on the Oxford Science Park.

Our second case study comes from our growing portfolio of point of case diagnostic tests – key technology to speed up clinical decision-making at the point of need. These technologies improve patient safety, outcomes and experience and improve NHS efficiency.

The third case study is from our Patient Safety and Clinical Improvement programme which brought together clinical leaders from our local acute providers. It demonstrates how Oxford AHSN collaborates with other AHSNs to deliver benefit to patients on a national level. The NHS has launched a tool that for the first time accurately measures the number of patients admitted to hospital who are at risk of sepsis which is notoriously difficult to detect. The Suspicion of Sepsis (SOS) Insight Dashboard enables all hospitals to accurately measure how many patients are at risk of sepsis. It was created by Imperial College Health Partners (ICHP) in collaboration with NHS England and NHS Improvement. It builds on the methodology for measuring sepsis published last year by the Oxford Patient Safety Collaborative (PSC).

Patient Safety Manager Katie Lean and the team from East Berkshire won the prestigious HSJ Patient Safety Award for Quality Improvement Initiative of the Year for the hydration in care homes Good Hydration! Programme which is being taken up in other local authority areas including Luton, Bedford and Milton Keynes.

The Oxford AHSN has three programmes – Patient Safety and Clinical Improvement which includes the Patient Safety Collaborative commissioned by NHS Improvement, Clinical Innovation Adoption, which addresses most of the NHS England national programmes, and Strategic and Industry Partnerships which delivers against the government's Life Sciences Industrial Strategy and the Office for Life Sciences' Innovation Exchange requirements. Highlights from the three programmes are outlined below. Details can be found later in this quarterly report.

Building the Network and Capability and Capacity

The network continues to grow locally, nationally and internationally. CIA has won further EIT Health funding for its European Market Access for Partners (eMaps) project to build modules for Germany, Italy, Portugal and the USA (tool already developed for the UK, France, Spain, Netherlands, Sweden and Denmark). The eMaps system, an online tool for companies to better understand market access, could be of interest to the AHSN Network Innovation Exchange.

The Oxford and Cambridge Academic Health Science Centres, chaired by the Regius Professor of Medicine Sir John Bell and Regius Professor of Physics Patrick Maxwell met with Oxford and Eastern AHSNs to discuss clinical and economic collaboration opportunities.

We held/participated in 12 events in the quarter with more than 500 people attending (see Stakeholder Engagement and Communications report). We have run several events jointly with other AHSNs and local organisations, eg:

- Maternity sharing event, linked to national Mat Neo QI initiative led by the Oxford AHSN Patient Safety Collaborative
- WireSafe workshop training event for local stakeholders and all AHSNs
- NICE shared learning event presentation of Good Hydration!
- NHS Expo Oxford AHSN SIP programme talk on "Clinical and economic impact of using point of care diagnostics in pre-hospital settings"
- Oxford AHSN presented at 2nd Annual Precision Medicine Congress in Munich on behalf of UK Precision Medicine Centres of Excellence
- Emergency Department Collaborative third gathering of multi-disciplinary ED teams from Oxford AHSN region
- Launch of Buckinghamshire Health and Social Care Ventures Hub a collaboration of the Buckinghamshire Healthcare, Buckinghamshire County Council, Bucks New University and Johnson & Johnson to support innovators – Nicki Bromwich from the SIP programme has played a key role in making this idea a reality over the last three years
- Dr Peter Young, Consultant Anaesthetist and NHS Innovation Accelerator Fellow, gave a talk at the alumni event for innovation/change management training programme for frontline staff – to date 126 frontline staff have had training. This course, developed with Bucks New University, is supported by Health Education England.

"The Oxford AHSN has played a crucial role in connecting us with the NHS frontline. Their expertise, local knowledge and practical help were instrumental in opening doors for us to get our innovative critical care patient safety devices into the hands of the right people. The Oxford AHN really knows how to achieve spread and adoption of clinical innovations across the NHS. It's still hard but it would be a lot harder without them."

Dr Peter Young, Consultant Anaesthetist and NHS Innovation Accelerator Fellow

Subscribers to the Oxford AHSN monthly email newsletter stand at just over 1,300. The number of followers of the main Oxford AHSN Twitter account (@OxfordAHSN) was *circa* 4,200, about 200 followers added since Q1.

Content on our websites is regularly updated and expanded. These include www.oxfordahsn.org, http://clinicalinnovation.org.uk/ and https://clinicalinnovation.org.uk/ and https://clinicalinnovation.org.uk/ and https://clinicalinnovation.org.uk/ and https://clinicalinnovation.org/.

We produced "Learning Together", a joint publication with Health Education England and Thames Valley Strategic Clinical Network, celebrating the portfolio of workforce development work. With Health Education England's support, we are developing workforce development packages to support he Pincer and Atrial Fibrillation detect and protect programmes.

Highlights from Oxford AHSN's three programmes (full reports follow)

1. Patient Safety and Clinical Improvement programme

'Good Hydration!' won the 2018 HSJ Patient Safety Award for Quality Improvement Initiative of the Year and the NICE Shared Learning Awards for the Hydration in Care Homes project. The HSJ panel were unanimous in their decision: 'This apparently simple project has such a positive impact on patient outcomes and is an impressive example of how a simple idea could have a huge impact beyond what the team hoped to initially achieve'. A toolkit and training videos have been made and are now publicly available on our website. Good Hydration! Is being rolled out in Luton, Bedford and Milton Keynes. Train the trainer days have been led with Milton Keynes and Swindon. Online resources are now available – supported by HEE.

- We have now participated in three reviews over the last couple of months an internal review and visit by Jonathan Gray (MD, South West AHSN) and Cheryl Crocker (PSC Chair), an external review by PWC commissioned by NHSI, and the Kings Fund, commissioned by the AHSNs.
- Steve McManus, CEO of the Royal Berkshire and Chair of the Oxford PSC Oversight Group, and Katherine Edwards, Director of Patient Safety and Clinical Improvement, visited executive teams at our region's trusts to help with awareness of our work, thank staff involved in our successes and hear more about local safety priorities as seen by senior teams.
- Deteriorating patient Oxford AHSN's Sign up to Sepsis methodology has been utilised in a new dashboard promoted by Matt Hancock MP, Secretary of State for Health and Social Care.
- Deteriorating patient News2 all our local trusts are adopting News2
- Maternity PReCePT lead midwives have been appointed in our five acute trusts. Dr Mark Anthony,
 Consultant Neonatologist at Oxford Women's Services, is our clinical lead
- Mental Health and Frequent Attenders in Emergency Departments Fran Butler, Senior Programme
 Manager in collaboration with Dr Deon Louw, Emergency Department OUH, has won funding through
 the Q Exchange, against stiff competition, to bring together multi-disciplinary teams to share best
 practice for supporting frequent attenders in Emergency Departments.

2. Clinical Innovation Adoption programme

- There are 12 major Innovation Projects live and underway within the Clinical Innovation Adoption Programme. These are being delivered to five CCGs, five trusts and 324 GP practices creating multiple sub projects across the region.
- National programmes Q2 has been particularly challenging as many of the national programmes had
 delayed starts with a lack of timely support or materials from the originating AHSNs resulting in a
 compressed three months that has involved feasibility testing, planning, initiation, engagement and
 sign up.
 - o **Taking Care Around Medicines (TCAM)**: Planning workshop held with Buckinghamshire LPC and Buckinghamshire Healthcare on 17 September to discuss implementation in Bucks.
 - Escape Pain: The project remains challenging and interest from the CCGs is low, however through perseverance and useful contacts set up through the Oxford AHSN Get Physical programme, the CIA project lead has created some potential interest from leisure centres.
 - Pincer: The planning stage was completed, interest established and implementation initiated. The CIA Team held a Pincer workshop with four out of five of our regional CCGs. Attendees included PRIMIS and national meds optimisation leads. This event had very successful outcomes with four CCGs signing up to go out in the first instance with an expression of interest process to local GPs; nine practices have registered as early adopter practices, with more to follow.
 - o ITP/ITT engagement and adoption is progressing well
- Local project highlights for this quarter include:
 - Heart Failure: Oxford AHSN is the first AHSN to sign a joint working agreement (JWA) for initiation of a heart failure project with Novartis. The JWA was signed in August 2018 and the project launched in the Buckinghamshire CCG area in October 2018. The project aims to address the variation in prevalence rates between practices and to reduce the admission rates to hospital by optimising medication prescribed in primary care and supporting pathways for specialist-initiated medications. Other AHSNs are being engaged to initiate similar heart failure projects within their regions.
 - Anticoagulation Atrial Fibrillation: The evaluation of the Buckinghamshire Excellence in AF project that was rolled out to 28 Practices and resulted in 266 patients receiving oral anticoagulation, 227 of whom have a high risk of stroke. The improvements delivered by the project have the potential to reduce stroke incidence by up to 17 strokes per annum which would avoid approximately £0.43m in stroke care costs. The project was completed in Q2 and results to be presented with Bayer at the Heart Rhythm Congress at the beginning of October.

- Sleepio: We have engaged with 14 commissioners and decision-makers across the Thames Valley to explore the levels of knowledge and experience around commissioning digital health innovations and to seek potential methods for commissioning such products in the future. This has generated a very insightful report with areas for further investigation that will be explored and written up for a journal publication during Q3. Sleepio is also now available for regional users staff and public.
- eMaps: The CIA Team has been awarded funding for a third year from EIT Health. This project is attracting interest across Europe as it provides a learning web-based environment for innovators at all stages of development as it provides information and insight into how to address the challenges that entering a market pose whether local or overseas. The 2019 funding will enable us to add Italy, Germany, Portugal and the USA to the eMaps platform.

3. Strategic and Industry Partnerships programme

• Case studies were submitted to Atlas / the Economic Growth INN for "Use of POCT in a Paediatric Emergency Department Setting (Horiba Biomedical)" and "Better diagnosis of pre-eclampsia to improve patient safety and reduce burden on the maternity system" (Roche Diagnostics).

• Core function 1 – Needs Assessment

- Very active quarter with meetings with NHS and commercial stakeholders, eg with urgent care centre (UCC) staff, a GP who leads UCCs and ED consultants r to interview and review pathway for Jupiter Diagnostics Calisto platform / dyspnea panel assay under development (Innovate UK grant £350,000)
- Report sent to Sharp Life Sciences for the second clinical pathway analysed for the VisiMobile device. Next step will be to discuss a real-world evaluation in the setting preferred by clinicians

Core function 2 – Signposting

- The SIP team continues to support strategic partnerships with industry, including the collaboration with Johnson & Johnson/Janssen, Abbott and Roche and are building new strategic partnerships with Illumina, Biomerieux, Sensyne Health and Novartis.
- Several small companies have requested meetings/assistance after VentureFest Oxford:
 AdaptixImaging, R-Outcomes, Zelta Technologies
- An NDA has now been signed with CREAVO allowing next steps to proceed and identify possible sites to evaluate their novel technology for detecting ischaemia in ED
- Point of care diagnostics progress with NHS stakeholders on flu, ED test and pre-eclampsia test
- Helping companies to develop solutions that meet healthcare needs Strategyzer workshops with Knowledge Transfer Centre and Oxford University Innovation

• Core function 3 – Evaluation in a Real-World Setting

- Flu − Royal Berkshire is currently putting together their business case for the Alere-I test. Health economics is due at the end of September/beginning of October.
- Flu Following evaluation feedback, FujiFilm has come back with a connected machine and Stoke Mandeville is currently assessing their options. A meeting is to be held on 9 October to evaluate this machine and the Alere-I machine. A full evaluation will be held for the Alere machine if that is what is chosen; a simple lab evaluation and procurement if the Fuji machine is chosen.
- Sarissa Biomedical (Innovate UK grant £2 million "Purines for rapid identification of stroke mimics") – ED PID is currently awaiting approval for a full-service evaluation to be conducted in Royal Berks, OUH and possibly Stoke Mandeville, to encourage clinical buy-in and confidence in the test before roll-out into ambulances. Project is six months behind for the clinical trial in ambulances, but the team is confident that this can be recovered.
- Mologic (Innovate UK grant £2 million "COPD patient exacerbation alert") meeting to discuss trial protocol. Nadia is going to undertake some Lean Methodology work on the project, including clinical pathway mapping.

- Mologic has now met with the maternity service at the JR and agreed to proceed with an evaluation of BVP, which has implications in pre-term labour and miscarriage. Oxford AHSN will provide the health economic analysis and reporting to show cost effectiveness.
- Continuing to push the Isansys trial.

• Core function 4 – Adoption of Innovation and Diffusion

- The ELECSYS® Pre-eclampsia (sFit-1 & PIGF) developed by Roche Diagnostics is being implemented through maternity units to (i) deliver improved patient safety, (ii) reduce unnecessary admissions, (iii) ensure women get the right treatment for their actual need, (iv) reduce overall cost to the system and (v) improve capacity management within the system
- O The Faecal calprotectin (FCP) diagnostic test helps to differentiate between Irritable Bowel Syndrome (IBS) and Inflammatory Bowel Disease (IBD) and (i) generates benefits for patients through the prevention of unnecessary invasive procedures, (ii) provides financial savings through a reduction in referrals to secondary care, and (iii) a reduction in waiting lists and increase in diagnostic yield for hospitals.

• Economic growth

- Strategic and Industry Partnerships and Clinical Innovation Adoption programmes have supported a healthcare technology company to expand through support with its commercial strategy and partnering with the NHS. We managed the adoption by the NHS of technology from the University of Oxford and then supported the joint venture created with Oxford University Hospitals. Sensyne Health has raised £60m on the London stock market and has moved to new premises on the Oxford Science Park (see case study). £71.5m has been leveraged this year.
- The Buckinghamshire Life Sciences Innovation Centre was launched with a call for SMEs open until October 5th. Process underway to appoint industry representatives and the chair to Partnership Board underway.
- SIP continues to support the Bicester Healthy New Town, the Hill and the development of an Accelerator at Harwell for life science companies (projectAccelerate).
- Cancer diagnostics the University of Oxford led bid by Professor Fergus Gleeson with a consortium of health and industry partners has been awarded funding for a national Consortium of Intelligent Medical Imaging (NCIMI) through the Innovate UK open competition as part of the Industrial Strategy Challenge Fund.

NHS England National programmes

Oxford AHSN has signed up to all the national programmes and delivery of the national spread targets. There has been significant progress on engagement in Q2 with workshops, communications, direct engagement with key stakeholders. We are starting to see decisions being made by stakeholders to progress to implementation or decline the offer. Given we started five of the seven national programmes from scratch without materials, business cases or model implementation plans progress has been rapid. It is very unlikely that the 2018/19 target will be achieved but the two-year cumulative target is achievable.

ITT/ITP innovation uptake is progressing well with all Trusts taking at least one innovation. Two Trusts are reconsidering WireSafe.

NHS England National programmes – latest targets

National Programme	Measure/goal	2018/19	2019/20	Cumulative
Atrial fibrillation	Number of patients diagnosed with AF	1,966	1,991	3,957
Emergency laparotomy	Number of procedures	751	1,358	2,109
ESCAPE-Pain	Number of ESCAPE-Pain sites active	6	5	11
	Number of patients	274	579	853
PINCER	Number of GP practices implementing PINCER	96	96	192
PReCePT	Number of babies born where MgSO4 given	8	17	25
SIM (Serenity Integrated Monitoring)	Number of participants/people (NB maintain year 1 participants in year 2)	135	29	164
TCAM Transfer of Care	Number of completed referals	235	453	688

NB PreCept numbers appear very low because Oxford AHSN maternity units have 80-85% uptake of MgSO4. We will strive to achieve 95% by March 2020.

Summary of progress on engagement and comments on each programme

National programme	Aim	Engagement	Comment	
Atrial fibrillation	Detect and protect	On track to deliver forecast ROI for detect and protect	CIA secured £37,000 MEGS funding from Pfizer to carry out focussed detection projects in Wokingham and Bucks	
Emergency laparotomy	Improve recovery and reduce LOS	Clinical champion appointed, baseline assessment of current NELA practice underway Trusts engaged and interested although OUH has declined	Target for ELap is circa 150% of current procedures	
Escape Pain	Improve recovery from arthritis and reduce costs	Reviewed local needs, analysed benefits and initiated discussions with local stakeholders Engaged CCGs, STPs, three County Sports Partnerships and Leisure Sector	Little interest from CCGs. Most interest from Leisure Sector. AHSN providing training funding. Very challenging target of 6 sites active this year and we only have one site active.	
PINCER	GP medicine safety	PINCER workshop with 4 out of 5 CCGs. 4 CCGs signing up. 9 GP practices registered in Buckinghamshire	Milton Keynes CCG rejected PINCER as implementing EMIS. We will know in Q3 the level of interess in Berkshire and Oxfordshire and will have a better idea if the targets are achievable	
PReCePT	Prevent cases of cerebral palsy	PreCept midwives appointed in all five Trusts. Regional clinical lead appointed and launch event held	Uptake is already highest in England at 80-85%. However, we will aim for 95% by March 2020	
Serenity Integrated Monitoring (SIM)	Reduce admissions of patients with mental ill health	Engaging mental health providers to determine appetite. Working with one Trust to build case to take to Thames Valley Police.	Similar initiatives already in place in the region.	

National programme	Aim	Engagement	Comment	
Taking Care About Medicines (TCAM)	Medicine safety and compliance	Extensive stakeholder engagement to determine interest including event with AHSN Network Pharmacy lead. Buckinghamshire LPC and Buckinghamshire Healthcare moving towards implementation	The 2018/19 target is unachievable at Q2 no Trusts are using TCAM. However 1 Trust will implement this year and if we have 2 more Trusts implementing in 2019/20 the cumulative year 2 target is achievable	
ITT/ITP	Drive uptake of products	Significant engagement with Acute Trusts this quarter with a sharp increase in interest	Two Trusts revisiting WireSafe All Trusts are adopting at least one ITT/ITP innovation	

Supporting activities

We are undertaking a review of data, data analysis, information governance and knowledge requirements with the programmes to identify gaps and develop a strategy. The informatics team has been absorbed into the corporate team.

KPIs and Key Milestones (see tables below)

Performance is satisfactory.

Key Performance Indicators (KPIs)

Programme	High level KPIs (measured annually unless otherwise stated)	As at Q2	
Patient Safety and Clinical Improvement	Adoption of 2-3 proven improvements from outside the AHSN area	2 in progress	
	Implementation of 2-3 clinical improvement/innovation projects in mental health	Three mental health projects in progress	
Clinical Innovation	Number of innovations adopted per annum	6 innovations	
Adoption	Number of NHS organisations adopting	8 Trusts/170 Practices Practices/1 CCG - Bucks	
Strategic and Industry Partnerships	Number of real world evaluations completed	1	
	Amount of investment leveraged into the region through SIP activities	£71.5 million	
Stakeholder engagement	Number of Twitter followers main Oxford AHSN account only (reported each quarter)	4,200	
	Number of Newsletter subscribers (reported each quarter)	1,312	
	Year on year increase in participants/attendees at AHSN-organised events	73 in Q2 2017/18 and 127 in Q2 2018/19	

Key Milestones – progress to date

Programme/Theme	Key milestones 2018/19	Q2 Progress
Corporate	Hosting agreement with OUH Commercial vehicle development	Waiting for OUH to agree MOU AHSN Board and OUH Investment Committee have agreed to LLP subject to partnership agreement. Waiting for OUH comments on LLP agreement. Looking at CLG option independent of NHS
Patient Safety and Clinical Improvement	Re-licence of Patient Safety Collaborative past March 2019	Independent review complete. NHSI now issued Interim Specification
Clinical Innovation Adoption	Launch the eMAPs website for market access aimed at SMEs Delivery of five national innovation adoption programmes	On track Delivery underway for all 5
Strategic and Industry Partnerships	Roll-out of faecal calprotectin POC Roll-out of pre-eclampsia diagnostic test	Initial adoption by first 7 of 54 GP practice once system updates complete. Detailed mapping and baseline activity measurement for 2x CCG's. Engagement with 3 rd CCGs. On track. Scale-up of coverage at Oxford JR following adoption of the PE pathway late September. Acceleration of other trusts in region through closer support through the initial adoption phase.
Informatics	Initiate Local Health and Care Record Exemplar	With support from AHSN local bid was successful. The AHSN is NOT responsible for management of LHCRE implementation. AHSN has a role on governance group. Complete
Stakeholder Engagement and Communications	Independent stakeholder survey	Will review need should NHS E undertake national survey

Finance

NHS England issued its Official Purchase Orders covering April-Sept 2018 in respect of their allocation, The Patient Safety Collaborative, and Office for Life Sciences. Income for grants and commercial activities amounts to £1.3m, almost 24% of the total income. Our forecast varies from our financial plan in respect of Commercial revenue in relation to the Harwell Accelerator programme which will defer to 19-20 and provision in our accounts for credit notes yet to be issued. We are forecasting a balanced position for this year and in line with plan.

Model Period Beginning	01-Apr-18	01-Apr-18
Model Period Ending	31-Mar-19	31-Mar-19
Financial Year Ending	2019	2019
Year of Licence Agreement	6	6
INCOME (REVENUE)	Opening Plan	Forecast
NHS England funding	2,783,500	2,783,500
Partner contributions	443,000	443,000
SCN Funding	0	-199,000
HEETV income for continuous learning	0	0
Office of Life Sciences Funding	831,000	831,000
NHS Improvement funding - PSC income	447,925	447,925
Other Income - Corporate Support	20,900	40,636
Other Income - Patient Safety Collaborative	10,000	10,000
Other Income - Clinical Innovation Adoption	523,370	570,520
Other income - Strategic & Industry Partnerships	736,391	572,601
Other income - Informatics	0	18,236
Other Income - PPIEE	96,583	96,583
Total income	5,892,669	5,615,001
AHSN FUNDING OF ACTIVITIES		
Patient Safety & Clinical Improvement	1,108,845	793,597
Clinical Innovation Adoption	1,547,019	1,567,207
Strategic & Industry Partnerships	1,369,856	1,301,694
Janaregie & illuusti y rartiileisiiips		
Informatics	434,919	
Informatics	434,919	469,827
Informatics PPIEE	434,919 214,930	469,827 213,080
Informatics PPIEE Programmes and themes	434,919 214,930	469,827 213,080
Informatics PPIEE Programmes and themes CORE TEAM AND OVERHEAD	434,919 214,930 4,675,569	469,827 213,080 4,345,405
Informatics PPIEE Programmes and themes CORE TEAM AND OVERHEAD Pay costs	434,919 214,930 4,675,569 640,889	469,827 213,080 4,345,405 654,386 449,401
Informatics PPIEE Programmes and themes CORE TEAM AND OVERHEAD Pay costs Non-pay costs	434,919 214,930 4,675,569 640,889 410,871	469,827 213,080 4,345,405 654,386 449,401
Informatics PPIEE Programmes and themes CORE TEAM AND OVERHEAD Pay costs Non-pay costs Communications, events and sponsorship	434,919 214,930 4,675,569 640,889 410,871 165,340	469,827 213,080 4,345,405 654,386 449,401 165,028
Informatics PPIEE Programmes and themes CORE TEAM AND OVERHEAD Pay costs Non-pay costs Communications, events and sponsorship	434,919 214,930 4,675,569 640,889 410,871 165,340	469,827 213,080 4,345,405 654,386 449,401 165,028
Informatics PPIEE Programmes and themes CORE TEAM AND OVERHEAD Pay costs Non-pay costs Communications, events and sponsorship Total core team and overhead costs Total expenditure	434,919 214,930 4,675,569 640,889 410,871 165,340 1,217,100 5,892,669	469,827 213,080 4,345,405 654,386 449,401 165,028 1,268,814 5,614,219
Informatics PPIEE Programmes and themes CORE TEAM AND OVERHEAD Pay costs Non-pay costs Communications, events and sponsorship Total core team and overhead costs Total expenditure Net Income/Expenditure	434,919 214,930 4,675,569 640,889 410,871 165,340 1,217,100 5,892,669	469,827 213,080 4,345,405 654,386 449,401 165,028 1,268,814 5,614,219
Informatics PPIEE Programmes and themes CORE TEAM AND OVERHEAD Pay costs Non-pay costs Communications, events and sponsorship Total core team and overhead costs Total expenditure	434,919 214,930 4,675,569 640,889 410,871 165,340 1,217,100 5,892,669	469,827 213,080 4,345,405 654,386 449,401 165,028 1,268,814 5,614,219

Risks

Last quarter we highlighted the risk to delivery of two NHS England national programmes – TCAM and Escape Pain. We believe that the cumulative year 2 spread targets for these programmes are achievable. Serenity Integrated Monitoring is a risk and depends on Thames Valley Police agreeing to the programme. There are very similar mental health services/police liaison initiatives in the Thames Valley and throughout England. The AHSN has engaged with acute mental health providers within the Thames Valley, and is currently working with one trust to determine the potential size of the benefits which can be derived with a view to pursuing this further.

Return on investment on national programmes will be calculated by NHSE centrally. Our local programmes are on track to deliver the planned ROI for the year.

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

Patient Safety and Clinical Improvement

Highlights

We were delighted to win the HSJ Patient Safety Award for Quality Improvement Initiative of the Year and the NICE Shared Learning Awards for the Hydration in Care Homes project. The HSJ panel were 'unanimous in their decision. This apparently simple project has such a positive impact on patient outcome and is an impressive example of how a simple idea could have a huge impact beyond what the team hoped to initially achieve'. A toolkit and training videos have been made and are now publicly available on our website.



We have now participated in three reviews over the last couple of months – an internal review and visit by Jonathan Gray (MD SW AHSN) and Cheryl Crocker (PSC Chair), an external review by Price Waterhouse Cooper commissioned by NHSi, and the Kings Fund, commissioned by the AHSNs. Publication of these reviews is expected in October.

We have been conducting visits to Senior teams at our regional Trusts to help with awareness of our work, thank staff involved in our successes and hear more about local safety priorities as seen by senior teams. These visits by Steve McManus (CEO of the Royal Berkshire and Chair of the Oxford PSC Oversight Board) and Katherine Edwards (Director of Patient Safety and Clinical Improvement) are almost complete, with Oxford University Hospitals, Frimley Health and Berkshire Healthcare left.

Mr McManus kindly provided a quote which demonstrates the value that healthcare providers are able to find in working with us with the aim of reduce avoidable harm.



"The Oxford AHSN and its Patient Safety Collaborative have provided invaluable support to us and the other NHS trusts in our region. Their accessible 'can-do' attitude and ability to see the bigger picture is increasingly persuading clinicians of the value of sharing excellence across, as well as within, our organisations which is leading to raised standards

Steve McManus, Chief Executive, Royal Berkshire NHS Foundation Trust

Deterioration

Acute Kidney Injury

AKI became a national priority in 2015 and the Programme within the PSC continues to strive to reduce the burden of AKI and improve outcomes and quality of life for people within our region with several projects.

Good Hydration – reducing UTIs in Care Homes

Over the last two years the "good hydration" quality improvement project run in collaboration with East Berkshire CCG has demonstrated a reduction in hospital admissions for urinary tract infections (UTI) by 66%. It has also seen UTIs requiring antibiotics more than halve from seven UTIs each month to three within the care homes involved. On the 9th July the project won the HSJ Patient Safety Award, Quality Improvement Project of the year.



A celebration event was held with the care homes to recognise their hard work and improved sustainable outcomes for residents.



An online package of resources and training to support more widespread adoption of this project is now available through the patient safety collaborative website. In conjunction to this six YouTube cartoon presentations have been designed funded by Health Education England Thames Valley which incorporate the training sessions for staff in short clips.

Train the trainer days to support project adoption in other CCGs has been facilitated in Milton Keynes and Swindon.

The project has been presented nationally at the National Hydration Network meeting and through a webinar for NHSI gram negative blood stream infections workstream.

AKI in the community

A quality improvement project commenced in June 2018 in partnership with Great Western Hospital, Swindon to ensure that patients are informed how to care for their kidneys in the community. The overall aim is to ensure that 95% of patients who have had an AKI alert, have a discussion and leaflet about AKI and hydration. Baseline data noted that 19% of patients knew they had AKI and > 80% would like their information in a leaflet format. A leaflet has been approved and staff are receiving training on the importance of hydration in the community for patients who have a diagnosis of AKI.

Oxfordshire CCG is working with GPs to ensure that patients who have/or had an AKI alert, are correctly followed up in the community setting. Care bundles were designed with GPs and released in November 2016 to promote a tailored plan of care in the community, ensuring the kidneys return to normal function. An initial analysis of the follow up bloods has demonstrated that more bloods are being taken by the GP ensuring renal function returns to normal. This demonstrates an improved change in practice and will serve as a baseline to prioritise improvement work within Oxfordshire.

Sepsis

In this quarter the <u>published</u> Suspicion of Sepsis methodology has been utilized by Imperial College Health Partners (ICHP) to create their Suspicion of Sepsis (SOS) Insight <u>Dashboard</u>.

This enables all hospitals to accurately measure how many patients are at risk of sepsis and has been shortlisted for a Health Service Journal <u>Award</u> in the 'Enhancing Care by Sharing Data and Information' category. The dashboard was mentioned in Secretary of State Matt Hancock's speech relating to Patient Safety.

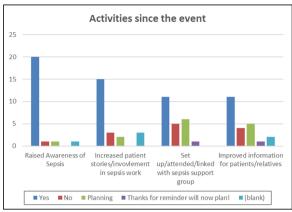


All the acute trusts in our region are moving to NEWS 2. We have supported the NEWS 2 champions by ensuring they have access to the latest information and discussion forum, as well as sharing their expertise, such as Buckinghamshire Healthcare with management of spinal patients.

The regional sepsis pathway, adopted by all 6 acute trusts, has been updated to include NEWS 2. South Central Ambulance Service (SCAS) presented at the ED collaborative event on NEWS 2.

Progress and challenges have been shared at the quarterly national deteriorating patient meeting with the other 14 Patient Safety Collaboratives.

The regional sepsis stakeholders group held their quarterly meeting in July, sharing the feedback from the 'Sepsis - a regional patient-centered learning event'. Since then a further evaluation was undertaken 100 days on, and the first sepsis support group for Oxfordshire & Berkshire held with 16 attendees.





Emergency Department Collaborative (ED)

A successful third collaborative was held in September hosted by Milton Keynes University Hospitals at their Academic Centre and opened by Dr Ian Reckless, Medical Director and member of the Patient Safety and Clinical Improvement Oversight Group

The theme of the event addressed supporting a safer culture within ED environments and 60 attendees mainly clinicians from all five trusts in the region enthusiastically shared learning and improvement work.

It provides a forum for the dissemination of good practice and excellence and a safe environment to share challenges and discuss solutions to 'wicked problems' within ED environments.

The event is led by clinicians and will be hosted in March 2019 by Oxford University Hospitals at Unipart.



Mortality Reviews

The regional mortality review programme has continued sharing documents and information virtually in this quarter. Links have also been made with Frimley Integrated Care System (ICS) mortality review group, with opportunity to share learning.

A site visit at Buckinghamshire Healthcare was undertaken in conjunction with the Department of Health and Social Care (DHSC) National Implementation Lead for Medical Examiners Kathryn Griffin, as an early adopter site for medical examiners. This work at Buckinghamshire Healthcare has been shortlisted for the national HSJ awards in the Patient Safety category, linking with their wider learning from deaths programme.

The regional mortality review group is supporting partner organisations in the implementation of medical examiners spreading the learning from Buckinghamshire Healthcare.

Maternity

Mat Neo

The Maternal and Neonatal Health Safety Collaborative is a three-year programme to support improvement in the quality and safety of maternity and neonatal units across England led by NHS Improvement. The Patient Safety Collaborative is supporting Trusts within the region throughout this programme. Wave 2 Trusts (Royal Berkshire and Frimley Health) commenced the programme in April 2018. They were supported throughout the three-day learning set in September hosted by NHSI.



Quality Improvement plans have been completed and projects are underway to improve the recognition of the deteriorating woman in labour, reduce hypoglycaemia in the newborn and hypothermia in the extreme preterm. Wave 1 Trust (Oxford University Hospitals) is progressing with their QI projects in improving thermoregulation of the extreme preterm newborn and ensuring IV antibiotics are given to women with suspected sepsis within 1 hour of admission in maternity assessment unit.

Within the national programme, Trusts are encouraged to undertake a safety culture survey to assess their unit and identify areas for improvement. The survey undertaken is SCORE (Safety, Communication, Operational Reliability & Engagement). This has been undertaken in all three of the Trusts in the active waves and the debriefing of staff completed. Each Trust is compiling themes from these de-briefs to inform their improvement plan and to present to a report to the Trust Board.

The local learning system (LLS) is intended to support Trusts in quality improvement methodology and look at system level improvement where appropriate. The Thames Valley LLS met in July and worked with members in setting clear aims and measures within their projects. Oxford PSC will be supporting a second LLS for Bedford, Luton and Milton Keynes in the autumn.



OxGRIP: Oxford Growth Restriction Identification Programme

The OxGRIP Project continues to run in Oxford University Hospitals. The primary aim is to increase the identification of small for gestational age babies, before labour, in order to avoid poor outcomes for the baby. This is done through a risk stratification at the 20-week anomaly scan, a programme of growth scans with uterine artery dopplers (based on the determined risk) and a universal 36-week growth scan for all expectant mothers.

In the last quarter the focus has been on reviewing the dataset development procedure to ensure that the data gathered is robust for analysis. This includes sourcing funds for a permanent data manager / statistician whose role will be to manage the datasets and subsequent analyses. The project team's target is to have a full impact analysis and first draft of a paper for publication by the end of 2018.

An overarching analysis of impact was conducted over the summer which supports anecdotal evidence that the project is achieving its primary and secondary aims.

PReCePT

Background; This is a multiorganisational QI approach to the adoption and spread of Magnesium Sulphate (MgSO4) for neuroprotection of preterm babies of less than 30 weeks' gestation. MgSO4 is a relatively inexpensive easy to administer effective treatment that can reduce the risk of death and cerebral palsy in babies born very preterm. Cerebral palsy affects around 1 in every 400 babies and on average in 2016 only 43% of eligible mothers received MgSO4.

The programme has been successfully implemented in the West of England AHSN where uptake rates improved considerably and is being rolled out nationally over 2018/19 and 2019/20 because it has a compelling evidence base, a simple methodology and because every AHSN hosts a PSC who are supporting the Mat Neo workstream. The aim is to achieve an uptake of MgSO4 of 85% progressing to the stretch target of 95% by March 2020 in eligible mothers.



Progress

PReCePT lead midwives have been appointed (funded for 90 hours) in each of the five trusts in the region, Buckinghamshire Healthcare, Frimley Health including Wexham Park Hospital, Milton Keynes University Hospitals, Royal Berkshire and Oxford University Hospitals. A get ready for **PReCePT** event was held with them which started planning of how to raise awareness locally and improve outcomes for these babies. The midwives will be supported by an obstetric lead locally, a named individual has now been identified in each Trust.

Dr Mark Anthony, Consultant Neonatologist at Oxford Women's Services has been appointed as Regional Thames Valley Improvement Lead and will work alongside the midwives to deliver the national agenda. The planned go live date for Thames Valley is 01 October 2018.

Next steps

A further meeting for the lead midwives and regional improvement lead is set for the 12 November 2018 to monitor progress and troubleshoot any issues or concerns. The midwives will apply for access to the neonatal electronic care record package BadgerNet to ensure consistent data collection throughout the region. **PRECEPT** Lead midwives will commence multidisciplinary training at unit level to raise awareness of the benefits of MgSO4 administration for neuroprotection in preterm neonates.

Regional Maternity Governance Group

Attended by Obstetric, Neonatal and Midwifery governance leads with a remit of improving safety in maternity care through investigation and learning from incidents and sharing that learning widely.

Guests are invited as appropriate, for example, Jenny Kurinczuk, Professor of Perinatal Epidemiology and Director of the NPEU & Lead for MBRRACE-UK has led a discussion with the group about the Perinatal Mortality Review Tool (PMRT) which is a national standardised tool based on the principle of 'review once, review well'. The group are currently working with the Patient Safety Academy (PSA) who will offer a bespoke maternity investigation training package and support to the trusts in the region at the meeting on 05 October 2018. A team leader from the Health Safety Investigation Bureau (HSIB) will attend to provide an update on the maternity investigation programme.

The group will also share learning generated within this forum at the Maternity Shared Learning event on 27 February 2019 at the Kassam stadium.

Safety Culture

The Oxford Patient Safety Collaborative is holding an Excellence Reporting Sharing Event on 15 October at Park House, University of Reading. This event is open to individuals and teams from across the NHS in Berkshire, Buckinghamshire, Oxfordshire and Milton Keynes and will launch TREx – Thames Valley Reporting Excellence, a community and network of healthcare professionals who champion excellence reporting, supported by the Oxford Patient Safety Collaborative.

In the past patient safety has focused on learning from errors and adverse outcomes. By also looking at what goes well through mechanisms such as excellence reporting we can create new opportunities for learning and improving healthcare. Learning from excellence in healthcare is now growing from an idea to a social movement. As the initiative spreads and takes roots in different centres in our region, we feel it is important to create and maintain links between all participants, so everyone can make the most of this positive practice.

This free event aims to promote shared learning about the best ways to start excellence reporting in a clinical setting, and for those already learning from excellence to explore how to make the most of excellence reporting and how to sustain the work. The day will include speakers with experience in positive practice and appreciative inquiry, the psychology of learning from excellence, and explore excellence from other fields outside clinical care. The event is sold out with 100 places booked.

NHS staff with good ideas for small projects may sometimes struggle to find funds to support their work. As part of a national drive to improve safety culture, Oxford PSC are offering funds of up to £500 per project to support staff to implement ideas that can help enhance teamwork, help create a culture of psychological safety or learn from when things go well.

For example, this might include

- Safety Huddles
- Learning from Excellence projects
- Theatre Cap Challenge
- Improving handovers
- Kitchen Table discussions

Funds can be used in any way that supports the projects – including printing and design costs, buying equipment and supporting events. Applications are welcomed from all NHS settings/staff grades working in the Thames Valley and Milton Keynes area. Applications (form available at www.patientsafetyoxford.org/clinical-safety-programmes/safety-culture/resources) are welcomed up to 18 November 2018. Applications will be reviewed by a panel including the PSC team and a nominated Patient Representative who will feedback to applicants by 30 November





Got a great idea to improve patient safety but need a little help to make it happen?

We're offering financial support for initiatives looking to share excellence, foster teamwork or strengthen safety culture.

These could involve simple changes to working practices or new ways to pass on something brilliant!

Up to £500 is available per project.

For example, this might pay for printing, equipment or room hire.

Open to all NHS staff in Berkshire, Buckinghamshire, Frimley, Oxfordshire and Milton Keynes.

Apply by 18 November 2018.

Request a short application form: patientsafety@oxfordahsn.org



Specialised Paediatric Care in the Community

The aim of our Specialised Paediatric Programme is to improve safety and outcomes along the care pathways of children with technologically dependent complex needs who are looked after at home, while enabling them to lead as normal a family life as possible, and to reduce unscheduled admissions to hospital.

It also aims to foster improved collaboration between different stakeholders from the point of initial referral to surgical management of patients, and subsequent follow up and long-term care in the community including transitional care to adulthood.

It has two projects; one for children with gastrostomies [PG] who are dependent on enteral feeding, and one for children who are dependent on long term ventilation [LTV]. Engagement in the programme is fully regional and multi professional.

Following initial scoping with a group of parents, process mapping and risk identification, the **PG project** has evolved into four separate workstreams:

WS1 looks to support and empower parents [and carers] to deliver safe care through training and competency assurance. Co-produced training information materials are being developed for use by both hospital teams and community healthcare professionals [HCPs]. A training and competency booklet is in the final stages of production

WS2 is focusing on up skilling the specialist HCPs who support parents of children with gastrostomies in the community. During Q2/18 a regional, multi-professional Shared Learning and Training event has been planned which will take place at Milton Keynes University Hospital on 12th October.

WS3 provides awareness training for the non-specialist HCPs in the region who patients may come into contact with during out-of-hours and emergency scenarios. An algorithm is being developed to support decision making.

WS4 looks to improve communications along the care pathways, both between HCPs, and between parents and HCPs. We aim to establish a regional Community of Practice to enable professionals of all disciplines who care for children in our programme to share practice, learning and experience and provide peer support.

The objectives of the **LTV project** are similar, but it's focus is on the care and safety of children cared for at home who are totally dependent on a mechanical aid to breathe [Level 3 ventilation].

As healthcare techniques have improved, an increasing number of children who previously would never have had a life outside hospital are able to be discharged home, with the aid of specialist support packages.

Our project aims to ensure that every child in the Thames Valley with LTV needs will spend no longer in hospital than medically necessary and will receive safe, quality care in the community.

This means all children will have:

- A manageable and effective pathway of care
- A personalised care plan
- Access to education and enrichment activities
- Care delivered by trained and skilled staff
- · Fewer unnecessary admissions to hospital

In conjunction with the Thames Valley Children's Palliative Care Network and other key stakeholders, this project is developing a regional evidence based best practice pathway and Standards of Care document for this group of patients. It is anticipated that this will be launched in Q3/2018

Mental Health

SIM

The AHSN has been liaising with the national SIM team to explore taking this innovation in which a specially trained police officer is integrated within a mental health team to work with high intensity users of Section 136 of the Mental Health Act, to develop a personalised care plan alongside the service user. This innovation is being implemented widely across England including across the whole of the Metropolitan police area.

The AHSN has engaged with Trusts within the Thames Valley regarding this innovation and is currently working with one trust to determine the potential size of the benefits which can be derived in their area from this programme with a view to pursuing this further. A visit is also being arranged to an established site to see the programme in operation.



Anxiety and Depression

Continuous performance improvement: All Thames Valley Improving Access to Psychological Therapies (IAPT) services continue to hold good recovery rates (on average 57%, 6% higher than the national average). The IAPT Long Term Conditions (LTCs) services recovery rates are, as expected because of increased complexity patients presenting with LTCs and co-morbid depression/ anxiety, slightly lower on average. Numbers of patients completing treatment are up from 1807 (April) to 2117 (July) and numbers achieving recovery up from 1054 (January) to 1101(July).

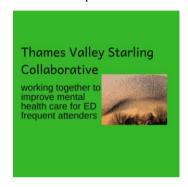
Relapse prevention: The Anxiety and Depression Network has started detailed work on identifying and understanding patients who present for re-admission following a course of treatment. The aim is for early identification of this patient group so that an improved treatment package and/or more intensive post-discharge support can be offered to minimise the risk of relapse.

The health economics evaluation of the IAPT LTCs programme is well underway with Cohort 1 pre and post Integrated IAPT evaluation now completed. Further analysis to include Cohort 2 has taken place during September. A paper for publication will be based on the latter which will include 3 months pre and post healthcare utilisation (primary and secondary care) for Cohort 2 and 6 months pre and post healthcare utilisation (primary and secondary care) for Cohort 1.

The therapy support and follow-up app: the project initial meeting was held in August with appointed developers. The Expert Reference Group and Patient Forum have met on a number of occasions to determine final functionality.

Mental Health Care for Emergency Department Frequent Attenders: A Regional Collaborative

Dr Deon Louw, from the Oxford University Hospitals Emergency Department, approached us following one of the ED collaborative events earlier in the year, about a collaborative specifically looking at these patients who attend ED frequently. Working together, Emergency Departments and relevant multi-disciplinary teams in the Thames Valley region can share best practice for frequent attenders requiring mental health care, to better understand patient flow and to design collaborative strategies based on our collective knowledge.



We were very pleased that this project was one of 15 projects which were successful in gaining funding through the <u>Q Exchange</u> bidding process. More about the project can be found <u>here</u>



Other Mental Health Work

Early Intervention in Psychosis – Improving Transfers: The Patient Safety Collaborative is supporting a project within the Early Intervention in Psychosis Thames Valley network on improving quality and safety during patient transfers. The project will work with teams to explore incidents concerning transfers, to establish best practice in this area, and to develop and embed new procedures. This work is due to be completed by March 2019.

Dementia webinars: The AHSN continues to run a programme of webinars for our stakeholders. Webinars on the topics of 'Current Dementia Trials in the Thames Valley, Recent Results, and Becoming a New Principal Investigator (PI)' and 'Dementia Prevention - Where are we now?' have been presented during Q2 by local academics and clinicians.

Industry: The Mental Health Programme Lead continues to work with other elements of the AHSN, for example Strategic and Industry Partnerships, and have had discussions with industry regarding several products and innovations which address mental health.

Clinical Innovation Adoption (CIA)

There are 12 major Innovation Projects live and underway within the Clinical Innovation Adoption Programme. These are being delivered to 5 CCGs, 5 Trusts and 324 GP Practices creating multiple sub projects across the region.

In the annual cycle of innovation project delivery, Q2 is the period when projects are generally bedding in and gaining momentum. This Q2 has been particularly challenging as many of the National Projects had delayed starts resulting in a compressed 3 months that has involved feasibility testing, planning, initiation, engagement and sign up. Q3 and 4 will focus on the implementation and creation of shareable toolkits and sustainable approaches. Even so, Q2 has been enjoyable with a large variety of activities for the Programme. One of the most memorable and rewarding activities was the Practical Innovation and Change Management Event held at the Kassam Stadium on 12th September. Past and present students came together to discuss the impact of this CIA created course on their patient's outcomes, Hospitals and departments – and on their personal career development. This course and the event included our course sponsors HEE, Clinical Speakers and patient representatives. The launch of cohort 5 means that we have now trained 121 frontline staff – clinicians, medics and managers; there is a waiting list for cohort 6 due to start in February 2019.

Programme Highlights

National projects are proceeding at pace with all Trusts informed and most proceeding to implementation. National project highlights this quarter include:

- Taking Care Around Medicines (TCAM): Planning Workshop held with Buckinghamshire LPC and Buckinghamshire Healthcare on 17th September to discuss implementation in Buckinghamshire.
- **Escape Pain:** The project remains challenging and interest from the CCGs is low, however through perseverance and useful contacts set up through the Oxford AHSN Get Physical programme, the CIA Project Lead has stimulated interest with a several leisure centres within the region.
- **PINCER:** The planning stage was completed, interest established, and implementation initiated. The CIA Team held a PINCER workshop on Sept 17th with 4 out of 5 of our regional CCGs. Attendees included PRIMIS and national meds optimisation leads. This event had very successful outcomes with 4 CCGs signing up to go out in the first instance with an expression of interest process to local GPs; 9 practices have registered as early adopter practices, with more to follow.

We are keen to ensure that we continue to meet local priorities as requested by our local NHS Partners. New local projects are underway. We are constantly adding possible areas to the list and reviewing them for feasibility.

Local project highlights for this quarter include:

- Heart Failure: Oxford AHSN is the first AHSN to sign a joint working agreement (JWA) for initiation of a
 Heart Failure Project with Novartis. The JWA was signed in August 2018 and the project launched in
 Buckinghamshire CCG area in October 2018. The project aims to address the variation in prevalence rates
 between Practices and to reduce the admission rates to hospital by optimizing medication prescribed in
 primary care and supporting pathways for specialist-initiated medications. Other AHSNs are being engaged
 to initiate similar Heart Failure projects within their regions.
- Anticoagulation Atrial Fibrillation: The evaluation of the Buckinghamshire Excellence in AF project that was rolled out to 28 Practices and resulted in 266 patients receiving oral anticoagulation, 227 of whom have a high risk of stroke. The improvements delivered by the project have the potential to reduce stroke incidence by up to 17 strokes per annum which would avoid approximately £0.43m in stroke care costs. The project was completed in Q2 and results presented with Bayer at the Heart Rhythm Congress at the beginning of October.
- Sleepio: We have engaged with 14 commissioners and decision makers across the Thames Valley

geography to explore the levels of knowledge and experience around commissioning digital health renovations and to seek potential methods for commissioning such products in the future. This has generated a very insightful report with areas for further investigation that will be explored and written up for a journal publication during Q3. Sleepio is also now available for regional users – staff and public.

• **eMAPS:** The CIA Team has been awarded funding for a third year from EIT Health. This project is attracting interest across Europe as it provides a learning web-based environment for Innovators at all stages of development as it provides information and insight into how to address the challenges that entering a market pose whether local or overseas. The 2019 funding will enable us to add Italy, Germany, Portugal and the USA to the eMAPs platform.

Project progress for Clinical Innovation Adoption Q2

NATIONAL PROJECTS:

The CIA Programme manages 5 of the 7 National Projects undertaken by Oxford AHSN which are progressing well.

National	Atrial Fibrillation - Detect Innovation Atrial Fibrillation — Anticoagulation (local reported together — started Sept 2017 ongoing)	Apr-18	Mar-20	ongoing
National	PINCER	Jun-18	Mar-20	ongoing
National	Escape-Pain	Jun-18	Mar-20	ongoing
National	TCAM (Taking Care Around Medicines)	Jun-18	Mar-20	ongoing
National	ELC (Emergency Laparotomy Collaborative)	Jun-18	Mar-20	ongoing

NATIONAL PROJECT: Atrial Fibrillation:

Detection

The detection project now forms part of the AHSN national AF project. To date:

- 70 Kardia mobile devices have been distributed to a variety of primary care and community staff across Berkshire and Oxfordshire.
- 109 WatchBP devices have been distributed to GPs and Pharmacists in Berkshire.
- 2 Cardiocity devices have been distributed to a large GP practice in Milton Keynes.
- The launch of Cardiocity in Buckinghamshire is on hold whilst IT issues are resolved with the Commissioning Support Unit.

The key metric for the detection project is AF prevalence as measured by the Quality and Outcomes Framework (QoF). However, device usage and number of potential cases of AF detected using the devices is also tracked as part of the evaluation of the national programme. For Alivecor this data can be gathered centrally if users register their device with a central portal. All users of the Alivecor devices have been provided with instructions for device registration and the importance of registration has been explained – however to date only 18 of the 70 users have registered their devise with the central portal. Efforts are being made to encourage higher rates of device registration. Data from these users does indicate that devices are being regularly used.

Wessex AHSN has been commissioned to carry out a full evaluation of the national detection project. A workshop will be held in October to explore the effectiveness of the device roll-out in the Oxford AHSN region.

The CIA team were successful in securing £37,000 MEGS funding from Pfizer to carry out focused detection projects in Wokingham and across Buckinghamshire. These projects will contribute towards the achievement of the national ROI target for detection.

Anticoagulation (local activity on Atrial Fibrillation)

The evaluation of the Buckinghamshire Excellence in AF project is complete. The report will be published jointly with Bayer to coincide with Heart Rhythm Congress where the CIA Manager responsible for the project has been asked to speak.

The second phase of the pharmacist-led anticoagulation initiation project commenced in September 2018 and two practices in Berkshire will benefit from the expertise of a specialist pharmacist supporting GPs with anticoagulation. The project will end in December 2018 and will be evaluated in Q4.

The AHSN is developing educational materials to support practice-based pharmacists in improving their practice around anticoagulation – initiation, monitoring and counselling. This is due to be completed in Q4.

Return on investment

The AHSN network has set two targets for the AF programme by 2019/20:

- Achieve 85% detected prevalence
- Achieve 84% anticoagulation rate in patients with high risk of stroke

Performance will be measured through the QoF. The detection target poses a significant challenge, with 4648 additional cases of AF needing to be detected over the 2-year period. However, the trend for 6-12% annual growth in the AF register should mitigate this challenge to an extent.

Oxford AHSN has run a successful anticoagulation Improvement Programme over the past 2 years. These efforts, in tandem with work carried out by CCG Medicines Optimisation teams independent of the AHSN work stream, should ensure the majority of our CCGs achieve the 84% anticoagulation target when the 2017/18 QoF is published. Oxfordshire and Milton Keynes are the two areas at risk of not achieving the 84% target and engagement efforts continue with these CCGs.

NATIONAL PROJECT: Emergency Laparotomy Collaborative (ELC)

Background

- High-risk patients undergoing surgery account for 12.5% of all in-patient surgical procedures but 80% of deaths. Patients undergoing emergency laparotomy fall into this high-risk group. Approximately 30,000 patients undergo emergency laparotomy each year in the NHS. Prolonged length of stay and high mortality rate (15% for all patients and 24% for elderly patients) make this an important area of focus for many Trusts; this has been recognised by the high commitment levels and participation rate in the National Emergency Laparotomy Audit (NELA).
- The ELC was a two-year quality improvement programme embedded with a coordinated support and collaborative learning approach. It implemented the emergency laparotomy pathway quality improvement care (ELPQuiC) bundle in its partner hospitals. The three AHSN regions in the original ELC programme realised an average 11% reduction in crude in-hospital 30-day mortality rate and an average reduction in length of stay of 1.3 days. Kent Surrey and Sussex AHSN estimate that 79 lives were saved in the 24 months of this programme. It is estimated that for every £1 investment there is a £4.50 ROI to health and social care.
- To generate an understanding of our regional baseline, we are keen to link in with the existing NELA work underway in our regional Trusts.

Emergency Laparotomy Collaborative (ELC) Bundle

The ELC project aims to deliver 6 key themes using a care bundle approach, including the involvement of consultant surgeons, anaesthetists and intensivists from the time of the patient presenting to hospital, throughout the patient's time in the operating theatre and beyond. The bundle elements are:

- 1. Use of an Early Warning Score (EWS) or lactate to identify patients most at risk for deterioration and the delivery of prompt resuscitation for these patients.
- 2. Use of a sepsis screening tool to identify septic patients and treatment with Sepsis Six.
- 3. Definitive surgery within 6 hours of decision to operate for patients categorised as Level 1 and 2a in urgency.
- 4. Appropriate dynamic fluid resuscitation and optimisation using goal-directed fluid therapy.
- 5. Postoperative critical care (Level 2 or 3) for all patients.
- 6. Consultant delivered care throughout the perioperative journey

High Level Project Plan for coming 3 months

	Task List	Status
August	Recruited Interim Project Manager	Complete
	Develop stakeholder map	Complete
	Obtain available materials and resources from KSS	Complete
September	Official communication circulated to sign up to project	Complete
	Develop and sign off formal project plan for 2-year project	Initiated
	Hold Kick Off Meetings and agree local plan at each trust	Initiated
	Develop steering group for ELC	Initiated – Met with BHT and
	Attend KSS sharing events for toolkits and support resources	WHP
	Data Sharing agreements in place	Initiated
October	Secure regional data and analyse	
	Plan regional ELC conference	
	Meet with each hospital team to baseline data and pathways	
	Identify barriers, such as bed stock, staffing	
	Help with business cases that show benefits of ELC pathway	
November	Hold Regional ELC Conference	
	Develop tasks by hospital for continual improvement	

Status of Partners

Medical directors, CEOs and Directors of Nursing at all trusts in the region were contacted about the ELC and asked to sign an agreement in principle.

Trusts	Level of interest	
Buckinghamshire Hospital Trust	Executive buy in - Kick-off meeting held 27th	
	Sept	
Milton Keynes University Hospital Foundation	Executive buy in – Kick off to be scheduled	
Trust		
Frimley Health Foundation Trust – Frimley Park	Adopted – Part of original project	
Frimley Health Foundation Trust – Heatherwood	Executive buy in - Kick off meeting held 24 th	
and Wexham	Sept	
Oxford University Hospitals	Decision to not engage at current time	
Great Western Hospital	Adopted – Part of original project	
Royal Berkshire Hospital	Executive buy in – Kick off to be scheduled	

NATIONAL PROJECT: Taking Care Around Medicines (TCAM)

Unintended discrepancies in patients' medicines after discharge from hospital frequently occur, affecting up to 87% of patients.

Many patients leave hospital having had new medicines initiated and doses of existing medicines changed, and/or stopped. Medicines-related problems after hospital discharge are associated with potential and actual adverse health consequences, many of which are preventable. The literature shows the potential to reduce medicines-related problems after discharge through Medicines Use Review (MUR) by a Community Pharmacist.

Stakeholder	Level of interest	
Buckinghamshire LPC	Interested, moving towards	
	implementation	
Buckinghamshire Healthcare	Interested, moving towards	
	implementation	
Thames Valley LPC	Interested – meeting planned	
Royal Berkshire	Interested – meeting planned	
Milton Keynes University Hospital	Interested but LPC not interested	
Milton Keynes LPC	Not interested	
Oxford University Hospitals	Interested	
Frimley Health	Interested, wider stakeholder	
	engagement required	

The TCAM project will enable patients to be electronically referred from hospital to their community pharmacist for review of their medicines. Data from the TCAM project in Newcastle showed that those patients who received a community pharmacist follow-up consultation had statistically significant lower rates of readmissions and shorter hospital stays than those patients without a follow-up consultation.

Implementation of TCAM requires the involvement of acute Trusts and community pharmacy (through the local pharmaceutical networks). The CIA team has engaged with local stakeholders around TCAM as shown in the table.

The CIA team has engaged with the national AHSN lead for the project to understand the learnings from implementation elsewhere. A TCAM planning workshop was held with Buckinghamshire LPC and Buckinghamshire Healthcare on 17th September to discuss implementation in Buckinghamshire. A business case is being developed for the Buckinghamshire ICS and discussions have commenced with supplier of the technical solution for TCAM.

The CIA team is meeting with Royal Berkshire and Thames Valley LPC in November to discuss potential implementation in West Berkshire. An initial meeting was held with Frimley Health and a benefits paper is being prepared to demonstrate the benefits to the ICS.

The spread metrics for the TCAM programme are shown below. As of end of Q2 there are no acute Trusts in the Oxford AHSN area using TCAM. The likely position is that we will have 1 Trust using TCAM by end of Q4 and the target of 235 completed referrals will not be met in 2018/19. It is possible however that ultimate target of 688 completed referrals over the 2-year period will be met if 2 or more Trusts engage with the TCAM programme before Q2 of 2019/20.

		Annual target		Year 2
Programme	Currency	2018/19	2019/20	Cumulative
TCANA	Number of acute trusts using TCAM	2	2	4
TCAM	Number of completed referrals	235	453	688

NATIONAL PROJECT: PINCER

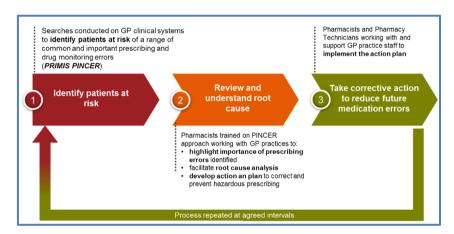
Background

- Medication errors in primary and secondary care are a significant cause of morbidity and mortality.
- In Primary Care, 1 in 20 items with an error, 1 in 550 with a serious error. Over 1 billion items dispensed in 2015 = 1.8 million serious prescribing errors.
- Preventable medication-related admissions to hospital account for around 1 in 25 hospital admissions with an annual cost of £650m per year. 4 classes of drug account for over 50% of these admissions.
- Errors happen for a number of reasons, but main causes include 'contraindications', failure to take action on computer warnings, lack of appropriate monitoring and breakdown of safety systems.

What is PINCER?

PINCER is a pharmacist-led information technology intervention for reducing clinically important errors in general practice prescribing. It has been shown, in a large cluster randomised controlled trial published in The Lancet, to reduce medication error rates by up to 50%. A published economic analysis showed introducing PINCER was cost effective, demonstrating an increased quality of life for patients (0.81 Quality Adjusted Life Years per practice)ⁱ and an overall reduction in costs of £2,679 per practice.

Diagram: PINCER intervention comprises three core elements



The software component of PINCER is based on a set of computerised queries which can be run on GP clinical systems to identify at-risk patients who were being prescribed drugs that are commonly and consistently associated with medication errors. These "indicators" include the prescription of nonselective non-steroidal anti-inflammatory drugs (NSAIDs) and β blockers, and the monitoring of angiotensin-converting-enzyme (ACE) inhibitor or loop diuretics, methotrexate, lithium, warfarin, and amiodarone.

Models for Resourcing PINCER in Primary Care

From experience in other regions using PINCER there appears to have been 2 main models of resourcing the PINCER roll out and the CIA team will explore both models with medicine management teams.

Model 1: PINCER delivered by Practice based pharmacists or other staff

Strengths	Weaknesses		
Practice based pharmacists would be ideally placed to run PINCER, to engage GPs on individual prescribing issues and to rectify any system issues within the practice	Significant variability in numbers of Practice-based pharmacists between CCG areas.		
Practices are invested in the process, own the data and	In some areas Practice-based pharmacists are		
the change management process. This is likely to make	funded by practices themselves and not through		

this a more sustainable model	CCGs. If not formally incentivised, GPs would need
	to agree to resource practice-based pharmacists to
	deliver PINCER
This could be facilitated through incentivisation	Variation likely in terms of frequency of pulling
schemes already in place (e.g. Primary Care Prescribing	PINCER lists, uploading data and in terms of the
Incentive scheme)	quality improvement approach being delivered.

Model 2: PINCER delivered by CCG pharmacists/ Centralised Pharmacist resource

Strengths	Weaknesses	
Smaller number of pharmacists rolling out PINCER	Most CCGs consulted have very limited	
mean each individual has more experience in	CCG pharmacist resource	
understanding the methodology, and to standardise		
what is being delivered across the region		
Likely to have better rates of uploads of data to the	Sustainability of PINCER may be an issue	
PINCER system, making monitoring at CCG and AHSN	beyond the term of funding the	
level easier	pharmacists	
Likely to be an easier sell, and convert a higher number		
of practices to using PINCER		

Oxford AHSN Proposition

- Given the clear patient safety benefit and potential economic savings realised using PINCER in primary
 care the CIA team is looking to engage CCG medicines management teams across the region to
 develop and shape a regional PINCER project that benefits all partners.
- Oxford AHSN is offering to provide project management support to bring together partners from across the region to develop and deliver a collaborative project.
- Whilst details are still being finalised with PRIMIS, the funding provided by Health Education England will enable us to offer:
 - Licenses for all practices in the region for the next 3 years.
 - Action learning PINCER training for nominated practitioners.
- In addition, we would be keen to explore innovative models for resourcing PINCER roll out. This might
 include commissioning central pharmacy resource to cover regional roll out or potentially back-filling
 CCG pharmacist time.

Anticipated benefits

- Reduction in serious medication related adverse effects, and a significant improvement in prescribing safety in primary care.
- Cost saving of approximately £2,600 per practice. If implemented across the entire Oxford AHSN region this would be approx. £780,000 over a 5-year horizon.
- Additional savings would be made by preventing any hospital admission related to an adverse effect.

Activities in Q2

- Secured funding from Health Education England to roll out PINCER training for primary care across the Thames Valley.
- Held PINCER workshop on Sept 17th with 4 out of 5 CCGs.
- Hosted by the AHSN, we had attendance from PRIMIS and the national Medicines Optimisation leads.
- Successful outcomes with all 4 CCGs signing up to go out in the first instance with an expression of interest process to local GPs.

Have 9 practices registered as early adopter practices, with more to follow.

Activities planned Next Quarter

- Training for PINCER will commence for early adopter practices on 5th November.
- Planning with CCGs as to how we get this into commissioning plans for 2019 to be able to incentivise delivery.
- Through learning from early adopter practices develop wider plans for roll-out.

Status of Partners

CCG	Level of interest
Buckinghamshire CCG	9 practices signed up
Milton Keynes CCG	Not interest – alternative solution in place
East Berks CCG	Expression of Interest circulated
West Berks CCG	Expression of Interest circulated
Oxfordshire CCG	Expression of Interest circulated

Berkshire West CCG	Meeting scheduled in September was cancelled due to unavailability of clinician and company. Company to discuss with the clinical team directly.
BLMK STP / Milton Keynes CCG	Initial interest from CCG; awaiting response from STP programme lead and CCG lead.
Frimley Health ICS	Have considered this, but decision on hold at present
Oxfordshire CCG	Meeting held in May; no further engagement received

ESCAPE-pain

ESCAPE-pain (enabling self-management and coping with arthritic pain using exercise) is an evidence-based rehabilitation programme for people over 45 years with hip or knee pain. The programme integrates education, self-management and coping strategies with an individualised exercise regime and is typically delivered by physiotherapists in outpatient departments. Each programme consists of 12 sessions run over 6 weeks, with typically 12 patients per session. The benefits include:

- Improvements in pain and physical/mental wellbeing
- Less reliance on medication
- Reduced need for surgery
- More cost-effective than standard physiotherapy
- Lower utilisation of healthcare resources

ESCAPE-pain is a national programme that is being led by the Health Innovation Network (HIN), South London.

Q2 Update

Q2 has focused on engagement and dissemination of the programme details and benefits to key stakeholders across both health and leisure sectors. There has been encouraging interest to date, with one leisure sector undertaking the training course in October. The AHSN is providing some funding for providers to attend the training course and

to develop marketing materials.

The table below summarises the engagement and level of interest to date:

NHS Sites

Commissioner/ Provider	Engagement / Level of Interest		
Buckinghamshire Healthcare Trust	Details sent to physiotherapy lead, no response to date		
Royal Berkshire Hospitals	Details sent to Head of Therapies and Director of Strategy to review potential for incorporation into current service		
Berkshire Healthcare Hopsitals	Discussed with physiotherapy lead who is reviewing evidence base		
BLMK STP	Awaiting response from programme director		
Ravenscroft Physiotherapy, Milton Keynes	This service is commissioned to provide MSK services within Milton Keynes. The AHSN has developed the draft case for adopting the ESCAPE-pain programme, for presentation to commissioners		
Frimley Health ICS	Details sent. Providers have advised they have previously considered and have based their classes on the model. Unlikely to progress		
Oxfordshire CCG	CCG advised they will not progress this		
Buckinghamshire CCG	Initial interest from Transformation Manager; details sent and awaiting response		

Leisure Sector

Leisure Sector	Engagement / Level of Interest		
Middleton Pool, Newport Pagnell	Running programme (Sport England funded site)		
Oxfordshire County Sports Partnership	Met with CEO, very supportive in engaging with local leisure partners. Follow-up discussion with Workforce and Coaching Manager who will contact partners regarding adoption of the programme		
Berkshire County Sports Partnership	Met with CEO, who has been very supportive in engaging and disseminating information to local leisure partners		
Buckinghamshire County Sports Partnership	AHSN presented at Ageing Well forum, attending by leisure providers, CCGs and public health in September. This resulted in a number of contacts with interested parties across leisure sectors and CCGs.		
Everyone Active, Slough	Very keen to offer programme. Fitness instructor to attend training on 12 October. AHSN working with leisure centre to market the programme.		

The AHSN is also engaging with Versus Arthritis, with a telephone call scheduled in early October to understand the support they can offer with engagement and targeting of appropriate participants for courses run by the leisure sector.

The AHSN's annual target for 2018/19 is 6 sites and 274 patients accessing the programme, with a further 5 sites offering ESCAPE-pain in 2019/20. These are challenging targets as currently there is only one site offering the programme with one further site with plans to implement in 2018/19. The AHSN will continue to engage with providers and offer support with implementation.

LOCAL PROJECTS

The projects reported below have been initiated either through partner priorities (fall prevent projects, wiresafe, prostate cancer), national awarded funding via bids (Innovate UK – Sleepio/Atrial Fibrillation), workforce development funding from Health Education England (HEE) or international funding (EIT Health - eMAPs).

Local	Heart Failure (detect and treat - Novartis)	May-18	Dec-20	ongoing
Local	Sleepio (Innovate UK)	Apr-18	Dec-20	ongoing
Local	Falls Project 2/Phase 2: FallSafe Bundles	Jan-17	Mar-19	ongoing
Local	Patient Safety – Wiresafe	May-17	Jun-19	ongoing
Local	Atrial Fibrillation project - Reducing AF-related stroke through a co-ordinated primary/ secondary care pathway	Nov-18	Dec-20	TBC
Local	Innovation Course cohort 5 (Bucks New Uni/Oxford AHSN)	Sep-18	Jun-20	ongoing
International	Prostate Cancer (not reported on this quarter as checking	Oct-18	Mar19	Checking
	feasibility			feasibility

LOCAL PROJECT: Heart Failure - Case finding and medicines optimisation

Background

Around 1 million people across the UK suffer with heart failure. Both the incidence and prevalence of heart failure increase steeply with age. The number of patients with heart failure is expected to rise over the next 20 years due to an ageing population, increasing survival rates following heart attack, and the availability of effective treatment for heart failure.

Heart failure accounts for around 2% of all NHS inpatient bed days and 5% of all emergency hospital admissions, representing a significant burden to the NHS.

Heart failure is caused by abnormalities in the structure and function of the heart with around 70% of heart failure cases being caused by coronary heart disease. Cardiac dysrhythmia, hypertension, valve disease, diabetes and kidney dysfunction often contribute to and complicate heart failure.

Chronic heart failure has a poor prognosis with 40% of newly diagnosed patients dying within the first year and total annual mortality ranging from 10-50%. Heart failure can have a major adverse impact on quality of life with patients often experiencing breathlessness, fatigue and fluid retention. It is estimated that around one third of heart failure patients suffer with depression. National audit has shown that outcomes are consistently poor for patients who receive suboptimal care but input from heart failure specialists and the prescription of evidence-based heart failure therapies can have a significant impact on prognosis and life expectancy.

Case-finding and medicines optimisation

Across the AHSN region there is a wide variation in heart failure prevalence rates between practices. This suggests that in many practices, some patient who are diagnosed with heart failure are not correctly coded on the heart failure register and may therefore not be receiving regular reviews.

Many patients with heart failure do not receive the optimum treatment for their condition as per NICE guidelines e.g. they are not prescribed their maximum tolerated doses of drugs such as ACE-I and ARB and are not always offered newer drugs at the appropriate time. Patients who do not receive optimal medication in primary care are more likely to be admitted to hospital.

The CIA team has been working with Novartis to develop a joint working project that aims to address the variation in prevalence rates between practices and to reduce the admission rates to hospital.

The project involves:

- Case finding and register cleansing
- · Optimising medication prescribed in primary care
- Supporting pathways for specialist-initiated medications

The joint working agreement (JWA) for the project was signed in August 2018 and the project was launched in the Buckinghamshire CCG area in October 2018. A project group has been set up consisting of:

- Novartis patient access manager
- AHSN CIA manager
- Clinical Commissioning Director for Planned Care (and GP) Buckinghamshire CCG
- Cardiology Consultant, Buckinghamshire Healthcare NHS Trust
- Community Heart Failure Nurse Manager, Buckinghamshire Healthcare NHS Trust
- Interface clinical services

High level project milestones are as follows:

Project launch	Sep 18
Pilot practice	Sep 18
Cohort 1 commences (25 practices)	Oct 18
Cohort 1 final audit	July 19
Interim report	Aug 19
Cohort 2 commences	July 19
Cohort 2 final audit	Feb 20
Final evaluation	Mar 20

Data

The following data will be collected at project start and end, and used to inform the evaluation and return on investment calculations:

- Number of people on the heart failure register
- Number of people on maximum tolerated dose of medicine
- Number of admissions in patients with a primary diagnosis of heart failure
- Number of readmissions in patients with a primary diagnosis of heart failure

LOCAL PROJECT-INNOVATE UK Funded: Sleepio

Innovate UK have funded a project which will provide free direct access to Sleepio, an evidence-based sleep improvement programme, to the 2.7 million adults across the Oxford Academic Health Science Network (Oxford AHSN) Thames Valley footprint. The project is a collaborative partnership between Oxford AHSN and Big Health, the company behind Sleepio.

The project will oversee the first NHS rollout of direct access digital medicine in a bid to improve sleep health across Thames Valley. Approximately 10% of the adult population meet the criteria for Insomnia disorder.

Sleepio is due to be available, free-of-charge, to adults living or working within Berkshire,Oxfordshire Buckinghamshire and Milton Keynes, from Wednesday 10 October 2018, (World Mental Health Day) for one year.

A health economic evaluation will be conducted once the trial ends in October 2019 to discover the impact of promoting a digital medicine at scale to the general population, through GP surgeries, and via local employers who want to support their workforce.

WP2 Commissioner Engagement – We have engaged with 14 commissioners and decision makers across the Thames Valley geography to explore the levels of knowledge and experience around commissioning digital health innovations and to seek potential methods for commissioning such products in the future. Interviews were arranged and conducted in Q1.

In Q2, the findings from this process have been written up into a report. As the findings and themes arising from the interviews are likely to be of wider interest it is proposed that in Q3 the findings are written up more formally as a soft science research piece for publication in a relevant journal (Digital Health, BMJ Innovations, Value in Health, International Journal of Digital Healthcare etc.).

WP4 GP Engagement – GP surgeries in Buckinghamshire have been sought to act as data partners for the Sleepio project. Nine GP surgeries have been engaged and recruited in Q2, with a planned start date of Monday 22 October 2018. Participating surgeries will actively promote Sleepio, rather than sleep medication where appropriate, and will record such referrals on the EMIS system alongside other relevant data to allow the health economic evaluation to be conducted (WP6). This will also include training and support during Q3 to ensure compliance.

Community pharmacists have also been engaged during Q2. A wider communications approach, and a specific Primary Care evening learning event, will take place during Q3.

WP5 Population Engagement – Large employers and third sector organisations (particularly those supporting carers, mental health issues, and long-term conditions) are being sought to engage with the project and roll out Sleepio for the wellbeing of their staff/volunteers. Three large (each employs over 3,000 staff) public bodies have agreed to take part; with a view to 'going live' in Q4.

Universities and Colleges and other groups are also due to be targeted during Q3 to explore potential approaches to engaging with diverse groups of people of working age. Support using collateral and copy for staff newsletters and events are planned to raise awareness and assist HR and Wellbeing Champions make the most of this opportunity for their workforce.

It has also been agreed to include Sleepio as an offer in the existing 'Live Well Stay Well' programme across Buckinghamshire which receives around 700 referrals per month.

WP6 Health Economic Evaluation — The project team have commissioned both economics experts and data collection contractors to support the collection of data at GP surgeries. In the last quarter significant progress has been made both in the health economic evaluation design and the statistical analysis plan which are being taken forward.

Activities in Q3

- Free Access to Sleepio for the Thames Valley region will be launched on World Mental Health day 10th October 2018
- Currently all early adopter GP practices are being met with, to outline the project, the importance of recognising and treating sleep issues and how they should refer patients to Sleepio

Population engagement and raising awareness of the project will continue through the next quarter into 2019.

LOCAL PROJECT-Falls Prevention Projects

End date: Q1 2019/20

Falls Project: FallSafe Care Bundle Project:

The FallSafe approach is to complete multifactorial assessment and intervention upon a patient's admission to a care setting to identify and treat the underlying reasons for falls and to ensure preventative steps have been taken to ensure patients do not fall while in the care setting. The project is estimated to reduce falls by 25% on wards implementing the FallSafe care bundles.

Trusts engaged in project					
Oxford Health	Buckinghamshire Healthcare				
Frimley Health - postponed	Berkshire Healthcare				

CIA update for Q2

- Oxford Health, Berkshire Healthcare and Buckinghamshire Healthcare have commenced the implementation phase of the project. Projects are continuing along the project plan and upon completion of the project, a report will be developed to highlight the impact and changes made on the implementation wards.
- Oxford Health and Berkshire Healthcare are due to complete by the end of Q4
- Buckinghamshire Healthcare is due to complete by the end of Q1 2019/20
- It was agreed to postpone the project at Wexham Park Hospital due to difficulty maintaining engagement on the wards. The pause in the project coincides with the Trust's engagement with NHS Improvement's Falls Improvement Collaborative. It is anticipated the project will recommence before the end of the financial year.

Collaboration for Leadership in Applied Health Research and Care (CLAHRC) SITB

LOCAL PROJECT

End Date: Project closed

This project worked with colleagues at Buckinghamshire Healthcare to complete an evaluation on the desk in a bay intervention. The final paper has been published in the Age and Ageing Journal, the results of which showed a 26.71% reduction in the falls per 1000 OBDs (occupied bed days) and concluded that portable nursing stations were associated with lower monthly falls rates.

LOCAL PROJECT-Fragility Fractures

End date: Project closed

This project was closed in September 2018 as progress and engagement has been slow. However, AHSN support is still available to Buckinghamshire Healthcare Trust for the progression of the business case to expand the service. The business case has been drafted and a meeting is scheduled during Q3 to discuss next steps.

The case for developing a service at Wexham Park Hospital is being taken forward by Frimley Health ICS, who have developed a project initiation document that covers falls and fractures. Phase 1 of this project would see the development of a fracture liaison service across both Frimley Park and Wexham Park sites. The project lead has been advised AHSN support is available should this be required.

As well as patient benefits, fracture liaison services have the potential to generate significant financial savings across health and social care. Over 5 years, across the Oxford AHSN region, these services have the potential to generate nearly £13 million savings with full service provision.

Innovation Technology Tariffs/Innovation Technology Payments

The ITT/ITP innovations are being supported by AHSNs. Progress is as follows:

	Innovation Name	Start	End	No of potential Trusts/CCG s	Engaged/inte rested	Adoption to date 10/18	Not interested
ITT/IT P	Patient Safety innovation - Pneux Tracheal Tube (ITT/ITP)	Jun-17	Jun-19	5		3	2
ITT/IT P	Patient Safety Innovation - Non-Injectable Connector (ITT/ITP)	Jul-17	Jun-19	5	1	3	1
ITT/IT P	Surgical - benign prostatic hyperplasia - Urolift (ITT)	Sep- 17	Jun-18	5	2	3	
ITT/IT P	Endocuff	Jan-18	Mar- 19	5	3	2	
ITT/IT P	Heartflow	Mar- 18	Apr- 20	3	2	1	
ITT/IT P	MyCOPD	Apr- 18	Mar- 19	5	4		1
ITT/IT P	Plus Sutures	Apr- 18	Mar- 19	1	1		
ITT/IT P	SecureAcath	Apr- 18	Mar- 19	5	4	1	
ITT/IT P	MobileECG	Apr- 18	Mar- 19	5	1	4	

ITT/IT	Enicoiceare	Apr-	Mar-		
Р	Episcissors	18	19		

ITT/ITP: Patient Safety Devices

Project Overview

As reported last quarter, the CIA team in conjunction with Oxford AHSN Patient Safety Collaborative is working closely with two NHS Innovation Accelerator (NIA) Fellows to implement three patient safety devices within critical care and operating theatres across the Oxford AHSN region. The devices provide engineered solutions that significantly reduce the possibility of human error and improve the safety of the most critically ill patients.



Non-Injectable Arterial Connector (NIC)

This prevents:

- Wrong route medication errors (never event)
- Contamination of arterial line
- Excess blood spillage

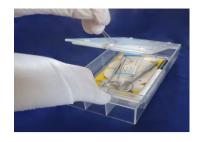
Available for free via the ITT until March 2019

Q2 Update

The table below outlines the commitment and implementation to date from all Trusts within the region:

Trusts/Sites	Engaged	Adopted/in process of adopting patient safety innovations (out of 3)	Pneux=P Wiresafe=W NIC= N
Royal Berkshire Hospital	٧	2/3	P/ N
Great Western Hospital	٧	2/3	P/N
Buckinghamshire Healthcare	٧	2/3	P/W
Frimley Health – Frimley Park	٧	3/3	P/W/N
Frimley Health – Wexham Park	٧	1/3	N
Oxford University Hospitals	٧	1/3	N
Milton Keynes Hospital	٧	2/3	W/N

NATIONAL AHSN COLLABORATIVE PROJECT-The WireSafe™



The WireSafe™

- Prevents against retained CVC and chest drain guidewires (never event)
- Provides sharps box for disposal

There has been renewed interest in the WireSafe™ at the Royal Berkshire Hospital and Oxford University Hospitals. The AHSN will provide support as required to assist with the adoption of the device.

The Oxford AHSN is leading nationally on the WireSafe[™] and hosted a national workshop for all AHSNs in July 2018. This provided information, support and guidance with implementation within other regions.

ITT/ITP-UroLift: Estimated end date: Q4 (end of ITT period)

UroLift is one of ten innovations on the Innovation and Technology Tariff (ITT), however unlike the other innovations the ITT provided UroLift with a new HRG code via the National Tariff. This means providers are reimbursed appropriately for the procedure.

The AHSN has been supporting Trusts with the development and approval of the business case to begin offering this treatment option. The AHSN continues to actively engage with the supplier, to facilitate meetings with hospital teams as required.

Q2 progress

- Milton Keynes: awaiting final internal approval of the business case to develop the UroLift service. It is anticipated the first list could be scheduled for Q3.
- Wexham Park Hospital is actively working towards scheduling the first list of patients. Training was provided during Q2 and it is anticipated the first list could be within Q3.
- Buckinghamshire Healthcare has expressed an interested in offering UroLift (previously they had not
 wished to). A meeting with the clinical and managerial team to discuss this is scheduled for early
 October 2018.

Trust/Activity	Q1	Q2	Q3	Q4	Status
Oxford University Hospitals	13	6	13		
Royal Berkshire Hospitals	5	5	5		
Milton Keynes Hospitals	0	0	0		
Frimley Health Hospital- Frimley Park	16	15	26		
Frimley Health Hospitals: Wexham Park	0	0	0		
Buckinghamshire Health Hospital	0	0	0		

Activity data for the ITT is collected via Trusts' normal reporting systems (SUS) and the company also collates data on a quarterly basis.

ITT/ITP: myCOPD:

Estimated End Date: Q3 2018/19

myCOPD is a comprehensive web-based, self-management programme for people with severe or very severe COPD on acute or community pathway. It helps patients to manage their condition more effectively through delivering 3 important functions:

- 1. Education and inhaler training
- 2. Self-management
- 3. Pulmonary rehabilitation

The benefits include:

- Corrects 98% inhaler technique errors
- Improves medication compliance
- 95% patients improve symptom scoring
- Reduces acute admissions

myCOPD is available on NHSE's Innovation and Technology Tariff until the end of 2018/19, with the ITT funding licences up to a maximum of 20% of total COPD patient population per CCG.

The AHSN has engaged with the key stakeholders to ensure they are aware myCOPD is available via the ITT and to understand their interest in implementing it. The AHSN has also actively engaged with the supplier to understand the product fully and to facilitate meetings with commissioners.

Q2 Activities

While no licenses have been purchased to date within the AHSN region, contact has been made with all commissioners within the region and the table below summarises the engagement and level of interest to date:

Commissioner/ Provider	Level of Interest
Buckinghamshire CCG	Currently not engaged
Berkshire West CCG	Meeting scheduled in September was cancelled due to unavailability of clinician and company. Company to discuss with the clinical team directly
BLMK STP / Milton Keynes CCG	Initial interest from CCG; awaiting response from STP programme lead and CCG lead.
Frimley Health ICS	Have considered this, but decision on hold at present
Oxfordshire CCG	Meeting held in May; no further engagement received

Communication has been received from NHS England that all myCOPD licenses under the ITT have been allocated to CCGs. NHS England is reviewing the level of uptake within these CCGs and licenses that have not been registered to patients may be reallocated to other CCGs.

ITT/ITP-HeartFlow

Background

HeartFlow is offered under the Innovation and Technology Payment (ITP) in 2018/19 and is available through a zero-cost model. To be eligible for HeartFlow Trusts must be carrying out over 700 CT coronary angiograms per annum.

The CIA team has engaged with HeartFlow to assess eligibility of Trusts in the region. Progress is as follows:

Trust	Eligibility	Next steps
Oxford University Hospitals	Eligible	HeartFlow have not requested AHSN
		support for engaging with OUH
Frimley Health	Eligible	Already using HeartFlow. Estimated
		20 scans per month.
Royal Berkshire	Eligible	CIA team engaging with Trust to
		assess level of interest
Buckinghamshire Healthcare	Not eligible	
Milton Keynes University	Not eligible	

INNOVATION/CHANGE MANAGEMENT TRAINING FOR FRONTLINE STAFF

Adopting Innovation and Managing Change in Healthcare Settings Programme

To date 126 frontline staff trained. The course is still open to team innovation projects that involve multi-organisation solutions for ICSs and STPs within Oxford AHSN region. Cohort 5 started in September 2018.

A day at the Kassam Stadium



Alumni and current students along with speakers and sponsors participated in the sharing event held at the Kassam Stadium on 12 September 2018. This offered a rare occasion to understand the impact of the course on both Trust deliverable by successful implementation and testimony how these successes have resulted in career advancement.

ORGANISATION	COHORTS			TOTALS		
	1	2	3	4	5	
Berkshire Healthcare Hospitals	1	5	2	0	2	8
Great Western Hospitals	2	3	0	1	2	6
Milton Keynes Hospitals	1	1	0	0	0	2
Oxford University Hospitals	21	4	4	12	8	41
Oxford Health Foundation Trust	1	3	4	6	4	14
Royal Berkshire Hospital	1	0	0	0	0	1
Buckinghamshire Healthcare	0	8	5	1	9	14
Frimley Heath Hospital- Frimley Park	0	0	4	1	0	5
CCGs/GPs/NHSE	0	1	1	3	0	5
						121
Total Students Trained						

^{*}There is a waiting list for cohort 6 (15 applicants) due to start February 2019*.

INTERNATIONAL PROJECT PROGRESS

European Market Access for Partners (eMAPS)

This project has been awarded further funding for additional modules giving information about digital, medical technology and drugs within country's markets. 2019 funding will enable us to build modules for Germany, Italy, Portugal and USA.

Strategic and Industry Partnerships

Strategic and Industry Partnerships Q2 2018 Report

Overview

During the quarter, the SIP team met with 49 companies. Overall the team is actively pursuing over 70 projects and has completed over 140 specific projects.

Total investment into the region for the quarter because of SIP-based activities through grants totalled £11.5 million and more than £60 million was raised and AIM listing achieved through the investor road show with Sensyne Health (NSR). During the quarter the SIP programme established 8 new partnerships.

Julie Hart was appointed Acting Director of Strategic and Industry Partnerships to replace Nick Scott-Ram who left on 14th September to join Sensyne Health.

Achievements in Q2 include:

- During the quarter agreements were signed with the following companies: Abbott Point of Care, POCKIT Diagnostics, National Consortium of Intelligent Medical Imaging (NCIMI), Osler Diagnostics, Roche Diabetes Care
- New starters: Nadia Okhai (Diagnostics Project Manager), Dr Mamta Bajre (Methodologist)
- New appointments: Ebenezar Effiang (Methodologist), Samira Taibi (Methodologist), Dr Andrew Stainthorpe (Head of Market Access)
- Successful launch event for ERDF funded Bucks HSC Ventures SME programme. Well attended by all delivery partners, NHS and industry stakeholders
- Grants awarded: (i) POCKiT Diagnostics "Point-of-care for stroke subtype diagnosis to enable rapid treatment" £700,000 (ii) Osler Diagnostics "Development of a small, low-cost, accurate and rapid Point-of-Care diagnostic platform, with primary application to critical cardiovascular markers" £950,000 (iii) Industrial Strategy Challenge Fund "Creating a network of digital pathology, imaging and AI centres National Consortium of Intelligent Medical Imaging (NCIMI)" £9.6million
- Grants submitted: (i) A phase 2 application was prepared for the NIHR i4i Product Development
 Award with UCL Department of Psychiatry and Jupiter Diagnostics for anti-toxicity testing panel for
 psychosis patients (ii) The Oxford AHSN was a co-applicant with other EU Partners in a H2020 grant
 application for sepsis profiling led Radboud University Medical Center, Nijmegen, The Netherlands
 (iii) GERMID was submitted to EIT Health with Newcastle University Hospitals and Biomerieux for
 rapid identification of pathogens in UTI (iv) The Oxford AHSN contributed to and was listed as a
 sub-contractor on 3 applications to the Innovate Precision Medicine Accelerator with Oxford
 Cancer Biomarkers, Avenna and Pangaea

<u>Creating the Innovation Exchange for the Oxford AHSN through the Strategic and Industry Partnerships Programme:</u>

The Local Implementation Plan (LIP) was submitted to the Office for Life Sciences (OLS) and the 2-year business plan revised to reflect OLS Innovation Exchange Model and funding under the OLS contract.

The Accelerated Access review (2016) included recommendations for the Academic Health Science Network to be invigorated through extra funding (joint DHSC and BEIS) to increase capability and capacity, to support the evaluation and diffusion of innovative medicines, medical technologies and digital products.

Innovation Exchanges will be the new model of operation for AHSNs with overriding requirements for all 15 AHSNs to be working in closer collaboration with one another and form stronger links with local and national partners, creating a stronger national and local support offer for promising innovation.

Existing programmes may be expanded, therefore given Oxford AHSNs unique expertise in diagnostic evaluation, extra capability will be invested in the Genomics, Diagnostics and Precision Medicine programme for diffusion through the Genomics, Diagnostics and Precision Medicine INN, the NHS Business Services Authority (NHS BSA) Pacific Programme, through the National Institute for Health and Care Excellence (NICE), and build on its work in digital health, artificial intelligence (AI) and imaging.

The core functions for Strategic and Industry Partnerships programme will include the required elements to deliver the Innovation Exchange:

(1) Identifying Needs and Communicating Priorities:

- Set up NHS Strategic Partnerships team
- Re-development of the existing website "healthandwealthoxford.org" to represent the work of SIP in line with the Innovation Exchange model
- Create case studies from across SIP and AHSN to disseminate locally and nationally by digital media and face to face networking

(2) Signposting:

- Expansion of the industry funded programme for Inflammatory Bowel Disease
- ERDF-funded innovation centre to support formation and growth of SMEs
- Privately funded accelerator at Harwell supporting creation of new companies aligned with convergent technologies in healthcare and scale up programme
- Further opportunities secured for providing tailored business support to Industry

(3) Evaluation in Real World Setting:

- Additional capacity will be added to the Evaluation and Transformation team for real world evaluation
- Real world evaluation of breakthrough diagnostics and digital health products
- Health economic evaluation input into ISCF
- Health economics will be brought in-house to increase capability and measure impact

(4) Adoption and Diffusion:

 Additional capacity will be added to the Evaluation and Transformation team for adoption and diffusion projects

Core Function 1: Identifying Need and Communicating Priorities - activities in Q2

Case studies were submitted to Atlas / the Economic Growth INN for "Use of POCT in a Paediatric Emergency Department Setting (Horiba Biomedical)" and "Better diagnosis of pre-eclampsia to improve patient safety and reduce burden on the maternity system (Roche Diagnostics).

Helping innovators to understand healthcare needs and priorities:

- Meeting with FedBucks to discuss provision of Point of Care (POC) diagnostic tests to improve efficiency and effectiveness of the DVT pathway and with WestCall to discuss further POC needs and possible solutions
- Discussion with BHT to establish clear need in strategic priority area and potential interest in a feasibility study and partnering in an Innovate Digital Health Catalyst Bid
- Meeting with Dr Amulya Misra, BHT (Clincial Lead for SIP) to discuss needs for Out of Hours / Urgent Care Pathways in Buckinghamshire, including work in their DVT pathway
- Meeting held identifying needs and offering solutions for POC diagnostics in Brookside Practice
 - Meeting with Dr Graham Jackson Clinical Lead Bucks ICS to discuss closer working with Oxford AHSN

Helping innovators identify the evidence requirements for their products:

- Owen Mumford documents prepared, stakeholders identified and initiated initial contacts for the stakeholder interviews regarding Owen Mumford's new POC HIV test SimplitudePro
- Report sent to Sharp Life Sciences for the second clinical pathway analysed for the VisiMobile device. Next step will be to discuss a real-world evaluation in the setting preferred by clinicians
- Prepared tentative pathway and made contacts with urgent care centre (UCC) staff, with a GP who
 leads UCCs and ED consultants in order to interview and review pathway for Jupiter Diagnostics
 Calisto platform / dyspnea panel assay under development (Innovate UK grant £350,000)
- Proposal sent to Cepheid for market access support in bringing their GeneXpert platform to primary care
- Proposal sent to Biomerieux to help them develop the value proposition for their immune profiling tool to support their next application to EIT Health
- Osler Diagnostics (Innovate UK grant £1.3 million) finished project set up to develop a POC device for critical cardiovascular markers. The Oxford AHSN will help develop the value proposition and route to market
- Met with CFT, the scoping work that will contribute to the EPSRC award will commence in January

Core Function 2: Signposting - activities in Q2

The SIP team continue to support strategic partnerships with industry, including the collaboration with Johnson & Johnson/Janssen, Abbott and Roche and are building new strategic partnerships with Illumina, Biomerieux, Sensyne Health and Novartis. A Senior Team meeting was held with J&J on 5th July to explore treatment resistant depression and a follow up meeting is planned to discuss market access and health economics in October.

Inflammatory Bowel Disease Network - an industry-funded (Takeda, J&J) programme for Inflammatory Bowel Disease using True-Colours Ulcerative Colitis (TCUC) as a patient reported outcomes tool. Preparation of Year 2 industry funding application and ongoing discussions at Hampshire Hospitals NHS trust regarding data collection tool options.

Directing companies to local resources:

- Several small companies have requested meetings/assistance after VentureFest: AdaptixImaging, R-Outcomes, Zelta Technologies
- An NDA has now been signed with CREAVO allowing next steps to proceed and identify possible sites to evaluate their novel technology for detecting ischaemia in ED. On-going discussions with ED / cardio consultants on behalf of CREAVO. Barriers include (-ve) prior experience / opinion of the technology, conflicting research interests, politics around ownership of the pathways and the price.

Directing patients to evaluation opportunities:

- Sleepio launch date is confirmed for Oct 10th. Widespread news coverage at national and local level pre-launch. GP practice and population engagement progressing as planned.
- Inflammatory Bowel Disease Network: Continued recruitment and training of patients in Oxford (200 patients recruited to date) with plans underway to recruit lay member representatives.

Supporting health partners to innovate:

- Meeting to discuss flu POC needs evaluation for RBH, SMH and OUH
- ED POC needs evaluation for OUH and RBH
- Meeting with Maternity STP BOB to discuss pre-eclampsia

Helping companies to develop solutions that meet healthcare needs:

- Health economics analysis for Curetis is behind schedule as a meeting is required with the orthopaedic consultant for further discussion but is delayed due to their resourcing issues
- Literature search is completed for the OUI Laser Gas Analyser project, exhaustive questions for prepared for this new invention, identified specific clinical leaders in Cystic Fibrosis as potential stakeholders
- Reviewing similar models for pharma and drug products then compiling a Budget Impact Model for Abbott POC regarding use of i-Stat in pre-hospital settings
- Met with Knowledge Transfer Centre and academic entrepreneur at Reading University to discuss project triage and Lean Startup/Strategyzer workshops under existing consulting agreement and potential for further consulting
- Offering support to digital companies interested in applying for Innovate UK for Digital Health Technology Catalyst round 3
- The Oxford AHSN has started its work packages mapping clinical pathways and providing route to market advice as part of an Innovate UK grant with Physiomics for the development of a prostate cancer chemotherapy precision doing app

- Support for Innovate UK Digital Health Technology Catalyst projects; Sleepio (Big Health) and Ufonia
- Tailored workshops are being held for industry based on the Lean start-up and Strategyzer approaches to support the development of business plans for new and evolving businesses; including Oxford University Innovation (OUI) which has involved multiple meetings with potential spinouts and their respective project managers to discuss participation in the ICURe programme and further consulting opportunities for the Lean Startup/Strategyzer workshop programme.

Core Function 3: Evaluation in Real World Setting - activities in Q2

Creating the evidence to support adoption and diffusion of diagnostics and digital and AI (imaging) products:

- Flu RBH is currently putting together their business case for the Alere-I test. Health economics is due at the end of Sept/beginning of Oct.
- Flu Following evaluation feedback, FujiFilm have come back with a connected machine and Stoke Mandeville are currently assessing their options. A meeting is to be held on the 9th October to evaluate this machine and the Alere-I machine. A full evaluation will be held for the Alere machine if that is what is chosen; a simple lab evaluation and procurement if the Fuji machine is chosen.
- Sarissa Biomedical (Innovate UK grant £2 million "Purines for rapid identification of stroke mimics)

 ED PID is currently sat with Gary for approval for a full-service evaluation to be conducted in RBH,
 OUH and possibly SMH, to encourage clinical buy in and confidence in the test before roll out into the ambulances. Q4 meeting held via teleconference. Project is six months behind for the clinical trial in ambulances, but the team is confident that this can be recovered.
- Mologic (Innovate UK grant £2 million "COPD patient exacerbation alert ") Meeting to discuss trial protocol (still no firm decision has been made by Mologic/Leicester CTU). Nadia has requested a meeting with Mologic to get her and Guy up to speed. Nadia is going to undertake some Lean Methodology work on the project, including clinical pathway mapping, to determine where the test will best sit, potentially establish who will pay for the test, and look at clinician engagement and appetite for the test and potential pathway change.
- Continuing to push the ISANSYS trial. IM&T have stalled again claiming the project has been deprioritized by clinical. Pushing for an all-hands meeting to re-invigorate.
- Mologic have now met with the maternity service at the JR and agreed to proceed with an
 evaluation of BVP, which has implications in pre-term labour and miscarriage. Oxford AHSN will
 provide the health economic analysis and reporting to show cost effectiveness.

Completed evaluation: Can using point of care blood tests help inform decision making in patients over 65 presenting with acute frailty syndrome?

The national 'see, treat and discharge' rates for paramedics has increased however, despite this increased demand on paramedic decision making there have been limited improvements to pre-hospital diagnostics. Patients over the age of 65 years presenting with acute frailty syndromes are a notably complex clinical patient group for which informed risk stratification in clinical reasoning is paramount.

This was a single site quality improvement project led by a SCAS Specialist Paramedic Practitioner based at RBH, using Point of Care blood testing to help inform decision making for patients >65 presenting with acute frailty syndromes.

Results from this quality improvement project into the use of Point of Care testing (POCT) showed a self-reported improved confidence in clinician decision-making and patient disposition. This confidence was validated by improved discharge on scene and re-contact rates. An unintended outcome of the project was the accumulation of practical knowledge on the use of POCT in the pre-hospital arena. These results show promise for the on going use of POCT in the pre-hospital environment, however are not without limitations. Pre hospital services wishing to implement POCT should focus on correct demographic identification and training and interpretation of results.

- The results of the project showed promise for the on going use of POCT and the field of frailty.
- Falls and Frailty Response Scheme (Sept 16 Feb 17): Discharge on scene 49.7% and re-contact within 7 days 14.67%
- POCT QIP (Sept 17 Feb 18): Discharge on scene 82.1% and re-contact within 7 days 11.5%
- The overall result of the roll out scenario is a net saving of £50,159. With 696 patients treated over this period, this gives a net saving per patient of £72 and gives a ROI for this scenario of: 4.6.

Core Function 4: Adoption of Innovation and Diffusion - activities in Q2

The SIP team continues to support identifying breakthrough products through horizon scanning and networking, and increasing capacity for adoption and diffusion locally, regionally and nationally.

Faster and more accurate diagnosis of pre-eclampsia (PE):

The ELECSYS® Pre-eclampsia (sFit-1 & PIGF) developed by Roche Diagnostics is being implemented through maternity units to (i) deliver improved patient safety, (ii) reduce unnecessary admissions, (iii) ensure women get the right treatment for their actual need, (iv) reduce overall cost to the system and (v) improve capacity management within the system.

- Oxford JR have confirmed ELECSYS implementation date as 1/10. Appointment of New lab FTE caused hiatus. Meeting between labs and clinical on 28/9 to confirm final pathway, details, etc.
 Scale up plan agreed to build up coverage over 1-2 months
- GWH proceeding with implementation of a remote pathway using JR labs
- RBH labs have confirmed a BC is required, but no subsequent activity
- Oxford AHSN budget identified to provide reagents to facilitate initial adoption by 2-4 hospitals
- Ongoing discussion with the NICE Implementation Collaborative (NIC) to agree and identify support
 available to develop requested materials, messaging, resource impact models etc. to support
 broader adoption of pre-eclampsia testing (DG23)
- Accepted invitation for Oxford AHSN to attend a Parliamentary preeclampsia round-table discussion organized by APEC and Roche at the House of Commons in November

 The Quidel PIGF test will return to market early next year. Discussions initiated by Professor Lucy Chappell at King's for Oxford AHSN to review their budget impact model and help prepare a business case

<u>Faecal Calprotectin (FC) diagnostic testing in primary care (national programme):</u>

The Faecal calprotectin (FCP) diagnostic test helps to differentiate between Irritable Bowel Syndrome (IBS) and Irritable Bowel Disease (IBD) and (i) generates benefits for patients through the prevention of unnecessary invasive procedures, (ii) provides financial savings through a reduction in referrals to secondary care, and (iii) a reduction in waiting lists and increase in diagnostic yield for hospitals.

- Adoption of new FCal pathway in Aylesbury held up by the need to update the ICE form and to replace Ian Heins. Evidence that some update to ICE has now been made and GP's have been requested to test the system
- Berks West CCG have unfortunately cancelled the Gastro workshop where FCal was to be tabled.
 Seeking alternative forum.
- Meeting panned with Oxford CCG to present FCal to them in October
- Ongoing discussions with Pacific to identify and agree the correct set of metrics spanning primary and secondary care, to measure impact of the new FCal pathway

Other Activities: Conferences and Events

- Several team members attended the MIC Diagnostics Workshops at Worcester College
- The National AHSN FCal network meeting has been set for early October
- Attendance at VentureFest on September 12th
- Medcity / NICE led evidence effectiveness framework Internet of things (IOT) Pitch In workshop
- Attended KTN partnering events for Infectious Diseases and for precision medicine
- AMR Collaborative Launch event
- Attended Oxfordshire LEP Local Industrial Strategy stakeholder meeting on 13th July
- Attended Abbvie Expert Group meeting on medicines uptake on 12th July
- Attended Harwell Cluster Steering Board on 10th July
- The talk at NHS Expo on "Clinical and economic impact of using point of care diagnostics in prehospital settings" was well received and follow up conversations held with Greater Manchester Ambulance Trust and NHS England Right Care
- Pre-eclampsia project update was presented at the Women's Health Symposium hosted by Roche in Dublin
- The Oxford AHSN presented at 2nd Annual Precision Medicine Congress in Munich on behalf of UK Precision Medicine Centres of Excellence

Economic Growth

The projects under the Innovation and Economic Growth INN have continued to progress steadily:

The Buckinghamshire Life Sciences Innovation Centre:

The ERDF SME support programme called Bucks HSC Ventures launched on September 10th with a call for SMEs open until October 5th. Process underway to appoint industry representatives and the chair to Partnership Board underway. Operational management of Bucks life sciences innovation centre space remains under review. Nicki Bromwich continues to support this project under a matched funding agreement.

Bicester Healthy New Town:

Chaired Bicester healthy New Town Programme Partner meeting on 19th July. The team received an update from programme lead, Dr Rosie Rowe and next steering group meeting planned for October. Nicki Bromwich will take over activities from Nick Scott-Ram.

The Hill:

Hill Board Meeting attended on 5th July. Appointment processes underway to recruit administrator and manager for The Hill. Job description from Bucks HSCVentures shared. Nicki Bromwich will take over activities from Nick Scott-Ram under a matched funding agreement.

Harwell Campus:

The Oxford AHSN is represented on the Harwell Campus Steering Group and the Harwell HealthTec Cluster Development Group, with Andy Hill routinely attending their meetings and building wider relationships with key stakeholders on campus.

Oxford AHSN's interaction with individuals leading the clusters on campus (representing health technology, space & satellite technology, big data & super computer, energy & environment and advanced engineering & materials) means that we have first-hand access to emerging technologies that show promise in health care, even when those technologies are the product of the convergence of disciplines (the combination of space and health or big data and health, for example). This level of access means that we can support technologies at the earliest stage and provide guidance that will better ensure alignment with demonstrable clinical needs.

Early in 2018 Oxford AHSN was involved judging for the award of grants from the Science & Technology Facilities Council (STFC) at Harwell to early stage collaborative health technology projects. Widely regarded by the cluster members and other stakeholders as being of value, the projects may well yield technologies of value to the NHS in the future. During this quarter discussions have been held to look at extending these awards in terms of monetary value and duration, with Oxford AHSN playing a key role in setting the scope of the next round.

Project Accelerate:

Ongoing work on project Accelerate, including discussions with STFC, stakeholder engagement, offer scoping and funding options. Angels in Med City and project Accelerate meeting held at Harwell on 11th July.

Andy Hill has continued to build the relationships with key stakeholders at Harwell that will underpin support for the project. During this quarter meetings have been held with the campus partnership regarding possible real-estate and an investment into the accelerator legal entity. Meetings have also been held with senior managers at STFC to develop a 'roadmap' for establishing in the legal entity that will hold shares in the accelerator – these latter discussions have been led by Barbara Ghinelli at STFC, supported by Andy Hill.

Next steps for the project are as follows:

- Establishing the partner (i.e. STFC and Oxford AHSN) legal entities that will hold share in the accelerator
- Seeking a third-party investor to provide equity funding for the accelerator
- Establishing the accelerator vehicle
- Continuing to build relationships with potential industrial partners (across disciplines)
- Continuing to build relationships with potential mentors and advisors who will support the programme

National Consortium of Intelligent Medical Imaging (NCIMI):

The University of Oxford led bid by Fergus Gleeson with a consortium of health and industry partners has been awarded funding through the Innovate UK open competition as part of the Industrial Strategy Challenge Fund. The NCIMI platform will develop intelligent medical imaging solutions to address clinical problems; focusing on unmet clinical needs as a pipeline of development. Exemplar projects will include:

- better stratification of lung nodules on chest CT
- standardisation of PET/CT for better quality diagnosis with optimised radiotherapy planning
- automated detection of spinal cancer on MRI
- better monitoring & communication for patients with congenital heart disease
- predicting heart attacks by measuring inflammation
- assessing obese children for early multi-organ disease
- removing the need for surgery in endometriosis
- early and automated identification of treatable iron overload
- better assessment of diabetes and risks of complications

The Oxford AHSN will input health economic expertise into the pulmonary nodules exemplar project.

Research & Development (R&D)

The next Research and Development group has been postponed to 19th November therefore there has been no meeting in Q2. Professor Joe Harrison, Chief Executive Officer of Milton Keynes University Hospital, will take over the chair from Stuart Bell, Chief Executive Officer of Oxford Health. The draft agenda includes the Chief Executive's update, presentations by the University of Buckingham, the Royal Berkshire Hospital, Director of Patient & Public Involvement, Engagement & Experience, Oxford AHSN and a discussion around the application of the Data Security and Protection Toolkit, which superseded the Information Governance Toolkit in April 2018, across NHS Trusts and their partner institutes.

The survey of local innovation and research needs across the 15 AHSNs is being coordinated by the Oxford AHSN team and progressing well. ComRes have been commissioned to undertake the interviews and surveys in each region. This is the first systematic exercise to determine innovation and research needs of local NHS and social care system leaders, managers and clinicians. Reports will be produced by the end of October and feed into the NHSE Long term plans for research and innovation.

A bid for an Oxford and Thames Valley NIHR Applied Research Collaborative, hosted by Oxford Health was submitted by Professor Richard Hobbs with themes being led by researchers from the Universities of Oxford and Reading. The ARCs follow on from the existing CLAHRCs whose funding ends next year. Professor Ford will be the implementation lead for the ARC if successfully funded. Interviews of the team with the NIHR panel take place 15th October.

The Thames Valley Health Research Awards were held on 26th September at the Old Town Hall in High Wycombe. Hosted by the Thames Valley and South Midlands NIHR Clinical Research Network, the awards recognise the contributions of healthcare and research staff who support the CRN to deliver research in the NHS in Berkshire, Buckinghamshire, Milton Keynes and Oxfordshire. The event, now in its third year, recognises researchers, nurses and doctors from across the region who provide significant contributions to research supported by the CRN. A strong field of applications were submitted, with a good spread of representation in the winners and highly commended categories from Trusts and CCGs across the region along with the CRN staff.

On 28th September, Buckinghamshire Healthcare NHS Trust, again supported by the Clinical Research Network, are hosted the 7th annual regional cardiovascular symposium "Research and Innovation with the Life Science Industry" at Missenden Abbey. Speakers included representatives from the Trusts and Higher Education Institutions across the region, alongside industry speakers and CRN commercial partnership experts.

The Oxford AHSN Patient Safety Collaborative is launching "Thames Valley Reporting Excellence (TREx)", a community and network of healthcare professionals and researchers who Champion Excellence Reporting. Initially developed by Adrian Plunkett at Birmingham Children's Hospital, excellence reporting adoption is being implemented widely. In the past patient safety has focused on learning from errors and adverse outcomes but there is a growing focus on mechanisms such as excellence reporting to create new opportunities for learning and improving healthcare. A key aspect of the Thames Valley group a collaboration between the Royal Berkshire Hospital and the University of Reading (School of Psychology and Clinical Language Sciences) interrogating the rapidly accumulating data – work which will be reported at the event alongside national speakers in the area.

Patient and Public Involvement, Engagement & Experience (PPIEE)

Governance and partners

We have agreed new terms of reference for our Operational Group with our partners from NHS England, the Clinical Research Network (CRN), the Oxford CLAHRC and the two local Biomedical Research Centres (BRCs). This includes defining four areas of mutual work: Communication and Engagement; Recording and Impact; Diversity and Inclusion and Education and Training.

Training and development

Our approach to development and training relates to the three levels shown below.



We Continue to deliver our 2017/18 programme of training and development with our partner organisations the CLAHRC, CRN and local trusts.

Level 1 and 2 training

We ran our first one day Empathy in Practice workshop that was well received, leading to plans for a workshop at the Royal Society of Medicine (RSM) in the autumn.

Level 3 training -

The Leading Together Programme

Our Leading Together Programme for Learning Disabilities has completed its three workshops and coproduced projects are underway. We will be holding our Celebrating Success event in November at Majeski Stadium.

2019/20 Programme

We have agreed a co-funded programme of five one-day workshops for 2019/20 with funding contributions from both local BRCs, the CLAHRC and CRN. We will be appointing a central coordinator to help run the programme.

We have agreed joint funding with Health Education England for a conference in May 2019 on person-centred care, research and education.

We are also planning a conference on Empathy in Healthcare at the RSM for autumn 2019, in conjunction with the Oxford Empathy Programme.

Thames Valley and Surrey LHCRE

We helped to develop and write the PPIEE components for the successful LHCRE bid with National Voices. Sian Rees has developed and presented plans for ongoing PPIE work to the new LHCRE Board to ensure that lay partners are involved in all aspects of the work from procurement to governance and delivery. We will also be considering how to work with the community, voluntary and social enterprise sector in conjunction with National Voices.

Stakeholder Engagement and Communications

In Q2 2018/19 the Oxford AHSN continued to develop its engagement with local, regional and national stakeholders. We continued to focus on more targeted, collaborative events which attracted hundreds of attendees this quarter.

The full list is at the end of this section, along with awards won and key publications. These include a joint report with Health Education England highlighting a wide range of areas where we are combining to develop the workforce to meet future health needs. The AHSN Network stand at the Health and Care Innovation Expo in September was visited by Matt Hancock, the new Secretary of State for Health and Social Care.

The number of subscribers to the Oxford AHSN monthly email newsletter stands at just over 1,300. This gives an overview of current developments, events and opportunities.

Sign up here: http://j.mp/OxfordAHSNnews.

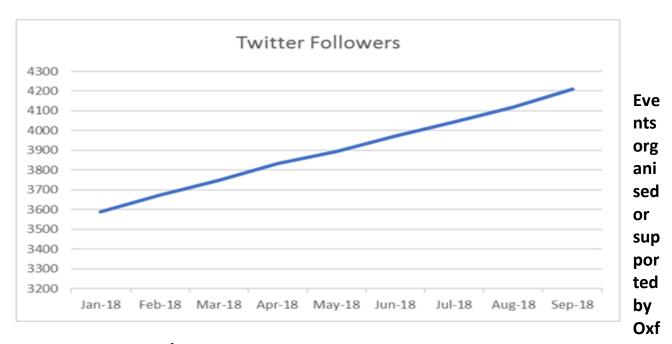
Our web content is regularly updated and expanded on www.oxfordahsn.org, www.oxfordahsn.org, clinicalinnovation.org, clinicalinnovation.org, clinicalinnovation.org, clinicalinnovation.org, clinicalinnovation.org, clinicalinnovation.org, www.oxfordahsn.org, <a href=

The number of followers of the main Oxford AHSN Twitter account (@OxfordAHSN) has increased to more than 4,200, see chart below. Daily Twitter interactions this quarter peaked on 10 July with 5,425 impressions. This was linked to the launch of video resources supporting the award-winning Oxford Patient Safety Collaborative Good Hydration! initiative.

Find out more here: bit.ly/good-hydration.

Top tweets related to this work, the Sleepio project addressing insomnia and a national award nomination for our 'suspicion of sepsis' work. In total the @OxfordAHSN account generated almost 100,000 impressions this quarter. Other Twitters accounts related to the Oxford AHSN include the Patient Safety Collaborative (@PS_Oxford) and Strategic and Industry Partnerships - now renamed @SIPoxfordahsn - which collectively have more than 1,400 followers.

Collaborations with other AHSNs are promoted through @AHSNNetwork.



ord AHSN, Q2 2018/19

Date	Event	Content
July	Maternity shared learning event	Linking to national maternity and neonatal QI
2018	,	initiative
	Patient Safety Congress	Oxford Patient Safety Collaborative (PSC)
		contributing to sessions at national event and
		won overall best quality improvement
		initiative award for care home hydration initiative
	WireSafe workshop	mitiative
	Wilesale Workshop	Training event for patient safety device
		organised by Oxford AHSN for all AHSNs
	NICE question time	G ,
		Oxford AHSN stand at event highlighting NICE
		shared learning award for hydration project
	Innovators programme open evening	
		Follow up to similar event in Jan 18 prior to
		deadline for applicants for cohort 5 starting in
Contouchan	Health and care innevention Fire	the autumn Oxford AUSN contributing to shared AUSN
September 2018	Health and care innovation Expo	Oxford AHSN contributing to shared AHSN Network presence
2018		Network presence
	Venturefest	Oxford AHSN delivering digital health/life
		sciences strand of industry partnership event
	Innovators programme education and	100 people have taken part in first four
	sharing event	programmes for frontline healthcare
	Formation described with the control	innovators
	Emergency department collaborative	Third gathering of multi-disciplinary teams
		from all EDs in Oxford AHSN region
		coordinated by Oxford PSC
	Bucks HSC Ventures launch	
		Launch of health and social care start-up
		programme for innovators supported by
		Oxford AHSN
	Oxford Health annual meeting	ALICAL stored approximation = full-
	Oxford University Hospitals annual meeting	AHSN stand – preventing falls
	Oxiora Offiversity Hospitals affilial fileeting	AHSN stand – applying research
October	Learning from excellence conference	Oxford PSC event including launch of Thames
2018		Valley Reporting Excellence (TREx) initiative
	Excellence in cancer	Contributing to Thames Valley Cancer Alliance
		event
	Hoart Phythm Cangress	AUCNIC lad coccion at national arrest as
	Heart Rhythm Congress	AHSNs-led session at national event on reducing AF-related strokes including Oxford
		AHSN contribution on developing specialist
		pharmacists to optimise anticoagulant therapy
		, , , , , , , , , , , , , , , , , , , ,

Date	Event	Content
	Safer paediatric gastrostomy at home	Oxford PSC shared learning event
	Leading the way – NHS South conference for responsible officers	AHSN stand highlighting joint learning programmes and patient safety initiatives
November 2018	Working Together: an introduction	Patient and public involvement workshop
	Leading Together celebration event	Highlighting impacts of co-production course for patients and professions, focus on Learning Disabilities pilot programme, Patient and public involvement event
December 2018	Working Together: Writing for lay audiences	Patient and public involvement workshop
January 2019		
February 2019		
March 2019		

Key publications 2018/19

Publication	Programme/Theme
Guide to the AHSN Network	2018 Impact report - all
Responding to NICE – developing a	Oxford PSC paper published in ClinMed, the Journal of the
regional sepsis pathway	Royal Colleges of Physicians, June 2018
Oxford AHSN Q4/Annual Report	All
Oxford AHSN Q1 Report	All
Learning Together	All with Health Education England and Thames Valley Strategic Clinical Network
Do portable nursing stations within bays of hospital wards reduce the rate of inpatient falls? Research paper published by British Geriatrics Society	Clinical Innovation Adoption

Awards won 2018/19

Award	Programme/Theme
NICE Shared Learning	Good Hydration! Oxford Patient Safety Collaborative care home initiative
HSJ Patient Safety Awards – Quality Improvement Initiative of the Year	Good Hydration! initiative

Appendix A- Risk Register and Issues Log

Risk Register

	Programme /Theme	Risk	Description of Impact	Likelihood	Impact	Time	Mitigating Action	Owner	Actioner	Date added	Date mitigated	RAG
1	Oxford AHSN Corporate	Failure to establish culture of partnership and collaborati on across the region	Insufficient engagement of clinicians, commissione rs, universities and industry will prevent the AHSN from achieving its license objectives e.g. tackling variation, speeding adoption of innovation at scale and improving prosperity of the region	Low	Significant	March 2019	Leadership supporting a culture of collaboration, transparency and sharing. Agreed organisational Vision, Mission and Values. Oversight Groups in place for each Programme and Theme, broadening representation across our stakeholders. Celebrate successes through Case Studies & Events. Regular monthly newsletter and Twitter. Regular refresh of website	AHSN Chief Executive	Program me SROs	06-Sep-13	Ongoing	Amber

and monitor usage.
Quarterly review of breadth and depth of engagement by programmes and events.
CIA analysis of strategic priorities of commissioners and providers.
Focussed events for clinicians and managers to foster collaboration for better patient care.
Oxford AHSN commissioned a stakeholder survey. 26% response rate (536 responses) Results positive. We will commission another survey in2019.
Oxford AHSN also took part in the National YouGov Stakeholder Survey but response numbers

							(circa 20) statistically invalid to draw any conclusions Active engagement with STPs and ICSs					
2	Oxford AHSN Corporate	Failure to sustain the AHSN	Programme activities cease	Med	Med	> 6 / 12 months	NHS England has confirmed that AHSNs will be re-licensed. Decision to relicense PSC subject to NHSI, expected before March 2019	AHSN Chief Operating Officer	AHSN Chief Operating Officer	31- Jul -14	Ongoing	Amber
							OLS has confirmed funding for AHSNs for 3 years					
							Actively pursuing industry partnerships, JVs and grants to reduce reliance on NHS E and NHSI funding.					
3	Oxford AHSN Corporate	INNs National Programme s – weak local uptake		Med	Med	>6/ 12 months	Identify clinical leadership. Ensure evidence based is robust. Collaborate with other AHSNs already implementing projects. Robust	AHSN Chief Operating Officer	AHSN Chief Operating Officer	19 February 2018	Ongoing	Amber

	governance through	
	CIA, Patient Safety	
	and Clinical	
	Improvement and SIP	
	Oversight Groups.	
	Ensure strong local	
	case for	
	implementation.	
	Oxford AHSN will	
	influence the	
	selection process for	
	all national	
	programmes to	
	ensure they are	
	evidence based.	

Issues Log

Programme / Theme	Issue	Severity	Area Impacted	Resolving Action	Owner	Actioner	Date Added	Current Status	Date Resolved
Oxford AHSN Corporate	Lack of awareness by local partners and national stakeholders of progress and achievements of the AHSN	Minor	Culture	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 Pipeline of publications and case studies, quartley reports, AHSN Netwotk Atlas, OLS.	AHSN Chief Operating Officer	Head of Commun ications	19/01/15	Ongoing	Ongoing
				Newsletter issued to					

Programme / Theme	Issue	Severity	Area Impacted	Resolving Action	Owner	Actioner	Date Added	Current Status	Date Resolved
				stakeholders. Oxford AHSN organise and participate in regular stakeholder events. We participate on various local boards.					



Appendix B - Oxford AHSN case studies published in quarterly reports 2013-2018

Quarterly report	Case study summary	Programme/Theme
Q2 2018/19	Healthcare tech company's expansion and Stock Exchange listing enabled by Oxford AHSN expertise	Strategic and Industry Partnerships
	Unique point of care blood test speeds up clinical decision-making, improves quality of care and reduces costs	Strategic and Industry Partnerships
	AHSNs come together to create new sepsis identification tool	Patient Safety and Clinical Improvement
Q1 2018/19	Spreading best practice in dementia through webinar programme	Mental Health
	Establishing networks to improve patient care in early inflammatory arthritis	Clinical Innovation Adoption
	Supporting life science companies and entrepreneurs to access healthcare markets	Clinical Innovation Adoption
Q4 2017/18	Showcasing developments in NHS MSK, falls, fracture and frailty services	Clinical Innovation Adoption
	Improving detection and management of AF	Clinical Innovation Adoption
Q3 2017/18	Digital Health Roadmap published to guide digital health developers	Strategic and Industry Partnerships
	Reducing urinary tract infections in care homes by improving hydration	Patient Safety
	Stillbirth prevention - Oxford Growth Restriction Identification programme saves a life	Patient Safety/Best Care: Maternity
Q2 2017/18	Point of care test evaluation points the way to quicker diagnosis of common childhood illnesses	Strategic and Industry Partnerships
	Oxford AHSN insights on digital health feed into key report on Oxfordshire's tech cluster	Strategic and Industry Partnerships

Oxford Academic Health Science Network

	Defining and measuring suspicion of sepsis	Patient Safety
Q1 2017/18	Improving patient outcomes following high-risk surgery through better use of technology	Clinical Innovation Adoption
	Improving return rates to psychiatric wards	Patient Safety
	The Hill – putting innovation at the heart of healthcare in Oxford	Strategic and Industry Partnerships
	Improving the care and life chances of young people who develop psychosis through effective early intervention	Best Care (Early Intervention in Psychosis)
Q4 2016/17	Digital health initiative leads to better monitoring and fewer hospital visits for women who develop diabetes during pregnancy	Clinical Innovation Adoption
	Better data sharing through regional information governance framework	Informatics
	Catalysing innovation and driving economic growth in Buckinghamshire	Strategic and Industry Partnerships
	Lives of more premature babies saved through improved referral pathways	Best Care (Maternity)
Q3 2016/17	Promoting workforce health and wellbeing through our Get Physical initiative	Corporate
	Improving detection and management of atrial fibrillation (AF)	Clinical Innovation Adoption
	New standard measures to improve care for patients with IBD developed by international collaboration	Wealth Creation
	Leading together – patients and professionals take a collaborative approach to solve health issues	PPIEE
	Better network-wide data sharing improves patient care	Best Care (Maternity)
Q2 2016/17	Digital survey results	Wealth Creation
	Imaging patient info films	Best Care
	Sustainability project	Wealth Creation

Oxford Academic Health Science Network

Q1 2016/17	Bicester healthy new town	Wealth Creation
	Children's immunisation	Best Care
	Perinatal SHaRON	Clinical Innovation Adoption
Q4 2015/16 (annual report)	Memory clinic accreditation update	Best Care
	Meds optimisation CBT progamme	Best Care
	AWOL project	Patient Safety
	J&J collaboration	Wealth Creation
	CAUTI project	Clinical Innovation Adoption
Q3 2015/16	EIP data-based approach	Best Care
	Leading Together programme starts	PPIEE
	Get Physical event review	Corporate
Q2 2015/16	Targeted medicines support	Best Care/Patient Safety
	Memory clinic accreditation	Best Care
	IPC stockings	Clinical Innovation Adoption
	Alumni Summit review	Wealth Creation
Q1 2015/16	A&D recovery rates	Best Care
	Pre-term birth location saves lives	Best Care
	In2vu data visualisation	Informatics
Q4 2014/15 (annual report)	GDm remote monitoring	Clinical Innovation Adoption
	IOFM benchmarking	Clinical Innovation Adoption

Oxford Academic Health Science Network

	Sustainable energy	Wealth Creation
Q3 2014/15	Developing patient leaders	PPIEE
	CFT – heart attack test	Wealth Creation
Q2 2014/15	Memory clinics	Best Care
	Managing acute appendicitis	Best Care / Patient Safety (PSA)
	A&D recovery	Best Care
Q1 2014/15	Dementia network launch	Best Care
	Medicines optimisation launch	Best Care
	Wealth creation explained	Wealth Creation
	GDm remote monitoring	Clinical Innovation Adoption
Q3 2013/14	App development route map	Wealth Creation
	2023 Challenge	Wealth Creation

Updated October 2018	