



Oxford AHSN Year 5 Q4 Report

For the quarter ending 31 March 2018

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Chair's Report

I am very pleased to present our fifth Annual Report. On behalf of the Oxford AHSN Board I would like to say how well the programmes and themes have progressed in the last year. Engagement with frontline clinical and non-clinical staff across the region has grown significantly and the level of collaboration between NHS, university and industry partners strengthens each year.

I am very pleased to report that Oxford AHSN is leading in several key areas that are improving patient safety. Our Clinical Innovation Adoption team developed the implementation packs for several medical devices that emerged from the NHS Innovation Accelerator. The work to reduce catheter acquired infection has attracted national interest and Health Education England has supported the development of an online training tool. Our Patient Safety and Informatics teams have developed measures for Suspicion of Sepsis (SoS) methodology which is now being used as part of the Patient Safety Measurement Unit dashboard for evaluating the deteriorating patient work nationally.

Oxford AHSN has compiled a guide that showcases the extensive range of programmes being delivered by all AHSNs to improve clinical services and patient outcomes in the areas of musculoskeletal (MSK), falls, fractures and frailty – all key priorities for the NHS. This work has been shared by NHS Improvement, the British Geriatrics Society and others (see Case Study). This compilation gives readers a choice of 30 evidence-based innovations and improvements.

With the continuing support of NHS England, NHS Improvement, the Office for Life Sciences, Health Education England, our local NHS and University partners and a growing portfolio of grants and industry sponsorships, we will continue our focus on supporting innovation adoption and improvement in our region's healthcare through fostering collaboration between the NHS, industry and the universities. This will improve patient outcomes, safety and experience and value for money in the NHS, and, at the same time, support economic growth. Although there is more focus on national programmes, our local partners will not see a decrease in the level of local collaborative projects that we support.

I would like to extend my thanks to the AHSN Board, particularly the chairs of the oversight groups who take time to oversee and support the programmes.

I hope you enjoy reading our fifth Annual Report and find inspiration in the breadth and depth of our work with our partners to improve healthcare in the region and nationally.

Oxford AHSN is in great shape for the new five-year licence period.

**Nigel Keen,
Chair, Oxford AHSN**

Chief Executive's Review

As we come to the end of the first AHSN licence the challenges identified by the Innovation Health and Wealth report published in 2011 still remain. Sir David Nicholson, then Chief Executive of the NHS, observed that the NHS needed to radically change the way it delivered services, that innovation was the only way to meet the challenges facing the NHS, and that innovation must become core business of the NHS. In 2013 AHSNs were established as regional partnerships with broad ranging responsibilities to build collaboration between NHS services and commissioners, industry and academia to deliver improved patient outcomes and economic growth by supporting diffusion of innovation and good practice. Other initiatives, including Test Beds and the National Innovation Accelerator were launched to support innovation and its uptake by the NHS, creating a complex innovation ecosystem.

AHSNs faced considerable challenges in the first few years with major funding cuts, and lack of clear national metrics. However, NHS England has recognised the importance of AHSNs as regional partnerships that support the adoption and diffusion of innovation in the NHS, and will be relicensing AHSNs for a further five-year period.

In our first five years, Oxford AHSN has developed programmes and tools for innovators and clinicians to introduce new ideas and technologies, supported adoption of 50 innovations, delivered six patient safety programmes, met with 450 companies, established 25 formal partnerships and leveraged £25m to improve health in our region and support economic growth. Our Strategic and Industry Partnerships team has brought £49m investment into the region.

Since the Oxford AHSN was established in 2013 we have produced 56 case studies with our partners (Appendix D). Our team has developed expertise in evaluation and adoption of innovation in diagnostics, digital and medical technologies, and supported development of clinical networking in mental health, maternity and patient safety. Our work is underpinned by a strong patient and public involvement programme, and I am grateful to our lay members who provide invaluable support to our work.

The new five-year licence places more emphasis on collaborating with other AHSNs to deliver national programmes of innovation spread agreed with NHS England. Most of our work will continue to comprise local programmes but more of our resources will be dedicated to supporting uptake of national programmes of innovation adoption and improvement.

We meet regularly with the three Sustainability and Transformation Partnership directors and review the plans and priorities of our NHS partners annually to inform our work. I have given my personal support to the leadership of the Buckinghamshire, Oxfordshire and Berkshire West (BOB) STP, as Chair of the Executive Board and in the last quarter as interim lead.

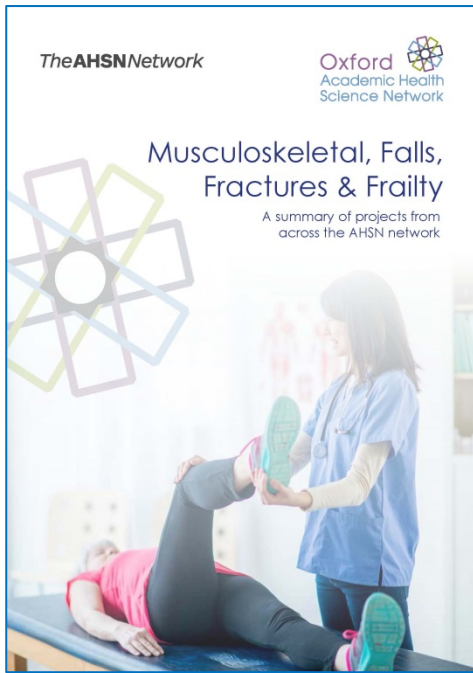
NHS England and National Institute for Health Research (NIHR) are committed to better understanding and articulating the research needs of the NHS, and building effective partnerships between the research community and STPs. The 15 AHSNs are charged with working up and setting out a statement of local NHS research and innovation needs working in partnership with NIHR local research infrastructure. I have taken on a national role to coordinate this process with Dr Louise Wood Director of Science, Research & Evidence at the Department of Health.

I would like to thank my team for their dedication and commitment to making a difference to the lives of patients in our region. I would also like to thank our Chair Mr Nigel Keen and our Deputy Chair and CEO of our host trust Oxford University Hospitals Dr Bruno Holthof for their continued support and encouragement. Finally, I would like to give a special mention and thanks to Megan Turmezei who played a key role in developing the Oxford AHSN and is leaving us to support the Oxford AHSC.

Professor Gary Ford CBE, FMedSci, CEO, Oxford AHSN

Oxford AHSN case studies

1. Showcasing developments in NHS musculoskeletal, falls, fracture and frailty services
2. Improving detection and management of atrial fibrillation



Case study 1: Showcasing developments in NHS musculoskeletal, falls, fracture and frailty services

Programme/Theme: Clinical Innovation Adoption

Overview summary

Oxford AHSN has compiled a guide that showcases the extensive range of programmes being delivered by all AHSNs to improve clinical services and patient outcomes in the areas of musculoskeletal (MSK), falls, fractures and frailty – all key priorities for the NHS. This work has been shared by NHS Improvement, the British Geriatrics Society and others.

Read the report here: <http://www.oxfordahsn.org/wp-content/uploads/2018/02/MSK-Falls-Fractures-Frailty-AHSN-summary-cover-with-text.pdf>

Challenge identified

MSK, falls, fractures and frailty have a major detrimental impact on patients, families and carers, and are a significant cost to the NHS.

- **MSK** conditions affect one in four adults, account for 30% of GP consultations and result in over 10 million working days lost, with £4.6 billion of NHS spending each year.
- While **falls** can happen to anyone, older people are more likely to fall, with 30% of over 65-year-olds and 50% of over 80-year-olds falling at least once a year. Falls are estimated to cost the NHS more than £2.3 billion per year.
- Falls can result in fracture. Fractures that occur from standing height or less (known as **fragility fractures**) can cause substantial pain and disability, with hip fractures associated with a decreased life expectancy. Over 300,000 patients present with a fragility fracture in the UK each year. Fragility fractures are estimated to cost the UK, including social care, £4.4 billion per year.
- **Frailty** progresses with age and is a process in which the multiple body systems gradually lose their inbuilt resources meaning people are less resilient and take longer to bounce back after illness or accident. 14% of over 60-year-olds are frail; this figure jumps to 65% in those aged 90 or more.

With a growing and ageing population, health and social care services need to be proactive in their response to these challenges. Whilst many different clinical pathways and services are provided to manage these four problems, there are clear links between them.

Actions taken

The Oxford AHSN identified a need to bring together in one place the great ideas and projects in progress across the country relating to MSK, falls, fragility fractures and frailty to support further improvement work. Information was collated on 30 programmes and projects across England in which AHSNs are supporting

and working with NHS partners to improve clinical services within the four priority areas. These examples of best practice have been summarised together with contact details should further information be needed.

Feedback

Feedback has been extremely positive - for example: 'It is really helpful to have all this information pulled together like this'.

The report has been shared by NHS Improvement, the British Geriatrics Society and others. NHS Confederation and the National Institute for Health Research have requested blog posts to highlight the work being undertaken.

Future plans

It is hoped the guide will help shape discussions with Sustainability and Transformation Partnerships (STPs) / Integrated Care Systems (ICSs), commissioners and providers regarding potential future work to improve services and patient outcomes in these areas, while enabling others to benefit from shared learning to help implement and/or build on an existing, proven concept.

Contact

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Case study 2: Improving detection and management of atrial fibrillation (AF)

Programme/Theme: Clinical Innovation Adoption

Overview summary

Oxford AHSN has developed and implemented a comprehensive work programme aimed at driving through improvements in the detection and management of atrial fibrillation (AF) in order to reduce the numbers of AF-related stroke. This programme consists of a range of collaborative projects with regional partners including Clinical Commissioning Groups (CCGs), GPs, acute trusts and industry, with each project seeking to introduce and evaluate a novel and innovative method of service delivery.

Challenge identified

Atrial fibrillation (AF) is the most common cardiac arrhythmia, estimated to affect around 2.5% of the population (56,000 people in the Oxford AHSN region). AF is a major cause of stroke, responsible for around 20% of all strokes in the UK. Strokes caused by AF tend to be more severe than other strokes; the mortality rate is higher and people are more likely to be left with severe impairments that require long-term care. Stroke can have a devastating effect on patients and their families as well as costing the NHS over £24,000ⁱ in the first year alone.

Many people who have AF are unaware that they have the condition. Nationally, there is an impetus to detect more cases of AF through simple pulse checking and the use of new mobile ECG technology. It is estimated that around 16,000 people in the Oxford AHSN region are unaware that they have AF.

Oral anticoagulation therapy with warfarin or a direct oral anticoagulant (DOAC) can reduce the risk of stroke in patients with AF by up to 66%. However, not all people who are at risk of an AF stroke are receiving the appropriate anticoagulation therapy. It is estimated that around 6,400 people in the Oxford AHSN region who are diagnosed with AF and have an elevated risk of stroke are not currently receiving anticoagulation therapy.

Actions taken

In 2017/18 Oxford AHSN has worked with partners to deliver a comprehensive programme of improvement aimed at identifying patients with AF who are not being anticoagulated or whose current anticoagulation is not optimised. Projects include:

- 1) Pharmacist-led primary care anticoagulation initiation service
- 2) 'Excellence in AF'
- 3) Oxfordshire Anticoagulation Optimisation

These projects differ in terms of focus and methodology but have a commonality in that they all draw on the skills of secondary care specialist pharmacists supporting improvement in primary care.

Additionally, Oxford AHSN has embarked on a programme to increasing detection of AF as part of a national programme including all other AHSNs in England.

Impact/outcomes

Pharmacist-led primary care anticoagulation initiation service

Oxford AHSN is piloting and evaluating a novel model of anticoagulation initiation, within the primary care setting, harnessing the specific expertise of specialist pharmacists to counsel patients, assess bleeding and stroke risk and use shared decision-making techniques to decide on appropriate anticoagulation. The specialist pharmacists prescribe the first month's anticoagulation after which patients are managed through usual GP monitoring. Patients prescribed a DOAC are offered a follow-up appointment to discuss side-effects.

To date 371 patients across nine GP practices have been reviewed as part of this project. Of these patients, 213 (57%) were initiated on anticoagulation or had their existing anticoagulation optimised. Based on an average stroke rate of 6% this represents a potential for eight fewer strokes and a saving of £199,000 (gross).

Excellence in AF

The Excellence in AF project was designed collaboratively by the Buckinghamshire CCGs, Oxford AHSN and Bayer. The key elements of the project are:

- Audit – to identify patients in need of review
- Desk-top review (carried out by Interface Clinical Services)– to refine the list and improve coding on EMIS where appropriate
- Face-to-face/telephone review – to counsel patients and offer anticoagulation therapy where appropriate
- Quality improvement support – to introduce small sustainable changes to working practices
- Re-audit – to assess the improvement delivered

28 practices in Buckinghamshire engaged with the project in the first phase. Results from 25 practices are currently available and they show that:

- An additional 296 patients have been added to the AF register
- An additional 280 patients are now on anticoagulation therapy
- 70 fewer patients are poorly controlled on warfarin
- 172 fewer patients are on an inappropriate dose of DOAC

Based on an average stroke rate of 6% this represents the potential for 14 fewer strokes and savings of £340,000 (gross).

Oxfordshire Anticoagulation Optimisation

The Oxfordshire Anticoagulation Optimisation project is a collaboration between Oxford University Hospitals NHS FT, Oxfordshire CCG and Oxford AHSN, and is supported by educational MEGS grants from Pfizer and Daiichi-Sankyo. The project was launched in March 2017 with the aim of upskilling both GPs and community pharmacists to improve management of patients with AF who have poor time in therapeutic range (TTR) on warfarin. As part of the project two specialist anticoagulation pharmacists (1 WTE), with haematology consultant support, provide:

- Email and telephone advice
- Educational sessions and note-based reviews in GP practices

- Education sessions for community pharmacists to help effectively deliver the New Medicines Service and Medicines Use Reviews to patients on anticoagulants.

55 out of 70 Oxfordshire practices have engaged with the project. Feedback from GPs following outreach support has been positive: 100% agreed or strongly agreed that the content, structure and presentation of the session were at the appropriate level; all GPs would recommend the educational session to colleagues.

Data shows an improving trend in the number of patients on warfarin with poor TTR since the project began. Discussions are underway with Oxfordshire CCG as to the future of the project once the external funding has been utilised

The project won an AF Association Healthcare Pioneer Award 'Showcasing Best Practice in AF' and will be published in the AF pioneers 2018 report.

Detection programme

In common with other AHSNs across the country, Oxford AHSN has accessed NHS England funding to acquire a range of digital devices that can support clinicians in detecting AF. The AHSN is working with CCGs across its region to take these devices into primary care and to evaluate their impact in increasing detection rates.

National AHSN priorities addressed

- Focusing on the needs of patients and populations
- Speeding up adoption of innovation into practice to improve clinical outcomes and patient experience
- Building a culture of partnership and collaboration

Future plans

- Evaluate project delivery and facilitate spread to other CCGs
- Develop the AF detection programme in line with national priorities

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Operational Review

We have had another year of strong performance supporting local NHS clinicians and managers to implement improvement and innovation into practice through building collaborations across the NHS and with industry and university partners. We have had significant breakthrough this year particularly in our atrial fibrillation (AF) work which now engages 124 GP practices (about half) in the region (see Case Study above). Adoption and spread of innovations (particularly digital and diagnostics) in primary care are vital to changing the mode of delivery in preventing ill-health and managing illness. We have plans to build on the successful engagement in AF to bring more innovation into primary care, eg PINCER, a system to prevent medication errors.

Stronger engagement, greater uptake of innovation and improvement in mental and physical health resulting from our programmes has been achieved against a background of significant regional operational and financial challenges in the NHS. Success depends on a strong clinical evidence base to support intervention, clinical leadership and excellent programme management and engagement by our teams.

Last year we said that we needed to diversify our income and we have achieved a significant increase in grants and industry sponsorship with a strong pipeline of opportunities planned for 2018/19.

Building the network

The network is built through our programmes of collaborative projects with frontline clinicians and managers – adoption of innovation, improvement and evaluation of new products in a real-world setting. In addition, the network is supported by our programme governance structure with oversight groups of senior local stakeholders with an interest in seeing positive in healthcare delivery.

I keep in regular touch with the directors of the three Sustainability and Transformation Partnerships (STPs) in the region to update them on new or existing opportunities for collaboration. We undertake an analysis of commissioning and provide priorities each year. With two other AHSNs - Eastern and UCLPartners - we organised an event for the Bedford Luton and Milton Keynes STP focussed on care homes – this has resulted in increased uptake of the care home hydration project initiated in Berkshire (see below). Professor Ford is on the BOB STP Board and I attend the BOB Operations Group. Amy Izzard, Corporate Affairs Manager, supports Karon Hart, chair of the group that brings together health and wellbeing leads from all our trusts.

We also work closely with other agencies in the region such as Thames Valley Strategic Clinical Network, Thames Valley Cancer Alliance, Health Education England Thames Valley and the NIHR Oxford CLAHRC to identify priorities and make sure we support each other's work and avoid duplication, eg our Maternity Network is working closely with TVSCN to develop the BOB STP Maternity Strategy; ongoing support provided by Health Education England to develop training packages that give frontline staff the skills necessary to implement change in healthcare delivery (eg dementia webinars – see below).

We are at the early stages of developing programmes with stakeholders in three national NHS priorities – mental health, cancer and emergency medicine. We have appointed a new lead for mental health improvement and innovation.

Industry engagement and partnership is the strongest of any AHSN with 25 partnerships.

We have run or been heavily involved in 34 events in the last year, attracting 1,300 participants from a wide range of stakeholder groups. Targeted events, eg for a speciality such as diagnostics in emergency care, attract more participants from a time poor NHS. We also look for opportunities to contribute to events run by other local partners such as TVSCN, HEE and Venturefest. Examples of events include:

- regional emergency department collaborative facilitated by the Oxford Patient Safety Collaborative
- a joint event with West Midlands AHSN on diagnostics in urgent care
- 'Working Together' – a series of training events for patients, public and health professionals

- Patient safety devices – a practical session for clinicians and commissioners on new critical care devices supported by the NHS Innovation Accelerator and the Innovation and Technology Payment

The Oxford AHSN monthly email newsletter got a new look as it reached the milestone of its 50th edition in January 2018. The number of subscribers has grown to more than 3,000, a 50% increase since last year. The number of followers of the main Oxford AHSN Twitter account (@OxfordAHSN) has risen steadily with more than 900 added during 2017/18 to reach 3,750 followers. We have revamped the Patient Safety and Get Physical websites, added more content to the Strategic and Industry Partnerships one and launched a new site for Clinical Innovation Adoption.

Another major focus has been joint work with the other 14 AHSNs. The AHSN Network had a significant shared presence at the NHS Confederation, Health and Care Innovation Expo and Patient First conferences. Our Head of Communications has been selected by his peers to serve a second term as co-chair of the AHSNs' Communications Forum which works closely with the 15 AHSN Chief Officers.

We have produced several major publications this year in peer reviewed journals and BMJ Open (eg identification of sepsis). Publications we have produced include a Digital Health Roadmap and guide for innovators; and a summary of MSK, falls, fractures and frailty innovation and improvement projects that are being undertaken by AHSNs across the country (see Case Study). Our Head of Communications produced the second AHSN Network Impact Report. Oxford AHSN has produced another 12 case studies this year in our quarterly reports some of which are featured in the AHSN Network Atlas of Solutions in Healthcare: <http://atlas.ahsnnetwork.com/AHSN/oxford/>.

Our series of information videos for patients about to have diagnostic scans has now recorded 30,000 YouTube views. In terms of public engagement there are two outstanding projects:

- The Angry Hand campaign - a huge blue hand used to promote early diagnosis of rheumatoid arthritis, a project led by Dr James Rose from our Clinical Innovation Adoption programme with patient leader Georgina McMasters with support from Sandoz.
- Care home hydration - Katie Lean, Patient Safety Manager, has won three prizes this year for her work with Windsor, Ascot and Maidenhead Clinical Commissioning Group to introduce structured drinks rounds in care homes to prevent urinary tract infections and acute kidney injury.

Capability and capacity

With our partners Health Education England, we have a pipeline of workforce training and development packages to support delivery of our innovation and improvement programmes.

More than 1,000 people have taken part in the Dementia Clinical Network's webinars since their launch in 2014. Feedback has been overwhelmingly positive: Vicky Cartwright, Deputy Programme Manager, Royal College of Psychiatrists, said: "I've dialled in to a few of the webinars now and they have all been excellent."

The Adopting Innovation and Managing Change in Healthcare Settings course grows in popularity. Cohort 4 started with 25 new students in March 2018.

To support the standardisation of mortality reviews, training has been provided to 25 staff on the Royal College of Physicians Structured Judgement Review tool, with a further training day planned in April 2018.

The Oxford AHSN Patient Safety Collaborative has partnered with Q to help grow the Q community. Over 60 people attended our Oxford Q Community Welcome Event on 31 January 2018 for new and founding Q members.

We have signed up with SeeData for the Life system for another year - this is accessible to NHS users in our region to record and monitor their improvement projects.

Oxford AHSN has brought together system leads from six health systems to develop a bid for a Local Health and Care Record Exemplar.

NHS England relicensing, Innovation National Networks, Accelerated Access Review and NHS Improvement

NHS England (NHS E) intends to license all 15 AHSNs for a second period of five years. AHSNs have been offered a financial settlement of £36m per annum for the next two years. The Office for Life Sciences (OLS) has committed £36m to the AHSNs over three years. NHS Improvement (NHS I) is engaged in a discussion on aligning relicensing of Patient Safety Collaboratives (PSCs) to the AHSN relicensing period. We believe there will be a financial settlement for PSCs to March 2020.

We have submitted our sixth business plan to NHS England which has been received very positively.

NHS E policy is encouraging deeper and more effective collaboration between AHSNs to deliver national programmes of innovation adoption and improvement. NHS E has initiated the creation of nine Innovation National Networks (INNs). AHSNs will develop the INN themes in the next few months. We have mapped all our work against the nine themes and there is very close alignment:

| Programme/Theme | AHSN Director | Chair of Oversight Group and member of the AHSN Board |
|---|----------------------|--|
| Patient Safety and Clinical Improvement | Katherine Edwards | Steve McManus, CEO, Royal Berkshire |
| Clinical Innovation Adoption | Tracey Marriott | Neil Dardis, CEO, Frimley Health |
| Strategic and Industry Partnerships | Nick Scott-Ram | Nick Edwards, Chairman, MedInnovate |

| | | |
|---|------------|---|
| Research and Development | Gary Ford | Stuart Bell, CEO, Oxford Health |
| Informatics | Mike Denis | Stuart Bell, CEO, Oxford Health |
| Patient, Public, Involvement, Engagement and Experience | Sian Rees | Minoo Irani, Medical Director, Berkshire Healthcare |

Working with other AHSNs and national spread

We have 15 active projects with other AHSNs. Examples include the Clinical Innovation Adoption programme's atrial fibrillation programme and Informatics' Global Digital Exemplar project with Greater Manchester AHSN. Our Early Intervention in Psychosis collaboration with the NIHR Oxford CLAHRC across the South of England has been published on the AHSN Network Atlas of Solutions in Healthcare: <http://atlas.ahsnnetwork.com/better-care-for-people-with-psychosis-thanks-to-joined-up-approach-across-southern-england>

Oxford AHSN is leading on the implementation of WireSafe which is being adopted by all AHSNs.

Programme highlights

Detailed programme and theme reports follow. Here is a round-up of some of the highlights from this year.

This is the last time **Best Care** Clinical Networks will report. Three clinical networks - Maternity, Anxiety & Depression and Dementia - all secured external funding and will continue as part of Patient Safety and Clinical Improvement. The work of the Early Intervention in Psychosis Clinical Network will now be led wholly by Oxford Health NHS Foundation Trust.

Unfortunately, funding was not secured for Children's, Medicines Optimisation and Respiratory Clinical Networks. All three were closed as of June 2017 with handovers completed and final reports published.

The Enhancing Recovery Rates Project achieved its target of sustained recovery from anxiety and depression for 56% of patients recovering in an environment where patient numbers have gone up and there has been increased service disruption.

Clinical Innovation Adoption highlights:

- eMAPS 1: Development of a web-based market access tool for industry, funded through the European Innovation for Technology (EIT) Health
- Biosimilar - rheumatology: Patient information video completed
- Early Inflammatory Arthritis: Angry Hand video won bronze award for Disease Awareness in PM Society Awards in February 2018 – the film has had over 10,000 YouTube views
- CAUTI: e-learning package, supported by Health Education England, launched nationally via e-learning for health platform in September 2017
- Leadership in atrial fibrillation– adapting 'Don't wait to anti-coagulate' campaign known locally as 'Excellence in AF'
- Hosted patient safety event for the ITP medical technology patient safety innovations (PneuX and non-injectable connector); 60 attendees including representatives of six AHSNs
- Pulled together national report on AHSN input into MSK/falls/fractures/frailty innovations/projects which has been widely shared

To date, CIA estimates that the programme has saved 186 lives and saved the local health system £11m.

CIA completed 18 projects this year:

| | |
|--|--|
| SHaRON - Eating Disorders Innovation - Social Online Media for Eating Disorders | Falls Project 1/phase 2: CLAHRC falls innovation regression testing for success |
| Intermittent Compression Sleeves | Falls Prevention - regional analysis - Phase 1 - to determine which Falls projects to work on in Phase 2 |
| Alcohol Signposting doc created with Council - Phase 1 | Falls 3 project/phase 2: Stay in the Bay (falls innovation) |
| Intra Operative Fluid Management - Phase 2 implementation | Catheter Acquired Urinary Tract Infection Training |
| Early Inflammatory Arthritis - early detection educational tool (GPs & patients) - PHASE 2 | Atrial Fibrillation Project 1 - Excellence in AF (Bayer) |
| Alcohol Nalmefene | eMAPS I (map access tool phase 1) |
| Patient Monitoring | National AHSNs MSK activity collation |
| Practical Innovation Course cohort 2 (26) | Biosimilar patient video and shared savings model |
| Catheter Acquired Urinary Tract Infection - phase 2 | Innovation Exchange - FluidReview |

Strategic and Industry Partnerships (SIP) has had a very strong year - highlights this quarter include:

- Assessment of the impact of flu point of care diagnostic tests in emergency department completed at Royal Berks
- A pre-eclampsia diagnostic test received business case approval at Oxford University Hospitals and Stoke Mandeville
- Full approval for ERDF funding of the Buckinghamshire Life Sciences Innovation Centre.
- Assessment of the Abbott i-STAT system in pre-hospital setting completed with South Central Ambulance Service
- Senior executive meeting between Novartis and the AHSN to explore opportunities
- Contracts signed with Cytox and Oxford University Innovation for SIP team services
- Planning for the delivery of the Innovation Support for Business (ISfB) programme progressing
- During the quarter SIP met 59 companies - making a total of 225 for the year
- The team is actively pursuing over 35 projects and completed over 70.

Total investment brought into the region for the year as a result of SIP-based activities, through collaborations and direct investments, totalling £21.7m. This includes funding for The Hill, Bicester Healthy New Town (£750k) and the Buckinghamshire Life Sciences Innovation Centre (£1.3m) - Nicki Bromwich brought all local partners in this together and navigated them through the ERDF submission. The total inward investment for the lifetime of the SIP team is £25.7 million, representing a ROI of 10.6. **The SIP programme has established over 30 partnerships with companies across all sectors - with both multi-nationals and SMEs.**

SIP has had national recognition for its Digital Roadmap while its diagnostics programme is going from strength to strength. During the year the SIP team was instrumental in facilitating the spinout of GDM-Health, SEND and EDGE from OUH to Drayson Technologies. SIP has also been supporting the Oxford NHS Genomic Medicine Centre. The Oxford AHSN is a delivery partner in a grant awarded to Big Health for the value of £1m under the Innovate UK Digital Health Catalyst programme. SIP has also been a key partner in the Oxfordshire Transformative Technologies Alliance Science and Innovation Audit and the innovation Therapeutics for Ageing Consortium (iTAC).

The SIP sustainability programme has focused on monitoring large infrastructure projects at Great Western Hospital and Wexham Park.

The SIP team has presented at more than 20 conferences and meetings in the year.

Informatics has expanded its datasets that can be used by the Oxford AHSN teams and provided support for the three programmes including some excellent work developing measures to detect sepsis which is being used nationally.

Informatics has undertaken Connected Care Assessments for NHS England. The team, led by Mike Denis, has for the last six months been bringing together six local health systems in preparation for a bid for a Local Health and Care Record Exemplar which is due at the end of April.

Patient and Public Involvement, Engagement and Experience (PPIEE) with NHS England and Health Education England delivered the Leading Together programme to train 100 lay people and healthcare professionals in co-development. The programme received national interest and was presented at the Health and Care Innovation Expo.

Patient Safety and Clinical Improvement is performing well, with projects showing very positive results. Engagement is extremely good. Work to spread the projects has started. Head of Patient Safety Katherine Edwards has taken a leadership role in the national Maternal and Neonatal Health Safety Collaborative.

Patient Safety and Clinical Improvement highlights of the year include:

- Katherine Edwards joining as the new Head of Patient Safety
- Steve McManus, Chief Executive of Royal Berkshire, joining as Chair of the PSC Oversight Group and member of the Oxford AHSN Board
- Our hydration in care homes project significantly reducing UTIs (and admission to hospital as a result); this project also won three awards this year and there is interest in spreading it outside of the Oxford AHSN region
- Maternity swab never event project published in the European Journal of Obstetrics and Gynaecology; zero never events maintained; handed over to OUH for sustained management
- Our OxGRIP pilot progressing well and initial data indicates a significant reduction in third-trimester stillbirth
- Our 'suspicion of sepsis' (SoS) methodology – 'Defining and measuring suspicion of sepsis: an analysis of routine data' published in [BMJ Open](#); "how to" guide produced; methodology now part of national Patient Safety Measurement Unit dashboard for evaluating deteriorating patient
- Completing and handing over/closed several projects, including place of birth, pressure damage and human factors in serious incidents
- Reducing unwarranted variation of the interpretation of fetal wellbeing in labour, with a region-wide standardised tool for interpreting CTGs (fetal heart rate recordings)
- Hosting several events including our Annual Conference 'From assurance to inquiry: conversations about safety', QI training events, Emergency Department collaborative events, structured judgement review training, maternity shared learning events and our Q Community welcome event.
- Awarding two MSc Bursaries in Patient Safety to staff in the region.

Progress, KPIs and top-level milestones

We have made good progress against milestones and KPIs in the year.

Return on investment (ROI)

Our model is showing a projected ROI of 2.5 times when comparing NHS savings and inward investment to the running costs of the AHSN for the last five years. ROI will grow as the first two years of the AHSN included a start-up phase.

Collaborative work in the region has brought savings to the region's NHS of £31m and inward investment of £49m. More importantly we estimate that more than 200 lives have been saved and more than 47,000 patients have recovered or avoided harm as a result of the programmes.

Key Milestones - progress to date

| Programme/Theme | Key milestones 2017/18 | 2017/18 progress |
|---|---|---|
| Corporate | Oxford AHSN relicensing Application for OLS funding | Submitted relicensing document and two-year business plan to NHS E. Feedback positive. OLS funding has been confirmed |
| Best Care | Secure funding for clinical networks Close networks that cannot secure funding | Anxiety & Depression, Dementia and Maternity have secured funding. Oversight transfers to Patient Safety & Clinical Improvement. |
| Clinical Innovation Adoption | Aim to open 4th cohort adopting Innovation and Managing Change in Health Settings course in March 2018. 2 projects to be started – Digital Health Technology Catalyst Project and eMAPSII. | Third cohort of 20 frontline staff has started the Adopting Innovation and Managing Change in Health Settings Course at Buckinghamshire New University (HEE supported). CAUTI QI Training launched. 2 projects completed: <ul style="list-style-type: none"> National MSK Activity Collation completed. Early Inflammatory Arthritis – early detection educational tool (GPs and patients – phase 2) completed. |
| Strategic and Industry Partnerships | One new joint venture or industry partnership | Memorandum of Understanding signed with Drayson Technologies |
| Informatics | Bid for LHaCRE/ Digital Innovation Hub | Invitation to express interest for LHaCRE published. Seeking clarity on whether this should be led by an individual ICS rather than consortia of six health systems through the AHSN |
| PPIEE | Plan for sustainability beyond March 2018 | On going |
| Patient Safety and Clinical Improvement | Three programmes showing safety improvement | AKI, Safety in Mental Health and Safety in Maternity have all shown improvement |
| Stakeholder Engagement and Communications | Partner showcase events | Five events during May as planned and further stakeholder/programme specific events have been delivered at a variety of locations across the year; plans underway for 18/19 |

Key Performance Indicators (KPIs)

| Programme | High level KPIs (measured annually unless otherwise stated) | As at Q4 |
|---|--|---|
| Best Care | Anxiety & Depression Early Intervention in Psychosis | Recovery rates maintained at 56% 50% RTT exceeded (81-91%) |
| Clinical Innovation Adoption | Community/Mental Health and Community Trusts adopting each innovation | |
| | • Planning to implement | 90% |
| | • Implemented | 42% |
| | • Participating | 100% |
| Clinical Innovation Adoption | Acute Trusts adopting each innovation | |
| | • Planning to implement | 95% |
| | • Implemented | 52% |
| | • Participating | 100% |
| Strategic and Industry Partnerships | Amount of investment leveraged in the region (including savings) | £21.7m |
| | No of people employed in life sciences | 19,753 |
| Patient Safety and Clinical Improvement | Maintaining and increasing number of premature babies born in level 3 unit (≤ 27 weeks gestation or ≤ 28 weeks in multiple pregnancy or est. foetal weight of 500g) | Improvement in the percentage of premature babies born in a Level 3 unit has been sustained this quarter at 75%-80%. Project completed |
| | Increase adoption of AWOL project (Safer Leave) in Central North West London to increase the number of patients who return on time and safely from leave to 95% on all acute wards | Safer Leave project on two wards at Milton Keynes includes an older people's assessment ward; there is improvement. Sustainability achieved in Oxford Health; all seven wards showing on-time return rate of 84%. Sustainability achieved at Berkshire. |
| Stakeholder engagement | Number of subscribers to the Oxford AHSN Newsletter and Twitter followers per quarter | Twitter followers: 3,750 at the end of Q4 2017/18 (2,825 at the end of Q4 2016/17) Newsletter subscribers: 3,169 at the end of Q4 2017/18 (2,026 at the end of Q4 2016/17) |
| | Number of visits to Oxford AHSN website per month | Fluctuates, peak of more than 300,000 page views on the main AHSN site |
| | Number of attendees at all AHSN events | More than 1,300 attended events run or supported by Oxford AHSN in 2017/18 |

Finance

| | | | |
|--|------------------------|------------------|------------------|
| | Model Period Beginning | 01-Apr-17 | 01-Apr-17 |
| | Model Period Ending | 31-Mar-18 | 31-Mar-18 |
| | Financial Year Ending | 2018 | 2018 |
| Year of the 5 Year Licence Agreement | | 5 | 5 |
| INCOME (REVENUE) | | Opening Plan | Forecast |
| NHS England funding | | 2,304,119 | 2,503,119 |
| Partner contributions | | 411,500 | 433,896 |
| Other partner income | | 150,000 | 156,292 |
| HEETV income for continuous learning | | 118,300 | 443,255 |
| Office of Life Sciences Funding | | 0 | 624,338 |
| NHS England funding - PSC income | | 515,388 | 515,388 |
| Other Income - Patient Safety Collaborative | | 0 | 25,100 |
| Other Income - Best Care | | 0 | 98,442 |
| Other Income - Clinical Innovation Adoption | | 0 | 263,105 |
| Other income - Strategic & Industry Partnerships | | 0 | 117,578 |
| Other income - Informatics | | 0 | 96,900 |
| Other Income - PPIEE | | 0 | 12,528 |
| Total income | | 3,499,307 | 5,289,941 |
| AHSN FUNDING OF ACTIVITIES | | | |
| Patient Safety Collaborative | | 530,388 | 918,937 |
| Best Care | | 686,785 | 521,494 |
| Clinical Innovation Adoption | | 726,416 | 1,045,256 |
| Strategic & Industry Partnerships | | 545,867 | 751,099 |
| Informatics | | 402,202 | 490,713 |
| PPIEE | | 111,108 | 184,158 |
| Programmes and themes | | 3,002,766 | 3,911,656 |
| CORE TEAM AND OVERHEAD | | | |
| Pay costs | | 549,235 | 637,956 |
| Non-pay costs | | 347,783 | 593,146 |
| Communications, events and sponsorship | | 220,573 | 147,183 |
| Total core team and overhead costs | | 1,117,591 | 1,378,285 |
| Total expenditure | | 4,120,357 | 5,289,941 |
| Net Income/Expenditure | | 621,050 | 0 |
| Programme funding previously committed | | -621,050 | -0 |
| Surplus/(deficit) | | 0 | 0 |

At the beginning of the financial year, we had planned for net expenditure of £0.6m funded through deferred income brought forward. At the end of year our underlying closing position is breakeven. This is a consequence of the Accelerated Access Review whereby during Quarter 4, £0.6m was received from the Office of Life Sciences; the first of three tranches over three years. In addition, HEE (£0.4m) and NHS England (£0.2m) have both funded several priority areas; the expenditure is fully committed. Our programmes and themes spent £0.6m more than plan, offset by a £0.2m underspend in Best Care other income that has been attracted from industry and government grants.

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

Best Care

The focus over the last year for the Best Care Programme has been to secure external funding for the Clinical Networks, following the announcement in January 2017 that the AHSN could no longer fund the networks in their current format. Despite this challenging environment, the networks did achieve delivery of the majority of their plans, handover projects that required longer timescales and gracefully exit.

Through a mixture of different organisations, funds were found for the Anxiety and Depression and Dementia Clinical Networks; both of which will be governed under the Patient Safety and Clinical Improvement from April 2018. The Network Manager for the Maternity Clinical Network took up the post of Head of Patient Safety for the Oxford AHSN which enabled the continuation of maternity work. The work of the Early Intervention in Psychosis (EiP) Clinical Network will now wholly be led by Oxford Health with occasional facilitation and support from the Digital Health Engagement Manager from the Clinical Innovation Adoption Programme (formerly the Network Manager for EiP). The Imaging Clinical Network's programme of work will now be held by the Oxford University Hospitals Imaging Trial's Unit.

Unfortunately, funding was not secured for Children's, Medicines Optimisation and Respiratory Clinical Networks. All three were closed as of June 2017 with handover over of key projects to different organisations (eg the [Oxford Vaccine Group](#) for the [Supporting Flu Vaccination](#)) where applicable and final reports (eg third iteration of the Children's Network [Variation Report](#)) published before a formal closure.

| Best Care Programme Highlights in Numbers 17/18 | |
|---|---|
| Anxiety and Depression | Over 10% me patients recovered following IAPT treatments in the AHSN region: 938 in April 2017 to 1054 in January 2018. |
| | Recovery rates maintained at 56% despite considerable service disruption. |
| | Durability of Clinical Gains Pilot shows over 80% of patients still well at 12 months post-treatment. |
| | Early health economic evaluation findings on the new Integrated IAPT Services suggest a £221 saving per patient pre- and post treatment. |
| Dementia | 46 webinars run with over 1000 'live attendees' and 900 views of the recordings. |
| | Four MSNAP clinics reaccruited with creative use of GERT Simulation suits used for realistic simulation of frailty and dementia. |
| | Six events (e.g. bowling and archery) for people with young onset dementia in Milton Keynes. |
| | Care Home In-reach Team Best Practice Network from all Thames Valley Networks engaged and sharing in CPD evidence-based events, running projects and best-practice. |
| Early Intervention in Psychosis | Referral to Treatment Time for Oxford/Buckinghamshire and Berkshire exceeded the 50% target with 81.1 and 91.7% respectively. |
| | Increase in those who receive two or more Cognitive Behavioural Therapy for Psychosis sessions from 12% (2016) to 21% (2017). |
| | Improvement in the number of completed comprehensive physical health checks for EIP caseloads from 41% (2016) to 56% (2017). |
| | Oxford AHSN region now has the lowest variation between MHSDS and Unify data in the South of England at 7% variation. |
| Imaging | Six patient information videos now available across the region with collectively over 30,000 views. |
| | Artificial Intelligence biopsy system developed with a specificity of up to 33% . |

Anxiety and Depression

The network has received confirmed funding from the Oxford CLAHRC, Thames Valley Strategic (TV SCN) Clinical Network and Health Education England (HEE) to continue the majority of its projects through to 18/19. Whilst the network will sit under the Oxford PSC Governance, the Psychological Perspectives in Primary Care (PPIPcare) and Psychological Perspectives in Education and Primary Care (PPEPCare) will be managed by the TV SCN. PPIP and PPEP Care continued to be popular over the last year more than 200 members of staff attending sessions across the Thames Valley.

The *Enhancing Recovery Rates Project* achieved and maintained its target for more patients recovering (see table) in an environment where patient numbers have gone up and there has been increased service disruption. The project has evolved into a *Relapse Prevention / Maintenance of Clinical Gains* phase which has been informed by two follow-up studies where 40% of patients taking part stated a need for more support post-discharge. The Oxford CLAHRC has awarded the network funding to complete a feasibility study for a therapy support app which will be co-designed and support patients during and after treatment. Data from this will also feed into a larger-scale durability of clinical gains study.

A health economics evaluation of the new, integrated IAP Services was undertaken (see table) conducted by Professor David Stuckler and his team. This reviewed patient self-reported use of health care services pre- and post-treatment for each of the services within the Thames Valley. Next stages will include comparisons between pre- and post-treatment usage of services and various wedge-studies.

Dementia

Portions of the network's projects will continue under the auspices of the Patient Safety and Clinical Improvement. The Webinar Programme has been very well received since its inception. During the 17-18 season, an additional 10 webinars have been produced covering topics such as *Lewy Bodies, Dementia & Multi-morbidity* and *The Risk of People with Dementia Getting Lost*. In the Summer of 2017, a survey noted that over 75% of the respondents had changed their practice as a result of attending the webinars.

Care Home In-Reach Team Best Practice Network will continue to be supported as the engagement over the last year has been proven to be good; with high attendance at two project dissemination events and further CPD events in 2017. All In-Reach Teams from the Thames Valley have been involved in projects and are vital contacts to maintain. The Post-Diagnostic Support Best Practice Network links a wider set of delegates (from professionals to the voluntary sector and lay partners) and have had a positive input on CPD events throughout the year. The future of this group may continue, pending confirmation of low-level funding for event costs.

Projects that have come to a natural close or can continue without network support include:

- **Addressing Variation in Service Delivery for Younger People with Dementia**
The Dementia Network supported the roll-out of social events with the Milton Keynes Memory Service in 2017 such as bowling and archery.
- **Memory Service National Accreditation Programme (MSNAP)**
In 15/16 six memory clinics received accreditation and in 2017, four were reaccredited against more stringent standards following network support. A final clinic is still undergoing the reaccreditation process at the time of writing.
- **Patient Reported Outcome Measures (PROMs)**
The project has completed its pilot phase and now has a validated Long-Term Condition Questionnaire which can be used in the main study. Ownership of this has transferred to the Nuffield Department of Population Health.

- **Frontal-Temporal Dementia Guideline**

A regional guideline was developed and ratified for use across the Thames Valley with an introductory video to support dissemination.

- **Driving and Dementia**

Following a hugely successful launch with 157 attendees in January 2017, a trial to use a computerised cognitive assessment tool was carried out. While this will not be taken further with the network, it laid the foundations for the study: *“Driving Behaviour in Older Adults: A Telematics Study”* which will be managed by organisations outside of the AHSN.

Early Intervention in Psychosis

The Early Intervention in Psychosis Network will cease to exist as part of the AHSN as of April 2018. The leadership of the network and its projects will be taken on by Oxford Health NHS Foundation Trust through the current clinical lead. However, the Best Practice Steering Group will continue to meet and the AHSN will be represented and engaged with this group.

To reduce outcome variability in Early Intervention Services, the network developed the *Common Assessment Framework* and the *EIP Matrix*; both of which are routinely used and reported on. Where variation is identified through these tools, ongoing training was provided (PANSS, DUP, CAARMS etc.) to support the reduction in variation. This led to EIP Peer Reviews where nine teams from the region were involved in peer review visits to share good practice. In total, more than 90 staff, service users, carers and peer support workers were involved.

Projects that will no longer be continued under the AHSN banner included:

- **Patients Know Best (PKB)**

A pilot in Oxford EIP Services resulting in an increase in the quantity and quality of Patient Recorded Outcome Measures when using PKB.

- **LiveFit Personal Trainer**

A pilot in Berkshire EIP Services where patients with an increased BMI consistently reported improvements in key health areas post-intervention. This was presented at the Royal College of Psychiatrists International Congress in Edinburgh.

- **Experienced Based Co-Design / Improving Patient Experience**

HealthTalk training module created with service users now in use.

- **Epic Minds Campaign**

A service user-led campaign where a suite of publicity materials (website, videos, t-shirts, banners, post-cards etc.) were developed to gather compelling stories to increase recruitment. This was approved and supported by Rt Hon Normal Lamb MP.

Imaging

The Imaging Clinical Network’s programme of work will transfer to the Imaging Clinical Trials Unit at Oxford University Hospitals as of April 2018. All of the projects will continue under this governance structure.

- **Patient Videos**

A further two [patient information videos](#) have been added to the award-winning portfolio covering CT Scan procedures at network hospitals. In all, the videos have been viewed internationally over 30,000 times.

- **Lung Nodules**

The European Institute of Innovation and Technology (EIT) funded project developed artificial intelligence models to support effective diagnosis of early lung cancer from CT scans. The virtual biopsy system was developed and now has a specificity of up to 33%. The National Institute for Health Research (NIHR) has now funded this project to develop the model and subject it to a clinical trial.

- **RAIQC E-Learning**

This e-learning system is a one-of-a-kind training module, developed to present a candidate with cases and information to increase skillset, performance and monitor staff. Following a pilot, the training system is now CPD accredited and roll-out across the UK and Europe will be supported and evaluated by HEE in forms of a reduction in over diagnosis and over prescription.

- **Interoperability**

Historical and up to date image sharing across the region is now in place to support specialist opinion sharing. The rate of sharing is roughly 1700 studies per month following into the OUH. A pilot reporting procedure was trialled between OUH and Milton Keynes University Hospitals which will continue to develop.

Clinical Innovation Adoption (CIA)

The final reporting period of a year is always an important time to reflect on achievements however, this final quarter is even more poignant as it also marks the end of the first 5 year licensing period for the AHSNs and the Clinical Innovation Adoption programme. The achievements during 2017/18 have been shaped by building blocks put in place starting in 2013 and the CIA programme structure has evolved to be the vehicle that has delivered a number of achievements during 2017/18.

| Scale and Focus | | | | | | |
|-----------------|--|-------------------------------------|---------------------------------------|--------------------------------------|----------------------------------|---|
| Areas of Work | | NHS Local & Regional | National | International | Supporting Innovation Process | Innovation Implementation |
| 1 | Innovation Identification | Selected regional Priorities | From AAR, ITT, NIA, Other AHSNs | EU Innovations through EIT Health | Oxford AHSN Fluid Review Process | Connections with AHSN SIP team |
| 2 | Innovation Selection | Oversight Group: Priority mapping | Participation in process NIA/ITT | Engagement with EU SMEs | Fluid Review Methodology | Support on focused pilots to support HE |
| 3 | Analysis – baselining, process & stakeholder map | Analysis of regional priorities | Involvement with NICE Impl. Collab. | Activities with European countries | Industry market access support | Tailored analysis for NHS stakeholders |
| 4 | Support for Innovators and Industry | Engagement CCGs/providers/STP | NHSE/national programmes | SMEs ask for support | Advice to entrepreneurs | Meet and Advise: SME coaching |
| 5 | Implementation of Selected Innovation | Regional STP/ACS activities | Choice based on scalability | Detailed support available if funded | Full Implementation Projects | Change Management Support for NHS |
| 6 | Publications & Training | Courses for NHS staff/Entrepreneurs | National Resources for Implementation | Production of eMAPs | Academic papers and reports | Conferences and Case studies |

Key achievements include completing on the following 18 projects:

| | |
|--|--|
| SHARON - Eating Disorders Innovation - Social Online Media for Eating Disorders | Falls Project 1/phase 2: CLAHRC falls innovation regression testing for success |
| Intermittent Compression Sleeves | Falls Prevention - regional analysis - Phase 1 - to determine which Falls projects to work on in Phase 2 |
| Alcohol Sign posting doc created with Council - Phase 1 | Falls 3 project/phase 2: Stay in the Bay (falls innovation) |
| Intra Operative Fluid Management - Phase 2 implementation | Catheter Acquired Urinary Tract Infection Training |
| Early Inflammatory Arthritis - early detection educational tool (GPs & patients) - PHASE 2 | Atrial Fibrillation Project 1 - Excellence in AF (Bayer) |
| Alcohol Nalmefene | eMAPS I (map access tool phase 1) |
| Patient Monitoring | National AHSNs MSK activity collation |
| Practical Innovation Course cohort 2 (26) | Biosimilar patient video and shared savings model |
| Catheter Acquired Urinary Tract Infection - phase 2 | Innovation Exchange - FluidReview |

Of particular interest are:

- **eMAPSs1:** Development of a web-based Market Access Tool for Industry funded through European Innovation for Technology (EIT) Health. See

link <http://clinicalinnovation.org.uk/project/emaps-knowledge-hub-industry-clinical-innovators/>

- **Biosimilar:** Patient Information Video Link to Biosimilar project on CIA website <http://clinicalinnovation.org.uk/project/taking-advantage-availability-biosimilars-rheumatology/>
- **Early Inflammatory Arthritis:** The Craft Award winning video for Disease Awareness (Bronze) by PM Society. See website link <https://angryhand.com/>
The video has had over 10,000 views. <http://clinicalinnovation.org.uk/project/improving-outcomes-early-inflammatory-arthritis-patients/>
- **CAUTI:** The e-learning package was launched nationally via the e-learning for health platform in September 2017 and has now been downloaded onto the local e-learning platforms for the Trusts involved in the project. <https://www.e-lfh.org.uk/programmes/continence-and-catheter-care/>
- The Practical Innovation Course: Co-designed with Buckingham New University has trained 69 frontline staff (Doctors, nurses and Managers). <http://clinicalinnovation.org.uk/project/innovating-practical-care-setting-programme-pgcert/>

Publications and course include:

- The MSK Report for all AHSNs
- Final reports for Intermittent Pneumatic Compression Sleeves and Catheter Acquired Urinary Tract Infections
- Falls: Stay in the Bay introduction and Evaluation Report (demonstrated 26% reduction in falls)

National Networking with other AHSNs

- Highly involved in the Atrial Fibrillation AHSNs Network – adapting Don't Wait to Anti-coagulate locally known as Excellence in AF.
- Hosted the Patient Safety Event at our offices for the ITP medical technology patient safety innovations (pneuX and non-injectable connector). 60 attendees including 6 AHSNs.
- Pulled together all MSK Innovations/Projects report happening at all AHSNs. This has been widely shared.

CIA Oversight Group meeting held

Chaired by Neil Dardis, previously CEO of Buckinghamshire Healthcare Trust and newly appointed to Frimley Health - the CIA programme held a productive Oversight Group meeting to review progress of ongoing Innovation Projects and to select and sign off approval for new projects for 2018 /2019. Neil Dardis has kindly agreed to stay on as Chair for the CIA Programme.

To date...

| | |
|------------------------------------|---|
| Lives saved | 186 |
| Harm Avoided | 2988 |
| Savings to the Health system | £11m |
| Funding raised to support projects | Sleepio (jointly raised with SIP team) – Innovate UK EIT Health – eMAPS – 425k euros |

Project progress for Clinical Innovation Adoption Q4

Fragility Fractures

Estimated End date: March 2018 (awaiting interest from STP/ACS)

This project was due to close in February however, the STPs/ACS in the region have expressed a renewed interest in the project and so the team has supported options to instate the service. Interested trusts are Wexham Park Hospital (Frimley Health) and Buckinghamshire Healthcare Trust (BHT).

Wexham Park Hospital is developing a bid for an Acute Frailty Liaison Service, of which FLS will be part. The CIA team has already developed the business case with WPH, this document will contribute to the bid. We await further details of this bid and service to determine next steps.

A meeting was held with the Divisional Director in BHT in January. The business case has been drafted and support given to finalise and progress the case. BHT is keen to learn from Royal Berkshire Hospitals FLS.

The CIA Project Manager attended the National Osteoporosis Society Fragility Liaison Society Summit in February.

Falls Prevention Projects

End date: March 2019

Falls Project: FallSafe Care Bundle Project: The FallSafe approach is to complete multifactorial assessment and intervention upon a patients' 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.

| Trusts engaged in project | Scheduled second phase engagement (2017/18) |
|---|--|
| Oxford Health NHS Foundation Trust | Buckinghamshire Healthcare NHS Trust – <i>scoping requirements</i> |
| Frimley Health NHS Foundation Trust | |
| Berkshire Healthcare NHS Foundation Trust | |

The project is estimated to reduce falls by 25% on wards implementing the FallSafe care bundles.

CIA update for Q4

- Oxford Health and Berkshire Healthcare have commenced the implementation phase of the project; there have been some amendments to the project plans at both Trusts due to staff changes on the implementing wards.
- An additional ward at Berkshire Healthcare joined the project from January 2018.
- Following discussions with Oxford Health, it was agreed to start a separate project with several of the community wards. A meeting was held in February with the ward manager to discuss and agree the project plan and processing mapping was done in March.
- Buckinghamshire Healthcare Trust has agreed to implement the project on 7 wards; a start date is to be agreed.
- Following a meeting with BHT's Clinical Audit and Effectiveness Team, it has been agreed the team will complete the monthly measurement grid on each ward.
- AHSN attended a Falls Workshop run by Buckinghamshire Healthcare Trust.

Falls project: Buckinghamshire Healthcare NHS FT Stay in the Bay (SITB) Improvement Project:

The BHT's Stay in the Bay project received funding from Sign up to Safety Improvement Plan and started deploying the 'desk' to wards in April 2016. The project is looking at how increasing nursing presence on wards can reduce the number of falls that happen and the level of harm resulting from a fall. BHT asked the CIA team to support the project for two key reasons (1) barriers to implementation on some wards (2) evaluation and evidence collation of whether SITB is effective.

Through this collaborative working approach with the committed and enthusiastic team at BHT, the Trust now has implemented SITB within 17 of their 25 wards. As part of the regional meetings, the CIA team included the CLAHRC and worked with them to obtain funding to evaluate SITB using regression modelling of Datix data.

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

This project worked with colleagues at Buckinghamshire Healthcare to complete an evaluation on the desk in a bay intervention. The final paper has been submitted for publication, 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.

Update for Q4

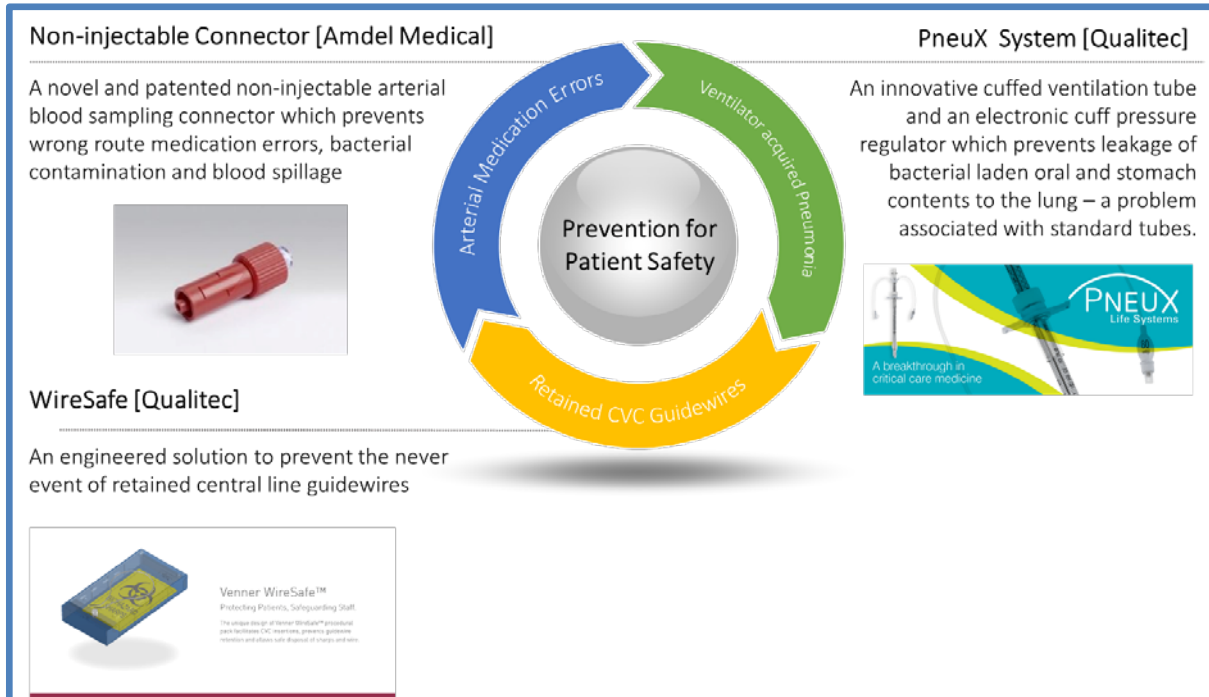
- The paper on the SITB evaluative project is ready for publication (date to be confirmed).
- Results have shown a reduction in the rate of falls and that a nurse-led intervention introducing portable nursing stations within ward bays have a positive impact in reducing monthly fall rates.

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. The diagram below shows the three devices:



Two of these innovations are on the ITP (pneuX and the Non-Injectable Connector). Wiresafe has applied to be on the 2018/19 ITP - which would support ease of implementation. All 15 AHSNs have selected to implement Wiresafe in their business plans (2018-2020).

Progress during Q4

All Trusts are engaged within the region with commitment from all to implement at least one of the safety devices (see table below).

The CIA team led National Event summer 2017, where we engaged critical care networks, medics and nursing staff from within the region – and extended invitation to other ASHNs. As part of our engagement process implementation toolkits were produced and widely shared. Feedback on these implementation packs has been extremely positive with requests to share coming from a number of organisations, other AHSNs, as well as other companies covered by the Innovation and Technology tariff. The Oxford AHSN has continued to engage with other AHSNs following requests for advice and discussion on the approach taken within the Oxford AHSN region.

Engagement

The Oxford AHSN is working with all Trusts across the region to provide support and guidance in implementing these devices.

| Trusts/Sites | Engaged | Adopted/in process of adopting patient safety innovations | PneuX=P Wiresafe=W |
|--------------|---------|---|-----------------------|
|--------------|---------|---|-----------------------|

| | | (out of 3) | NIC= N |
|-------------------------------|---|------------|--------|
| Royal Berkshire Hospital | √ | 3/3 | P/W/N |
| Great Western Hospital | √ | 2/3 | P/N |
| Buckinghamshire Healthcare | √ | 2/3 | P/W |
| Frimley Health – Frimley Park | √ | 3/3 | P/W/N |
| Frimley Health – Wexham Park | √ | 1/3 | N |
| Oxford University Hospitals | √ | 0/3 | W |
| Milton Keynes Hospital | √ | 2/3 | W/N |

Engagement and implementation activities will continue during 2018/19.

Atrial Fibrillation work-stream

The CIA team has been very active with Atrial Fibrillation programmes over the first 5 year licensing period.

There are 4 projects that have been undertaken:

1. Excellence in AF: this is an adaption of the Don't Wait to Anti-coagulate project created by West of England AHSN and supported by Bayer (Project closes 31st March 2018).
2. Pharmacist Led Anticoagulation Project (Berkshire): Pfizer funded to support improvement in anticoagulation by utilising trained pharmacists (Project closes 30 September 2018).
3. Anticoagulation Optimisation (Oxfordshire): Pfizer funded to support delivery and now under consideration for commissioning (Project closes 30 September 2018).
4. Detect National AHSN project: medical devices have been centrally purchased for AHSN regions; AHSNs will develop local approaches to optimise detection and evaluate effectiveness of their approach (Project closes 31st March 2020).





Progress during Q4 – latest figures

| | Atrial Fibrillation Projects | | |
|---|--|--|--|
| | Excellence in AF - Buckinghamshire | Pharmacist led anticoagulation - Berkshire | Oxfordshire anticoagulation optimisation |
| Practices engaged | 35 | 9 | 55 |
| Number of patients added to AF register | 296 | 0 | 0 |
| Number of treatment naïve patients anticoagulated | 280 | 82 | 0 |
| Number of patients with anticoagulation optimised | 70 | 131 | 571 |
| Expected reduction in stroke incidence | 14 | 8 | 18 |
| Expected cost saving (gross) | £340,000 | £199,000 | £446,994 |

Q1 2012/19 plans for Detection

Oxford Academic Health Science Network

What are we doing to improve detection rates?

-  80 Alivecor devices for Oxfordshire:
 - Self monitoring for patients via the Oxfordshire Community Cardiology Clinic
 - Heart failure community nursing teams
 - Roll-out March
-  7 Cardiocity devices for Buckinghamshire
 - Target practices with lower prevalence
 - Roll out April
-  2 Cardiocity devices for Milton Keynes
 - Targeted screening of high risk patients
-  109 Watch BP devices for Berkshire
 - Screening during LTC reviews

Detection of atrial fibrillation is an AHSN national programme. Devices have been provided to targeted practices and healthcare setting. During Q1 - 2018/2019 a targeted plan will be put together to detect patients who may not know that they have AF.

Catheter Acquired Urinary Tract Infection (CAUTI) Project

E-learning – Project Closed

The e-learning package was launched nationally via the e-learning for health platform in September 2017 and has now been downloaded onto the local e-learning platforms for the Trusts involved in the project.

The package consists of two modules:

- 1) Promoting best practice in continence care
- 2) Promoting best practice in catheter care

Promoting Best Practice in Continence Care

This session will provide an introduction to the principles of good continence care. It will describe the anatomy and physiology of the lower urinary tract and the factors that affect continence. It will also explain how to carry out a continence assessment and identify therapies and treatments for different types of incontinence.

Session Overview Continence Care Assessment Session Summary

Intra-Operative Fluid Management Technologies (IOFM)

Project Closed – Emergency Laparotomy Collaborative (National Project) opening

Closed: Jan 2018

The IOFM project ran with excellent engagement from anaesthetists in the Oxford AHSN region for 3 years. Over three years this project has aligned closely with both national and supra-regional quality improvement initiatives to deliver significant region-wide improvements in care.

These include:

- Reducing the median length of stay for emergency laparotomies by almost two days
- Reducing mortality rates by more than 4% in three out of five trusts
- Achieving mortality rates below the national average for emergency laparotomies at four out of five trusts

As well as supporting frontline NHS staff this work is influencing national policy-makers. The project's Phase 1 Benchmarking Report highlighted barriers to clinical adoption. It was referenced in the NICE review of Medical Technology Guidance 3.

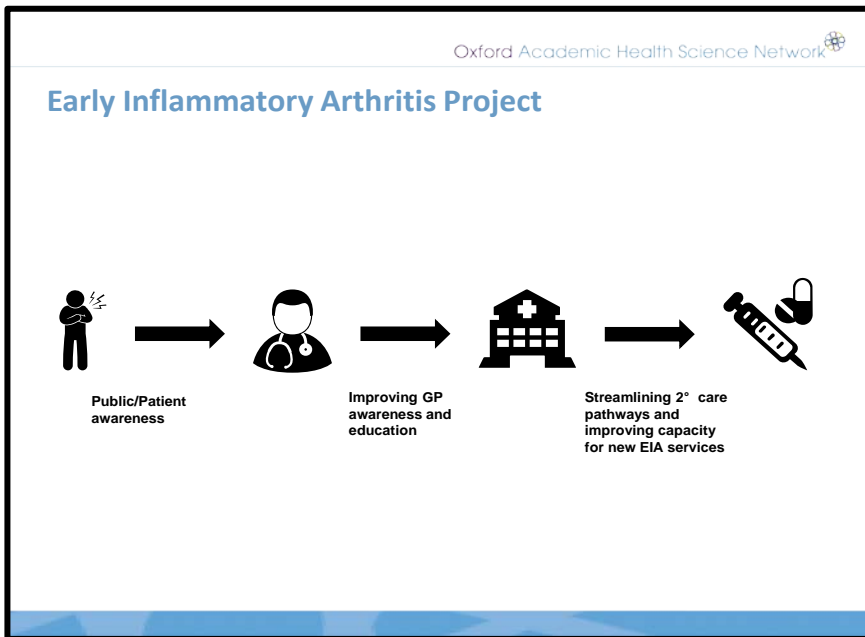
Emergency Laparotomy Collaborative National Project

The emergency laparotomy collaborative (ELC) project, a national AHSN initiative based on a QI approach to improving safety and outcomes in emergency laparotomy procedures will build on

the use of IOFM technologies, and the CIA will seek to embed the learning from this IOFM project in the future ELC program.

Early Inflammatory Arthritis (EIA)

The EIA Project closes after running for 2 years. During this period, we have worked with Trusts and CCGs to introduce the Best Practice Tariff for Rheumatoid Arthritis resulting in quick access for patients suspected of having RA, conducted baseline work on numbers of consultants and specialist nurses to put forward the case for recruitment, worked with CCG/Trusts on biosimilar switching options and set up GP, patient and public awareness campaigns.



During Q4:

Activity Patient awareness campaign

The Oxford AHSN, National Rheumatoid Arthritis Society and Sandoz partnered on a patient awareness campaign called “Angry Hand” to raise awareness about early RA.

The campaign started in early September with a giant blue hand visiting shopping centres in Oxford and Reading and then the Cutty

Sark in London. The hand was voiced by a hidden comedian who helped engage with the public and raise awareness of RA and what to do if they experience symptoms of the disease.

- A campaign video covering footage from all the events was produced for launch on World Arthritis Day Oct 12th, 2017 on website www.angryhand.com. The video has had over 10,000 views and has been awarded the Craft Award for Disease Awareness (bronze) by PM Society.

Biosimilars: Patient education released March Q4

Oxford AHSN and Sandoz have also partnered to create a patient facing video leaflet for biosimilar switching, which aims to offer patients answers to some of the key question they have about their new biosimilar drugs.

Biosimilar: Patient Information Video Link to Biosimilar project on CIA website. <http://clinicalinnovation.org.uk/project/taking-advantage-availability-biosimilars-rheumatology/>

Adopting Innovation and Managing Change in Healthcare Settings Programme

Popularity of this course has continued. Cohort 4 started with 25 new students in March 2018. By the end of Q4 we would have enlisted 96 students onto this course since it began in 2016. As explained in the previous report, we have adapted the criteria for innovation projects being

undertaken for the course to include a more cross organisational and team approach reflective of transformational change projects within STPs/ACSSs. This has sparked a great deal of interest and there is now a waiting list for Cohort 5 due to start in September 2018.

During Q4 the CIA Team has explored how to build on the success of this course and to reach more frontline staff. If this approach is successful, a new programme will develop from these endeavours.

More information about the programme can be found in the programme's website

<http://clinicalinnovation.org.uk/project/innovating-practical-care-setting-programme-pgcert/>

Website - Home Page

imageworks 



European Market Access for Partners (eMAPS)

This is a web-based learning platform developed to address two components for successful acceleration into a market by:

- Creating a clear understanding of how, when and with whom to engage
- Sharing an understanding of how different health insurance and procurement arrangements work.
- EU Health MAPs aims to build on collaborative working so as to facilitate accelerated opportunities for EIT Health partners, industry, SMEs and entrepreneurs to work with health care providers so as to accelerate innovation adoption.

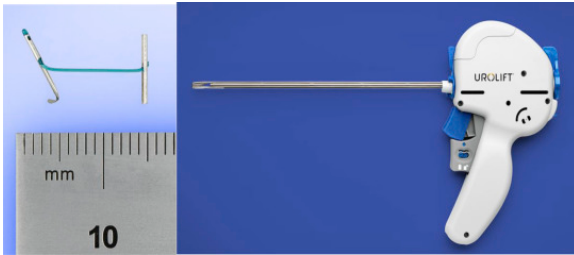
During Q4: The first phase of eMAPs was completed working with the Netherlands and Sweden. The second phase has been initiated working with France, Spain, Denmark and Switzerland.

During Q1: Another bid application will be made to EIT Health for the final phase of activities 2019. The intention is to work with Germany, Portugal and Italy; the Oxford AHSN will deliver the US module.

Urolift

Q4 progress

Further meetings have been held with clinical and operational teams at Royal Berkshire, Milton Keynes and Wexham Park Hospital.



The first list of 5 patients to receive Urolift at RBH took place during early Q4.

Following the AHSN presentation at Milton Keynes University Hospital's Urology Department's strategy workshop, the business case for Milton Keynes University Hospital has been drafted and we await sign off. The implementation support will then be finalised.

WPH does not require a business case as FPH is already implementing this and they are part of the same Trust; we continue to engage with both Trusts to establish when implementation can start.

During Q1, the implementation support toolkit is to be finalised and disseminated across the AHSN network to assist other regions in implementing this innovation. We anticipate that the project will close once we have had confirmation as to whether implementation will take place at the outstanding Trust.

| Trust/Activity | 2017 | 2018 | | | | Status |
|----------------------|------|------|----|----|----|--------|
| | Q4 | Q1 | Q2 | Q3 | Q4 | |
| OUHT | 15 | | | | | Green |
| RBH | 5 | | | | | Green |
| Milton Keynes | 0 | | | | | Yellow |
| Frimley Health – FPH | 20 | | | | | Green |
| Frimley Health - WPH | 0 | | | | | Yellow |
| BHT | n/a | | | | | Black |

Request for support to Trusts outside the AHSN region have been received via the supplier of UroLift.

Sleepio – New Project started

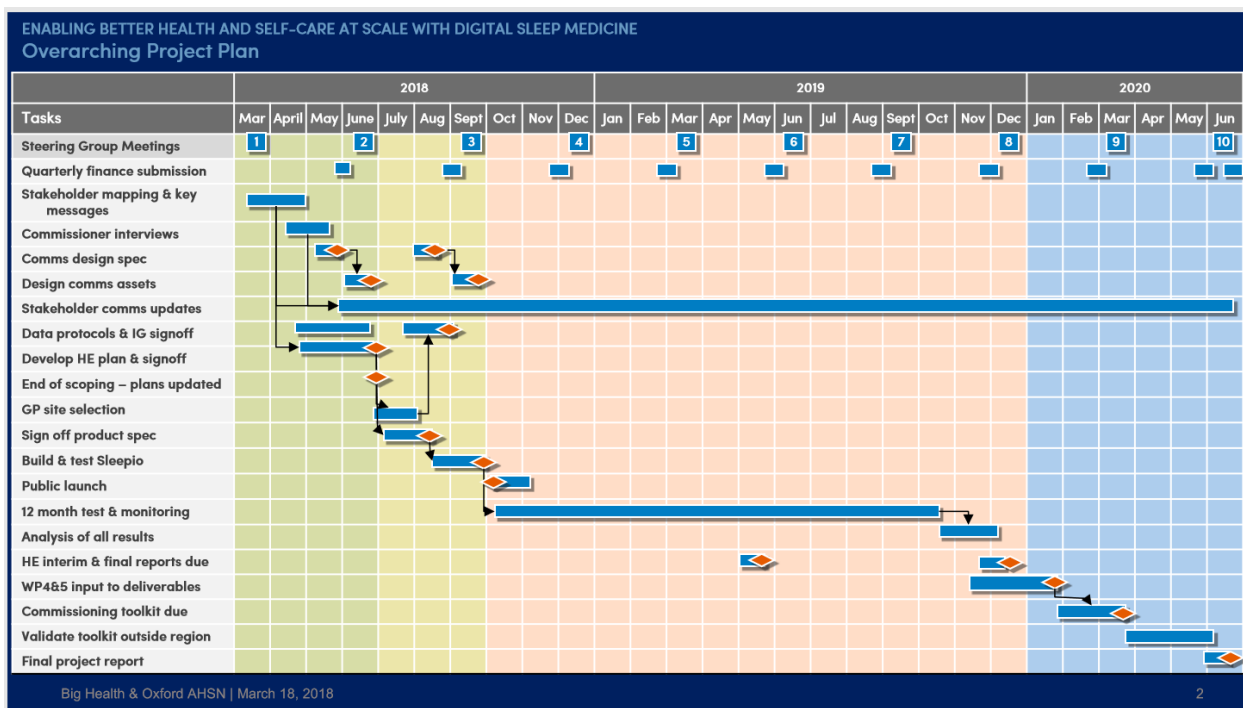
Sleepio is a self-management sleep app. The Sleepio app is grounded in scientifically-sound CBT techniques and trials show a reduction on average in time taken to fall asleep of 50% and reduced time spent awake during the night by 60%, over a six week period in a group of long-term poor sleepers. Perhaps most importantly, the Sleepio course was also shown

to improve how participants felt during the day in terms of improved energy, mood, concentration and social functioning.

During Q2 2017, CIA and SIP won funding from Innovate UK to support the adoption and diffusion of Sleepio (BigHealth) over a 28 month period.

In Q4, Sleepio was officially approved to proceed by Innovate UK. The delivery team for both BigHealth and the Oxford AHSN are in place, with the required collaborative agreement and governance.

The chart below shows the project plan created during Q4 and activities for coming quarters.



Activities will ramp up during Q1 2018.

Research & Development (R&D)

Discussions are ongoing amongst the R & D group partners, being led by Buckinghamshire New University and the University of Reading, around the development of a programme for professional doctorates in health innovation involving the region's HEIs, Trusts and industry partners. The general consensus was that the proposal is an exciting opportunity worth pursuing but it is key to have input and engagement from more than 10 employers in the region in the preparation of the bid built around "trailblazing" group. There is an opportunity to develop alongside clinical/academic/research pathway related Level 8 bid that has already been submitted as an Expression of Interest but it is key to involve employers from the earliest possible stage to determine what they actually need and match with HEI skill sets, not vice versa, whilst considering what innovation looks like from inside the sector.

The February 2018 R & D Group committee was chaired by Stuart Bell. Gary Ford gave the Chief Executive's update including an outline of the next five year license. Key points included:

- The Oxford AHSN R & D group was originally established to create links between regional HEIs and Trusts and this role will not be altered with the relicensing
- Under the relicensing there is a single primary driver from NHSE to focus on national implementation of innovation and AHSNs can facilitate the drawing together of regional level work to feed into NHS Improvement
- Patient Safety Collaboratives play an important role in capability building e.g. Q project
- Gary Ford has been made the national lead for the newly formed Research Innovation National Network (one of nine networks)
- There are recurring difficulties in implementation of innovation in the NHS even with NHSE support, such as making innovative solutions free with the Innovation Technology Product scheme
- The Oxford AHSN has a role working with local new projects/innovations within HEIs and Trusts to guide the formulation of the next generation project list for work once current projects are complete

The recent NHSE/NIHR paper "*Twelve actions to support and apply research in the NHS*" was also presented with key points of relevance to the R & D group being:

- Excess Treatment costs: moving forward CRNs are to facilitate (although difficult as only limited dealings with commissioners) – there is currently a consultation underway; no AHSN involvement
- Setting research priorities: AHSN to assist with determining the local research and innovation priorities in collaboration with regional research active Trusts and HEIs to feed into national level
- Digital work: considerable AHSN involvement leading partnerships across six local health economies. There is a need to establish the quality of national data following recent suggestions the UK is lagging behind. There is currently no measure of data quality in NIHR recruitment matrices
- Genomics: CRN can now support recruitment to 100,000 Genome Project

The CRN and Health Education England hosted a Research Training and Development Collaborative Meeting, to which the CLARHC, BRC, AHSC, CRN, HEE, Oxford University, Oxford Brookes, Reading University/CTU and all secondary care NHS trusts in the region were invited. Each organisation/group showcased what they currently provide in terms of Workforce Development activities in order to map what is available in the region, with a view to possibly pulling together a hard copy and/or online resource that each group can link to from its websites. The meeting was well attended and received with plans put in place for future work and timelines and support funding opportunities were discussed.

The local Primary Care Research network annual conference took place 23rd January at Eynsham Hall and was attended by approximately 100 GPs from the regions, both with and without research experience.

Presentations were given by Nick Thomas, local CRN GP research Champion, Paul Little, Professor of Primary Care, University of Southampton, and Chris Butler, Professor of Primary Care, University of Oxford. The second session consisted of a series of study elevator pitches with teams giving a brief overview of up and coming studies followed by a question and answer session and after lunch, the opportunity for delegates to either refresher their GCP or join a discussion on getting started in commercial research or managing research portfolios.

Over 100 delegates from across the NHS, academia and industry attended the third annual 'Celebrating Trauma Research in the Thames Valley' conference at The Hilton Hotel Reading. The conference, hosted by Royal Berkshire in association with the National Institute for Health Research Clinical Research Network: Thames Valley & South Midlands, and Thames Valley Trauma Network focussed on trauma and emergency research in Berkshire and on raising the profile of health related research across the Thames Valley.

High profile speakers included Mr Amar Malhas (Consultant Orthopaedic Surgeon at RBH), Mr Mark Ainsworth-Smith (Consultant Pre-Hospital Care Practitioner at South Central Ambulance Service), Dr Liza Keating (Consultant in Emergency Medicine at RBH) and organiser Mr Andrew McAndrew (Consultant Orthopaedic Trauma Surgeon at RBH).

The presenters, at the forefront of clinical and academic research, explained the value, importance and impact of emergency and trauma research for patients in the Thames Valley and beyond, and described pioneering studies taking place, with research spanning areas such as pre-hospital and post-trauma in the emergency department, as well as trauma and orthopaedics.

The next R & D Group meeting is scheduled for June with speakers likely to include Sophie Hyndman (Oxford Research Design Service), Sean Mackney (Buckinghamshire New University), Mandeep Singh Bindra (Buckinghamshire Healthcare NHS Foundation Trust) and Glenn Wells (Oxford AHSC).

Strategic and Industry Partnerships

Overview

In the last quarter of the year the Strategic and Industry Partnerships (SIP) Programme restructured its activities around the new Innovation National Networks (INNs) set out by NHS England. The SIP Programme focuses on three INNs:

- Genomics, Diagnostics and Precision Medicine
- Digital Health and Artificial Intelligence
- Innovation and Economic Growth.

This restructuring is also linked to a series of publications made during the year, which included *The Life Sciences Industry Strategy*, the *Government Response to the Accelerated Access Review*, the Government's *Industrial Strategy* and the *Life Sciences Sector Deal*. These four publications provide an important blueprint for the future direction of the government's industrial strategy and how AHSNs play an important role in realising this vision.

Achievements in Q4 include:

- A project to assess the impact of Flu point of care diagnostic tests in ED was completed at the Royal Berkshire Hospital.
- A pre-eclampsia diagnostic test has received business case approval in OUH and Stoke Mandeville.
- Full approval for ERDF funding of the Buckinghamshire Life Sciences Innovation Centre.
- The assessment of the Abbott I-STAT system in a pre-hospital setting has been completed with South Central Ambulance Service.
- A senior executive meeting was held between Novartis and the AHSN to explore opportunities for collaboration.
- Contracts were signed with Cytos and Oxford University Innovation for services provided by the SIP team.
- Planning for the delivery of the Innovation Support for Business (ISfB) programme is progressing.

During the quarter, the SIP met with 59 companies, giving a total of 225 for the year. Overall the team is actively pursuing over 35 projects and has completed over 70 specific projects.

Total investment into the region for the year as a result of SIP-based activities through collaborations and direct investments totalled £21.7 million. The total investment for the life time of the SIP team (formerly Wealth Creation) is £25.7 million, representing a ROI of 10.6. The SIP programme has established over the course of its history over 30 partnerships with companies across all sectors and at both multi-national and SME level. Only those partnerships where there is a specific project or series of collaborative workstreams are included.

A summary of key projects completed within the year or ongoing is set out below:

| | Project Title | Partner | Status |
|---|--|---------------------------------|-------------------------------------|
| Genomics, Diagnostics & Precision Medicine | | | |
| 1 | 100,000 Genomics Project | Oxford Genomics Medicine Centre | Ongoing support |
| 2 | Point of care testing in Paediatric Emergency Department | Horiba | Completed |
| 3 | Flu point of care testing in Emergency Department | Roche | Data analysis ongoing |
| 4 | Flu point of care testing in AMU | Fujifilm | Evaluation in progress |
| 5 | Pre-eclampsia diagnostic test in maternity units | Roche | Business case approval in 2 centres |
| 6 | Faecal calprotectin diagnostic test | Various | Project underway |
| 7 | GP out of hours diagnostic test | Abbott | Awaiting data analysis |
| 8 | Pre-hospital point of care testing | Abbott | Evaluation in progress |
| 9 | Stroke point of care testing | Sarissa | Project underway |
| 10 | COPD exacerbation for patient stratification | Mologic | Project underway |
| 11 | Point of care test for urgent and ambulatory care | Jupiter Diagnostics | Project underway |
| Digital Health & AI | | | |
| 12 | Digital Health Roadmap | OUI, Oxentia | Launched |
| 13 | Decision support systems tool for oesophageal cancer | Physiomics | Completed |
| 14 | Chemotherapy precision dosing for prostate | Physiomics | Funding |

| | | | |
|---------------------------------------|---|---|---|
| | cancer | | awarded and project to commence shortly |
| 15 | Enabling better health and self-care at scale with digital sleep medicine | Big Health | Project preparation underway |
| 16 | Autonomous speech-based clinical outcome measures | Ufonia | Project underway |
| 17 | Smart penpal | Adelie Health | Project underway |
| 18 | Inflammatory bowel disease | Takeda, J&J | Project underway |
| 19 | Digital health collaboration with GDM-health, SEND and COPD-EDGE | Drayson Technologies | Opportunity identification |
| Innovation and Economic Growth | | | |
| 20 | Buckinghamshire Life Sciences Innovation Centre | Bucks New University, Bucks Healthcare Trust, J&J, GE Healthcare & others | Funding awarded and project to commence shortly |
| 21 | Bicester Healthy New Town | Cherwell District Council, Oxfordshire CCG, A2 Dominion | Ongoing |
| 22 | The Hill | Oxford University Hospitals NHS FT | Funding awarded and project to commence shortly |
| 23 | Harwell Campus | Harwell campus partners | Ongoing activities |
| 24 | Harwell Multidisciplinary Accelerator | Harwell campus partners | Planning |
| 25 | Affordable Medicines | Structural Genomics Consortium, Oxford Martin School, Office of Health | In progress |

| | | | |
|---------------------|---|--|---|
| | | Economics | |
| 26 | Oxfordshire Transformative Technologies Alliance Science & Innovation Audit | Oxford University, SRFC, OxLEP, Oxford Brookes University, RACE, AEA, Satellite Applications Catapult | Report published & follow options under consideration |
| 27 | iTAc | Birmingham University, Oxford University, Dundee University, Crick Institute, Medicines Discovery Catapult | Planning |
| 28 | Sustainability | Zexu, Carbon & Energy Fund | Monitoring of specific projects |
| Partnerships | | | |
| 29 | J&J Strategic Partnership | J&J/Janssen | Ongoing projects |
| 30 | Strategic Partnership | Novartis | Exploratory |

Genomics, Diagnostics and Precision Medicine

The year has seen significant progress made across a broad range of projects within the diagnostics portfolio under the leadership of Julie Hart. The team was strengthened through the appointment of Mr Guy Checketts as Programme Lead for Diagnostics, and the appointment of Dr Mamta Bajre as a health economist through a collaboration with the NIHR London DEC. A key component of this role is to undertake LEAN methodology approaches to new industrial IVD opportunities, including clinical pathway assessments and health economics evaluations.

At the same time, additional income through grants and industry sponsored evaluation projects has expanded the project portfolio. The team has also worked with other regional partners to support the delivery of a number of the projects, including West Midlands AHSN, East Midlands AHSN, Yorks & Humber AHSN, Genomics England, the Innovation Agency, Leeds Centre for Personalised Medicine and Health, and the NHS Business Services Authority (Pacific Project).

Genomics

The AHSN has been supporting the Oxford Genomics Medicine Centre during the year. This has included advice and resourcing for regional engagement relating to the introduction of whole genome sequencing into the NHS. Links have also been established with Genomics England. Plans for ongoing support have been drawn up, including the provision for additional resource in the next financial year.

Diagnostics

The team works with companies with diagnostic technologies to evaluate and implement diagnostics in the NHS through its wide network and internal expertise in diagnostics.

Use of Point of Care Testing in a Paediatric Emergency Department setting: An evaluation of point of care (POC) testing across three paediatric emergency departments (John Radcliffe (JR), Stoke Mandeville and Milton Keynes) was carried out using the Horiba Microsemi CRP/FBC POC device. The study found that the reader was more accurate and using POC as a replacement for lab tests would have resulted in more accurate decision-making across 63% of cases at SMH, 82% of cases at WPH and 53% of cases at the JR. The use of the Horiba POCT device would result in a net annual saving for each of the three hospitals. Following the assessment, Stoke Mandeville and Wexham Park are using the POC devices.

Evaluation of Flu Point of Care Testing in an Emergency Department setting: An evaluation of an influenza POC test was undertaken in the Emergency Department at the Royal Berkshire Hospital using the Roche cobas®Liat® PCR test system. The service evaluation started in mid-December and last for one month processing in excess of 20 cases per day. The analysis of the data and health economic assessment is underway and will be reported in the next quarter, and will include an assessment of the reduction of length of stay of patients diagnosed with flu and reduction in antibiotic usage. Initial feedback on the evaluation has been positive.

A further evaluation in Buckinghamshire using a new silver amplified POC immunoassay for Flu A and Flu B developed by Fujifilm commenced in January at the Bucks AMU at Stoke Mandeville.

The implementation of a new diagnostic test to better diagnose pregnant women presenting with suspected per-eclampsia: The ELECSYS® Pre-eclampsia (sFit-1 & PIGF) developed by Roche 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. International and local clinical trials undertaken at the JR have confirmed the benefits of ELECSYS in ruling in / out women presenting with suspected preeclampsia. Ruling out preeclampsia means the woman can be safely sent home as opposed to being admitted to hospital for 36 hours “just in case”, which is standard clinical practice today. The result is that over 900 women are admitted for suspected preeclampsia at the John Radcliffe (JR) every year, but in reality ~40% of them do not have pre-eclampsia and do not need to be admitted. A business case to support the new test and pathway was prepared, based on patient safety and using ELECSYS as a clinical risk management tool to keep women on the correct pathway, as no additional funds are available if the woman moves from the “Standard” to “Intermediate” care pathway during the course of the pregnancy (PE is a risk factor for this change in treatment pathway). An improvement in capacity is an additional benefit for the clinical teams. Preliminary approval for the business case has now been received from the John Radcliffe and also from Stoke Mandeville Hospital. A further three hospitals have been approached with the business case. A progress and implementation update has been provided to a number of other AHSNs and NHS Business Services Authority to assist with local roll-out. The team is also working with Durham and Darlington on implementation of the ELECSYS pathway.

The implementation of a Faecal calprotectin diagnostic test in primary care to better diagnose inflammatory bowel disease: 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. A national working group, which includes members from the Oxford and Y&H AHSNs, have worked to revise the FC cut-off value and develop a new algorithm for use in primary care in order to help realise the true value of the test. The programme of work will focus on working with the new algorithm across GP practices and to support an evaluation of the algorithm. The data generated will be shared as part of national metrics.

GP out of hours with Abbott i-stat: An evaluation for the use of POC testing in the Out of Hours GP vehicles for use in an at home setting has been completed using the Abbott i-STAT system. Final data collection is underway and a case study will be available next quarter.

Pre-hospital setting with Abbott i-SAT system: The assessment of the Abbott i-STAT system in a pre-hospital setting has been underway with South Central Ambulance Service. The study commenced at the end of September and has just completed.

Additional studies involving the Abbott I-STAT include:

- Improving pre-hospital diagnosis and informed discharges in the > 75s.
- A BNP evaluation study measuring heart function has been completed at the John Radcliffe Hospital in an ambulatory care setting and has been completed.

Grant Funded Projects: As part of the strategy to build a stronger evidence base for the evaluation and implementation of new diagnostic technologies and products, the team is active in securing grant funding through a variety of sources. During the year we have partnered in a number of grant funded projects with a total gross value of £4.3 million.

Purines for Rapid Identification of Stroke Mimics: Sarissa Biomedical was awarded an Innovate UK SBRI grant to the value of £2 million for a project entitled “Purines for rapid identification of stroke mimics”. The company is developing a simple Point of Care diagnostic blood test (SMARTChip), which measures blood purine levels as an early indicator of stroke. The three-year programme will focus on a product development programme within a paramedic setting, followed by a clinical evaluation, health economic analysis and production of business case. The Oxford AHSN is a delivery partner in the project.

COPD Exacerbation Patient Alert for Patient Stratification: Mologic has also been awarded an Innovate UK SBRI grant for £2 million. The project will focus on the development and evaluation of a test for COPD and is entitled “COPD Exacerbation Patient Alert for Patient Stratification.” The Oxford AHSN is a delivery partner in this three-year project.

A Point of Care Diagnostics Solution for Urgent and Ambulatory Care in the Community: Jupiter Diagnostics has been awarded a Biomedical Catalyst grant for £324,993 covering a novel Point of Care test for heart failure, heart attacks, clots, and pneumonia. The project will cover the testing and clinical validation of the diagnostic test. The Oxford AHSN will provide clinical pathway support and evaluate the cost effectiveness of the test over a two-year period.

The work of the team would not be possible without the support of clinicians and we would like to record our thanks to the following for their support during the year: Mr Lawrence Impey (OUH), Dr Shabnam Iyer (Royal Berkshire Hospital), Professor Dan Lasserson (University of Birmingham), Dr Amulya Misra (Buckinghamshire Healthcare), Dr Craig McDonald (Buckinghamshire Healthcare), Dr Martin Myers (Lancashire Teaching Hospitals NHS Foundation Trust) and Dr Manu Vatish (University of Oxford).

During the year agreements were signed with Sharp Life Science, Cytox and Oxford University Innovation. These covered selected clinical pathway analyses and health economic assessments across a range of diagnostic opportunities.

The AHSN is a partner in two Medtech and In vitro diagnostics Co-operatives (MICs). The first is a NIHR Community Healthcare MIC, which is a partnership between Oxford Health and the University of Oxford (see <https://www.community.healthcare.mic.nihr.ac.uk>). The MIC was awarded £1.24 million. The second is the NIHR Mental Health MedTech Co-operative at Nottingham, (see <http://www.mindtech.org.uk>) which was awarded £1.36 million.

The Diagnostics Industry Advisory Council (DIAC) met on the 6th December to review the Life Sciences Industry Strategy and discuss regional opportunities in diagnostics.

Precision Medicine

In January Innovate UK organised a meeting of the original Centres of Excellence that were established as part of the Precision Medicine Catapult. Following discussion, it was agreed that the centres (Belfast,

Cardiff, Glasgow, Leeds, Manchester and Oxford) would work together to create a programme of opportunities in Precision Medicine, and meet regularly to explore opportunities.

Digital and AI

Digital Health Roadmap: The Digital Health Roadmap was launched in December 2017 with the support of Oxentia and Oxford University Innovation. The Roadmap has been developed for innovators and entrepreneurs interested in developing and commercialising digital health products and services. The Roadmap sets out the different stages of development – from concept to adoption by the NHS and other health systems - and addresses each one in detail:

Stage 1 Needs assessment and idea generation

Stage 2 State of readiness screening

Stage 3 Detailed feasibility study

Stage 4 Development and proof of concept

Stage 5 Evidence building

Stage 6 Market launch

Stage 7 Market uptake and exit

The full version of the Roadmap can be accessed at <https://www.healthandwealthoxford.org/digital-health-roadmap/>.

Decision Support Systems Tool for Oesophageal Cancer: A report *Decision Support Systems Tool for Oesophageal Cancer: Clinical Pathway and Barriers to Adoption Analysis* has been completed by the team under an Innovate UK grant led by Physiomics. The grant awarded under the Biomedical Catalyst 2016 Feasibility Study Competition entitled “Decision Support System for Stratified Cancer Treatment” set out to create a prototype decision support system to improve cancer care by helping medical professionals make treatment support decisions based on patient specific data. The report focussed on quantitative approaches to the potential uses of decision support tools in oesophageal cancer (see <https://uk.webfg.com/news/aim-bulletin/physiomics-completes-innovate-uk-oesophageal-cancer-project--3185688.html>).

Prostate cancer chemotherapy precision dosing app: The Oxford AHSN is a delivery partner in an Innovate UK funded project for the development of a prostate cancer precision dosing app. The feasibility study will develop a demonstrator for precision dosing oncology, integrating a diverse range of drug, tumour and patient data currently monitored in current clinical practise in order to better design dosing regimen, optimise patient care path, and ultimately deliver improved cancer care.

Enabling better health and self care at scale with digital sleep medicine: The Oxford AHSN is a delivery partner in a grant awarded to Big Health for the value of £998,672 under the Innovate UK Digital Health Catalyst programme. The award covers enabling better health and self-care at scale with digital sleep medicine based on cognitive behavioural therapy for insomnia (see www.sleepio.org). The digital therapy will be rolled out across GP practices. The CIA team is leading the AHSN programme of support with input from the SIP team.

Autonomous speech-based clinical outcomes measures: Initial scoping work has begun on the second Innovate UK Digital Health Catalyst project relating to autonomous speech-based clinical outcome measures. Ufonia is an artificially intelligent system that monitors health and wellness through a conversation with a medical device voice ‘chat-bot’. The project will build a version of Ufonia to assess the outcome following knee-surgery using the Oxford Knee Score. The AHSN will support Ufonia in the development of a business model. The total grant value is £74,937 and the AHSN will provide support in developing the business model.

A second grant has been awarded to Ufonia under the Harwell HealthTec Cluster Proof of Concept award to the value of £20,000, which will allow the company to develop a test pilot version with a pharmaceutical partner.

Online treatment programme for childhood anxiety disorders: The University of Reading is developing an online and smartphone application treatment programme for childhood anxiety disorders with support from NIHR. The treatment is aimed at parents of children aged 5 to 12 years old whose primary difficulty is of anxiety that interferes in day-to-day life. This is a therapist-guided, parent-delivered treatment programme in which parents are supported by a therapist to develop their strategies and confidence to help their child overcome anxiety. The team is providing support for the evaluation and business plan development, following the software and platform development undertaken by Red Ninja.

Insulin Penpal: The AHSN is supporting Adelie Health under the Harwell HealthTec Cluster Proof of Concept award to the value of £20,000. Under the grant, development of a prototype smart device, the Insulin PenPal, will be accelerated and accompanied by the creation of an initial business case to support further investment.

Inflammatory Bowel Disease: Funding has been secured for the establishment of a Clinical Programme for Inflammatory Bowel Disease (IBD). Led by Professor Simon Travis, and managed by a recently appointed senior project manager, Ms Marianne Lepetuykh, within the Strategic and Industry Partnerships Team, this is the first industry-funded programme. Two companies, Janssen and Takeda will be supporting a programme of work focusing on standardisation of reporting for IBD biological therapy and measuring patient reported outcomes.

During the year a Memorandum of Understanding was signed with Drayson Technologies covering support for three products – GDM-health, SEND and COPD EDGE. Under the MoU we will explore approaches to the continued evaluation and implementation of each product both at a regional and national level.

The team has provided support to the Informatics team on the IG Framework, and in particular to ensuring that it is consistent with the new General Data Protection Regulation, which will come into force in May 2018. In particular, the team has been focusing on issues around the impact of patient consent, and the generation of different categories of data and their impact on downstream commercialisation models.

Innovation and Economic Growth

The focus of the innovation and economic growth activity within the SIP has included a mix of regional activity, along with support across a number of novel workstreams including open innovation, ageing and the creation of a multi-disciplinary accelerator. Mr Andy Hill, joined the SIP team in the autumn and brings a wealth of SME and start-up experience in the life sciences sector.

Buckinghamshire Life Sciences Innovation Centre: After two years of work the final approval for European Regional Development Funding was awarded to the Buckinghamshire Life Sciences Innovation Centre to a total value of £1.5 million (including matched funding). This builds on the Local Growth Funding awarded to the Centre in 2017 for £2.7 million (including 50% matched funding), making a total of £4.2 million. The Centre is a partnership between Bucks New University, Buckinghamshire Healthcare NHS Trust, Buckinghamshire Thames Valley LEP, Buckinghamshire County Council, Chiltern CCG, Janssen, GE Healthcare and the Oxford AHSN. Nicki Bromwich has been responsible for identifying the original partners and in providing support to the partners for the navigation of the ERDF proposal through the various stages of submission, assessment and approval. The partners are now working on ensuring that the three-year delivery programme will meet the required milestones and metrics. The ERDF contribution will allow for the appointment of a hub manager who will oversee the day-to-day activities of the centre, and work with partners in identifying new opportunities for development, particularly in the digital health space.

Bicester Healthy New Town (HNT): The Bicester HNT programme was established in 2016 and is one of ten sites identified by NHS England to develop new approaches to healthier living in new and established

communities. The programme objectives are two-fold: to increase the number of children and adults who are physically active and a healthy weight, and to reduce the number of people who feel socially isolated or lonely in order to improve their mental wellbeing. The programme adopts a whole systems approach, which incorporates policy, physical environment, organisation and institutions, social environment and the individual. Delivery of the objectives is based around the built environment, community activation, and healthcare remodelling. Evaluation is an important part of the programme and is focused on developing outputs that demonstrate what works. The core partners of the programme are Cherwell District Council, Oxfordshire CCG, A2 Dominion and the Oxford AHSN. Further details can be found on <https://bucks.ac.uk/news/2017/february/innovation-centre-a-step-closer-following-1.3m-funding-support>.

The Hill: The Innovation Support for Business (ISfB) programme, which is being co-ordinated through Oxfordshire City Council, is a multi-partner programme involving the University of Oxford, OxLEP, Cherwell District Council, Oxford City Council and OUH, to a fully matched value of [5,158,693]. The apportionment going to the The Hill is £571,000. This funding will allow for the appointment of a hub manager along with additional administration support. The matched funding is being provided through OUH and the Oxford AHSN. The formal contract is almost signature ready and a project initiation visit will take place shortly.

During the year, The Hill ran a series of *Digital Health Expert in Residence* Events (see <http://www.thehill.co>) in the John Radcliffe Hospital on the 26th April, 25th May, the 22nd June and 27th July. A panel of experts drawn from industry, health systems and academia met with a broad range of innovators to provide feedback and advice on developing innovations. Across the four events held over the spring and summer a total of 55 individuals discussed their projects in one-to-one sessions with experts. The Hill ran a pitch event on the 23rd November, which was attended by over 150 people. A panel of expert judges headed by Professor Sir John Bell, selected the three best pitches out of a selection of 20 entrants. Further information can be found on <https://www.phc.ox.ac.uk/news/blog/a-view-from-the-hill>.

The Hill has also been working with Oxford Brookes University architecture team to develop a design for a stand-alone space to support innovators within the community.

Harwell Campus: The AHSN is represented on the Harwell Campus Steering Group and the Harwell HealthTec Cluster Development Group. The Steering Group co-ordinates activities across three main clusters (HealthTec, Space and Energy). The HealthTec Cluster hosts regular networking events and the latest was held on the 22nd February on the topics of Open Innovation and Microgravity. The second call for Proof of Concept proposals (see <http://www.oxfordahsn.org/news-and-events/news/harwell-launches-call-for-innovative-industry-collaboration-ideas/>) were announced before the end of 2017, and awards were made to five companies in the New Year. The AHSN also has a joint collaboration with the Science and Technology Facilities Council and OxLEP for developing and resourcing an inward investment strategy in the life sciences. Following a review of activities for 2017, it was agreed that a restructuring of the role to focus more on delivery would take place.

Harwell Multidisciplinary Accelerator: The creation of a multi-disciplinary accelerator for supporting new business growth and scale-up of existing business is under development with several partners on the Harwell Campus. The core concept is to utilise the Campus' expertise across a broad range of technology fronts to support the application and convergence of new technologies in building new healthcare-based businesses. During the year progress has been across several fronts including refinement of the offer, governance and a business model to support the future funding of the accelerator. Integral to this programme of work is an offer to companies based on the Strategyzer methodology, which is designed to help companies de-risk their development activities. A number of companies have now participated in this process as part of a feasibility evaluation to determine the effectiveness of this approach. Andy Hill attended a two-day Strategyzer Masterclass to support this process. The Strategyzer workshops will be used with companies seeking commercialisation support.

Affordable Medicines: The Affordable Medicines Programme is a collaboration between the Structural Genomics Consortium, the Office of Health Economics and the Oxford AHSN (see <https://www.oxfordmartin.ox.ac.uk/research/programmes/affordable-medicines>) and is supported by a grant from the Oxford Martin School. Progress has been made across a number of fronts during the year, including the appointment of a Fellow, Dr Thomas Greve, to work on the health economics workstream. Olga Gurgula, a specialist in intellectual property, has been appointed a Visiting Fellow to the Programme. Dr Pratheeba Vimalnath has been appointed to the second fellowship on intellectual property, and will take up her post on the April 1st. An Oxford Martin Policy Paper, *New Pharmaceutical Commons: Transforming Drug Discovery* was published in December 2017 (see here: <https://www.oxfordmartin.ox.ac.uk/publications/view/2613>).

Oxfordshire Transformative Technologies Alliance Science & Innovation Audit: The Oxfordshire Transformative Technologies Alliance published its Science and Innovation Audit report on the 21st September 2017 (see <http://www.oxfordahsn.org/news-and-events/news/our-insights-on-digital-health-feed-into-key-report-on-oxfordshires-tech-cluster/>). The report focused on four key themes: Digital health, space-led data applications, autonomous vehicles and technologies underpinning quantum computing. The Oxford AHSN led on the digital health theme with support from Oxford University Innovations, and with additional industry input from industry (both SMEs and large corporations). The lead partner for the Alliance is the University of Oxford with support from the Oxfordshire LEP, Oxford Brookes University, the Satellite Applications Catapult, the Science & Technologies Facilities Council, the Oxford AHSN, RACE, the UK Atomic Energy Authority, and the following LEPs: North East, Buckinghamshire Thames Valley, Greater Cambridge Greater Peterborough Enterprise Partnership, Thames Valley Berkshire and Enterprise M3.

Since then the partners have met to develop ways in which the outputs of the SIA could be further developed, including integrating into the Local Industry Strategy.

iTAc (innovative Therapeutics for Ageing consortium): iTAc is a national public-private partnership to accelerate the discovery and development of therapeutics for ageing. This is an opportunity to secure access to a national and clinical platform that will be generating clinically de-risked innovations. iTAc is led by Professor Gary Ford and Professor Mike Ferguson (University of Dundee) and includes the University of Oxford, the University of Dundee, the University of Birmingham, the Francis Crick Institute, and the Medicines Discovery Catapult. The Oxford AHSN has been providing input into the development of the opportunity, which is aligned with one of the key industrial grand challenges on ageing. During the year, the HEFCE Connecting Capability Fund awarded £4.8 million to Oxford and Birmingham Universities for the UK Spine in Ageing.

Sustainability: During the year an internal review of the Sustainability programme was undertaken and as a result of this activity has been scaled back. The quarterly meetings with partners were discontinued and the focus was placed on working with the Carbon and Energy Fund in monitoring progress on several of the large CEF projects. To this end, during the year, progress was made at Great Western Hospital on a combined heat and power project in partnership with the Carbon and Energy Fund, who are funding and procuring the project. Contract close is imminent with construction commencing shortly after. It is anticipated that the project should be operational by the end of this year.

A second project at Wexham Park hospital was identified with a significant opportunity to upgrade the site's aging boiler house. The Trust underwent a merger with Frimley Park, who already have experience of self-procuring and operating Combined Heat and Power plant and were in a position to access capital to support the project. The project has progressed through a self-procurement route and has been integrated with the new Accident and Emergency expansion and will include conversion from steam to low temperature hot-water, new boilers, combined heat and power, and clean-steam generation from sterile services. Construction is due to start on site later this year.

At the benchmarking stage awareness and collaboration was identified as an area of opportunity for most members engaged in the programme. Global Action Plan, with their TLC programme, which targets hospital environments undertook a feasibility level programme with four hospitals in the region. This studied how effective a behavioural led programme could be engaging with clinicians and focusing on specific hospital wards. Two of these progressed with rolling out projects across their organisations. As a result of this work at Southern Health, Louise Sawyer, Environmental Sustainability Manager, has begun a PhD, supported by the Trust and Southampton University. The PhD is now in its second year and is researching the Sustainability Benefits for Patient Environments. This PhD will produce valuable data that will be pivotal in supporting the value and case for change.

Other activities: The Strategic & Industry Partnerships team has continued to support the Oxford AHSC Theme on Novel Partnerships throughout the year.

The second Life Sciences Roundtable, organised by the Thames Valley Chamber of Commerce group, was held at Harwell on the 27th February and focused on the life sciences strategy and a discussion of opportunities and challenges for life science companies in the Thames Valley region.

Partnerships

The partnership between Johnson & Johnson/Janssen and the AHSN continues to evolve and a number of areas of collaboration have been developed during the year, including work on Digital Innovation Hubs. Two meetings were held during the year between the senior management teams.

A meeting between Novartis senior management and the Oxford AHSN senior management took place in February. The purpose of the meeting was to explore areas of mutual interest with a view to developing a more strategic approach to working together.

Conferences / Events / Publications

- During the year the team presented or were part of panel discussions at over 20 conferences or meetings.
- The Oxford AHSN was a cornerstone sponsor at BioTrinity 2017 held in London from 8th – 10th May (see <http://www.biotrinity.com>). A member of the team chaired a plenary panel discussion on *Big Data and Digital Health – Zero or One?* The team also organised a workshop on *Digital Health: From Concept to Market*. Over 860 delegates attended the event from 514 companies from 26 countries.
- A member of the team was on a panel organised by Innovation Forum on the 10th May on *Support for Innovation*, which was part of a series of events under *Health and Life Sciences Entrepreneurship* (see <http://oxford.inno-forum.org/the-first-steps-to-become-an-entrepreneur/>). The Oxford AHSN has sponsored the lecture series and over all the events were attended by over 600 people.
- As part of the developing inter-disciplinary opportunities afforded between space and health, a member of the team chaired a panel on *Multi-disciplinary Research in Space Environments* at the UK Space Conference on 31st May in Manchester (see <http://ukspace2017.co.uk/programme>).
- The collaboration between the Structural Genomics Consortium, the Oxford AHSN and the Office of Health Economics on *Affordable Medicines* presented to the Oxford Martin School Advisory Council on the 7th June. The meeting stimulated an interesting discussion among an international panel of experts including the Vice Chancellor of the University of Oxford and the GAVI Board Chair (see <http://www.oxfordmartin.ox.ac.uk/research/programmes/affordable-medicines>).
- The Centre for Personalised Medicine at St Anne's College, Oxford held a conference on *Intellectual Property, Ethics and the Market* on 12 – 13 June (see <http://www.well.ox.ac.uk/cpm/intellectual-property-ethics-the-market>). A member of the team gave a presentation on *Open Innovation and Drug Discovery. New approaches to market exclusivity*.
- The AHSN organised a series of panel discussions on the Oxfordshire Life Sciences Ecosystem at Venturefest 2017, which was held on the 21st June

(see <http://www.venturefestoxford.com/session-info/programme/>). These included an *Overview of the Oxfordshire Life Sciences Ecosystem*, *The Essentials for any Life Sciences Stat-Up* and *Essentials of Building Value*. The AHSN was also represented at a panel discussion on *Oxfordshire's Science and Innovation Audit Report: Oxfordshire Transformative Technologies*.

- Julie Hart spoke at the Abbott Point of Care Customer Symposium in Amsterdam, Netherlands on the use of Point of Care diagnostics in a community care setting.
- The Precision Medicine and Digital Health Technology Showcase was held on 27th June in Oxford. The event was organised and run by the NIHR Biomedical Research Centre, Oxford University Innovation the Oxford Academic Health Science Centre and the Oxford Academic Health Science Network. The event was attended by over 250 delegates (see <https://www.eventbrite.co.uk/e/precision-medicine-and-digital-health-technology-showcase-oxford-tickets-32469747890>).
- The West Midlands AHSN and Oxford AHSN held a joint Forum at Warwick on *Using diagnostics to enable new models of urgent and emergency care* on the 27th June. The Forum examined different strategies to reduce the burden on A&E Departments and was attended by over 70 delegates (see <http://www.oxfordahsn.org/news-and-events/events/using-diagnostics-to-enable-new-models-of-urgent-and-emergency-care/>).
- The team organised the Oxford Genomics Medicine Centre launch on the 27th June which was attended by over 70 delegates (see http://www.oxfordahsn.org/wp-content/uploads/2017/05/Oxford-Genomic-Medicine-Centre-Launch_AS.pdf).
- Julie Hart presented at NHS Expo on the pre-eclampsia project with Roche on the 11th September in Manchester.
- Julie Hart presented at the POCT Connectivity National Networking Forum on the 12th September in Birmingham.
- Nick Scott-Ram presented at a Science and Technologies Facilities Council CLASP meeting on innovation adoption in the NHS on the 22nd September in London.
- Nick Scott-Ram presented on the Oxfordshire Transformative Technologies Alliance Science and Innovation Audit at a NHS Confederation Webinar on Science and Innovation Audits - <http://www.nhsconfed.org/integration-and-new-care-models/local-planning/growing-local-economies/local-growth-webinars>. The Webinar was broadcasted on the 23rd November.
- The Oxford AHSN was active at the Innovation Forum Leaders Conference, which was held in Oxford on the 4th and 5th December. Nick Scott-Ram was part of a panel session on *Convergence and Open Innovation as Drivers of the Future* on the first day and then gave a keynote address on the following day on *Building a Digital Health Ecosystem*.
- The *Digital Health Roadmap* (<http://www.oxfordahsn.org/news-and-events/news/new-digital-health-roadmap-provides-tools-to-turn-ideas-into-products/>) was launched on the 5th December at the Innovation Forum Leaders Conference.
- Nicki Bromwich gave a talk at the NIHR MindTech HTC Mental Health Symposium 2017 on *From evidence to implementation* on the 7th December in London.
- Nick Scott-Ram was part of a panel discussion at the Oxford Martin School Hilary Term Lecture Series on *Transforming drug discovery – the pathway to innovation* on 1st February in Oxford (see <https://www.youtube.com/watch?v=adMliO3OGtE> and on our website - <https://www.oxfordmartin.ox.ac.uk/videos/view/664>.)
- Nick Scott-Ram presented at OBN's BioTuesday event on 'De-risking the Valley of Death – How R&D companies can access the knowledge network to maximise success' on the 20th February in Oxford.
- Nicki Bromwich gave a talk on 'Supporting digital innovation in the NHS – the pathway to adoption' at Westminster Health Forum Keynote Seminar on *Improving access to medicine: pricing, regulation and implementing the Life Sciences Industrial Strategy* on 1st March in London.
- Nick Scott-Ram gave a presentation on *The Digital Health Roadmap and the Path to Adoption* at the Digital Health Technology Show in London on the 14th March.
- The number of attendees at events organised or sponsored by the Oxford AHSN was [].

Informatics

Summary

Throughout the year the Informatics Team have embraced the challenges around funding and we have built on strategic opportunities and partnerships.

At the end of Q2 a valued member of the Informatics team moved on to a new opportunity. Katie James played an invaluable part within the team over the past three years, not least of which has been initiating and developing the Information Governance framework and protocols that drive information sharing across the Oxford AHSN region.

The Engagement Lead position was quickly filled, however, and we welcomed Geraldine Murphy to the team. Geraldine is an internal hire, coming to us from Strategic Industry Partnerships and brings a wealth of knowledge and we are now, once again, at full strength.

Strategy – The informatics business plan for 2018/20 continues to provide the focus of the work the Informatics Team is undertaking, whilst at the same time working with the senior leadership team at the AHSN to create new business opportunities and partnerships through collaborative working.

The Five Year Forward View continues to provide external context for our Programmes of work and has specifically influenced the development of the AHSN Informatics Strategy and it is the Strategy which provides the framework for the Business Plan activities alongside the clinical theme priorities.

CIO Forum – We have continued to host the CIO forums throughout the year where we have had wide representation and active engagement from partner NHS organisations across the network. This forum is becoming even more important and effective as we integrate the BOB STP digital workstream with this group.

Oversight Group – the oversight meetings again proved invaluable this year, with the group steering, challenging and questioning our business plan and strategy. We have had good engagement from our members, however having lost Paul King from Microsoft we are yet to have a regular replacement from them. We have also engaged two new Patient representatives who will be starting with us in the next quarter and we look forward to welcoming them to the group.

We continue to host regular workstack meetings within the team and external project update meetings with each of the programmes to collaboratively agree priorities and RAG status of individual projects.

Information Governance (IG)

We hosted our second Information Governance forum in February, again chaired by Dr Chris Bunch. During this session we presented the revised Oxford AHSN IG Framework

During Q2 the Informatics team hosted classroom IG training sessions. These were held to ensure teams are up to date with the General Data Protection Regulation (GDPR) (See below), familiar with the new Data Protection Impact Assessment (DPIA) process and are able to complete the AHSN forms independently. The Informatics Team will, of course, always be on hand to provide support.

GDPR

As data is our main currency, we are passionate about making sure that our environment is as secure as possible and that we are fully compliant with the data that we hold

We reviewed and re-drafted our suite of IG agreements to come into line with the General Data Protection Regulation (GDPR) which will come into effect in May 2018. We developed these documents with guidance from both external legal representation and the Chair of the UK Caldicott Guardian Council. This provided a robust set of documentation that will continue to allow the free flow of data from the reference Trusts that will be engaged as part of this process. Meanwhile the IG framework continues to be used to benefit projects across the network

We hold a complete log of all activity we conduct in relation to GDPR activities as both the Informatics function, but also for the AHSN as a whole.

Collaboration

Following on from a positive first meeting in Q2, Oxford AHSN Informatics have been instrumental in developing a nationally approved NHS Digital data acquisition request application in collaboration with NHS Digital, East Midlands AHSN and South London AHSN

Together we have developed a robust NHS Digital Application that has been approved by the Data Access Team. This will now be presented to the iGuard committee who are responsible for the due diligence of data dissemination out of NHS Digital. Once the first test case (EMAHSN) data application has been approved at this level, we will be able to distribute the template out to *all* AHSN's to apply to receive NHS Digital Data with a high probability of success.

Crucially this application has been approved at iGuard and Oxford AHSN is now able to prepare and submit a change request to our NHS Digital data sharing agreement. This will allow in-cloud data storage and allow National data to be brought into our data warehouse. This will allow the analysis of spread and adoption of the innovations of the Oxford.

This has been a highly successful collaborative intra-AHSN piece of work. The benefits to health and social care will be tremendous, along with all AHSN's being able to accurately conduct analysis with a much richer data source with which to progress existing and future projects within the Oxford AHSN.

Additionally, Oxford AHSN hosted a Joint AHSN Informatics Forum in Q4, bringing together Informatic representatives from across the country to start working together more collaboratively over the next licensing period.

Data Warehouse

Over this year the data warehouse has received a complete overhaul. Structural changes were implemented to allow for incremental versus full load of the warehouse. Performance tuning led to data loads to being completed in 15% of the original times.

Auditing capability was added as was the ability to rollback updates to the system. Technical documentation was also produced and training delivered within the informatics team.

We have also upgraded our infrastructure from SQL Server 2014 Standard Edition to SQL Server 2016 Enterprise Edition. Databases have been migrated, tested and on completion of this work, a system analyst from Concentra was invited to audit the system. The audit was success and the system has been certified to be using best practices and fit for purpose.

The Data Warehouse is now fully loaded with Outpatients, Inpatients and Critical Care data. The Informatics team have conducted several classroom sessions with each of the Programmes to detail exactly what data is available, the data definitions and how the data can be manipulated, cut and presented. These have been well received and the Programme and Network managers now have a greater understanding of what can be achieved with the data at their disposal to further their projects and networks.

Self Service

Following consultations with key stake holders from each Programme, a list of required fields and measures were compiled to bring together the requirements for reporting self-service. These were then coded into a database view within SQL server. The next step involved using SQL Analysis services to build a Tabular model which incorporated this view along with the corresponding dimension tables.

Substantial work was undertaken to improve performance and usability of the model. It consists of a streamlined set of pre-calculated fields and attributes. The model also utilises partitions to eliminate unnecessary processing and subsequent processor load. This hugely increases the speed of data refreshes and queries. The resulting reporting model is easy to use and extremely efficient in terms of performance.

This database reporting model will then link to reports which are now being developed using both excel as a legacy standard, but also using Power BI which integrates seamlessly into our Microsoft stack of software.

Advanced Analytics

Once the Self-Service functionality is implemented the Informatics team will be able to focus more resources into advanced analytics; forecasting trend analytics, providing the deep insights into data that will enable the Programme and project managers to make [the right] decisions to help the adoption and spread of key innovations into the health and social care.

We will continue to use Power BI (and excel) to visualize these advanced analytics utilising the inbuilt statistical functionality in 'R'

Opportunities

Procurement / Supply Chain

During the year The Informatics Team worked closely with Vizient to design and refine the data fields required and the Information Governance documents to allow the free flow of data from the recruited reference Trusts. We worked with OUH Informatics to extract datasets to enable a proof of concept process. Unfortunately, this did not realise into a production model.

Connected Care Assessment (CCA)

(Formally Place-Based Digital Maturity Assessment Development)

This extensive work for NHS England, to identify understandable, recognisable and meaningful measures for the whole community of digitalisation in support of health and wealth, reflecting experience of staff

whilst recognising the importance of digital maturity for potential industry partnerships with the NHS was completed and handed over to NHS England in Q4 this year.

The team ran four workshops, a round table with the Academy of Medical Sciences and attended regular meetings to gather feedback. This was to both gather opinion on what matters to stakeholders and to present a proposed approach to assessment, which was been refined with support of the steering group throughout.

In Q3 the team developed a toolkit comprising key instruments for preparing and undertaking the assessment process which are now versioned off for the test phase of the project. Recruitment of test sites has been a challenge due to the timing requirements for completion, relating to project milestones. Testing completed in two sites, East Sussex and Surrey following local engagement and consultation with key stakeholders.

In Q4 the AHSN, working with its partners, have concluded all work related to the deliverables set out in the original NHS commission. A final project steering group was held in February 2018 where sign-off of the deliverables (report plus toolkit) was confirmed. NHS England have asked the HHSN to put forward a proposal for a one-year funded programme to develop and deliver a sustainable model for CCA adoption across the country.

Local Health and Care Record Exemplar (LHCRE)

The AHSN has coordinated activity including a governance structure comprising six health and care systems across a Thames Valley and Surrey geographic footprint. Gary Ford has been leading this initiative supported by AHSN key personnel.

Mike Denis has been leading a bid team since October last year. A number of industry partners have been engaged in supporting this opportunity. The invitation to participation was received on 21st March 2018 and bid drafting, as part of a mobilization plan, has commenced with full engagement from system partners. The intention is to submit a bid by 25th April 2018. It should be noted that a separate process has yet to be confirmed for selection for Digital Innovation Hubs (DIH).

Programme and Theme Support

Clinical Innovation Adoption

- **IOFM** – Informatics completed the analysis of NELA data to gain a greater understanding of patients who received IOFM whilst having surgery, what surgery this was for and outcomes for the patient. Continuing support in reporting and analysis of National Emergency Laparotomy Data shared under the IG Framework. Data was received from Royal Berkshire Hospital, Milton Keynes Hospital, Great Western Hospitals, Wexham Park Hospital and Buckinghamshire Healthcare. The data was organised to provide an understanding of variation across the trusts; the percentage of procedures using fluid therapy and outcomes data.
- **Alcohol** – Informatics undertook some analysis on inpatient admissions for alcohol misuse amongst under 18's in the region
- **Fractures** – Informatics undertook some analysis on inpatient admissions to help form a business cases to develop new or expand existing fracture liaison services across the region; for population over 50 years of age need to understand number of ED attendances and hospital admissions due to a fracture in the region

- **Anticoagulant Project** - The drug 'Warfarin' is given to patients to thin the blood, reducing the risk of clots and strokes. Patients on Warfarin need to be given regular blood tests by their GP and after these their dose may be adjusted accordingly. The Time in Therapeutic Range (TTR) is an important measure in this area examining the % of time that a patient's INR blood results are in the therapeutic range. NICE recommends that patients below TTR 65% are reviewed. The projects aim was to reduce the number of patients with a poor TTR %, either through improving compliance or switching to a different anticoagulant. Analysis was undertaken for the anti-coagulation team, based on the number of new patients that were added to their lists and the numbers removed. This work was well received and may spawn further analysis in the future.

Patient Safety Collaborative

- **Hydration Project** – Treatment for Urinary Tract Infection in Care Homes
For each of the 13 care homes in the area, there are spreadsheets detailing the number of incidents of UTIs, split between those requiring antibiotics and those requiring hospital admission. This piece of work involved linking data from each of these care homes spreadsheets into a central summary spreadsheet showing monthly and quarterly incidents by care home and overall figures for the region. It also involved looking at average days between UTIs , pre-intervention and post intervention for individual care homes and also overall figures for the region. These summary figures adjust according to any updates made to the individual care homes spreadsheets.
- **Sepsis** – Working with the PSC team, Informatics developed a fully revised coding. The HES data was analysed in order to understand the burden of sepsis in inpatients and how the standardised pathways and the assessment tool impacts individual patients. We developed meaningful metrics with the PSC using HES and CQUIN data.
- We also helped develop a **Suspicion of Sepsis publication** which has been accepted by the BMJ. This includes a guide for identifying suspicion of sepsis using HES data and coding. There are now three simultaneous validation studies underway: in Liverpool, Portsmouth and London, one of which is being funded by the Secretary of State for Health. The **national Suspicion of Sepsis dashboard** should be operational after Easter.
- The Informatics Team provided support for the planning of a QI project across primary care in the region working with local GP trainees to identify patients admitted to hospital with sepsis who had previously presented to their GP. Informatics are providing IG support.

Ongoing work to provide the project with further HES data; linking the inpatients episodes to other cuts of the wider datasets to understand the pathway of sepsis pathway. The focus was on understanding ambulance presentations and patients admitted to critical care.

- **AKI Inpatients** – Informatics supported the PSC with IG requirements to understand the burden of AKI across the Oxford AHSN region. Data sharing agreements were signed by each Trust and data sets were received from Oxford University Hospitals, Royal Berkshire Hospital, Milton Keynes and Wexham Park. The linked operational hospital data and biomarkers was presented to the steering group to allow an understanding of progression of AKI in inpatients across the region. Specific outputs were pulled and presented for use in two posters; a national AKI conference and the AHSN

regional safety conference. There may be opportunities for a paper with this data going forward.

- **Gastric** buttons – working with project manager and NRLS to build a request to extract incident data. Carefully refining the request recognising these incidents are rare in children but ensuring the search terms are appropriate. Exploration into terms used in incident reporting has taken place with OUH incident team to help refine the request. Informatics have also supported with required IG documentation.
- **Reduced Foetal Movement (RFM)** - Informatics liaised with all participating trusts to ensure IG compliance was met for the smooth flow of data. We received signed protocols from all trusts and proceeded to analyse the data, collected as part of a clinical audit. Data was gathered for patients presenting with Reduced Foetal Movement as either a primary or secondary presentation. This project involved analysing data gathered from 6 trusts across the AHSN region and making inter-trust comparisons. Our analysis focused on both the pregnancy and the baby, examining gestation periods, risk factors, outcomes, SCBU admissions, number of scans, number of patients induced, number of births/deaths. The aim to further understand this group of patients to achieve better outcomes. The data was well received by the project lead and presented to the RFM stakeholders group in November and it will allow the analysis of data on a greater number of reduced fetal movement cases and the possible development of a streamlined pathway of care for this common clinical presentation.

Following on from our RFM analysis before Christmas, the RFM project leads sent through a revised dataset which addressed some data quality issues which they had with the original dataset. This project involved analysing data gathered from 6 hospital trusts across the AHSN region and making inter-trust comparisons. After all meeting initially in January, we agreed on a new set of metrics that we could provide to meet their requirements, focusing on attendance rates, the pregnancy details of the mothers, outcomes, maternal perception of fetal movement and antenatal abnormal CTGs. The RFM project leads were pleased with all of our analysis and it was presented to their stakeholders meeting in February. The results are also likely to eventually be published in a paper.

Best Care

- **EIP** - Following up on data requirements meeting, Informatics supported the EIP network in drafting an IG agreement to allow the smooth, secure flow of data. This allowed data to be collected, analysed and delivered to the EIP network to help improve outcomes for these patients through early diagnosis and intervention.
- **Imaging** – Informatics have continued to support the Imaging network, helping with all of their IG requirements

Patient and Public Involvement, Engagement & Experience (PPIEE)

The year has seen the completion, and positive evaluation, of our two flagship Programmes for involvement and engagement – Leading Together and Living Well. We will be building on this success in the coming year.

Governance and partners

Our Operational and Oversight Groups are running well with the addition of the Oxford Genomics Medicine Centre to the Operational Group and widening trust and Healthwatch participation in the Oversight Group. We are in the process of formally evaluating both committees in order to ensure that their membership and terms of reference continue to be fit for purpose.

Our lay partners

We are delighted to see the number, and diversity, of lay partners appointed to work strategically with the AHSN grow. In addition, we are appointing a new group of lay associates who we will work with on individual projects. We are pleased to continue to work with Douglas Findlay, who chairs our PPIEE Operational Group, and to welcome Alison Provins who joins the PPIEE and Patient Safety Teams. We also welcome David Cooper and David Timberlake to the Informatics Oversight Group and Adrian Baker and Larry Gardner as lay associates.

Training and development

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



Level 1 and 2 training

During the year we have run three *Introduction to Working Together* sessions with our partners at the CLAHRC, CRN and local hospitals.

We developed and ran a one-day workshop for lay partners and professionals on methodologies for participation, covering coproduction, social media and priority setting. This was facilitated by Sally Crowe and received universally positive feedback. In December, we ran a second session of this workshop. We have a third session planned for this May.

We also reran our successful one-day workshop on outcomes that matter to patients and the public, covering outcomes from the perspective of research, service delivery, commissioning and education.

During the coming year we will be running new sessions on writing for a lay audience and on involving lay people in interview panels, as well as further introduction sessions.

Level 3 training - *The Leading Together Programme*

The independent evaluation of this Programme highlighted that participants:

- developed new skills and understanding eg listening skills, appreciative inquiry and co-production;
- revisited concepts and skills and related these to partnership working;
- gained confidence and were more likely to speak up and ask questions at meetings;
- experienced learning and working with others which challenged assumptions and gave them new outlooks on lay/professional partners;
- learnt about the importance of 'bringing people along with you' rather than 'imposing your ideas and values on others;'
- learnt to relate to people in particular roles as people first and roles second;
- accessed new networks

This is a link to a short video that hears from participants https://youtu.be/PPTsDOTC_IQ.

Working with seldom heard groups

We continue to build on our commitment to broaden the number and type of people that can work on coproduction with our partners and ourselves. To support this commitment, we have successfully partnered with a local advocacy organisation My Life, My Choice to codesign and codevelop a Leading Together Programme for people with a learning disability. To do this we have carried out 1:1 interviews and focus groups with families, people with a learning disability and professionals. The first workshop of the new programme will be run in May 2018.

Network development

Forty graduates from the Leading Together Programme met in Newbury to showcase work that has happened in the year since the end of the first Programme. We were pleased to see that relationships had been sustained and heard from partners who had developed work in the following areas:

- dementia care pathways;

- bringing the voluntary sector together in Abingdon
- improving patient experience at the Oxford Eye Hospital.

We will continue to develop the network through a new section to the AHSN website, regular news updates and a second annual meeting in 2018.

Lay Partner Peer Support

In response to request for a peer support group, we sent a questionnaire to lay partners from across organisations in the Thames Valley to determine what sort of meeting they would like to have. We will be supporting their first event this coming May.

National network development

Douglas Findlay and Sian Rees have taken over the chairing of the national AHSN PPI Network and look forward to developing the relationships and work of the Group.

Public Engagement – *Living Well Oxford*

As the result of being awarded a Wellcome Trust grant we ran a successful week of activities in Temple Cowley Shopping centre to coincide with Dementia Awareness Week. Sixteen research groups from both Brookes and Oxford Universities took part alongside five charities. We staged poetry readings and performances by a dementia choir and provided a series of dementia awareness courses for staff from the security team and shops in the Centre.

In July, we held a celebrating success event at the Oxford Academy, the local secondary school we have worked with. We had more poetry readings, singing, artwork and prizes.

The independent evaluation of the project found that it had successfully achieved its stated aims as an innovative engagement project in a local shopping centre and was a successful pilot. We will be applying for further funding during 2018 to develop the project.

Joint Communications

Our joint (the CLAHRC, CRN, BRCs and NHS England) communications bulletin *Involvement Matters* goes from strength to strength – now in its 16th issue.

We formally reviewed the Bulletin this March and found that the readership had grown and that web stats, page view for example, suggest that a good number of people are actually reading the Bulletin!

We are currently working on joint branding for our collaborative projects.

Patient Safety and Clinical Improvement

Summary

Over the last year, the Patient Safety Team have been working across a wide range of specialities and clinical areas, continuing in our efforts to reduce avoidable harm in our region. As we move into the next period, we will be working with the new Senior Programme Manager for Mental Health to develop a work plan for **Quality Improvement in Mental Health** as part of our expansion into Clinical Improvement, expanding on our work on our national workstreams and concentrating on adoption and spread, both of internal successes and adoption of proven improvements from our PSC and AHSN colleagues across England.

Some of our highlights for the year and Q4 include

- Welcoming Katherine Edwards as the new Head of Patient Safety, Steve McManus, Chief Executive of the Royal Berkshire NHS Foundation Trust as Chair of the PSC Oversight Board and Rasanat Fatima Nawaz as our new Patient Safety Fellow in a joint post with the Experimental Psychology Department at the University of Oxford
- Our Hydration in Care Homes has shown **significant improvement in reducing UTIs (and admission to hospital as a result) in Care Homes** in our region. This project has also won awards this year and interest in spreading this work outside of the AHSN region
- Maternity Swab Never Event project was published in the European Journal of Obstetrics and Gynaecology, has **maintained zero never events**, and been handed over to the Trust for sustained management
- Our OxGRIP pilot has progressed well and initial data indicates **a significant reduction in third-trimester stillbirth**
- Our Suspicion of Sepsis (SoS) methodology – ‘Defining and measuring suspicion of sepsis: an analysis of routine data’ has been published in [BMJ Open](#) and we have produced of a "[how to guide](#)". This methodology is now being used as part of the Patient Safety Measurement Unit dashboard for **evaluating the deteriorating patient work nationally**
- We have completed and handed over/closed a number of projects, including Place of Birth, Pressure Damage and Human Factors in Serious Incidents.
- We reduced unwarranted variation of the interpretation of fetal wellbeing in labour, with a region-wide standardised tool for interpreting CTGs (fetal heart rate recordings)
- We have hosted a number of **successful events** including our Annual Conference ‘From assurance to inquiry: conversations about safety’, QI training events, Emergency Department collaborative events, Structured Judgement Review training, Maternity Shared Learning events and our Q Community welcome event.
- We awarded 2 MSc Bursaries in Patient Safety to staff in the region

Work Streams

The Deteriorating Patient (including Sepsis)

The aim of the national deteriorating patient workstream is to reduce avoidable harm and enhance the outcomes and experience of deteriorating patients across England. This will be achieved by improving the reliability of recognition, response and communication.

The ambition of the workstream is for people to use a clear and common language when patients are deteriorating. This includes when healthcare staff are communicating with each other in teams, across

different parts of the healthcare system and when clinicians are having conversations with patients and their carers.

In our region this work is largely being contributed to via our sepsis programme.

Sepsis is the number one cause of hospital mortality. It is under-recognised, under-estimated and under-treated. It is the most expensive admission diagnosis.

This programme focuses on standardising sepsis management across the whole care pathway throughout the Oxford AHSN region.



Some of the Deteriorating Patient and Sepsis Steering Group

Locally there have been several achievements in 2017/18 within the sepsis programme including:

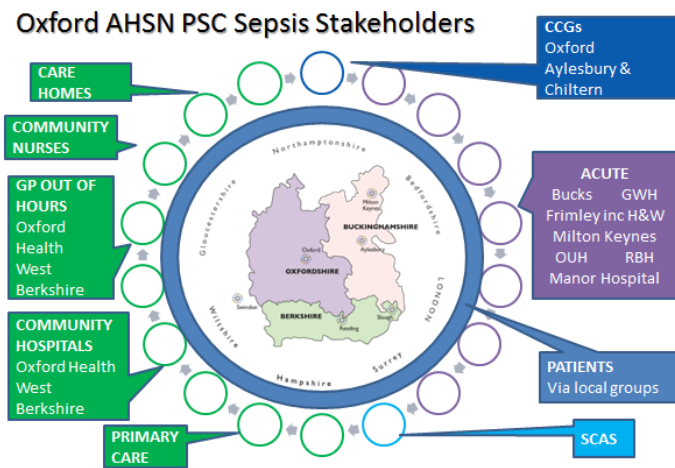
- Our Suspicion of Sepsis (SoS) methodology – ‘Defining and measuring suspicion of sepsis: an analysis of routine data’ has been published in [BMJ Open](#) and we have produced of a "[how to guide](#)". This has been shared via the national PSC event in May, Patient First in November, in both poster and presentation format. The methodology is now being used as part of the Patient Safety Measurement Unit dashboard for evaluating the deteriorating patient work nationally
- Geoff’s Story is a short (eight-minute) film about one man’s encounter with sepsis, is a powerful reminder of how delayed diagnosis may have life-threatening consequences, but also how prompt recognition and management of sepsis can and does make the difference between life and death. Produced by OUH, we have helped share his story, and the video has now been adopted by MKUH to use in their induction training
- We have contributed to the NHS Digital consultation on coding definitions, including coding colleagues from partner organisations who attended a specific session at one of the quarterly stakeholder meetings
- The standardised Sepsis pathway, agreed by all 6 acute hospital Trusts in the region has been presented as posters at Oxford PSC Conference, OUH junior doctors QIPP day, Medical Directors Conference and at OUH as part of World Sepsis Day; and as a presentation at OUH Innovation and impact AHSN roadshow.
- Implementation of the regional sepsis pathway is associated with continued reductions in length of stay. It is too early to assess impact on mortality due to the seasonal nature.

In addition, we started a pilot project to review benefits of systematic Quality Improvement (QI) project over individual self-created projects to support GP trainees in developing their QI skills through:

- systematic data collection
- identification of themes
- implementation of small tests of change

The project was launched at GP trainee induction on 5th September 2017, with clinical theory and project overview by Dr Andrew Brent (Clinical Lead AHSN Regional Sepsis Group) and brief QI methodology by Dr Michael Mulholland (Associate GP Dean). Data was collected on 123 patients from 41 practices with summary and analysis of data completed by Dr Andrew Brent.

Unfortunately, feedback from the Programme Directors showed some lack of engagement in the projects. This resulted in limited promotion of QI in day release sessions and the groups had limited support to complete the projects. It was discussed continuing the project with more support for the

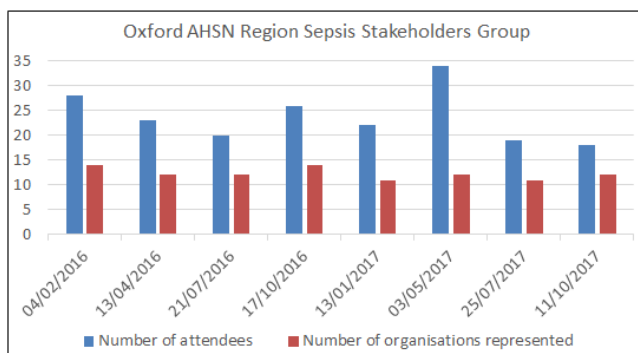


second half of the year as originally planned but the Programme Directors felt it should stop and be replaced with more locally designed projects. However, we hope to use the baseline data will help inform future projects working with primary care colleagues on identifying deteriorating patients.

The success of the pathway project, among others, and the peer support it provided has further strengthened the group’s collaborative culture and reinforced its importance for the stakeholders involved. This is reflected by continued high levels of participation and engagement in the group’s work, despite competing clinical pressures, although the meeting in January had to be cancelled due to national winter pressures.

Clinician quote:
 “working together regionally for a common goal has resulted in a pathway we are happy to use to save lives from sepsis”

Oxford AHSN PSC Sepsis Stakeholders



44 stakeholders, from 25 organisations, with an average of 24 attendees per meeting

We have a planned patient engagement event in May

2018 "Sepsis - A regional patient-centred learning event" This event will bring together patients and relatives who have experienced sepsis, and clinicians who manage patients with sepsis. The programme includes patient stories, national and regional sepsis updates, and interactive workshops to improve sepsis care, information and support for people in our region with support from The UK Sepsis Trust.

Safety Culture – National Workstream

The Safety Culture workstream is a national workstream and aims to create the conditions that will enable healthcare organisations to nurture and develop a culture of safety through raising awareness of the impact of culture on safety. By building capability for changing culture through employing a variety of different interventions at different levels, the workstream will aim to influence and create the key conditions to allow safety to flourish.

This builds on existing work we have done in this year, which includes shared learning across boundaries, communities of practice, learning from incidents and deaths across the region and coaching for improvement.

In terms of PSC involvement this is relatively new and we have agreed that the approach will involve the use of some of the following methods:

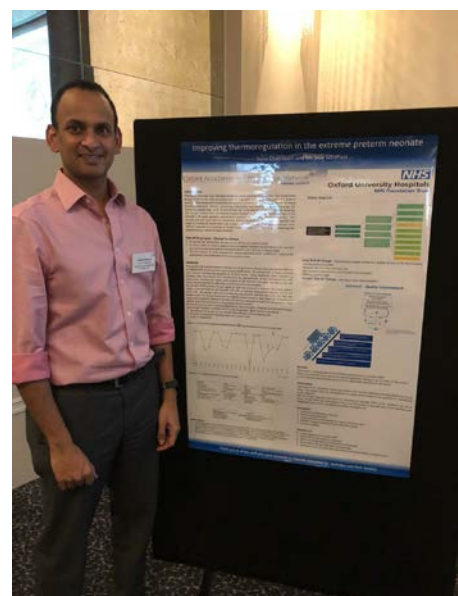
- Listening exercises to enable patients and staff to raise awareness of the things that matter to them
- Leadership & Board level development
- Positive Incident reporting and learning from excellence
- Team building to improve understanding of the importance of relationships, behaviour and staff well being
- SCORE surveys in maternity to help understand how staff feel about their organisation followed by debriefing sessions and feedback to the organisation.
- Shared learning events, established within maternity and the emergency department workstreams
- Utilisation of the measuring and monitoring framework for safety culture in workstreams as appropriate

Currently the focus is on scoping how the PSC can best deliver on safety culture to ensure effectiveness and sustainability. Areas of potential focus include working with Primary Care in the region, and the University of Buckingham Medical School who have approached the PSC for a contribution to their teaching programme. Discussions are currently underway to build on work done by the West of England Academic Health Science Network on safety culture in primary care.

Maternal and Neonatal Health Safety Collaborative – National Workstream

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 overall aim is to:

- Support maternal and neonatal care services to provide a safe, reliable and quality healthcare experience to all women, babies and families across maternity care settings in England
- Create the conditions for continuous improvement, a safety culture and a national maternal and neonatal learning system
- Contribute to the national ambition of reducing the rates of maternal and neonatal deaths, stillbirths, and brain injuries that occur during or soon after birth by 20% by 2020.



FA clinician from our Wave 1 site, presenting a project

The Patient Safety Collaborative is supporting Trusts within the region throughout this programme.

Wave 1: This has included Oxford University Hospitals NHS FT who have completed 3 learning sets hosted by NHSI on quality improvement. They have commenced and are focussing on 4 projects [Ensuring IV antibiotics are administered within 1 hour of admission in MAU in suspected sepsis; improving thermoregulation in the extreme preterm neonate; sharing governance learning regionally; focussing on improving culture through listening to staff and acting].

A poster was presented by OUH at learning set 3 and they presented their learning journey and quality improvement project at the national event held in March 2018.

Royal Berkshire and Frimley Health will be joining the collaborative for Wave 2 [April 2018] and Milton Keynes University Hospital and Stoke Mandeville for Wave 3 [April 2019]. As part of the collaborative, Trusts will be undertaking the safety culture survey [SCORE], OUH will commence this in March 2018. Learning systems are a mandatory part of the NHSI programme and are open to all levels of staff within maternal and neonatal units. The aim is to support and share learning in projects, programmes and quality improvement methodology. The Oxford PSC are organising and facilitating the Learning System meetings and the first one will take place on 20th April 2018.

Mortality Reviews

Following on from the success of the sepsis programme, and with the advent of the National Quality Board requirements to implement a framework for Identifying, Reporting, Investigating and Learning from Deaths in Care, two of our partner organisations requested the development of a regional group. Further scoping established all our partner organisations would benefit from such a programme.

December saw the first quarterly mortality review group meeting bringing together clinical and managerial staff from 10 organisations across the healthcare sector. This programme aims to improve the standardisation of mortality review processes within the community, mental health and secondary care settings and to support the development of quality improvement projects based on the thematic learning from mortality reviews. Unfortunately, the second meeting in March was postponed due to clinical pressures in the region.

Training has already been provided to 25 staff on the Royal College of Physicians Structured Judgement Review tool, with further training day planned in April 2018.

The group is also learning from West of England AHSN who were early implementers in this subject. Nationally all 15 PSCs are now looking to support one another in developing regional and possibly a national Community of Practice in relation to mortality reviews.

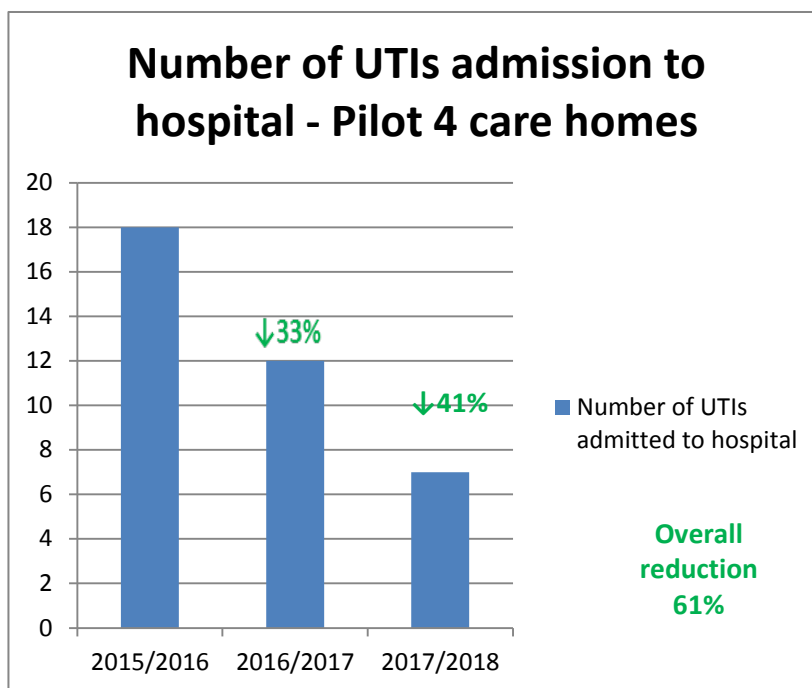
The recruitment of 4 research fellows working across the AHSNs, will further support this programme, with Oxford hosting the researcher for the south (KSS, WE, SW AHSNs).

Acute Kidney Injury (AKI)

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 a number of projects.

The **Hydration in Care Homes** quality improvement project started with a pilot study in 4 care homes in July 2016, with the aim to reduce UTI hospital admissions by 5% each year through the introduction of

structured drinks rounds and staff hydration training. **To date there has been an overall reduction by 61% [figure 1] and a significant reduction in urinary tract infections requiring antibiotics was demonstrated [figure 2].** This project run in partnership with Windsor Ascot and Maidenhead CCG has now been adopted over East Berkshire CCG, Oxfordshire Care Homes and is commencing in the Luton region April 2018. To date 322 staff within care homes have received hydration training.



| Care home code | Started Project | Baseline Average (2 months) | Average to date | Greatest number of days between UTIs (May 2016-Jan 2018) |
|----------------|-----------------|-----------------------------|-------------------|--|
| 1H | 01/07/2016 | No UTIs | 1 UTI per 77 days | 243 days |
| 2E | 01/07/2016 | 1 UTI per 9 days | 1 UTI per 54 days | 174 days |
| 3M | 01/07/2016 | 1 UTI per 15 days | 1 UTI per 69 days | 225 days |
| 4L | 01/07/2016 | 1 UTI per 11 days | 1 UTI per 20 days | 92 days |

Number of days between UTIs requiring antibiotics

An 80 year old man with recurrent urinary tract infections (UTI) every six weeks, wheelchair bound and little social interaction was living in a care home where our hydration project was undertaken.

Following the introduction of structured drinks rounds and specific hydration training for staff he has been free of UTIs for greater than 9 months, is more mobile with a walking stick and participates in more activities.

This project won three PrescQIPP awards in October 2017 for best interface, improving patient safety and overall best innovation project.

It has also been presented as a poster at Patient First and at the Primary Care Pharmacy Association Symposium where it won the overall best project/poster award.



A Care Home resident enjoying participating in a structured drinks round as part of the hydration project

We are now developing an online package of resources and training to support more widespread adoption of this project. This package is being supported by Health Education Thames Valley, and will be available on our website in the new financial year.

AKI Alerts

As part of the national programme it was recognised that when patients in hospital have an AKI alert [a trigger from their blood test, either level 1, 2 or 3 depending on severity] it is important that the medicines they are taking are reviewed within 24 hours of the alert. This is because certain medications can cause more harm to the kidneys when less water is in the body.

We worked with the Oxford University Hospitals who focussed on the design, testing and implementation of an electronic review tool for all patients who triggered and AKI alert stage 2 or 3 in hospital. This is now

monitored on a daily basis by the ward pharmacists and has demonstrated that 62% of alerts had a pharmacy review within 24 hours [82% of these within 24 hours]. This timely review ensures that patients have the benefit of their medications being stopped/decreased to assist in the recovery of their kidneys and reduce the risk of chronic kidney disease.

Measurement in AKI

We also successfully secured data agreements from 5 hospitals and worked with local laboratory leads to analyse the burden of AKI, including outcomes such as mortality and length of stay for the region. On average, cumulatively these hospitals receive 1,034 AKI alerts per month of which 65% were acquired in the community [the alert triggered with 48 hours of admission]. There was an average length of stay of 9 days and 10% of the patients progressed to a higher level of AKI alert throughout their stay.

Although it was not possible to identify any overall reduction in these outcomes regionally due to multiple process measures, individual Trusts have shown some improvement. From their data, OUH presented a poster on “Identifying those who will benefit from alerts and care bundles” at UK Kidney Week and the National Patient Safety Conference. A poster of the overarching work of the AKI patient safety collaborative was presented at the British Renal Society in June 2017.

NHS England introduced a care quality standard in 2015 identifying that hospitals should include 4 items of information when transferring patients who have had an AKI alert back to primary care. Over a 12 month period, Royal Berkshire Hospital achieved an improvement in this [all four aspects on the electronic discharge letter] from a baseline of 22% to 92%. A paper has been published regarding this improvement: <http://bmjopenquality.bmj.com/content/6/2/e000022>

Safer Care in Mental Health

This project has focused on the adoption and spread of a successful quality improvement initiative within three integrated Trusts in the region to increase the number of patients returning safely and on time from leave to 95%.

In June 2017 the Campbell Centre in Milton Keynes, part of Central North West London (CNWL) signed up to the project followed by Topas Ward in Bletchley in October 2017.

Aims include

- To raise awareness among staff and patients of the importance of ensuring that patients on planned leave return safely.
- To ensure that staff follow the correct procedure when a patient does not return with ten minutes of the agreed time
- To coach the team in QI methodology and share the learning among staff and patients as appropriate

Small tests of change were introduced, for example including involving reception staff in completion of the forms, a focus on the physical health of patients and updating staff at handovers to increase awareness.

There has been demonstrable improvement across the wards with regards to completion of safer leave forms and **with the percentage of patients returning on time and safely from leave which averages at between 82-87%, an improvement from between 66-70%.**

Qualitative analysis from patient questionnaires identified the importance of timely leave as part of the planning process to reduce frustration for patients. Patients identified the difficulties in contacting wards to let staff know if they were experiencing problems or needed assistance because of the lack of a mobile phone.

Patients are involved in the planning of their leave as part of their recovery and in the design of information leaflets and cards which help with supporting safer leave.

What next?

The safer leave project is being adopted by three wards in Park Royal in Brent.

Over the next six months it is expected that the team at the Campbell Centre and Topas Ward in Bletchley will take full ownership with the PSC acting in a consultancy role.

Regional Emergency Department Collaborative

The Emergency Department (ED) Collaborative was established in 2017 and involves key stakeholders from the five Trusts in the Thames Valley region. The first event in September 2017 was led by Buckinghamshire Healthcare and was so successful that the collaborative agreed to host regular events.

The collaborative events aim improve patient safety and experience within busy emergency departments by bringing together a multidisciplinary group of healthcare professionals to share best practice and encourage spread and adoption within the region.

The September 2017 event focussed on 'Safety in the Emergency Department' and the development of the



ED staff from across the region discussing shared learning and experience at the most recent ED event

safety checklist. Dr Emma Redfern, Consultant in Emergency Medicine and Associate Medical Director of Patient Safety at Bristol University Hospitals shared her theme of 'Where's Wally?' in an overcrowded emergency department. The focus was on identifying what tools are available to help staff easily identify the sick and deteriorating patient and how to drive change in challenging environments.

NHS Improvement have urged hospital Trusts across the country to use this initiative to standardise and improve the delivery of basic care in Emergency Departments.

The collaborative met again on March 16th, 2018 at the Madejski Stadium, Reading. The focus was on 'The Vulnerable Patient in ED'

and the event is led by Royal Berkshire NHS Foundation Trust. The agenda includes presentations included redesigning the frailty pathway, introducing an alcohol specialist nurse service, development of a picture exchange communication system for patients with learning disabilities to name a few.

Maternity

Maternal Swab Retention

Our quality improvement project to reduce never events of swab retention to zero by November 2018 within the Maternity Department at OUH was officially handed over to the clinical team within the Trust where it is sustaining improvement.

It has demonstrated the following results:

For women transferred from delivery suite to theatre, verbal handover significantly increased from 28.8% to 75.6% ($p < 0.0001$), and written handover significantly increased from 4.4% to 62.9% ($p < 0.0001$).

Following a baseline of four near misses in two months, there has been only one near miss in the 15 months since the interventions were implemented, (33.3% vs. 1.1%, $p < 0.0001$). There have been no retained swab incidents since the project commenced.

This project demonstrates that simple interventions to improve communication at handover and transfer can reduce the incidence of retained vaginal swabs and near misses.

It has been published and is available via [open access](#).

Network wide guidelines

Unwarranted variation in maternity care presents risks to patient safety, sub-optimal clinical practice and complications for staff who regularly rotate between different units. Over the past year the Maternity programme has continued its regional work in developing, agreeing and implementing clinical guidelines. The positive impact of improving consistency of care and aligning guidelines across the region is demonstrated by the growing portfolio of safety work within the maternity workstream.

In 2017/18 the maternity programme have worked on the following guidelines

- Alignment of Oxytocin regimes in labour
- Reducing variation and improving cardiocotograph (CTG) interpretation through the implementation of an agreed CTG sticker and teaching package
- Improving the care of women with medical disorders in pregnancy has been presented to the steering group in February and future work is planned to develop this further
- Policy regarding cervical length in the Prevention of spontaneous and severe preterm birth; this guideline is in the process of being tested with the assistance of members of the Patient Safety Academy

Shared Learning

Multidisciplinary regional shared learning events continue to hold twice a year and are attended by a variety of health professionals including junior doctors, midwives, students and researchers. This year was the first time we had student midwives in attendance.

The aim of these events is to present interesting, challenging or rare case studies and quality improvement projects which demonstrate the impact of the learning involved with a view to sharing this excellence within the network.

Looking ahead, working in partnership with the Thames Valley Strategic Clinical Network (TVSCN) this event promises to grow and develop with a wider remit of topics to share.

Place of Birth – Preterm delivery

An extremely premature baby (born before 27 weeks) is more likely to survive if they are born in a hospital unit where the whole range of medical and neonatal care is provided (a Level 3 centre). Following an intensive piece of work dating from 2015 which examined the barriers to transfer of the mother before delivery of the baby/babies, the maternity network developed and implemented

- A revised referral pathway for in – utero transfers (transfer via ambulance for the pregnant mother to a Level 3 centre)
- A set of guidelines to improve identification and management of threatened preterm labour

- A rolling audit of cases where a birth occurred outside a Level 3 centre for continued monitoring of any barriers to appropriate in utero transfer

The improvement in the percentage of premature babies being born in a Level 3 centre has remained steady at between 75%-80%.

This project has now been completed.

Reduced Foetal Movements

The Saving Babies' Lives Care Bundle (designed to tackle stillbirth and early neonatal death) has a specific element that focusses on the care surrounding the awareness reduced foetal movement (RFM). Foetal movement that has genuinely stopped is a pre-terminal event, however, most RFM presentations are not representative of this. Due to the increased awareness of RFM there has been an increase in presentations but this has had very little effect on perinatal mortality. It appears to have led to a much greater induction rate and increased use of ultrasound resources.

This project, through the use of a clinical audit, has sought to analyse the clinical care provided to women who present with RFM during pregnancy and the clinical outcomes following care. An audit of all women presenting with RFM in October 2016 has been completed this year and an initial analysis of the data (regionally and locally) has been received by network trusts. This has provided high level information on the outcomes of RFM in pregnancy for all the units involved.

The network will now use this as a baseline measurement for a quality improvement project on a regionally unified care pathway for all trusts.

Oxford Growth Restriction Identification Programme (OxGRIP)

Fetal growth restriction is one of the biggest risk factors for stillbirth (Gardosi et al, 2013), with “about one in three term, normally formed antepartum stillbirths related to abnormalities of fetal growth” (MBRRACE, 2015). Antenatal detection of these babies is therefore vital in order to have the ability to monitor, manage and decide appropriate delivery. A number of studies have shown that Small for Gestational Age (SGA) babies were significantly more at risk of stillbirth in comparison to SGA babies that were identified in the antenatal period (Stacey et al, 2011; Smith, 2015; Gardosi et al, 2013). Nationally, the detection has been poor with great variation across trusts in England in those that calculate their rates of detection (NHS England, 2016). Many trusts do not calculate their detection rates and are therefore unknown. Smith (2015) estimates that routine NHS care detects 1 in 4 SGA babies antenatally. Regionally, the Oxford AHSN region identifies 36.7% of SGA babies antenatally.

The Oxford Growth Restriction Identification Programme has now been running for 18 months in Oxford University Hospitals with an aim to increase the identification of small babies that are at risk of stillbirth (i.e. SGA babies). As a result, all women using OUH services are now offered an additional ultrasound scan at 36 weeks gestation which focusses on the growth and wellbeing of their baby. These women are also offered a simple risk stratification and additional non-invasive tests (uterine artery Dopplers) at the 20-week anomaly scan. The aim of this is to allow easier identification of unwell and small babies, allowing the maternity services to arrange appropriate treatment and then reducing the risk of birthing complications.

During the last 12 months, the focus has been on:

- Designing a methodology for quality control of the ultrasound scans (i.e. ensuring a high standard of image [measurement and technique of scanning]) and reviewing the quality of scans during the implementation period

- Developing a master dataset covering the two years preceding implementation and a complete year after implementation (including a methodology for merging data from multiple sources and cleansing the data)
- Evaluating the care pathways for viability (financial and clinical acceptability), impact on clinical outcomes and services using most available data and making changes as appropriate to pathways, guidelines & protocols and forms
- Gathering patient feedback to determine how the new pathway is impacting the woman's perspective of pregnancy

By year-end, the project team will be in a position where enough data will be available for full analysis and publication. If the pilot is successful in its aims, it is likely that a number of the member Trusts will be interested in implementing the protocol. However, it is anticipated that if successful, the spread of the innovation will be considerably wider than the Oxford AHSN area.

Regional Maternity Governance Group

Better Births (2016) set out the Five Year Forward View for NHS maternity services in England which is being delivered through the Local Maternity Systems (LMS). Among the key deliverables for the Buckinghamshire, Oxfordshire and Berkshire West Local Maternity System (BOB LMS) is improving the safety of maternity care so that by 2020/21 all services are investigating and learning from incidents and are sharing that learning through the LMS and with others.

The BOB LMS has established a Regional Maternity Governance Group which includes representation from Obstetric, Midwifery, Paediatric and Neonatology Clinical Governance Leads from the five Trusts in the region. This regional collaborative approach has been shown to be successful with many of the patient safety workstreams. The group met for the first time in February 2018 and agreed the actions going forwards.

The focus will be on presentation of 10 of the most recent 72-hour serious incident reports. Each Trust will take part and the learning will be shared with each organisation. Criteria for the LMS reporting of Serious Incidents will be agreed and training will be arranged on the use of the Perinatal Mortality Review Tool (PMRT).

Longer term the expectation is that the group will present at the maternity Shared Learning event for wider dissemination of learning across the region

Specialised Paediatric Care in the Community

The Paediatric Safety programme was reviewed by the PSC Oversight Board in December 2017, resulting in two significant developments:

- Professor Charles Vincent agreed to become interim Chair of the Paediatric Gastrostomy [PG] Steering Group
- the Board accepted a proposal to expand the programme to include a second clinical pathway, that of children being cared for in the community who are receiving long term ventilation [LTV].

Work is already in progress by the Thames Valley Children's Palliative Care Network to develop a paediatric LTV pathway and in the first instance, we will explore how we can support this work and its implementation, given that there are significant overlaps with our PG work and many of the children with LTV are also tube fed.

Under Professor Vincent's guidance, the January 2017 PG Steering Group focussed on priority setting with four clear workstreams emerging

1. To provide a co-produced training and competency assurance package for parents of children in the region with gastrostomies such that they are competent to care for them safely in their homes, to know when they need to escalate care, who to escalate to and how to do so appropriately
2. To produce agreed regional training/competence packages for the specialist community HCPs [CCNs + other relevant AHPs] to enable them to safely support parents of children with gastrostomies in the community
3. To provide awareness training for the non-specialist HCPs [ED staff, GPs] in the region who parents of children with gastrostomies may contact out of hours, to enable them to be supported safely and appropriately
4. Communications:
 - to provide an effective and safe means of communication of clinical information between parents and HCPs in the region across the whole patient pathway
 - to establish a Community of Practice for the specialist HCPs in the region supporting parents in the community

Leads have been agreed for each workstream, and work is underway to identify and implement the actions necessary to progress them.

Q Community



Q is an initiative connecting people who have health and care improvement expertise across the UK. It is being led by the Health Foundation and supported and co-funded by NHS Improvement.

The Oxford AHSN Patient Safety Collaborative, has partnered with Q to help grow the Q community. Over 60 people attended our Oxford Q Community Welcome Event on 31 January 2018 for new and founding Q members. The thought line for the day was welcome, connect and start to think about improvement differently.

Delegates took part in a number of activities and had fun filling in their passports, creating their posters for how the local Q community could develop, as well as great presentations from Unipart, Health Foundation and our very own Head of Patient Safety! The sessions were facilitated by Phil Hadridge, Idenk.

The Health Foundation, supplied us with plenty of publications; Oxford AHSN shared information on safety devices (Clinical Innovation Adoption), our work with Strategic Industry Partnerships & Patient & Public Involvement, Engagement and Experience; Patient Safety Academy showcased their training on human factors and SeeData LifeQ! their on-line quality improvement platform for healthcare. Our members can have free access to this system.

We have already added new members to some of our existing workstreams such as sepsis and mortality reviews and have engaged lay representatives in co-designing "Sepsis - A regional patient-centred learning event".

We plan to continue to support the Q Community in our region with an online resource via the Health Foundation website and further events throughout the year focussing on specific topics identified by the delegates.



Stakeholder Engagement and Communications

During 2017/18 the Oxford AHSN developed and honed its engagement with a wide range of stakeholders in a number of ways on a local, regional and national level. There is growing evidence that more targeted, collaborative events achieve higher participation rates. Examples this year included:

- the emergence of a regional emergency department collaborative facilitated by the Oxford Patient Safety Collaborative
- a joint event with West Midlands AHSN on diagnostics in urgent care
- ‘Working Together’ – a series of training events for patients, public and health professionals
- Patient safety devices – a practical session for clinicians and commissioners on new critical care devices supported by the NHS Innovation Accelerator and the Innovation and Technology Payment

The key events are listed in the table at the end of this section. Overall, more than 1,300 people attended events run or supported by the Oxford AHSN in 2017/18. Our key publications can also be found at the end of this section.

Another major focus has been around joint work with the other 14 AHSNs covering England. This has been particularly evident at major national events. The AHSN Network had a significant shared presence at the NHS Confederation, Health and Care Innovation Expo and Patient First conferences. Our Head of Communications has been selected by his peers to serve a second term as co-chair of the AHSNs’ Communications Forum which works closely with the 15 AHSN Chief Officers.

Increasingly, we have been exploring other ways of engaging with people. One of the most successful has been the programme of webinars run by the Best Care Dementia Clinical Network.

More than 1,000 people have taken part in these webinars since their launch in 2014 - with almost as many catching up with the content later. Feedback has been overwhelmingly positive: Vicky Cartwright, Deputy Programme Manager, Royal College of Psychiatrists, said: “I’ve dialled in to a few of the webinars now and they have all been excellent. It’s a really convenient way of getting fresh information from a wide range of top speakers – without even having to leave my desk. I’ve learnt something new every time. Thank you!”

Read more about the dementia webinars here: <http://www.oxfordahsn.org/our-work/clinical-networks/dementia/webinar-programme/>. These will now be taken forward by the Patient Safety and Clinical Improvement programme.

Our series of information videos for patients about to have diagnostic scans has now clocked up more than 30,000 YouTube views. Read more about the films here: <http://bit.ly/2tqYiQb>

The Oxford AHSN monthly email newsletter got a new look as it reached the milestone of its 50th edition in January 2018. It is increasingly full of information on collaborative work with our partners. The number of subscribers has grown to more than 3,000 (see chart below). However, in order to comply with new data protection requirements we are likely to see a drop, at least temporarily, in subscribers during 2018/19.

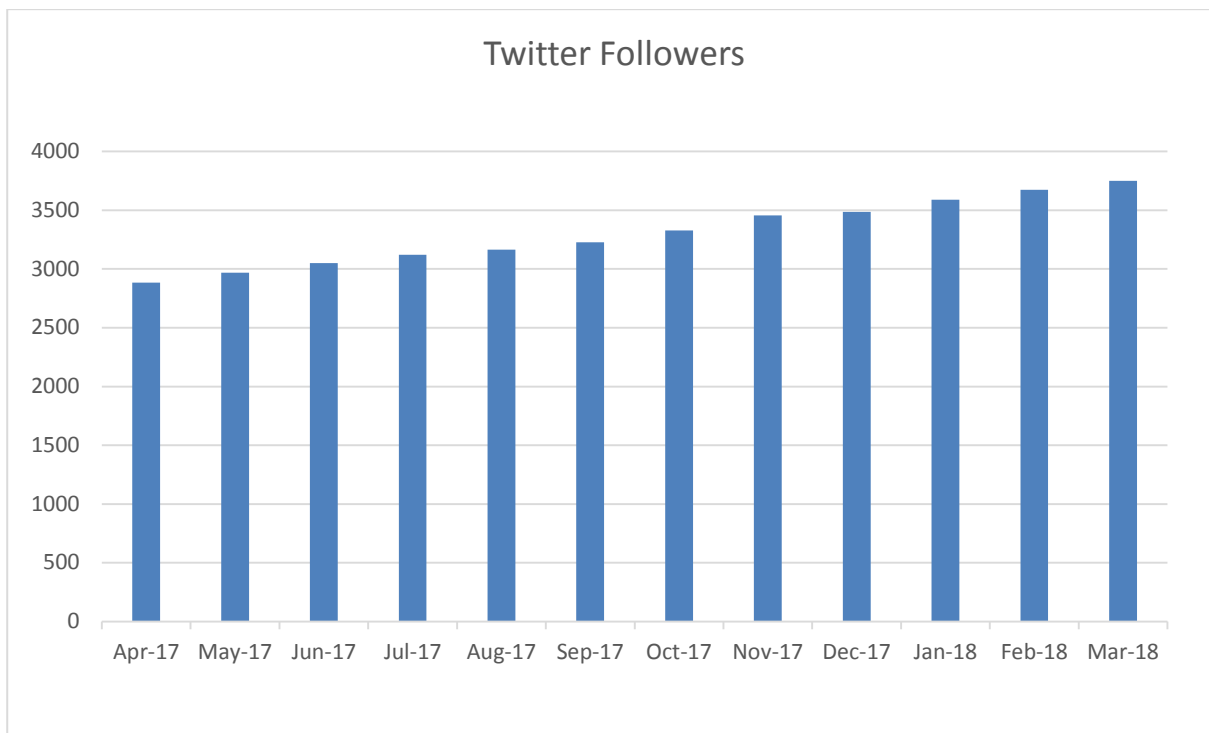


Our more general communication is managed through our websites supported by Twitter. Web content is constantly being updated and new material created. A revamp of the Patient Safety website (www.patientsafetyoxford.org) was completed in March 2018, and Get Physical (www.getphysical.org.uk). A new site was launched to support our Clinical Innovation Adoption programme (www.clinicalinnovation.org.uk).

The highest number of monthly page views was more than 300,000 on the main AHSN website in December 2017. User data will be collected in a different way from 2018 making year-on-year comparisons more difficult.

The number of followers of the main Oxford AHSN Twitter account (@OxfordAHSN) has risen steadily with more than 900 added during 2017/18 to reach 3,750 followers by the end of March 2018 (see chart below). The peak for interactions was a single day in June 2017 when we ran or supported three major events - our tweets that day gained 8,000 impressions.

Related accounts have almost 3,000 followers, although some of these people follow multiple Oxford AHSN-related Twitter feeds. There will be some consolidation of our Twitter accounts in 2018/19 and a new one created to support our work in mental health (@MH_OxfordAHSN). The launch of an AHSN Network Twitter account (@AHSNNetwork) in January 2018 has helped to promote collaborative work.



Oxford AHSN events 2017/18


| Date | Event | Speakers |
|-------------------|---|--|
| April 2017 | | |
| May 2017 | Partner showcase events Patient Safety Conference – regional Patient Safety Conference – national Improving patient safety in critical care BioTrinity | Five joint events with NHS partners Oxford Patient Safety Collaborative annual meeting Shared learning event with all PSCs Practical session for AHSNs on devices supported by NIA/ITP organised by Oxford AHSN Oxford AHSN sponsor and host of support events for innovators |
| June 2017 | Venturefest Oxford Oxford NHS Genomic Medicine Centre Diagnostics in urgent care Precision medicine and digital health Excellence through innovation and leadership NHS Confederation conference | Nick Scott-Ram, Oxford AHSN, contributor on the ‘runway to adoption’ Support from Oxford AHSN Strategic and Industry Partnerships team Joint event with West Midlands AHSN Annual showcase with NIHR Oxford Biomedical Research Centre and Oxford University Innovation Contributor to NHS England South event Contributor to shared AHSN Network involvement |
| July 2017 | Digital health experts in residence | Support for series of ‘The Hill’ events to help emerging digital innovators |


| Date | Event | Speakers |
|-----------------------|---|--|
| September 2017 | Wellbeing in the workplace | Support for Oxfordshire workplace wellbeing network event |
| | Health and care innovation Expo | Contributor to shared AHSN Network involvement |
| October 2017 | Oxford AHSN award | Paul Durrands spoke at OBN awards event to introduce Oxford AHSN Award – Winners: Drayson partnership |
| November 2017 | Patient First – preventing harm, improving care | Oxford Patient Safety Collaborative worked with other PSCs at national event, including presentation on extremely premature babies |
| | Life sciences industrial strategy | Contribution from Nick Scott-Ram, Oxford AHSN, on implications for Oxford region |
| | Maternity shared learning event | Facilitated by Oxford AHSN Best Care Maternity Clinical Network |
| | Early intervention in psychosis | One of a series of peer review events |
| December 2017 | Convergence in biomedical science | Nick Scott-Ram launches Oxford AHSN Digital health roadmap for innovators |
| | Working together | Two events for public and professionals working in patient and public involvement |
| January 2018 | Healthcare innovators programme | Fact-finding event for the Oxford AHSN practical innovators programme run with Bucks New University |
| | Keeping an active workforce | Support for Oxfordshire workplace wellbeing network event |
| | Q community | Welcome event for new Q Community members |
| February 2018 | Working together | Two events for public and professionals working in patient and public involvement |
| | The internet of things and healthcare | Event organised and hosted by Oxford AHSN with Henley Business School |
| March 2018 | Patient Safety Academy conference | Support from Oxford Patient Safety Collaborative |
| | Putting empathy into practice | Support from Oxford AHSN Patient and Public Involvement, Engagement & Experience team |
| | Digital Health technology show | Nick Scott-Ram launches expanded Oxford AHSN Digital Health Roadmap at national event |
| | Emergency department collaborative | 2 nd regional sharing event coordinated by Oxford PSC |
| | The power of partnership | Contributors to Health Education England Thames Valley event |

Key publications 2017/18

| Publication | Programme/Theme |
|---|---|
| Digital health roadmap | Strategic and Industry Partnerships (with Oxford University Innovation and Oxentia) |
| Oxfordshire Transformative Technologies Alliance Science and Innovation Audit | Strategic and Industry Partnerships with multiple partners |
| Digital maturity of local health and social care systems | Informatics with the Academy of Medical Sciences |
| Oxford AHSN Patient Safety Collaborative Annual Report | Patient Safety |
| A commitment to act – Patient Safety Collaborative national report | Patient Safety |
| Variation in paediatric care v3 | Best Care Clinical Networks: Children |
| Paediatric antibiotic prescribing guidelines | Best Care Clinical Networks: Children |
| AHSN Network impact report | All |
| MSK, falls, fractures and frailty | Clinical Innovation Adoption with other AHSNs |
| Defining and measuring suspicion of sepsis: an analysis of routine data, BMJ Open, May 2017 | Patient Safety |
| Improving communication at handover and transfer reduces retained swabs in maternity services, European Journal of Obstetrics & Gynaecology and Reproductive Biology, January 2018 | Patient Safety |

Appendix A - Review against the Business Plan milestones

| Programme/Theme | Milestone | Year 5 Q1 | Year 5 Q2 | Year 5 Q3 | Year 5 Q4 | Year 6 |
|----------------------------------|---|-----------|-----------|-----------|---|--------|
| Establishment of the Oxford AHSN | Annual Report | | | | ✓ | ◆ |
| | Oxford AHSN 5 Year re-licensing | | | | ✓ | |
| Best Care | Closure/handover of network activities to other entities. | ✓ | | | | |
| | Launch of new structure to govern remaining clinical network activities | | | | ✓ | |
| Clinical Innovation Adoption | Collection of data regarding adherence to all relevant NICE TAs and High Impact Innovations | | | |  | ◆ |
| | Update innovation portfolio that will have agreed implementation plans with sign off from the CIA Oversight Group. Horizon scan innovations in industry, NHS, NICE TAs and other sources. | ✓ | | | | |
| | Intra Operative Fluid Management Project Estimated Completion (commenced 2014/15) | | | ✓ | | |
| | Catheter Acquired Urinary Tract Infection Project Estimated Completion (commenced 2014/15) | | | ✓ | | |



| Programme/Theme | Milestone | Year 5 Q1 | Year 5 Q2 | Year 5 Q3 | Year 5 Q4 | Year 6 |
|-----------------|--|---------------|-----------|-----------|---|--------|
| | Early Inflammatory Arthritis NICE Project Estimated Completion (commenced 2014/15) | | | | ✓ | |
| | Biosimilars - Chief Pharmacists picking this up for BOB STP | Closed | | | | |
| | Fragility Fracture Prevention Service Estimated Completion (commenced 2015/16) | | | | ✓ | |
| | Falls Prevention Strategy Project Estimated Completion (commenced 2015/16) | | | |  | ◆ |
| | Respiratory- Estimated Completion (commenced 2016/17) | Closed | | | | |
| | Pneux (tracheal tube for ICU ventilator) | | | | | ◆ |
| | NIC (Non-injectable Connectors) | | | | | ◆ |
| | WireSafe (guidewire patient safety) | | | | | ◆ |
| | Thrombectomy (Mechanical device) | | | | Closed | |
| | Urolift (benign prostatic hyperplasia implants) | | | | | ◆ |
| | Select 10 innovations for 2018/19 | | | | ✓ | |

| Programme/Theme | Milestone | Year 5 Q1 | Year 5 Q2 | Year 5 Q3 | Year 5 Q4 | Year 6 |
|-------------------------------------|---|-----------|-----------|-----------|-----------|--------|
| | Start delivery of 2018/19 innovation portfolio | | | | | ◆ |
| | National AHSN Innovation Project to be agreed- Estimated Completion (Commencing 2016/17) | | | | ✓ | |
| Strategic and Industry Partnerships | Establish pipeline of innovations for commercialisation <ul style="list-style-type: none"> ensure industry and academics can access the NHS clinicians they need to work on concepts and pilots of new products and services work with tech transfer offices and other partners to ensure commercialisation is more efficient and effective | ✓ | | | | |
| | Support industry group to improve infrastructure across Oxfordshire | ✓ | | | | |
| | Provide support in the running and marketing of digital health events across the region | ✓ | | | | |
| | Establish one new JV or industry partnership | | | | ✓ | ◆ |
| | Establish consultancy business | | | | ✓ | |
| | Initiate diagnostic evaluations | ✓ | | ✓ | | |

| Programme/Theme | Milestone | Year 5 Q1 | Year 5 Q2 | Year 5 Q3 | Year 5 Q4 | Year 6 |
|---|--|-----------|-----------|-----------|-----------|--------|
| | Establish digital innovation pathway and accelerator | | | ✓ | | |
| | Oxford Martin School Project | | | | ✓ | ◆ |
| | Support regional cluster activity | | ✓ | | ✓ | |
| | Deliver one new funding initiative | | | | ✓ | ◆ |
| | West Midlands AHSN partnership | | | ✓ | | |
| Informatics Local Digital Maturity | Review CCG assessment and roadmap | ✓ | | | | |
| | CIO forum to initiate local maturity model for the region | | ✓ | | | |
| | Initiate a cross organisation assessment and visualisation | | | | ✓ | |
| Informatics Research Informatics Focused on the deployment of Clinical Records Interaction Search (CRIS). | Partner engagement | ✓ | | | | |

| Programme/Theme | Milestone | Year 5 Q1 | Year 5 Q2 | Year 5 Q3 | Year 5 Q4 | Year 6 |
|---|--|---------------|-----------|-----------|-----------|--------|
| | Federation - enabling federated queries to be run against local CRIS databases (Oxford) | | ✓ | | | |
| | Berkshire Healthcare Install extract utility and validate data dictionary | CLOSED | | | | |
| | Berkshire Healthcare User acceptance testing and tech go live. | CLOSED | | | | |
| | Berkshire Healthcare - CRIS deployment | CLOSED | | | | |
| Informatics Information Governance Mobilisation of IG Working Group (Caldicott Guardians and Heads of IG) in order to produce, sign off and implement an IG Framework for the AHSN region. | Developing local capability through training Heads of IG and establishing peer group network | | | | | ◆ |
| | Engaging CCGs to extend coverage to GPs | | | | | ◆ |
| | Patient Engagement with PPIEE to develop a consent for contact approach | | | | | ◆ |
| Demonstrate IG framework is working | Enable two region wide projects - Imaging and Maternity | ✓ | | | | |

| Programme/Theme | Milestone | Year 5 Q1 | Year 5 Q2 | Year 5 Q3 | Year 5 Q4 | Year 6 |
|--|---|-----------|-----------|-----------|-----------|--------|
| Informatics Personal Health Records Platform development | Develop case for change as basis for consultation, now as part of the interoperability work | | | | | |
| Informatics Developing analytics | Demonstrate to users how they will be able to interact with the new platform and access reports. | | | | | ◆ |
| | Run training sessions for users to access and refresh reports from the new data platform | | | | | ◆ |
| | Training super users in the ability to create new reports. | | | | | ◆ |
| PPIEE | Framework for supporting organisational and system-based patient centred care developed (year 5) and implemented (year 6) across all partner organisations | | | | | ◆ |
| | Strategic direction Revise strategy and publish including joint statement on PPI in research with links into work plans for individual organisations. | | | | | ◆ |
| | Communications and broadening PPIEE activity across the Oxford AHSN region Regular publications - involvement newsletter, publicising PPIEE events, and case studies | ✓ | ✓ | ✓ | ✓ | ◆ |

| Programme/Theme | Milestone | Year 5 Q1 | Year 5 Q2 | Year 5 Q3 | Year 5 Q4 | Year 6 |
|--------------------|---|-----------|-----------|-----------|---|--------|
| | PPIEE Network development Leading Together network newsletter published Leading Together events held | | | ✓ ✓ | | |
| | Leading Together <ul style="list-style-type: none"> - Co-designed and co-delivered pilot for learning disabilities - Train the trainer programme held - Funding sought for further rollout | | | ✓ ✓ |  | ◆ |
| | Informatics Agreed set of person-centred care metrics developed and tested with local organisations | | | |  | ◆ |
| Living Well Oxford | Public involvement Evaluated and held celebrating success event for aging and dementia pop-up shop | | | ✓ | | |
| | Continued education Links with PPI in Universities to be developed over the year | ✓ | ✓ | ✓ | ✓ | |

| Programme/Theme | Milestone | Year 5 Q1 | Year 5 Q2 | Year 5 Q3 | Year 5 Q4 | Year 6 |
|---|--|-----------|-----------|-----------|-----------|--------|
| Patient Safety | Maintain, consolidate and sustain current clinical programmes and function of PSC | ✓ | ✓ | ✓ | → | ◆ |
| | Design integrated approach to clinical adoption across PSC, Industry Partnerships and Clinical Innovation Adoption | | | | ✓ | |
| | Support and enable Maternity and Neonatal Collaborative | ✓ | ✓ | ✓ | ✓ | ◆ |
| | Build widespread capability in partnership with local organisations | | | | ✓ | ◆ |
| Stakeholder engagement and communications | Quarterly and annual reports | ✓ | ✓ | ✓ | ✓ | ◆ |
| | Sponsorship and events (updated programme in place) | ✓ | ✓ | ✓ | ✓ | ◆ |
| | Supporting materials developed - generic and specific - regular updates going forward including new branding | ✓ | ✓ | ✓ | ✓ | ◆ |

Appendix B- Matrix of Metrics

| No. | Core License Objective | Purpose of the programme | Health/Wealth delivery KPI (Year 5/6) | Milestone activities (Year 5/6) | Outcome Framework Domain | Associated Funding | Current Status |
|-----|--|---|--|---|--------------------------|--------------------|----------------|
| 1 | Focus upon the needs of Patients and local populations (A) | Best Care Programme The Best Care Programme is designed to deliver AHSN licence objective one: focus on the needs of patients and the local populations. | KPIs remain in discussion within senior AHSN team. Work remains on going to identify funding opportunities beyond March 18 | Secure funding for clinical networks Close networks that cannot secure funding | 1,2,3,4,5 | £521,494 | |
| 2 | Speed up innovation in to | Clinical Innovation | Average number of: Acute, Community/Mental | 5 more innovation adoption projects in | 1,2,3,4,5 | £1,045,256 | |

| No. | Core License Objective | Purpose of the programme | Health/Wealth delivery KPI (Year 5/6) | Milestone activities (Year 5/6) | Outcome Framework Domain | Associated Funding | Current Status |
|-----|------------------------|---|---|---|--------------------------|--------------------|----------------|
| | practice (B) | <p>Adoption Programme</p> <p>The Clinical Innovation Adoption (CIA) Programme aims to improve significantly the speed at which quality clinical innovation is adopted and in the process of adoption - improve clinical pathways and outcomes for patients.</p> <p>The goals of the programme are to;</p> <p>Support adoption of innovations at scale across the region to improve patient outcomes, safety experience and cost effectiveness</p> | <p>Health Trusts and Community adopting each innovation</p> <ul style="list-style-type: none"> - Planning to implement - Implemented - Participating | <p>final stage of deployment</p> <p>25 more innovators trained on Practical Innovation course</p> | | | |

| No. | Core License Objective | Purpose of the programme | Health/Wealth delivery KPI (Year 5/6) | Milestone activities (Year 5/6) | Outcome Framework Domain | Associated Funding | Current Status |
|-----|--|---|--|---|--------------------------|--------------------|----------------|
| 3 | Build a culture of partnership and collaboration (C) | To promote inclusivity, partnership and collaboration to consider and address local, regional and national priorities. | All of the AHSN's seven programmes and themes are a collaborative effort by all the partners in the region, and address local and national priorities. | | 1,2,3,4,5 | | |
| | | R&D The R&D Programmes aims are to improve R&D in the NHS through closer collaboration between the Universities, NHS and Industry. | | Ongoing work to support the development of individual trust R&D strategic plans | | £23,960 | |
| | | Informatics Informatics theme has been designed to support the core programmes/themes of the AHSN across all four | | Bid for Digital Innovation Hub (year 5) | 1,2,3,4,5 | £490,713 | |

| No. | Core License Objective | Purpose of the programme | Health/Wealth delivery KPI (Year 5/6) | Milestone activities (Year 5/6) | Outcome Framework Domain | Associated Funding | Current Status |
|-----|------------------------|---|---|---|--------------------------|--------------------|----------------|
| | | license objectives by drawing insight from population data for the purpose of transparent assessment of health status, measurement of health improvement and research. | | | | | |
| | | PPIEE Patient and Public Engagement and Experience (PPIEE) is a crosscutting theme, working across the programmes of the AHSN, relevant work is cross-referenced to other sections of the business plan. | | Plan for sustainability beyond March 2018 | 4 | £184,158 | |
| | | Team, overhead, communications, events and sponsorship | Number of subscribers to the Oxford AHSN Newsletter and Twitter | Stakeholder roadshows (years 5 and 6) | | £1,354,326 | |

| No. | Core License Objective | Purpose of the programme | Health/Wealth delivery KPI (Year 5/6) | Milestone activities (Year 5/6) | Outcome Framework Domain | Associated Funding | Current Status |
|-----|------------------------|--|---|---|--------------------------|--------------------|----------------|
| | | | <p>followers per quarter</p> <p>Number of visits to Oxford AHSN website per month</p> <p>Number of attendees at all AHSN events per annum</p> | Independent stakeholder survey (year 6) | | | |
| 4 | Create wealth (D) | <p>Strategic and Industry Partnerships</p> <p>Aim is to help our region become the favoured location for inward life science investment, life science business creation and growth - helping the NHS to accelerate the adoption of clinical innovations bringing significant benefits to patients.</p> | <p>Amount of investment leveraged in the region (including savings)</p> <p>Number of people employed in life science industry</p> | One new joint venture or industry partnership (years 5 & 6) | 1,2,3,4,5 | £751,099 | |

| No. | Core License Objective | Purpose of the programme | Health/Wealth delivery KPI (Year 5/6) | Milestone activities (Year 5/6) | Outcome Framework Domain | Associated Funding | Current Status |
|-----|---|---|--|---|--------------------------|--------------------|----------------|
| 5 | Patient Safety and Clinical Improvement | <p>The principal aims of the collaborative will be to:</p> <p>Develop safety from its present narrow focus on hospital medicine to embrace the entire patient pathway</p> <p>Develop and sustain clinical safety improvement programmes within the AHSN</p> <p>Develop initiatives to build safer clinical systems across the Oxford AHSN</p> | <p>Increase adoption of safer leave (AWOL) project in CNWL to increase return rates by 50% on all acute wards</p> <p>Maintaining and increasing the amount of premature babies born in a level 3 unit (≤ 27 weeks gestation or ≤ 28 weeks in multiple pregnancy, or estimated foetal weight of 500g)</p> | <p>Three programmes showing safety improvement. Improvement sustained at Oxford and Berkshire.</p> <p>Plan for sustainability beyond March 2019</p> | 1,2,3,4,5 | £918,937 | |
| | | | | | | £5,289,941 | |

Appendix C- Risk Register and Issues Log

Risk Register

| # | Prog/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 collaboration across the region | Insufficient engagement of clinicians, commissioners, 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 | Med | > 6 / 12 months | <p>Leadership supporting a culture of collaboration, transparency and sharing.</p> <p>Agreed organisational Vision, Mission and Values.</p> <p>Oversight Groups in place for each Programme and Theme, broadening representation across our stakeholders.</p> <p>Celebrate successes through Case Studies & Events.</p> <p>Regular monthly newsletter and Twitter. Regular refresh of website and monitor usage.</p> <p>Quarterly review of breadth and depth of engagement by programmes and events.</p> <p>CIA analysis of strategic priorities of commissioners</p> | AHSN Chief Executive | Programme SROs | 06-Sep-13 | Ongoing | AMBER |

| # | Prog/Theme | Risk | Description of Impact | Likelihood | Impact | Time | Mitigating Action | Owner | Actioner | Date added | Date mitigated | RAG | |
|---|-----------------------|-----------------------------|----------------------------|------------|--------|-----------------|--|------------------------------|------------------------------|------------|----------------|-------|--|
| | | | | | | | <p>and providers.</p> <p>Focussed events for clinicians and managers to foster collaboration for better patient care.</p> <p>Oxford AHSN commissioned a stakeholder survey. 26% response rate (536 responses) Results positive. We will commission another survey in 2018.</p> <p>Oxford AHSN also took part in the National YouGov Stakeholder Survey but response numbers (circa 20) statistically invalid to draw any conclusions</p> <p>Active engagement with STPs and ACSs</p> | | | | | | |
| 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. Discussions started with NHS E and NHS I regarding funding of PSC beyond March 2019. | AHSN Chief Operating Officer | AHSN Chief Operating Officer | 31-Jul-14 | Ongoing | AMBER | |

| # | Prog/Theme | Risk | Description of Impact | Likelihood | Impact | Time | Mitigating Action | Owner | Actioner | Date added | Date mitigated | RAG |
|---|-----------------------|--------------------------|-----------------------|------------|--------|--------------|---|------------------------------|------------------------------|------------------|----------------|-------|
| | | | | | | | <p>OLS has confirmed funding for AHSNs for 3 years</p> <p>Actively pursuing industry partnerships, JVs and grants to reduce reliance on NHS E and NHS I funding.</p> | | | | | |
| 3 | Oxford AHSN Corporate | INNS – weak local uptake | | Med | Med | >6/12 months | <p>Identify clinical leadership. Ensure evidence based is robust. Collaborate with other AHSNs already implementing projects. Robust governance through CIA, Patient Safety and Clinical Improvement and SIP Oversight Groups. Ensure strong local case for implementation.</p> | AHSN Chief Operating Officer | AHSN Chief Operating Officer | 19 February 2018 | Ongoing | Amber |

Issues Log

| # | Programme / Theme | Issue | Severity | Area Impacted | Resolving Action | Owner | Actioner | Date Added | Current Status | Date Resolved |
|---|-----------------------|--|----------|---------------|--|------------------------------|------------------------|------------|----------------|---------------|
| 2 | Oxford AHSN Corporate | Lack of awareness by local partners and national stakeholders of progress and achievements of the AHSN | Minor | Culture | <p>Overarching comms strategy.</p> <p>Level of engagement monitored across all programme and themes.</p> <p>Website refreshed regularly - visits per month increasing.</p> <p>Twitter followers and newsletter subscribers increasing.</p> <p>Oxford AHSN stakeholder survey.</p> <p>Quarterly report sent to all key stakeholders</p> <p>Pipeline of publications and case studies.</p> | AHSN Chief Operating Officer | Head of Communications | 19/01/15 | 90% complete | |

Appendix D - Oxford AHSN case studies published in quarterly reports

| Quarterly report | Case study summary | Programme/Theme |
|------------------|--|---|
| 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 | Roadmap published to guide digital health developers | Strategic and Industry Partnerships |
| | Reducing urinary tract infections in care homes by improving hydration | Patient Safety and Clinical Improvement |
| | Oxford Growth Restriction Identification Programme (OxGRIP) saves a life | Patient Safety and Clinical Improvement |
| 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 |
| | 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 | Strategic and Industry Partnerships |

| Quarterly report | Case study summary | Programme/Theme |
|----------------------------|--|-------------------------------------|
| | Buckinghamshire | |
| | 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 | Strategic and Industry Partnerships |
| | 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 | Strategic and Industry Partnerships |
| | Imaging patient info films | Best Care |
| | Sustainability project | Strategic and Industry Partnerships |
| Q1 2016/17 | Bicester healthy new town | Strategic and Industry Partnerships |
| | Children's immunisation | Best Care |
| | Perinatal SHaRON | Clinical Innovation Adoption |
| Q4 2015/16 (annual report) | Memory clinic accreditation update | Best Care |
| | Meds optimisation CBT programme | Best Care |
| | AWOL project | Patient Safety |
| | J&J collaboration | Strategic and Industry Partnerships |
| | CAUTI project | Clinical Innovation Adoption |
| Q3 2015/16 | EIP data based approach | Best Care |
| | Leading Together programme starts | PPIEE |

| Quarterly report | Case study summary | Programme/Theme |
|----------------------------|-------------------------------------|-------------------------------------|
| | 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 |
| | 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 | Strategic and Industry Partnerships |