

# Oxford AHSN Year 4 Annual Report

For the year ending 31 March 2017

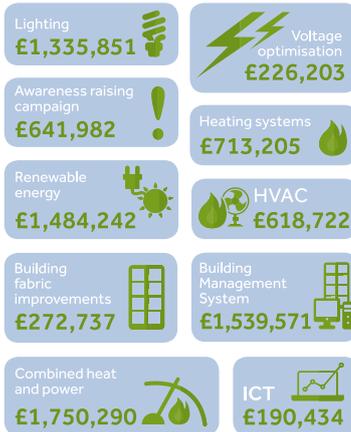
Professor Gary A Ford CBE FMedSci



Making sustainability happen



## Total annual savings by project type



2016 REPORT

Our 'Making Sustainability Happen' report can be found [here](#)

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## **Chair's Report**

I am delighted to present our fourth Annual Report. On behalf of the Oxford AHSN Board I would like to say how pleased we are with the progress of the programmes and themes and how collaboration and partnership working has grown in the region.

This has been a challenging year for Oxford AHSN as we have had to make some tough decisions about our future. We have had to reduce our funding to the Best Care clinical networks to sustain the AHSN and focus more on innovation adoption and economic growth in accordance with the Accelerated Access Review.

I am delighted that NHS England has decided to re-licence the AHSNs because the task of accelerating adoption of innovation in to the NHS is far from complete. If anything, the needs and the challenges are greater as budgets are tight and clinicians are even busier meeting the increasing activity levels and growing case load of complex patients as our population ages.

I would like to thank the AHSN Board, particularly the chairs of the oversight groups, who take the time to oversee the collaborative programmes of work. I would like to thank the Partnership Board which helps guide the direction of the AHSN.

We are in good shape for the future and I very much look forward to the next twelve months.

**Nigel Keen**  
**Chair, Oxford AHSN**

## **Chief Executive's Review**

The challenges in the NHS continue as the growth in demand continues to outstrip economic growth and government funding. This challenge is seen in developed health care countries with health care costs typically growing at an annual rate of 3.5% and GDP around 2%. These long term trends require the NHS to make significant progress in achieving increased productivity and more effective disease prevention. Assessing and treating patients in a timely manner in the right setting is key and a core theme in the Five Year Forward View. To enable faster decision-making and better use of scarce clinical time and to improve patient outcomes and experience, the NHS needs to utilise new diagnostics and digital health solutions, particularly in out-of-hospital care settings such as the new primary care hubs being developed in the Frimley Health and Care System Sustainability and Transformation Plan (STP). Oxford AHSN is evaluating a pipeline of new diagnostics and digital health innovations in a range of NHS settings which we anticipate will be a useful resource for NHS partners to draw upon in the four STPs that we support.

The Accelerated Access Review (AAR) sets out a key role for AHSNs in working with industry to speed up adoption of innovation in the NHS at pace and scale and supporting economic growth. Life sciences are a key element of the government's Industrial Strategy Green Paper published in January. For the UK to grow and sustain life science companies requires the NHS to undertake early adoption and evaluation of technologies that offer promise of delivering better value and outcomes.

NHS England confirmed in November that it is seeking to relicense AHSNs although we do not yet have information on the relicensing process. NHS England have also indicated that core funding will be further reduced to 40% of the funding received at the AHSN's inception in 2013 which would mean that Oxford AHSN is unsustainable without reducing costs.

In that context the AHSN Board agreed that we must focus our efforts on delivering against AAR and as the NHS partners are unable to increase future financial contributions, the Board took the difficult decision to significantly reduce funding to the Best Care clinical networks. In a letter to our partners I emphasised that the Best Care Clinical Networks have made an invaluable key contribution to improving patient care and outcomes over the last 3-4 years, but we do not have the resources to continue to fund eight Best Care Clinical Networks. We will develop alternative approaches and models to support clinical engagement, to deliver innovation adoption and support system transformation across a broader range of clinical specialties. Beyond this date some funding will be available to each network if they can identify other sources of funding to sustain their network.

We expect some of the networks to secure alternative sources of funding to sustain them. We have confirmed that through patient safety we will fund the maternity network until March 2019 as this has focused on safety and will support the National Maternity Safety Collaborative.

We are exploring additional sources of funding and the AHSN senior team are working on a number of commercial and grant funding opportunities. I remain confident about sustaining the Oxford AHSN to support innovators and NHS partners bring innovation into practice to improve patient outcomes and productivity in the NHS.

I would like to thank Dr Paul Durrands, Chief Operating Officer, and the team for their commitment and dedication, and also our Chair Mr Nigel Keen and our Deputy Chair and CEO of our host trust, Dr Bruno Holthof for their continued support and encouragement during these challenging times.

**Professor Gary Ford CBE, FMEDSci**  
**Chief Executive Officer, Oxford AHSN**

## Oxford AHSN case studies

- Catalysing innovation and driving economic growth in Buckinghamshire
- Better monitoring and fewer hospital visits for women who develop diabetes in pregnancy
- Saving more pre-term babies
- Better data sharing through information governance framework

### Case Study

#### Catalysing innovation and driving economic growth in Buckinghamshire

##### Overview summary

Funding has been awarded for a Life Sciences Innovation Centre in Buckinghamshire. Based at sites in both Stoke Mandeville Hospital and Bucks New University in High Wycombe, the centre will offer both space and support to businesses developing innovative products focused around a broad range of clinical areas including health and wellbeing, social care, prevention and public health.

Oxford AHSN, which has supported this project from its inception, formed a partnership with four organisations:

- Buckinghamshire Healthcare NHS Trust (includes the National Spinal Injuries unit at Stoke Mandeville Hospital)
- Buckinghamshire New University
- Buckinghamshire County Council
- Chiltern Clinical Commissioning Group.

The partnership put in a bid for £750,000 from the European Regional Development Fund (ERDF) – decision awaited – and £1.3m from Buckinghamshire Thames Valley Local Enterprise Partnership which was awarded in February 2017. The Buckinghamshire Life Sciences Innovation Centre is due to open in autumn 2017.

The Buckinghamshire Life Sciences Innovation Centre is a genuine partnership that will bring together all the elements needed to support healthcare innovators in developing products and services that will ultimately improve patient care, support new businesses and generate jobs locally. It provides a strong platform for growth and sustainable partnerships between industry, NHS, public health, social care and Buckinghamshire New University.

##### Background

Buckinghamshire is home to a large number of global life science companies including Janssen/Johnson & Johnson and GE Healthcare who have supported the bid. However, there are a limited number of small and medium-sized life science companies. This new venture will stimulate the market, developing new life science businesses and creating jobs within Buckinghamshire.

The Buckinghamshire Life Sciences Innovation Centre offers a unique opportunity for innovators within both small or large businesses to network with academics, clinicians, service providers and commissioners to develop and co-create innovations that meet local needs and priorities, and to build on the existing culture of innovation and partnership working.

There will be a focus on developing products that can add value to the local health system and improve patient outcomes (e.g. keeping people well and out of hospital will be selected). Innovations may be medical devices, digital, virtual reality, 3D printing, robotics, spinal and rehabilitation products, or well-being and consumer products.

### **Supportive quotes**

Lou Patten, Accountable Officer for NHS Aylesbury Vale and Chiltern Clinical Commissioning Groups, said: "Innovation in healthcare is absolutely essential to allow us to deliver the best outcomes for our patients. It helps our services to operate more efficiently and effectively and will potentially offer the public more ways to help prevent the onset of long term conditions such as heart disease or diabetes, supporting them to live well for longer."

Professor Tim Middleton, Pro Vice-Chancellor of Buckinghamshire New University, said: "The University strives to be a catalyst in making a positive impact in our region and is proud to play its part in supporting innovative businesses to meet the health needs of our region and improve patient outcomes."

### **Activities**

The Buckinghamshire Innovation Centre will make a strong offer to innovators and industry, building on the partnership's existing initiatives and future plans.

It will advise innovators on the strength of their product, its place in clinical pathways and organise necessary product testing and validation in dedicated clinical testing environments.

Involvement of the commissioners at early stage in assessment, co- production and innovation business case is likely to increase the adoption & uptake of innovations locally.

A Public Health single point of access service is being procured that will source digital health solutions to support people to better manage their lifestyle and long-term health conditions.

This will offer innovators an opportunity to test and validate their products.

Buckinghamshire County Council aims to provide leading-edge assistive technology, to co-create with innovators, and build a stronger marketplace. There is a clear need to find digital health solutions to reduce the pressures on social care providers and to keep people safe and cared for at home.

Bucks New University is working to create Masters and Professional Doctorate level degree programmes that evaluate key innovations that might benefit health and social care.

There will be access to specialised clinical environments such as state-of-the-art and *Guardian* prize-winning clinical simulation ward and theatre simulation suites at BNU and the upper limb rehabilitation facility at the National Spinal Injuries Centre.

There will also be mentoring with Johnson & Johnson, GE Healthcare and other companies.

The Innovation Centre will link into a developing network of regional digital accelerators e.g. The Hill at Oxford University Hospitals NHS Foundation Trust and University of Reading Science Park.

- Access to networking, innovation, supply chain, and access to investors events
- Access to fast road and rail network to London, Oxford, and wider South East region, and access to numerous airports

### **Impact**

In the first three years ...

- 100 small companies and 50 innovators will receive support
- 20 new jobs will be created
- 15 enterprises will cooperate with research institutions
- 5 enterprises will be supported to introduce new-to-the-market products
- 5 enterprises will be supported to introduce new-to-the-firm products

### **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
- Creating wealth through co-development, testing, evaluation and early adoption and spread of new products and services

### **NHS England priority areas**

- Driving economic growth

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## Digital health initiative leads to better monitoring and fewer hospital visits for women who develop diabetes during pregnancy



### Overview summary

An innovative digital health system developed by researchers and engineers working with frontline clinicians is helping women who develop diabetes during pregnancy to better manage their condition and make fewer hospital visits. Oxford AHSN played a key role in establishing the proof of concept, spreading the pilot from a single hospital to multiple sites across a region of 3.3 million people.

Feedback from testing with almost 2,000 women demonstrated the system to be safe, robust and user-friendly, bringing many benefits for patients and services alike. There were improvements in reliability, convenience and efficiency. It showed better glucose control and a reduction in clinic visits by eligible women of approximately 25%, freeing up hospital capacity and improving efficiency. One unit estimated the time saving as an hour each day.

The product has now secured an industry partner opening-up possibilities for accelerated spread and commercialisation across the UK and beyond.

### **Challenge/problem identified**

Gestational diabetes mellitus (GDM) affects about one in ten pregnancies, approximately 100,000 women across England every year – and numbers are rising. It can lead to complications for mother and baby. Careful monitoring of blood glucose levels is vital for successful management. Conventional treatment involves a combination of paper diaries (completed up to six times a day) and fortnightly check-ups in hospital where medication and diet are adjusted if necessary. These hospital visits are time-consuming and can be stressful for women in the latter stages of pregnancy. It can also be difficult for hospital staff to respond as quickly as they would like to changes in patients' condition. Patients can inadvertently introduce errors through manual recording of results.

### **Actions taken**

An obstetrician wanted to improve remote monitoring and reduce the number of hospital visits made by women with gestational diabetes. She worked with the Institute of Biomedical Engineering at the University of Oxford, supported by the NIHR Oxford Biomedical Research Centre, to develop a digital health solution known as GDM-Health. It uses a smartphone app to track blood glucose levels, and enable swift communication between pregnant women with gestational diabetes and specialist midwives. Data is transferred simply and securely in real time, enabling instant review and feedback.

Clinicians and patients have been closely involved in the development of GDM-Health. Initially, it was only available on android phones loaned out by maternity units. Based on feedback this was extended to iOS products, with patients able to download the app to their own devices.

GDM-Health was initially piloted in one hospital. Input from the Oxford AHSN enabled wider testing at three more NHS trusts.



## **Impact / outcomes**

By March 2017 almost 2,000 women had taken part in the regional pilot. Feedback demonstrated improvements in reliability, convenience and efficiency. It showed better glucose control and a reduction in clinic visits by eligible women of approximately 25%, freeing up hospital capacity and improving efficiency. One unit estimated the time saving as an hour each day.

With gestational diabetes affecting around 6,000 women each year in the Oxford AHSN region, adoption by all maternity services in the region could lead to thousands fewer hospital visits and savings of hundreds of thousands of pounds.

The GDm-Health system enables monitoring of blood glucose readings in line with the NICE Diabetes in Pregnancy Guideline, 2015.

Recorded benefits include:

- accurate, real-time readings from patients, transferred electronically
- flexibility for patients to add supplementary diet information
- recording medication doses at each episode
- staff alerted if no readings coming through or readings out of range, making it easier to prioritise workload.
- Patient-friendly – especially with patients who are not good with other technology such as emails or who have literacy/numeracy problems.

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

An evaluation of GDm-Health was included in an independent evaluation of digital health apps carried out by the York Health Economics Consortium in 2016 (see page 4). <http://www.yhec.co.uk/yhec-content/uploads/2017/02/Case-studies-17-Feb-2017.pdf>

The Oxford AHSN helped the innovation find an industry partner (Drayson Technologies) in February 2017 to further test, develop, spread and commercialise the GDm-Health system.

## **Supporting quotes**

“It was handy to know that I was in constant touch with somebody and that I would get a message if there was something to worry about. We live about an hour away so having fewer appointments as a result of using this kit helped a lot.” – Vanessa Galli-Wara, gestational diabetes patient

“Previously we would receive an email from the patient, then précis their readings, record those readings manually on paper records and then respond by email to the patient with medication/dose recommendations. This was laborious and allowed for transcribing errors. Oxford AHSN adapted the database to our needs so we collect additional info on each patient at delivery and download it at the end of the year for audit purposes. This now takes approximately one day instead of six weeks. We would find it

almost impossible to manage without the system now.” - Rachel Crowley, Diabetes specialist midwife, Royal Berkshire Hospital, Reading

Prof Lionel Tarassenko, Head of Engineering Science at the University of Oxford, said: “We have combined world-class engineering and clinical research with feedback from frontline NHS staff to create products that deliver real benefits to patients.”

Lord Paul Drayson, Chairman and Chief Executive of Drayson Technologies, said: “These products have shown in clinical trials that they improve patient health outcomes and reduce costs for the NHS. We are delighted to ... complete clinical evaluation and deploy these products more broadly across the NHS.”

### **Plans for the future**

Having secured an industry partner (Drayson Technologies) in February 2017, the focus in 2017/18 will be on further testing, development, spread and commercialisation across a wider area.

### **Which national clinical or policy priorities does this example address?**

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

### **Start and end dates:**

2014-ongoing

### **Contact**

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## Lives of more premature babies saved through improved referral pathways



### Overview summary

**Improved access to specialist maternity care is increasing the survival chances of extremely premature babies.**

Research has shown that babies who are born very prematurely (under 27 weeks of pregnancy) are more likely to survive and thrive if they are born in a hospital that has the highest level of specialist neonatal care (a Level 3 unit).

The Oxford AHSN Maternity Network brought together stakeholders from across the region to work together so that more extremely premature babies are born in a Level 3 unit with a region-wide package of improvements put in place. This required a significant shift in working practices from making decisions based on availability of beds/staff to focus on the risks for the mother/baby.

The initiative led to a 50% increase in extremely preterm babies born in a Level 3 unit (up from 50% to 75-80%). It is estimated that as a result of this the lives of four extra extremely premature babies are being saved every year (a 5% increase).

## Challenge/problem identified

An extremely premature baby (born before 27 weeks) is more likely to survive and thrive if transferred before birth to a specialist neonatal intensive care unit (a Level 3 centre). There was some evidence to suggest that the Oxford AHSN region had lower rates of babies being born in or transferred to a Level 3 unit than in other comparable regions.

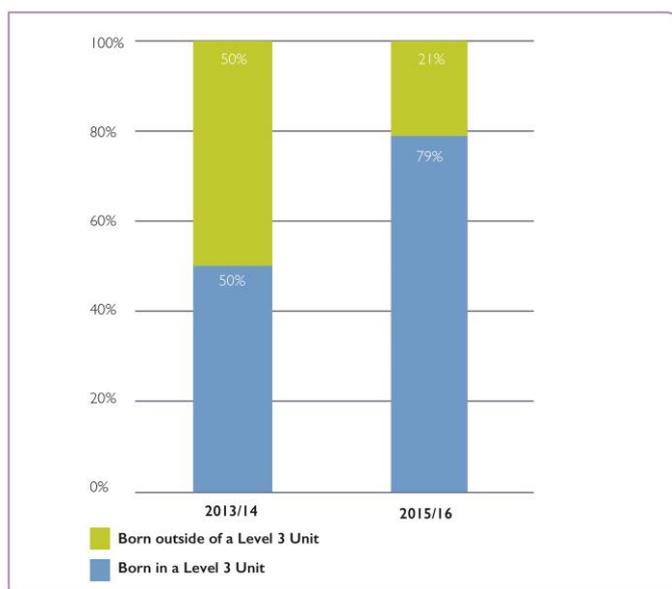
Birth in a Level 3 unit is not always possible due to the unpredictable nature of preterm delivery. However, higher birth rates in these units can be achieved through greater consistency and cooperation between maternity units. Allied with the provision of good, prompt evidence-based care when women present with signs of premature labour, improvements in outcomes for mothers and babies can be achieved.

## Actions taken

In April 2015, the Oxford AHSN Maternity Network carried out a root cause analysis of all cases of extremely premature birth that occurred *outside* of a Level 3 unit in the region over two years. The Network then put together a package of improvements to address issues and barriers identified including:

- **introducing a simple method of referring a woman at risk of premature labour to the local Level 3 unit.** This involved using one point of contact – with the most senior clinician on duty, 24 hours a day, discussing the clinical case with the referring unit. This required a significant shift in working practices from making decisions based on availability of beds/staff to the risk for the patient
- **developing region-wide best care guidelines to improve the identification and management of threatened preterm labour** - [www.oxfordahsn.org/our-work/clinical-networks/maternity/network-wide-guidelines](http://www.oxfordahsn.org/our-work/clinical-networks/maternity/network-wide-guidelines)
- **reporting and analysing all cases where birth occurred outside of a Level 3 centre** to ensure any emerging issues can be addressed quickly
- **improving awareness in key staff groups** including embedding the guidelines and referral pathway in trainee doctors training programmes (with support from Health Education England)

More here: [www.oxfordahsn.org/our-work/clinical-networks/maternity/audit-of-place-of-birth-of-extremely-preterm-babies](http://www.oxfordahsn.org/our-work/clinical-networks/maternity/audit-of-place-of-birth-of-extremely-preterm-babies)



## Impacts / outcomes

This initiative has led to significantly more extremely premature babies being born in a Level 3 unit, increasing their survival chances. There has been a consistent and sustained 50% increase in babies born in the region's level 3 centre (up from 50% to 75-80%).

In terms of real lives, the figures in the chart above and set out below demonstrate the improvement:

#### ***Before the initiative***

- April 2013 to March 2014
- Extremely premature babies born: **76**
- Extremely premature babies born in a Level 3 unit: **38**

#### ***After improvements implemented***

- April 2015 to March 2016
- Extremely premature babies born: **65**
- Extremely premature babies born in a Level 3 unit: **50**

An independent study carried out by the Office of Health Economics and RAND Europe found that the project had led to an improvement in the likelihood of survival of five percentage points (compared to survival rates before the project began), which translates to approximately four additional babies surviving per year. More here: [www.oxfordahsn.org/wp-content/uploads/2016/08/Oxford-AHSN-Phase-2-report-Final-4-studies.pdf](http://www.oxfordahsn.org/wp-content/uploads/2016/08/Oxford-AHSN-Phase-2-report-Final-4-studies.pdf)

Additional improvements as a result of the project across the Oxford AHSN region have included an increase in the use of magnesium sulphate for neuroprotection of the baby. This is a drug given before birth which can help reduce potential problems with the baby's brain as a result of premature birth.

#### **Stakeholder quote**

“The Thames Valley Neonatal Network is delighted to see that there has been a dramatic reduction in preterm babies being born outside a tertiary centre. This is a major achievement in a short space of time and the whole network is to be congratulated on all the hard work and co-operation that has gone into making this project a success.”

Dr Eleri Adams, Vice Chair, National Neonatal Clinical Reference Group; Clinical Lead, Thames Valley Neonatal Network

#### **Plans for the future**

The project is now in a monitoring and supporting phase, to ensure the reforms continue to be effective and embedded in the Oxford AHSN region.

This work has been shared with colleagues within the Wessex and Eastern AHSNs, and has potential to be shared more widely in areas where this issue is a concern. A package is being developed demonstrating the methods used for analysis of cases, the region-wide approach to shared best care guidelines and the method of referring women at risk of preterm labour.

#### **Which national clinical or policy priorities does this example address?**

- Care and Quality
- Health and Well Being

**Start and end dates:**

2015-ongoing

**Contact**

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## Case Study

### Better data sharing through regional information governance framework

#### Overview summary

A data sharing framework has been agreed with all NHS trusts in the Oxford AHSN region to establish a consistent approach to information-sharing. Since the establishment of this framework the average time taken to agree Information Governance arrangements for projects has dropped from 4-6 **months** to 4-6 **weeks**. This brings benefits in relation to patient safety and service development.

#### Challenge identified

Previously, to access data from multiple providers involved completing separate data sharing agreements for each organisation. This was a lengthy and often confusing process to engage the right individuals, repeatedly provide background information and ensure consistency in the information and detail required. Not only did it cause managers frustration, it also introduced risks through delays in signing off agreements before data could be shared.

#### Actions taken

To address this the Oxford AHSN Informatics team developed a single approach to sharing information across the Oxford AHSN partner NHS trusts. The process involved extensive collaboration and consultation with Information Governance colleagues across 12 organisations to develop an Information Governance (IG) Framework and inform the structure and content of the documents.

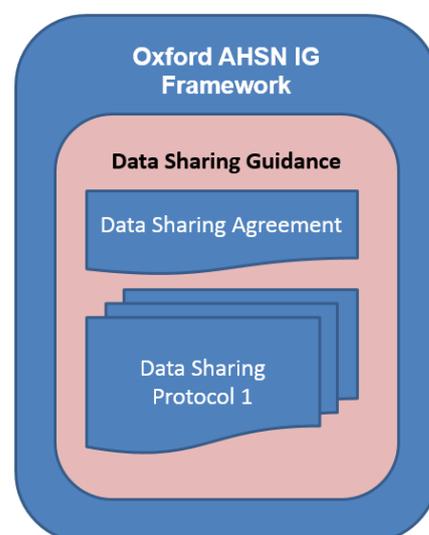
There was recognition of the effective cross-organisational work of the Oxford AHSN and the need to share data securely across organisational boundaries to support projects.

Three documents were created (see right). These make up the Oxford AHSN's IG Framework. This enables a clear IG direction for projects across the region. Sign up to the Data Sharing Agreement started in 2015/16 and continued following further engagement in 2016/17. Examples include Acute Kidney Injury - the IG Framework enabled sign-off on a protocol document which proposed to replicate the collection, linkage and pseudonymisation of a patient datasets across all trusts involved. The data is currently being returned and analysed to support the AKI project group to understand outcomes and variation across the region. See case study below for more details.

All Oxford AHSN partner trusts are now signed up to the IG Framework. They are:

*Oxford University Hospitals, Oxford Health, Royal Berkshire, Berkshire Healthcare, Frimley Health, Buckinghamshire Healthcare, Milton Keynes University Hospital, Great Western Hospitals, Bedford Hospital, Southern Health, South Central Ambulance Service, Central and North West London.*

The new IG framework takes account of the Data Protection Act and national IG guidance and best practice.



## Impact/outcomes

A more consistent, clearer and quicker approach to data sharing has been established, setting a high standard of information governance across the Oxford AHSN region.

Improvements achieved include:

- consistent approach to sharing data, to make the process easier and quicker
- Oxford AHSN project managers familiar with the guidance and single form to complete to share data
- clear process of information required and the steps needed to get sign-off from all trusts included in a project
- setting a high standard of information governance
- providing a clear message for information governance teams about the process, the Oxford AHSN and its objectives. The process is agreed and clear, teams are familiar with the format.

Measure	Outcome
Number of trusts signed up to the Data Sharing Agreement	12 (this represents all trusts involved to date)
Number of protocols signed off for specific projects	10
How long for IG to be arranged for a project – <b>before</b>	4-6 months
How long for IG to be arranged for a project – <b>after</b>	4-6 weeks

## Supportive quotes

*“The Oxford AHSN team has created an exemplar for information-sharing between partner organisations”*

Dr Chris Bunch, Oxford University Hospitals Caldicott Guardian

## AHSN priorities addressed

- Care and Quality
- Funding and Efficiency

## Future plans

A steering group with membership drawn from all organisations signed up to the IG framework has been established to oversee its management and development.

Coverage of the framework will be extended beyond NHS trusts to include Clinical Commissioning Groups, GP federations and individual GP practices.

Work will develop with patients and GPs to develop a ‘consent for contact’ model to include patients in service evaluation and research projects.

## Tips for adoption

- Take time to engage IG colleagues, be clear about the aim and the value offer.
- Provide notice of meetings - be realistic that diaries will be busy and you will also need a way to digitally engage professionals outside of workshops and meetings.
- Clinical involvement and support – both in the development of such a framework and in every project that needs to share data, local clinical sponsors are key.
- Provide time for consultation and an easy format to feedback ideas – recognising the nature of the documents under review.

## Contact

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### Spotlight: Acute Kidney Injury, Oxford AHSN Patient Safety Collaborative

Following a process of initial data exploration with the project team, it was decided that analysis of patients coded with Acute Kidney Injury had returned results lower than expected. In discussion with clinicians it was decided identifying the population of AKI patients using creatinine clinical biomarkers data would return a more realistic set of data. These datasets could then be linked locally to operational hospital data to understand outcomes such as length of stay, mortality, demographic profiling, referral, primary diagnosis and comorbidities.

The process of extracting biomarkers data from pathology teams and linking to hospital data using key identifiers before being fully pseudonymised was tested with Oxford University Hospitals (Oxford AHSN's host Trust). The output was reviewed and it was decided that repeating the collection and linkage across the region would add value by identifying a more accurate population of patients for evaluation, understanding AKI and deteriorating AKI patients in addition to the outcomes data.

The IG Framework enabled sign-off on a protocol document which proposed to replicate the collection, linkage and pseudonymisation of a patient datasets across all trusts involved. The data is currently being returned and analysed to support the AKI project group to understand outcomes and variation across the region.

## Operational Review

Progress has been solid this year and engagement has increased significantly. Following publication of the Accelerated Access Review in October and confirmation by NHS England in November that AHSNs will be relicensed, the AHSN Board reviewed nine options for sustaining the AHSN into the next licence period from 2018. More focus will be placed on evaluation and adoption at scale of innovative products (medicines, devices, diagnostics and digital health solutions). We have a strong pipeline of grant applications and commercial opportunities which are key to sustaining the AHSN as we need to diversify our income and reduce our reliance on NHS England funding which will reduce further in the future.

### Building the Network

Oxford AHSN Board commissioned ComRes to undertake an independent stakeholder survey between May and June 2016. The full report is available at <http://bit.ly/OxfordAHSNsurvey>. I would like to thank all who took part in the survey. This independent survey generated 563 questionnaire respondents and 20 qualitative interviews with key stakeholders. It provides valuable feedback to shape our future work. The results are overall very positive with the clear majority of stakeholders believing Oxford AHSN is having a positive impact in the region.

Four in five respondents agreed that the network is building a culture of collaboration and partnership. The results suggest an increasing awareness and appreciation of Oxford AHSN and its work with a diverse range of partners across the NHS, patient groups, universities and industry. Almost two-thirds of respondents said the Oxford AHSN added value to their work and around three out of four respondents who knew at least a little about Oxford AHSN felt its team members were effective in working with them.

The results show that all our stakeholders (patients, NHS, industry and universities) recognise the value of the work to spread innovation, improve patient outcomes and support economic growth. There is more to do to build a sustainable network across the region but the results are positive.

An example of public-private partnership is Get Physical, a programme to improve health through physical activity. Over 200 people, representing more than 120,000 employees, attended a series of 'workplace wellbeing roadshows' in Berkshire, Buckinghamshire and Oxfordshire in November 2016 to promote health and wellbeing initiatives and strategies among NHS staff and patients, as well as the wider public and private sector workforce. These were organised by a unique partnership between the public and private sectors including BMW, Johnson & Johnson, Unipart and Vodafone). It is coordinated by Oxford AHSN.

Stakeholder engagement measured by numbers of newsletter subscribers, attendees at events, access to the website and Twitter followers has grown significantly since last year (see KPIs below and Stakeholder Engagement and Communications report). The "Partner Showcase Events" hosted by some of our partners in May 2016 will be repeated in 2017 as this format proved a successful way to celebrate collaborative work to get innovation into practice with a total attendance of over 350.

We have many examples of Oxford AHSN work being published (eg mental health patient safety in the BMJ) and presented at national conferences (eg Dementia Clinical Network presented on memory clinic accreditation and younger people with dementia at the Royal College of Psychiatrists).

## Extracts from Com Res stakeholder survey

Full report: <http://bit.ly/OxfordAHSNsurvey>

**“Value is seen to be added primarily through the collaborative focus of the AHSN, creating connections stakeholders report would not have occurred without the AHSN.”**

“The Oxford AHSN ... is critical to developing a more innovative, safe and cost-effective health system in the region.

**“Stakeholders have seen the AHSN’s impact in their own work creating positive outcomes in their region, citing numerous examples.**

“The Network’s reputation as an innovator comes through, with more than a third of stakeholders using words like innovation, innovative, entrepreneurial, forward-thinking and visionary to describe Oxford AHSN.”

**“There’s a greater sense of networking collaboratively across the AHSN area than would’ve existed before.”**

“Without the likes of the AHSN small companies would really, really struggle to get any traction with the NHS.”

**“They’re listening, they’re identifying challenges and they’re trying to help us solve the problems associated with those challenges.”**

## Relicensing, sustaining Oxford AHSN and the Accelerated Access Review

In November 2016, NHS England confirmed that it is seeking to relicence 15 AHSNs for another 3-5 years but funding would be reduced further by 5% on 2017/18 and 20% in 2018/19. NHS England has reduced funding to AHSNs by about 50% since 2013. In December, the AHSN Board met to discuss the options for sustaining Oxford AHSN after the initial licence period ending March 2018. The Board agreed that the local NHS would not be able to close the financial gap between projected income and current expenditure and with regret it agreed to reduce funding to the Best Care clinical networks and focus the AHSN on delivering against the Accelerated Access Review (published in October 2016) priorities of working with industry to scale up adoption of innovation in clinical practice to improve patient outcomes and support economic growth. We also believe that the best way the AHSN can support the STPs (we work with NHS providers in four STPs) is through:

- 1) evaluation and adoption of innovative products that can improve patient outcomes and safety and cost efficiency in the NHS
- 2) interoperability of data through our Informatics theme

We announced in January that from July clinical networks would need to find funding from elsewhere and if they put forward a robust plan, the AHSN would contribute £15k in 2017/18 and £20k in 2018/19. The AHSN is funding the transition period to the end of June but has ended payment for clinical lead time as at the end of March. At the time of writing this report the consultation period is still underway for the clinical network managers whose roles are at risk from redundancy. However, early indications are that 3-5 of the clinical networks will be sustained at least to March 2018, eg the AHSN has confirmed that it will fund the

Maternity clinical network until March 2019 through the Patient Safety theme which is funded by NHS Improvement. The Maternity clinical network has a very strong track record in patient safety and aligns well with the National Maternity Safety Collaborative which we will support. The Best Care programme team and the Corporate Affairs Manager are supporting the networks through the process.

### **Progress, KPIs, top level milestones and national AHSN metrics**

This is the end of the fourth year of the five-year NHS England licence for Oxford AHSN and the second year of full operation of our programmes and themes. Fifteen case studies have been produced this year and included in our quarterly reports. They are listed in Appendix D. These are shared with NHS England and the strongest are added to the AHSN Network case study bank. Collaboration with other AHSNs is a common feature in our programmes and themes. We take an organic approach, working on 15 projects with other AHSNs where there is mutual value to local partners or it will enhance delivery. We are active members of national AHSN programmes, eg atrial fibrillation (see Clinical Innovation Adoption report) and patient safety. Strongest partnerships are with Greater Manchester (Informatics) and West Midlands (devices and diagnostics) AHSNs.

**Best Care** has delivered a well-received impact report. All eight networks were reviewed in December and were assessed as making good progress. The need to focus on securing alternative funding in Q4 will affect performance. By the end of the year we will have a clearer picture of which networks are sustainable and, for those that are not sustainable, how they will close their work or transfer to other organisations.

**Clinical Innovation Adoption** (CIA) is making steady progress and has completed several projects this year either because they have achieved adoption at scale or because stakeholders are not ready to proceed. CIA has initiated new projects to speed up adoption of three NHS Innovation Accelerator products all aimed at improving patient safety. With support from Health Education England Thames Valley (HEETV), CIA has trained 50 frontline clinicians in innovation adoption. The course was developed by our CIA team and adopted by Imperial College Health Partners. HEETV's ongoing support will enable another 100 clinicians to be trained – this will form a very important network of frontline clinicians with the skills needed to adopt innovating at scale, important skills to support system transformation in the NHS.

Strong performance has been delivered by the **Wealth Creation** programme in attracting inward investment and in evaluating new technologies in real world NHS settings with an emphasis on digital and diagnostic technologies. The programme, now called “Strategic and Industry Partnerships” to better describe its role, has developed strong regional, national and international industry and university links. The team had a pivotal role in the planning and approval of the Buckinghamshire Life Sciences Innovation Centre (£1.3m), The Hill in Oxford and Bicester Healthy New Town (£750k). Funding brought into the region through the activities of the team are over £5.5 million for the year, which represents a return on investment of 11 times. During the year, the Wealth Creation team completed a total of 35 projects, and has over 50 projects ongoing. The team has interacted with 45 companies during the quarter, bringing the total for the year to 204. Over 2,500 people have attended events that have involved the Oxford AHSN as either an organiser or sponsor.

Great strides have been made in the **Informatics** theme this year in enabling the sharing of data across our health system by signing up twelve NHS provider trusts to the Information Governance data sharing framework – see case study above. Oxford AHSN has also succeeded in signing an agreement with NHS Digital for access to national data. On behalf of NHS England the Informatics team is working with Arden & GEM CSU and Greater Manchester AHSN to improve place based digital maturity across the NHS.

**The Patient and Public Involvement, Engagement and Experience (PPIEE) theme**, with NHS England and HEETV, delivered the Leading Together programme – to train 100 lay people and healthcare professionals in co-development; 50 projects were completed. The programme has received national interest, eg at NHS Expo, and it was a finalist at the Thames Valley and Wessex Leadership Academy Awards.

**Patient Safety** is established in terms of engagement and project progress, eg in absence without leave, retained swabs and acute kidney injury. Pressure ulcers work has been reviewed and the number of projects will be reduced from 18 to five to focus and gain more traction. Sadly Dr Jill Bailey, Head of patient Safety, is returning to Oxford Health. I would like to thank Jill for her passion and commitment to reduce harm to patients in our region. Her legacy will be built on by the patient safety team which has recently been strengthened by the addition of two new patient safety managers, who, along with the rest of the team, are all clinicians.

### Impact and return on investment (ROI)

We have developed a Return on Investment (ROI) model which is showing a projected return on investment in savings vs AHSN costs of 2.5 times over the first five years of the AHSN licence. This includes year 1 when the AHSN was funded but had not recruited the team and had no programmes running. The run rate in 2017/18 is projected to be a five times ROI. More importantly, the collaborative work has accelerated uptake of innovation and service improvement in the region. It has had a positive impact on 47,000 local patients and saved 200 lives. In terms of cost saving the biggest areas are Sustainability (carbon energy reduction), biosimilars, preventing sepsis and fragility fractures and early intervention in psychosis (see table below).

Project	Lives Saved (No)	Harm Avoided/Recovery (No)	Savings (£'m)	Revenue (£'m)
Sustainability / Carbon Energy			6.0	9.0
ERDF Bucks/Oxon				1.9
SBRI Programme				1.0
LGF Bucks				2.6
Anxiety & Depression		5,900	6.2	
Early Intervention in Pyschosis			3.1	1.2
Dementia MSNAP		17,000		
Maternity Guidelines		15,000		
Fragility Fractures		1,000	7.6	
Intra-Operative Fluid Management		1,300	1.1	
Intermittent Pneumatic Compression Sleeves	84		0.1	
Biosimilars	69		2.8	
Atrial Fibrillation	25		1.1	
Mental Health AWOL		2,000		
Other	22	5,150	3.4	12.1
	200	47,350	31.4	27.8

## Key Milestones – progress to date

Programme/Theme	Key milestones	Q4 Progress
<b>Corporate</b>	Oxford AHSN 5 Year Strategy	Realigning our resources to increase our ability to delivery against Accelerated Access Review, re-licensing process and local STPs
<b>Best Care</b>	Imaging and Maternity clinical networks collecting high quality data from across the region through interoperability between NHS providers	First successful 2-way PACS link piloted between provider trusts, allowing secure exchange of patient images and data.
<b>Clinical Innovation Adoption</b>	5 more innovation adoption projects in final stage of deployment	Closing by end of Mar: Gestational diabetes, Intermittent Compression Sleeves, Heart Failure and Alcohol. Closing by end of Sept: CAUTI, IOFM, Fragility Fractures, Falls.
<b>R&amp;D</b>	Trust R&D plans developed and progress made on Nursing/Allied Health Professional strategy	Good progress made throughout year 4 – ongoing work to support the development of individual trust R&D strategic plans
<b>Wealth</b>	Work with partners to develop 3 exemplar innovation projects	On track
<b>Informatics</b>	Develop a comprehensive Information Governance training programme for our partners	Training programme underway, and an IG Steering Group has been established to drive the delivery of this
<b>PPIEE</b>	Leading Together programme complete	Complete
<b>Patient Safety</b>	Six themes showing safety improvement	On track
<b>Stakeholder engagement and communications</b>	May 2016 roadshows at NHS providers raised awareness of benefits of collaborative work to improve patient outcomes and grow the economy	Roadshows planned for May 2017 at NHS providers

## Key Performance Indicators (KPIs)

Programme	High level KPI (measured annually unless otherwise stated)	As at Q4
Best Care	Further improve the recovery rate of patients suffering from anxiety and depression	Recovery rate 53.8% (October 16), performance remains stable and consistently higher than the national average of 46.3% (March 16) and the national target of 50%.
Best Care	Improve access, including waiting time standards for Early Intervention in Psychoses	Patients receiving treatment within 14 days of referral increased from 64% (sept 15) to 83% (sept 16). Referrals to services also increased by up to 20% (Berks).
Best Care	Improve medicines reconciliation rates across network	Project closed, as noted in Q3 report
Best Care	Reduce admissions and length of stay for childhood pneumonia	2017 report delayed due to closure of network. Report now due in Q1
Clinical Innovation Adoption	Average number of Community/Mental Health Trusts and Community adopting each innovation (1) Planning to implement (2) Implemented (3) Participating	83% 42% 100%
Clinical Innovation Adoption	Average number of Acute Trusts adopting each innovation (1) Planning to implement (2) Implemented (3) Participating	63% 42% 78%
Wealth Creation	Number of health and life science companies across the region	644
Wealth Creation	Number of people employed in the life science industry	19,753 (as at q3)
Patient Safety	Progress work in pressure ulcer reduction programme towards zero harm in project areas	Programme under review pending decision of the steering group in March-a progress update will be provided in Q1
Patient Safety	Increase adoption of AWOL project in Berkshire Healthcare and CNWL to increase return rates by 50% on all acute wards	Good progress made at Berkshire Healthcare – Bluebell ward achieved its aim. CNWL have launched the project on two wards at Milton Keynes and central London.
Stakeholder engagement	Number of subscribers to the Oxford AHSN Newsletter and Twitter followers per quarter	Newsletter subscribers at end of year: 2,026 (increase of 67% vs 2015/16) Twitter Followers at end of year: 2,793 (increase of 66% vs 2015/16)

Stakeholder engagement	Number of visits to Oxford AHSN website per month	<p><b>Views at the end of the year: 1,574,000</b> (increase of 72% vs 2015/16)</p> <p><b>Visits at the end of the year: 387,000</b> (increase of 54% vs 2015/16)</p> <p><b>Hits at the end of the year: 2,961,000</b> (increase of 36% vs 2015/16)</p>
Stakeholder engagement	Number of attendees at all AHSN events per quarter	Attendees at the end of the year: 2,209 (increase of 95% vs 2015/16)

## Finance

Forecast expenditure is £4,065k and forecast income is £3,457k. Expenditure is £295k lower than 2015/16 (£4,362k) mainly due to the £250k invested by Health Education England last year on a Southern Early Intervention in Psychosis (EIP) Programme. Partnership contributions received are £412k, and this is 7% / £33k lower compared to 2015/16 and 11% /£60k lower than budget. Our forecast expenditure is £324k lower than budget. The outturn requires the release of prior year reserve of £0.6m to achieve financial balance.

We have developed a robust two-year financial plan for 2017/18 to 2018/19.

### Risks and issues

No new risks and issues to report.

**Dr Paul Durrands ACA CMILT**

**Chief Operating Officer, Oxford AHSN**

## **Best Care**

In Quarter 2, the Best Care programme produced an impact report, detailing the work of the clinical networks to date. This report was universally well-received, and at the end of Quarter 3 all eight clinical networks were subject to an annual review of their work by the AHSN Executive, where they were assessed to be delivering against their mandate and producing good work.

Unfortunately, in January 2017 the AHSN Board agreed that the AHSN could no longer fund the clinical networks as it has been doing (see Operational Review). The Board agreed to fund the networks fully to March 2017, to end funding of clinical time at the end of March and to provide transition funding to June 2017. The Board noted the contribution the clinical networks had made to the AHSN's work, but judged that the future of AHSNs lay increasingly with enabling the adoption of innovations (products) into the NHS.

The networks have all been given notice of the intention to close, and now have until June 2017 to conclude their work or hand over to other bodies. The AHSN has been able to offer each network up to £20k of funding to sustain its activities, on the proviso that the remainder of network funding is secured from other sources, and that deliverables remain consistent with programme aims.

This development has necessarily meant that activities in Quarter 4 have largely been focussed on attempts to fundraise, managing the message to disappointed stakeholders, and adjusting plans towards the closure or handover of network projects.

Whilst there is still no certainty around any external funding, it appears likely that of the eight networks, 3 or 4 will continue through a mixture of different funders to deliver at least a majority of their original plans.

## **Funding**

In Quarter 4, the core team has had conversations with the Oxford CLAHRC, the Thames Valley SCN, and NHS Improvement. However, only the CLAHRC has been able to offer funds at short notice, and only to the value of £15k for 2017-18.

Oxford AHSN has committed to fund the Maternity network until March 2019.

## **Anxiety & Depression**

This year the network worked closely with local commissioners to secure central government funding of £4m to develop and deliver 'early implementer' IAPT services, which will co-locate integrated IAPT services offering those people living with LTCs and anxiety/depression integrated treatments. The network was also successful in negotiating an additional fund to resource a health economic evaluation of these new services, looking at primary and secondary health care utilisation before and after treatment, and had commissioned Professor David Stuckler (Oxford University, Political Economy and Sociology) to achieve this. After initial difficulties in reworking the project structure, and significant disappointment from the commissioning stakeholders, the network has managed to create a plan which allows this work to continue.

The network also achieved its initial target of increasing the Children and Young People (CYP) IAPT data collection by 20%. CYP data completeness is far behind that of adult data, causing a knock-on disparity in the quality of quality improvement work, and this project aimed to erode this disparity. However, with the reduced funding from the AHSN, this element of the network will not be continued.

Finally, the network's core work – the improvement of adult IAPT services in the region – has continued to deliver, and a reduced version of this project will continue within the reduced funding envelope. The training and development events will not be able to continue, and this may be reflected in recovery rates

dropping below the current 54% level regionally (national average 50%). Numbers of people accessing the service continues to increase month-on-month.

### **Children's**

2016/17 saw the release of the 2nd annual children's variation report, with an increased scope of childhood conditions which commonly result in a hospital admission (pneumonia, bronchiolitis, asthma, viral wheeze, gastroenteritis, fever/sepsis and neonatal sepsis) the report also identifies how many fewer patients would need to be admitted to bring outlying CCGs closer, or equal, to the regional average, and has been shared with and praised by RightCare as a valuable tool to engage with commissioners and providers and drive improvement work. Several GP workshops have been held by the network, commissioned by local CCGs, to address some of the outliers in the report. The 3<sup>rd</sup> annual report is currently in production but, after this, the network will be winding down its activities as it has been unable to identify sufficient funding for its projects.

Other significant work over the year has included the piloting of a clinical guideline app at one hospital (Stoke Mandeville). This has been well received at this site, and is expected to receive ongoing funding from the trust. However, the termination of the network and its funding now precludes the planned extension to all trusts.

Another pilot at another hospital (Milton Keynes) to offer the flu vaccine to children in outpatients, has also been well received and, subject to review by the trust, will be funded directly by that trust. However, beyond the end of the network in June, there will be no further promotion or dissemination of this model, whose final evaluation is due in Q1.

The flu campaign this year was hindered by the vacancy in the nurse post, and will not continue beyond June. Stakeholders have been informed

### **Early Intervention in Psychosis**

Oxford AHSN continues to host the NHS England (South) EIP preparedness and assurance function for the national access and waiting time standards, and has received funding for this function for a third year. This work has successfully brought together teams from across the NHS England (South) Region, and hosted its annual conference in March. The updated regional audit will be published in March 2017, and will show that in the AHSN region specifically, patients receiving treatment within 14 days of referral have increased from 64% (sept 15) to 83% (sept 16). Referrals to services also increased by up to 20% (Berks).

The network continues to have a national profile, with a paper on the economic impact of EIP services in England published by the network clinical co-lead, Belinda Lennox, in the [BMJ Open](#).

Several innovative pilots were begun in the latter half of the year, and it is currently unclear whether these can be supported to continue and to disseminate their successes as planned with the reduced funding from the AHSN. The Patient Knows Best service has been rolled out in Oxfordshire and Buckinghamshire from November 2016 as part of a year-long trial to evaluate the impact of the technology on missed appointments, travel time and paper forms etc. Psychological staff within the Early Intervention services across these counties have been trained and have been delivering the pilot through contact with their clients. There is also an online pilot being developed in Berkshire using the SilverCloud app, and using Skype to conduct consultations with patients who are coming to the end of their treatment, reducing the need for them to take time away from work or study, and reducing the number of appointments they have within mental health settings.

The three Mental Health trusts in the region continue to work towards a shared and interlinked assessment form, which will enable real-time information across a population of 3m on variation, access, referral to treatment and service efficacy. A successful system was implemented this year in Berkshire, and Milton Keynes (CNWL) is aligning to the same template. With the network reduced funding, it is unlikely the impetus behind this work will continue, and the quality improvement work will be affected as a result.

## **Dementia**

The webinar series continues as the backbone of the network's activities. The network has now run a total of 32 webinars, with a total of over 700 live attendees. The series has built a culture of collaboration across Oxford AHSN area with the aim of reducing variation in diagnostic and prescribing practice in memory services. Respondents to a recent survey (June 2016) reported over half of webinar attendances resulting in a change in practice. A report of the [first two years of the webinar programme](#) was published in June. There are webinars booked until end of June, however, with no external funding forthcoming, the activities of this network will all cease from July.

The network funded the Younger People with Dementia (YPWD) service in East Berkshire for its initial year, building on the experience of the charity's services in West Berkshire. YPWD has published an analytical review in the [Journal of Dementia Care](#) demonstrating improved patient outcomes from the service and the reduced burden on health and social care services. The work was presented at the [RCPsych Memory Service Accreditation Programme](#) (MSNAP) annual conference on 3<sup>rd</sup> October with very positive feedback from the chair.

Support for MSNAP memory service accreditation continued throughout the year. The services that the network supported last year have been undergoing their interim accreditation this year and all have passed. The collaborative approach, with clinics working together in a network to achieve accreditation, was presented at the [RCPsych Memory Service Accreditation Programme annual conference](#) and received praise from accreditation panel members.

A standardised pathway for fronto-temporal dementia has been developed in consultation with a team of psychiatrists, neurologists, psychologists and the third sector. The aim of this is to reduce variation in care and reducing the time to diagnosis - however it is unlikely that this pathway will be coherently adopted without ongoing network support and impetus.

The network hosted a hugely successful [Driving and Cognitive Impairment Event](#), attended by over 150 people including the National Clinical Director for Dementia Alastair Burns, on 25th January 2017, to launch a new area of work. This was focused on assessing whether a person with dementia needs to be advised to stop driving or undergo an on-road assessment. Part of this work would involve a feasibility study into an in-car device that can record driving behaviour and support the clinical assessment of driving ability. As with other network projects, this will now be drawn to a close.

## **Imaging**

This network has recently published a [fifth patient video](#) in its award-winning series, explaining the procedure behind paediatric ultrasound.

It has also successfully piloted the transfer of images and data between trusts, and this is a cornerstone of the network intention to create a radiology sub-specialty on-call rota, and to create a network-wide, NHS-hosted out-of hours radiology service. This work has received interest from BOB STP, and will be funded in 2017-18 through this forum.

The network has also developed discussions around the exemplar pathways for lung cancer and prostate cancer diagnosis, based on the creation and analysis of both regional and national datasets. However, with the withdrawal of funding it is unlikely these will continue.

## **Maternity**

The main focus for this network continues to be proving the viability of the Small for Gestational Age babies (SGA) detection pathway. As stated in the original plan for this project, early analysis is due for release in Q1 2017/18, with a more detailed report due in Q3. The project continues to garner national interest, and is fully supported by the royal college and the local SCN. As part of the case for change, it released an analysis of existing practice in 2016, which can be read [here](#). This work will continue to be supported by the AHSN through its patient safety programme. It is not clear whether the shared learning events (6 monthly events, attended on average by 70 clinicians) and the guideline simplification and harmonisation work (this year palliative care, placental histology and oxytocin administration) will continue.

## **Medicines Optimisation**

The network agreed with the core team to formally end its medicines reconciliation project in Q3 following consistently poor responses and feedback from its network members. However, following full HRA approval for the efficacy study, it launched its planned cognitive behaviour therapy training in January 2017. The courses are oversubscribed, and staff feedback is overwhelmingly positive. The final cohort is due to be trained in June 2017, following which a period of analysis will demonstrate the impact on patients and the healthcare system. This work has been supported by HEETV, and will be able to continue beyond the reduction in funding to the network.

The “Open Up” campaign, launched across the region in September, focused on primary care. It used a variety of media to encourage patients to be more honest with their health carers as to their adherence to prescribed medicines. The campaign received positive feedback and support from all CCGs and many practices, and is now in the evaluation phase. A report is expected in Quarter 1 of 2017.

The network has also secured funding from Pfizer to develop an anticoagulation support and advice service in Oxfordshire, with the aim of improving the prescribing of and adherence to these medicines. New specialist pharmacist posts have been created and recruited to, and the scheme was launched at the beginning of March. It is not yet clear how the scheme will be affected by the reduced funding, as there is a need for a management resource which was previously supplied through the network.

It is also not clear if the Transfer of Care project, as seen in West of England, Wessex and North East England, will continue. This project has had a lukewarm response from network members, who see its value but cannot translate this into the cultural change in their organisations necessary. In Q3 the core team had negotiated with the network to employ a senior pharmacist with a specific mandate to drive the work forward. Discussions are ongoing as to whether this resource can still be accessed.

## **Respiratory**

This network was funded and set up 12 months ago, and was judged to be on track against its plans. It has delivered an engaging [variation report](#), which it used as the focal point for a launch event in October which attracted 55 attendees from a broad spectrum of roles and organisations such as ED and secondary care, commissioning, third sector, academia and industry. A follow-up meeting of the network steering group took place in November, and ideal pathway proposals (for primary care, secondary care and EDs) were discussed and refined. Formal approval was anticipated in Q4, with implementation and audit following on in 2017. However, with the decision to remove funding from the networks, this work was shelved, and the network will now close down its activities.

## Clinical Innovation Adoption (CIA)

### Programme Update

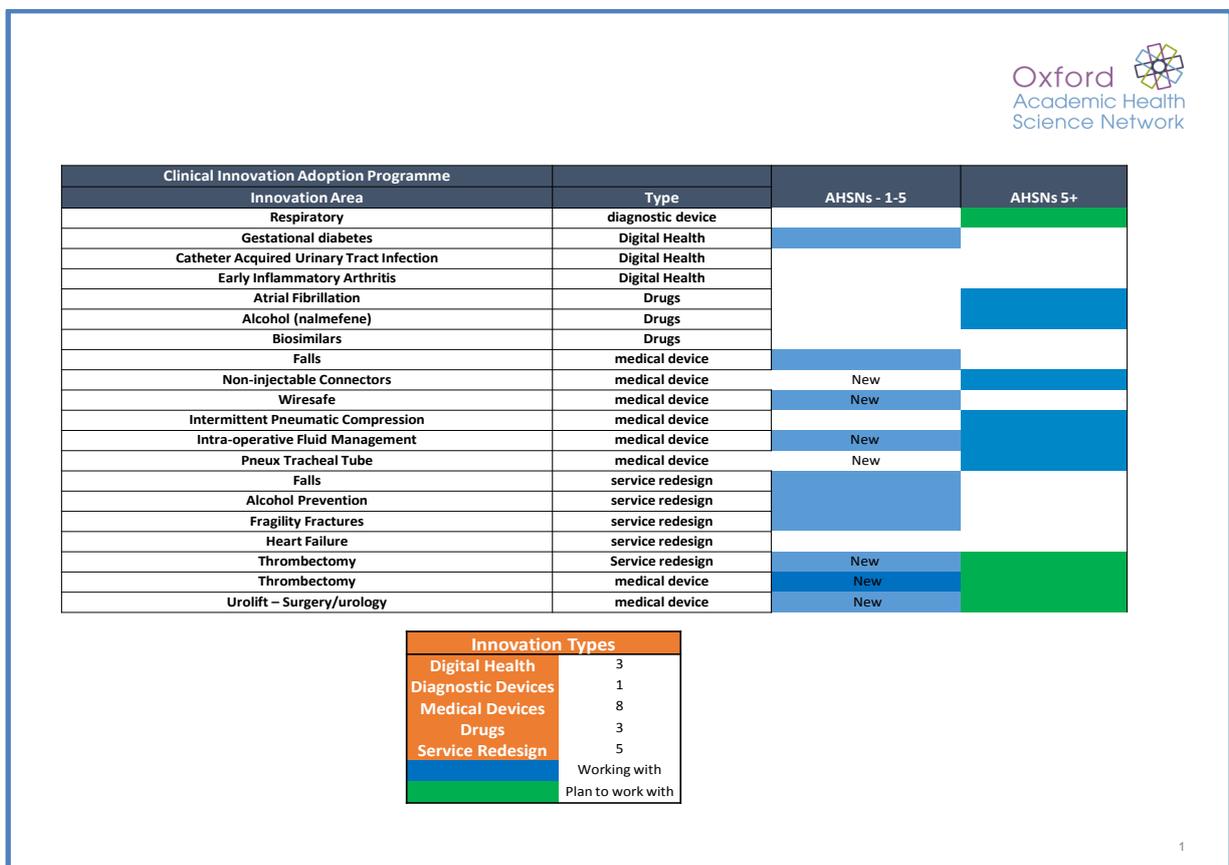
2017/18 has been an exciting year for the CIA team, through regionally successful implementation and commercialisation of projects such as Intermittent Pneumatic Compression Sleeves, Gestational Diabetes (GDm-Health) and SEND (patient monitoring) and active involvement from NHS organisations, Innovators and SMEs. The CIA and Strategic and Industry Partnerships (formally known as Wealth Creation) teams are working more closely together to plan innovation pathways and to develop propositions for partners involved in the process of developing and delivering excellent innovations into our health system.

### National Collaboration

The benefit of having high performing Academic Health Science Networks means that there are opportunities to share our successes and to diffuse the experience, evidence and implementation across the country. The CIA team has worked with several AHSNs over the last 12 months.

The Oxford AHSN CIA team is hosting the NHS Innovation Accelerator Tariff Day that invites other AHSNs and partners to meet the NIA Tariff innovators on 17<sup>th</sup> May.

The chart below shows the present and future involvement with other AHSNs nationwide on innovation adoption projects:



## International Collaboration

The Clinical Innovation Adoption Team is leading a £0.25m collaboration with European Innovation Technology for Health and a number of European Countries to develop shared Market Access Information. The first iteration of this work will include UK, Netherlands and Sweden. It is hoped that this work will be further funded in 2018 to include France, Germany, Spain and Denmark with the following years completely the EU MAPS for Health Project.

## Local Innovation Learning for Frontline Staff

50 students have now attended the Practical Innovation Course funded by Health Education England Thames Valley (HEETV) and developed and delivered jointly with Bucks New University.

An independent evaluation has shown that there is evidence that the money HEETV invested was well spent. A conservative extrapolation based on projects being implemented shows that 1/3 of the innovation projects would yield £120,000 per annum. Given that there are 3 cohorts of students, there is a significant opportunity to reproduce this times 3 once all students have completed. The learning from this course will be extended to other cohorts of staff and innovators.

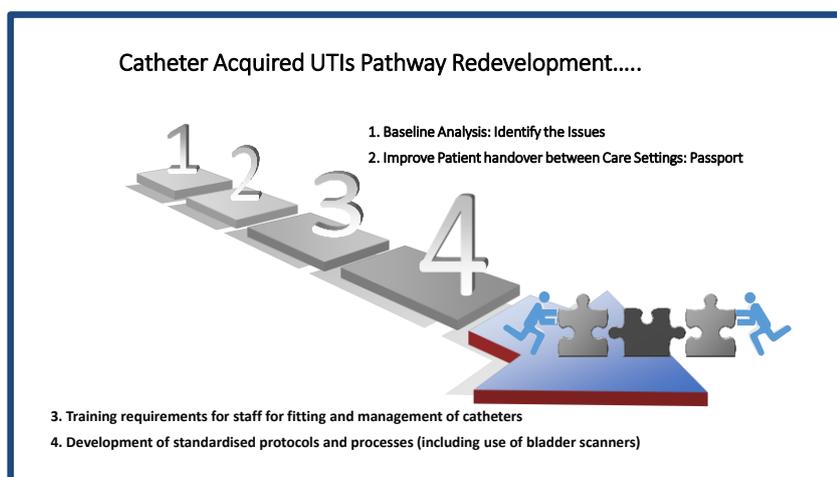
## CIA projects 2016/17

### Catheter Acquired Urinary Tract Infection (CAUTI)

**Estimated End Date: September 2017**

**Participating Trusts: Oxford University Hospitals, Great Western Hospital, Oxford Health**

This CAUTI project started in September 2014 and focused initially on increasing the rate of adoption of non-invasive Bladder scanners by embedding them in the procedure for management of patients with suspected urinary retention - the simple hypothesis at the time being that non-invasive scanning may result in fewer catheterisations and hence fewer UTIs. The base-lining work that the CIA team undertook however, revealed a number of changes required to optimise patient care, avoidance of catheterisation and management of patients who require catheterisation as illustrated in the diagram below.



The baseline assessment included a review of the number of bladder scanners within regional Trusts, using the Innovative Technology Adoption Procurement Programme (ITAPP) tool which takes into account inpatient activity. Work is ongoing to refine these numbers based on the configuration of wards in each Trust, for Community Trusts and District Nursing services. The aim is to present each Trust with a recommendation for the number of scanners they would

need to procure to deliver 18% reduction in unnecessary catheterisation and an outline business case setting out the cost benefit analysis. The AHSN continues to support the Trusts with the procurement of bladder scanners for use in the continence pathway.

During 2016/17 the three Trusts in the CAUTI project have embedded their CAUTI toolkits into practice. All Trusts placed an emphasis on staff training in addition to introducing new protocols and processes for continence and catheter care. The two acute Trusts have also focused on electronic data recording including recording catheter insertions, daily catheter care, catheter removal and CAUTI. During Q4 significant progress has been made in the development of a high-quality e-learning package for continence and catheter care due for release June 2017. This is being jointly funded by Oxford AHSN and Health Education England Thames Valley and the three Trusts included in the project have contributed content. The package is being developed by e-learning for health and will be available nationally when complete.

The project also noted the number of available scanners and the required number for community and acute Trusts participating in the project that may be useful for reference information for other adopting organisations. The e-learning package will be ready for deployment in June 2017 and at this stage it will be made available nationally on the e-learning for Health Platform. A regional and national dissemination plan will be developed. The aim is that the CAUTI project close in September 2017, following an event to share the learnings of the project regionally and nationally.

### **Fragility Fractures**

#### **Estimated End date: September 2017**

This project is working with a number of Trusts to implement new or expand current Fracture Liaison Services (FLS). These services ensure eligible patients are assessed after sustaining a fragility fracture and offered treatment, and in doing so the potential for secondary or subsequent fractures is reduced. This in turn has a positive impact on the number and cost of unplanned hospital admissions, and makes significant reduction in morbidity and mortality in older people.

The Clinical Innovation Adoption Team has worked with local services to review and audit provision. Across the region service provision ranges from no service to full service provision.

As well as patient benefits, FLS has the potential to generate significant financial savings across health and social care. Across the Oxford AHSN region, over 5 years, these services could generate nearly £13 million savings. The table below outlines these 5-year savings by CCG, if full services were in place, alongside the savings that will be realised with the current level of service.

Table: Potential 5-year savings by CCG (includes health and social care)

CCG & Social Care	Total Fractures Saved	Total Financial Savings (£)	% Current Service Provision	Benefits Realisation Based on Current FLS Provision (£)
Aylesbury Vale	122	961,278	35	912,037
Chiltern	206	1,644,542		
Bedfordshire	262	2,084,155	0	0
Berkshire East	216	1,740,930	0	0
Berkshire West	267	2,117,811	40	847,124
Milton Keynes	122	965,120	0	0
Oxfordshire	403	3,201,375	100	3,201,375
<b>TOTAL</b>	<b>1598</b>	<b>12,715,171</b>		<b>4,960,536</b>

Throughout 2016/17 the Oxford AHSN has continued to seek engagement with Trusts and CCGs and to work closely with the National Osteoporosis Society (NOS). It has been reassuring to see falls and fracture prevention highlighted in STPs and this has been the route suggested by commissioners to seek funding. The need to ensure pathways for FLS and falls prevention fit seamlessly together is crucial.

The Oxford AHSN has engaged with the Thames Valley Urgent and Emergency Care Network, as they are undertaking an 'end to end' review of the falls pathway. The commissioners are receptive to the development of a FLS at Wexham Park Hospital and the expansion of the service at Buckinghamshire Hospitals Trust, and the business cases are in final stages of development.

Berkshire West CCG reviewed the current service delivered at the Royal Berkshire Hospital and at this stage the commissioners have indicated they are not looking to expand the service. Milton Keynes Hospital is working with the NOS to develop the case for expanding their service, and are aware the Oxford AHSN is available to support this should the Trust wish to do so.

### **Activities for Q1 2017/18**

- Finalise business cases for Wexham Park Hospital and Buckinghamshire Hospitals Trust
- Engage with Thames Valley Urgent and Emergency Care Network to present business cases
- Continue to seek engagement with Milton Keynes Hospital to understand what support, if any, they require.

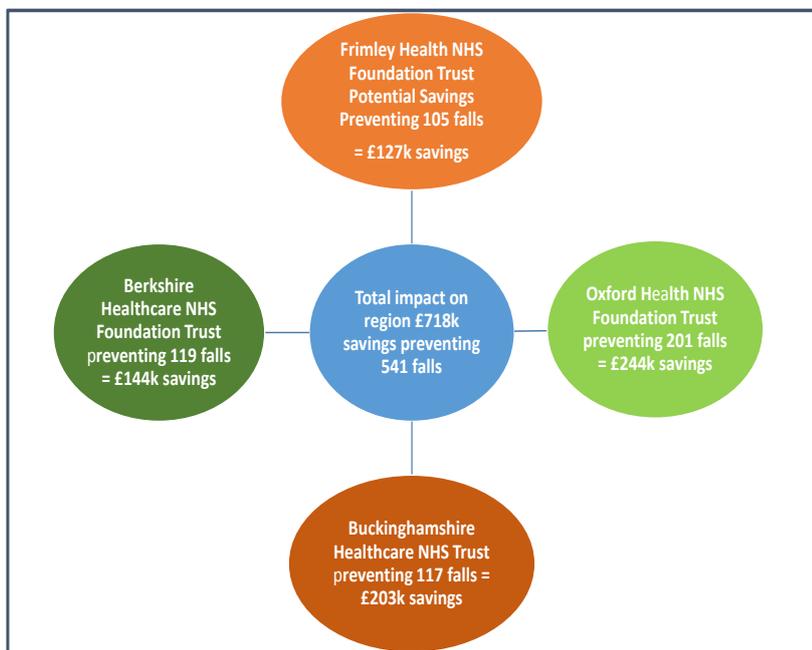
### **Falls Prevention Project**

**Estimated End date: September 2017**

**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. Many of the care bundles are already in hospitals' policies and protocols, but they are not being delivered to patients nearly as often as they should or as a 'packaged innovation' solution. This project is working with Oxford Health, Berkshire Healthcare and Frimley Health trusts to implement the FallSafe Care Bundles and/or improve utilisation rates where FallSafe Care Bundles have already been implemented. Below is a table to show the progress the project has made during stage one of phase one. During early 2017 the baseline and GAP analysis work will be reviewed to identify elements for implementation and/or improvement during stage two. The project will also start engagement work with phase two trusts.

Trusts engaged in project	Scheduled second phase engagement (2017/18)
Oxford Health NHS Foundation Trust	Buckinghamshire Healthcare NHS Trust - <i>underway</i>
Frimley Health NHS Foundation Trust	Bedford Hospitals NHS Trust
Berkshire Healthcare NHS Foundation Trust	Great Western Hospitals NHS Foundation Trust
Trusts not participating	
Milton Keynes University Hospital NHS Foundation Trust: The trust has a comprehensive approach to Falls Prevention that is incorporated into a patient centred 'treating the patient as a whole' programme.	
Oxford University Hospitals NHS Foundation Trust: The trust has created a local implementation plan for the implementation of FallSafe Care Bundles.	

**Projected Project savings (25% reduction in total anticipated falls if all hospitals and relevant wards participate in the project within the region)**



**Buckinghamshire Health NHST Stay in the Bay (SITB) Improvement Project:**

The CIA Programme is working with Buckinghamshire Healthcare NHSFT to support the trusts ‘stay in a bay’ project. The Trust was awarded funding as part of the Sign up to Safety Improvement Plan to reduce falls throughout the hospital. The Trust 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. This project is supporting the

organisation to understand the barriers to adoption of the SITB work stations, to identify some improvement projects that will be undertaken to support the utilisation rates of the equipment and mitigate against the risk of falls happening on wards.

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

This project will be working with colleagues at Buckinghamshire Healthcare NHS Trust to complete an evaluation on the desk in a bay intervention. The project will evaluate the intervention, look at potential value to the organisation, sustainability and any cost savings achieved from reducing the rate and harm of falls. The data sharing agreement has been signed and agreed by all parties. The first data download has been provided to the project to start the analysis.

During 2016/17 the first phase of trusts involved in the project have undertaken many processes to complete a comprehensive analysis of the current level of service provided to patients. This has been used to understand the GAPS in bundle elements being applied and implemented across the trust and within different wards. The project will now be moving forwards with planning the implementation of the identified bundle elements within identified wards. The Quality Improvement training offered to support trusts with implementing the bundle elements has also been arranged and will take place over two days in total, the first sessions are taking place in May.

The CLAHRC SITB evaluative project has progressed considerably due quarter 4 of 2016/17. The project now receives monthly data downloads from the trust to support the evaluative analysis. An interim report has been created and has some initial projections in terms of the SITB interventions impact. This work will continue until the end of 2017/18 when a final report will be written along with publications on the evaluations findings.

The SITB improvement projects have been slightly delayed during quarter 4. The scope of the baselining work has been rescope, the projects also now have the full support and oversight from the Chief Nurse to ensure that there are no barriers to future improvement tasks and projects within the trust.

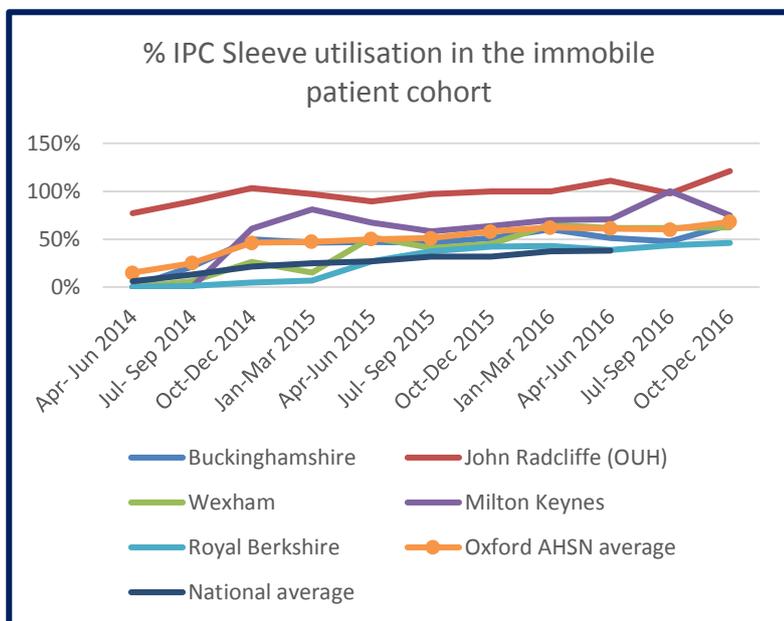
### Activities for Q1 2017/18

- Start second phase engagement with remaining trusts within region to explore appetite to join project.
- Support current organisations in project to commence stage two, which is active implementation of relevant elements of the FallSafe Bundles.
- Further support Buckinghamshire Healthcare NHS Trust with SITB improvement projects.
- Continue to enable CLAHRC to have access to data to complete continue analysis on SITB innovation evaluation.
- To explore the links and collaborative opportunities between the FallSafe and Fragility Fracture projects.

### Intermittent Pneumatic Compression (IPC) Sleeves

**Project End Date: March 2017**

During 2016/17 performance across the Oxford AHSN region remained steady, increasing to an average of 68% for Oct-Dec 2017. Performance across the region has remained steady but as previously mentioned, the revised NICE VTE guidance published in 2015 is not prescriptive as to the use of IPC. In the light of revised guidance, it is felt by the CIA team that achieving the planned 80% utilisation in the immobile patient cohort is unlikely.



Oxford AHSN commissioned the Office of Health Economics (OHE) to carry out an independent review to assess the added value of the AHSN innovation adoption approach, this report was published in 2016/17. The assessment included a comparison of local and national utilisation rates and clinical outcomes between April 2014 and September 2015, alongside any additional resource use associated with the running of the programme.

The OHE modelling included the direct costs of the programme to the AHSN as well as the costs to the participating

Trusts of increased utilisation (i.e. increased utilisation of sleeves and nursing times). Savings from reduction in VTE were also estimated. The key benefits assessed in the model were projected patient outcome including DVT, PE and death.

The report concluded that the Oxford AHSN's innovation adoption approach significantly increased IPC utilisation rates compared to the rest of the country. The OHE estimate that in the 18 month period between April 2014 and September 2015, by achieving higher utilisation rates than the national average,

the project prevented an additional 22 DVTs, 2 PEs and 12 deaths within an 18 month period, for an additional cost of £32,286 (cost of sleeves and programme management).

Overall the report concluded that compared to the conventional NICE thresholds for cost-effectiveness the Oxford AHSN innovation adoption approach has delivered good value for money. The cost per VTE avoided was £1,307 and the cost per death avoided was £2,526.

Using the same methodology the Oxford AHSN has extended the OHE analysis by a further 9 months with the timescale now spanning April 2014 to June 2016. Over this time-period, by achieving higher utilisation rates than the national average, the AHSN project ensured that an additional 598 patients received IPC sleeves and prevented an additional 30 DVTs, 3 PEs and 18 deaths compared to national utilisation levels. The cost per additional VTE avoided was £1024 and the cost per additional death avoided was £1882.

Assuming utilisation remains constant it is anticipated that by the end of the licence a total of 2500 patients across the region will have received IPC sleeves. This represents the potential for 125 fewer DVTs, 75 fewer deaths and 13 fewer PEs over the lifetime of the project.

### **Next steps**

The project has now been in the measure and monitor phase for 12 months and performance has been sustained over this period. The project will close at the end of March 2017. A project closure report has been written and this will be shared with the CIA oversight group in May 2017.

### **Alcohol Misuse**

**Project End Date: March 2017**

#### **Project Overview**

East Berkshire, West Berkshire and Buckinghamshire expressed an interest in developing projects relating to alcohol misuse, with the overall aim of reviewing the current pathway and service provision across health and social care. Three work streams were proposed and agreed:

- Development of a directory of services
- Implementation of a hospital based team
- Increased provision of screening within primary care

As summarised below, each locality is progressing this work in different ways and the scope of the work being undertaken has grown significantly from the original remit of the project. An additional challenge has been getting clarity and approval of funding routes, which is largely due to the complexity of alcohol misuse pathways and the involvement of a wide range of stakeholders. As such it has been challenging to progress the work at pace. Due to the growth of the project from its original remit, it has been agreed that the Oxford AHSN will withdraw from the project at the end of 2016/17.

#### **East Berkshire**

Directory of services drafted; Slough DAAT to consider dissemination plan.

Alcohol pathway work to be driven through the STP, but funding remains unclear.

Alcoholics Anonymous are keen to support work on alcohol pathways, and have a program of GP practice visits in which they outline the support they can offer to individuals.

<b>West Berkshire</b>
<p>The area of focus is South Reading locality team and CCG, as the area with greatest need. Previous attempts to secure funding for a hospital based care team were unsuccessful and an agreement was made to look at other possible models of care, although there is a lack of clarity as to the possible funding route.</p> <p>Good engagement between health and social care organisations to work together to develop model of care.</p>
<b>Buckinghamshire</b>
<p>Buckinghamshire County Council is leading a combined alcohol and drug misuse project, and have identified four work streams - reducing supply, prevention, vulnerable people and recovery.</p>

### Gestational Diabetes m-Health Technology

**Project End Date for Implementation: March 2017 (continue to support commercialisation in 2018)**

#### **Update**

**See case study above**

The GDm-Health system, called BYOD (bring your own device) has been fully developed, deployed and has been in the measure and monitor phase during Q4. During this time the commercialisation of the system has been explored and finalised, with the system being procured by Drayson Technologies. Drayson **Technologies**, Oxford University and Oxford University Hospitals (OUH) NHS Foundation Trust have signed three agreements to collaborate on the development, testing and future commercialisation of GDm-Health.

Drayson Technologies' role will be to support the wider testing of GDm-Health in up to four additional NHS Trusts across the UK over the next 12 months prior to taking over responsibility under an exclusive licence agreement for managing the wider deployment and commercialisation of this pioneering product across the NHS. By investing to provide a commercial and operational infrastructure in Oxford,

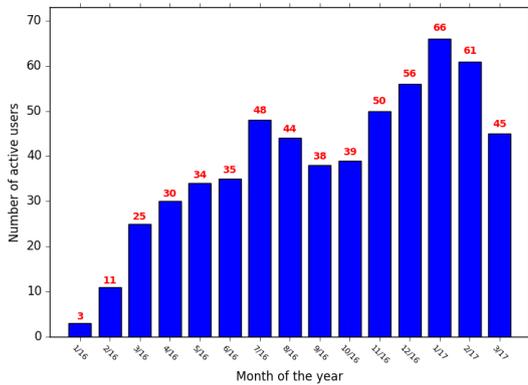
*Lord Paul Drayson, Chairman and CEO of Drayson Technologies:*  
*"These products have shown in clinical trials that they improve patient health outcomes and reduce costs for the NHS. We are delighted to be working with Oxford University and the Oxford University Hospitals NHS Foundation Trust to complete clinical evaluation and deploy these products more broadly across the NHS."*

Drayson Technologies will enable GDm-Health to be further adopted by other NHS Trusts across the UK.

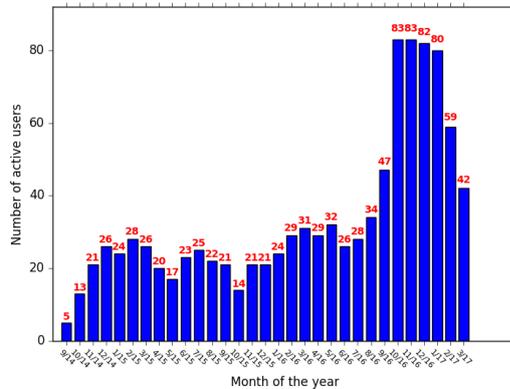
Engaged Trusts	
Frimley Health NHS Foundation Trust (Frimley Park site)	Royal Berkshire NHS Foundation Trust
Milton Keynes University Hospital NHS Foundation Trust	Oxford University Hospitals NHS Foundation Trust

## Utilisation of equipment

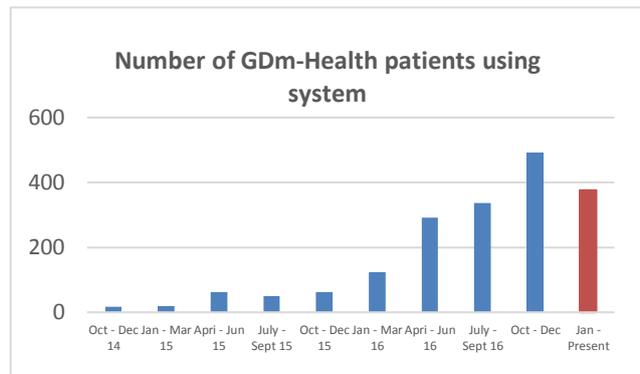
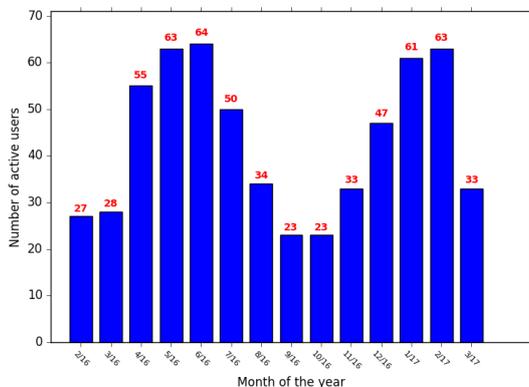
Number of Active GDM App Users per month for: JR



Number of Active GDM App Users per month for: RBH



Number of Active GDM App Users per month for: FP



Progress has been made by Trusts in the region in 2016/17 in offering ambulatory IV furosemide to heart failure patients. The AHSN has supported Berkshire East CCGs in developing their commissioning plans for heart failure, these plans include the commissioning of an ambulatory IV furosemide service at Wexham Park hospital, this is due to become operational in April 2017.

Oxford AHSN has also supported Milton Keynes University Hospital NHS FT in reviewing their current heart failure pathway and making recommendations for service development in line with best practice, specifically:

- Implementation of an IV furosemide day lounge on the cardiology ward
- Implementation of point of care BNP testing as part of a heart failure hub
- Development of a community heart failure nursing service (this currently does not exist in MK)

## NT-proBNP point of care testing

The CIA team worked with the Wealth Creation team to investigate the potential impact of point of care testing for NT-proBNP in primary care. Wealth Creation are running a project to pilot this test in secondary care. Several scoping meetings were held with a pilot site in primary care but it was felt that it would only be advantageous to undertake point of care testing for NT-proBNP as part of a wider portfolio of point of care testing. Wealth Creation are progressing the project on this basis.

## Future work-streams

Future work-streams under the broad area of heart failure are being explored. These include:

- Cardiac Champions Educational Programme
- Proteomic approach to risk stratification in cardiac disease (supporting Wealth Creation team)

### **Next steps**

All acute Trusts in the units either have ambulatory IV furosemide provision in place, or have plans to have it in place by April 2018. It is therefore planned that the IV furosemide project will close at the end of March 2017. A project closure report will be presented at the CIA oversight group in May 2017.

It is highly likely that the AHSN will continue working within the broader area of heart failure and two separate options are currently being explored. These will be taken forward as separate projects.

### **Atrial Fibrillation (AF)**

#### **Progress in 2016/17**

In 2016/17 the Oxford AHSN made significant progress on the projects within the atrial fibrillation (AF) work-stream. Key developments include:

- Meaningful engagement with CCGs across Berkshire and Buckinghamshire on AF improvements
- Launch of the Excellence in AF project in Buckinghamshire through a joint working agreement with Bayer
- Successfully securing £97.5k from Pfizer, through a competitive process. This funding will be used to run multiple small proof of concept projects of Pharmacist led anticoagulation initiation in primary care across Berkshire.
- Engaging CCGs in the NHS England process for funded mobile ECGs
- Agreement to report jointly on the AF projects within the Clinical Innovation Adoption programme and Best Care programme

#### **Developments in Q4**

##### **“Excellence in AF” project**

The Excellence in AF project launched in Buckinghamshire in February 2017 with 20 practices signed up to participate in phase 1. It is anticipated that a further 10-15 practices will engage in phase 2. The project aims to deliver improvements in anticoagulation rates and to improve clinical knowledge and awareness. This project will be collaboratively delivered by the Buckinghamshire CCGs, Buckinghamshire Healthcare Trust, Oxford AHSN, Interface Clinical Services and Bayer Plc. The AHSN has developed a joint working agreement with Bayer which will provide the AHSN with additional Quality Improvement resource to assist the GP practices in project delivery.

Baseline data from Buckinghamshire Phase 1 will be available by June 2017 with the phase 1 evaluation complete by November 2017.

The Berkshire East CCGs are also going to participate in this project and it is likely that Phase 1 Berkshire East will launch in Q2 of 2017/18.

##### **Pharmacist led anticoagulation initiation service in primary care**

Berkshire East and Berkshire West CCG Federations have both signed up to the project. The project manager has presented details of the project at the Berkshire West Medicines Optimisation Committee

who were very supportive of the aims of the project and at the Slough GP Education event where enthusiasm was expressed.

Medicines optimisation teams within the CCGs have identified practices where the project will be run and practice engagement is ongoing.

1.4 WTE Specialist Pharmacists have been recruited by Buckinghamshire Healthcare Trust to deliver the project and they will take up post in June 2017.

Process mapping of the referral pathways and patient journey have been carried out and protocols developed for referrals into and out of the service. To ensure that capacity of the pharmacists is fully utilised plans have been developed with the medicines optimisation teams to run GRASP-AF to identify patients who are not anti-coagulated.

The project will close in April 2018 by which point sufficient evidence will have been gained to enable commissioners to decide on substantive commissioning.

The expected outcomes of the project are:

- An increase in anticoagulation rates in participating localities
- Greater GP and patient satisfaction

### **Berkshire West AF Strategy**

Oxford AHSN is working with the Berkshire West CCGs to develop a 3 year AF strategy based around the detect, protect and perfect work-streams. A steering group has been formed.

### **Activities next quarter**

- Work with CCGs to develop a framework for adoption of mobile ECGs through NHS England Innovation Funding
- Engage with Oxfordshire and Milton Keynes CCGs re mobile ECGS and wider AF projects
- Continue to progress Excellence in AF project
- Continue to progress Primary Care Anticoagulation Initiation project (Pfizer)

### **Intra-Operative Fluid Management Technologies**

**Estimated End Date: September 2017**

**Participating Trusts: Frimley Health (Wexham Park), Great Western Hospital, Buckinghamshire Healthcare, Royal Berkshire Hospital, Milton Keynes University Hospital**

#### **Overview of Project**

Intra-operative Fluid Management Technologies support anaesthetists in optimising fluid levels in patients undergoing high risk surgeries. The objectives are to standardise the use of the technology in all surgical cases of emergency laparotomies, major elective colorectal surgeries, free flaps and hip revisions.

#### **Activity Over Last Year**

IOFM Training and Education

- Oxford AHSN has facilitated several IOFM roadshows at Great Western; Wexham Park; Milton Keynes. Further events scheduled at Bucks and RBH in 2017/2018
- Roadshows typically included AHSN presentations on regional usage and project plans; talks from clinical advocates of IOFM and talks and presentations from suppliers of the technology
- Surveys to identify training needs conducted at 4/5 trusts engaged – AHSN working with suppliers to address training needs of anaesthetists across the region

#### IOFM Utilisation

- Collection of data for IOFM use in elective gastrointestinal surgeries remains a challenge with only 2 trusts able to collect and report on this data robustly
- In last quarter, the focus has been on collecting NELA data for the years over which the AHSN IOFM project has been running.
  - The project target was to see anaesthetists use IOFM in more than 75% of cases of emergency laparotomies across all trusts in the region (as well as free flaps, revision hips and elective colorectal surgeries at agreed trusts depending on case mix)
  - Data sourced from the national emergency laparotomy audit (NELA) data collected and submitted locally shows that only 2 of the 5 trust engaged in this project reached this target in 2016/2017 (see Fig 1)

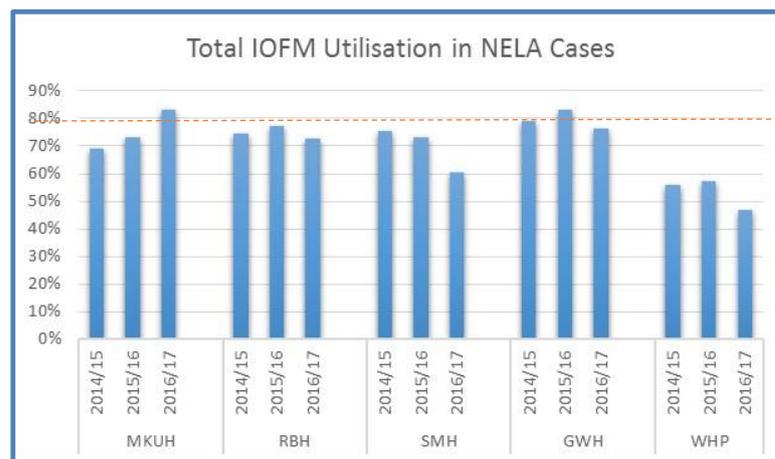


Figure 1 Total IOFM utilisation across the AHSN region in emergency laparotomies plotted over the years in which AHSN IOFM project has been running. Note: This is only emergency cases and numbers utilisation is expected to be somewhat higher in these cases as the evidence is stronger

- Looking at the average length of stay (LOS) for NELA cases against the average utilisation of IOFM over the years that the Oxford AHSN project has been running there appears that increased utilisation of IOFM trends towards a reduction in Length of Stay (Figure 2).

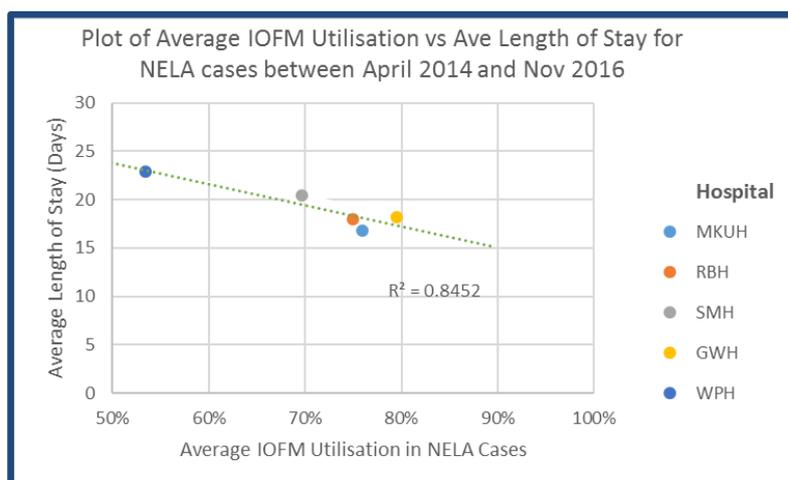


Figure 2 Average IOFM utilisation across the AHSN region in emergency laparotomies plotted against average length of stay over the same time. Data captured from NELA and includes all locked cases

### Investment in Equipment

Over the last 6 months 13 additional IOFM machines have been procured consigned by trusts in the region. We hope that this will further reduce the barriers for clinicians to use IOFM.

	Option 1 – Consignment – Contracted Consumables	Option 2 – Purchased – Consumables Procured when required
Milton Keynes	6 x Lidco units	Deltex CardioQ+
Great Western	6 x Lidco units	

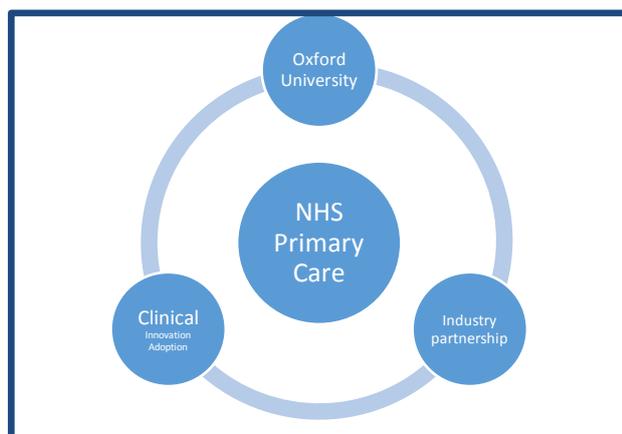
### New Projects Initiated in Q4 for implementation in 2017/18

#### FeNO Diagnostic Testing

##### Project Overview – Q4 Update

During Q4, the CIA Team started work collaboratively with Circassia to undertake a project focussing on driving the adoption of FeNO testing in primary care across the Oxford AHSN region.

Airways disease such as Asthma and COPD are significant causes of morbidity, mortality and costs the NHS in excess of £2.4bn per year. Key outcomes, such as asthma related hospital admissions and mortality, have not improved in the last 10 years despite medication usage and associated costs increasing significantly over the same period.



It has been known for many years that patients with inflammatory airways disease generally have higher than normal levels of nitric oxide (NO) in their

exhaled breath. Circassia, an Oxfordshire based life sciences company have recently brought to the UK market NIOX VERO®, a point-of-care device for assessing airway inflammation in patients with respiratory problems such as asthma. There is compelling evidence that treatment guided by biomarkers (FeNO) results in better outcomes and more economical use of treatment. However, inertia, costs and concerns about the feasibility of this new approach in primary care have limited uptake of the diagnostic device.

This approach brings together the clinical expertise, with industry support and the wealth of experience and expertise within the AHSN to deliver widespread adoption in primary care.

### **Developments in 2016/17 and Q4**

The project plan has been developed which includes:

- A small evaluation in a small number of large GP practices to capture real world evidence on the benefits and outcomes of FeNO testing linked to an economic assessment of impact, following which there will be regional and national roll-out
- Development of a suite of tools and resources for clinicians to enable rapid and widespread adoption of FeNO testing
- Working closely with regional commissioning partners to manage and spread adoption across the region

The project team has identified the key metrics for the project and is engaging with the key IT system providers to ensure robust data collection. Following expressions of interest from GP practices, the practices participating in the evaluation phase have been identified and the project team is working to start the project in Q1 2017/18.

### **Activities for Q1 2017/18**

- Evaluation phase of project to commence
- Data collection to start, which will inform health economics analysis
- Close engagement and support to be provided to participating GP practices

### **Three Patient Safety Devices**

#### **Project Overview – Q4 Update**

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 Intensive Care Units across the Oxford AHSN region. The devices provide engineered solutions that remove the possibility of human error and improve the safety of the most critically ill patients. The diagram below shows the three devices:

**Non-injectable Connector [Amdel Medical]**

A novel and patented non-injectable arterial blood sampling connector which prevents wrong route medication errors, bacterial contamination and blood spillage



**WireSafe [Qualitec]**

An engineered solution to prevent the never event of retained central line guidewires



Venner WireSafe™  
Protecting Patients, Safeguarding Staff.  
The unique design of Venner WireSafe™ procedure pack facilitates CVC insertion, prevents guidewire retention and allows safe disposal of single use items.

**PneuX System [Qualitec]**

An innovative cuffed ventilation tube and an electronic cuff pressure regulator which prevents leakage of bacterial laden oral and stomach contents to the lung – a problem associated with standard tubes.



A breakthrough in critical care medicine

The PneuX System and the Non-Injectable Arterial Connector are two of six innovations that will, from April 2017, attract the new NHSE Innovation and Technology tariff. The WireSafe, while not attracting this tariff, has been recognised by the National Innovation Accelerator programme.

**Developments in 2016/17 and Q4**

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

Engaged Trusts	
Frimley Health NHS Foundation Trust	Royal Berkshire NHS Foundation Trust
Milton Keynes University Hospital NHS Foundation Trust	Oxford University Hospitals NHS Foundation Trust
Great Western Hospitals NHS Foundation Trust	Buckinghamshire Hospitals NHS Trust

The AHSN is supporting the Trusts by developing an implementation toolkit which will provide:

Implementation Toolkit	
Summary of each device for starting internal Trust discussions	Semi-populated business case for each device
PowerPoint presentation for each device	Guidance on procurement
Guidance on reimbursement for Innovation and Technology tariff	Guidance on data collection requirements

Alongside the innovators, exhibit the Oxford AHSN’s support in implementing these devices at the International Symposium on Intensive Care and Emergency Medicine in Brussels, March 2017.

**Activities for Q1 2017/18**

- Regional meeting scheduled for May 2017
- Disseminate implementation toolkit to Trust
- Continue to engage and support Trusts to implement devices

## **Research & Development (R&D)**

The R&D programme supports the development of capability, capacity and collaboration across the NHS and the Universities to make the region a more attractive place for research to improve healthcare locally and nationally.

The R&D Oversight Group, chaired by Mr Stuart Bell, Chief Executive of Oxford Health NHS Foundation Trust met on 14<sup>th</sup> February 2017.

An update was provided by Milton Keynes University Hospital NHS Foundation Trust outlining a ten-year R&D strategy along with an overview of ongoing work and a brief presentation was given on the potential impact on EU funding of Brexit from the Medical Sciences Division, University of Oxford. Finally, Buckinghamshire New University and the University of Reading detailed a Professional Doctorate in Health Innovation proposal which will be followed up by the AHSN key stakeholders.

Current two year objectives have been proposed to include:

- Promoting development of individual Trust R&D strategic plans
- Increasing Trust research income year-on-year
- Promotion of collaborative projects between academia, healthcare and commerce
- Increasing senior R&D support and engagement from large established, smaller, less research aware/ready, partners

## Wealth Creation (now known as Strategic and Industry Partnerships)

### Highlights and achievements during 2016/17

The Wealth Creation strategy focuses on four key themes:

1. Supporting companies along the adoption pathway
2. Building investment opportunities across the Oxford AHSN region
3. Building a culture of innovation in the NHS
4. Building long-term partnerships with businesses and other organisations.

In establishing an offer to innovators, industry, academia and the NHS, the Wealth Creation strategy has focused on two key areas, diagnostics and digital health. The four themes underpin the activities in each of these areas. Significant progress has been made across both of these domains.

During the year, the Wealth Creation team completed a total of 35 projects, and has over 50 projects that are ongoing. The team has interacted with 45 companies during the quarter, bringing the total for the year to 204. Over 2,500 people have attended events that have involved the Oxford AHSN as either an organiser or sponsor. Funding brought into the region through the activities of the team are over £5.5 million for the year, which represents an ROI of 11 times. The Wealth Creation team is comprised of five full time staff.

The activities of the Wealth Creation team are supported by an Oversight Group, which met four times during the year. The Group is chaired by Dr Nick Edwards, and welcomed the following new members: Dr Barbara Ghinelli, Business Development Director, STFC, Harwell; Sarah Haywood, Chief Executive, MedCity; Charles Swingland, Deputy Chairman, Drayson Technologies; and Dr Glenn Wells, COO, Oxford AHSC.

### Supporting companies along the adoption pathway

During the year the following projects were completed:

- The Standard Set of Patient Reported Outcomes Measures (PROMS) for Inflammatory Bowel Disease was published at the end of 2016 (<http://www.ichom.org/medical-conditions/inflammatory-bowel-disease/>). This was undertaken through a collaboration between the International Consortium on Health Outcomes Measures (ICHOM) and the Oxford AHSN, with grant funding from AbbVie. Simon Travis from the Oxford University Hospitals NHS Foundation Trust led an international panel of experts.
- On the back of this project, good progress has been made in creating a new Clinical Network for IBD, which will be funded by industry. Negotiations are progressing well with a small number of companies who are interested in supporting a defined programme of work across the region in IBD. This programme will include support in implementing the PROMS work.
- The team completed a detailed report for Sarissa Biomedical on Point of Care (PoC) Stroke IVD for paramedic use in out of hospital / ambulance setting. The technology is based on the assessment of purines using the SMARTChip.

The report formed part of the outputs of a pathway evaluation through a Phase I SBRI Stratified Medicines Programme grant (<http://www.sarissa-biomedical.com/news/sarissa's-stroke-diagnostic-smartchip,-wins-sbri-grant-award.asp>)

- The team also provided advice to Mologic for a project on COPD Exacerbation for Patient Alert, which involved the identification of key urinary tract biomarkers. This project was funded through a Phase I SBRI Healthcare Programme grant (<https://mologic.co.uk/blog/2016/03/30/srbi-healthcare-award/>).
- Support was provided to Janssen for the uptake of its anti-psychotic medicine, Xeplion® (paliperidone), used in the treatment of schizophrenia across Oxfordshire with the Oxford Health NHS Foundation

Trust. Janssen has introduced a rebate pricing model for Xeplion® and a prolonged release suspension for patients.

### Diagnostics

During the year, the diagnostics programme has made significant progress across a number of fronts, with the work being undertaken beginning to generate national interest. The diagnostics strategy has focused primarily on working with the diagnostics industry to develop a portfolio of evaluation studies that can generate suitable evidence packages for adoption. The team has received strategic and clinical support from Dr Dan Lasserson, Senior Interface Physician in Acute and Complex Medicine at Oxford University Hospitals NHS Foundation Trust.

The following projects are underway across the region.

- The evaluation of the Horiba Microsemi<sup>CRP\*</sup> haematology testing system has taken place at three sites: in A&E at the Oxford University Hospitals NHS FT, at Stoke Mandeville Hospital for paediatric Point of Care (PoC) testing, and at Wexham Park. At Oxford the initial paediatric evaluation involved staff training and a total of 89 patients had CRP and FBC assessed. The aim was to reduce the flow through the paediatric ED.
- A study to evaluate the use of PoC testing in the Emergency Multidisciplinary Unit to Out of Hours GP vehicles for use in an at home setting commenced is progressing. The study started in November and is assessing the benefits of PoC in an Out of Hours setting using the Abbott iStat. This work is supported by a grant from The Health Foundation.

The pipeline of projects for evaluation has increased significantly during the year. There are over 10 projects in the pipeline involving a broad range of industry partners across a number of different healthcare settings. The most advanced of these are:

- A project to evaluate Circassia's NIOX® FeNo Point of Care (PoC) test in the management of asthma and COPD in primary care is in the final planning stages and is due to commence shortly.
- Planning for the evaluation of the proteomic profiling system, the SOMAScan™ assay, in primary care continues and is being supported by Dr Raj Thakker in Buckinghamshire. The aim will be to demonstrate the utility of the SOMAScan™ assay for stratifying patients based on their risk for future cardiovascular and metabolic events.
- The Unyvero™ system, which has been developed by Curetis, offers a single protocol for sample preparation with the potential to assess 100 analytes within a few hours in a PoC setting based on multiplex PCR. The team has been working with Curetis to implement an evaluation of the Unyvero™ system in infectious diseases in the Royal Berkshire Hospital and in Oxford University Hospitals.
- The NHS Business Services Authority (BSA) is exploring Faecal the potential for a national roll out of a faecal calprotectin PoC test developed by Bühlmann. The team is assessing this as a potential project for adoption across the region. Julie Hart is a member of the Faecal Calprotectin National Steering group that is operating under the NHS BSA's Pacific Programme and Point of Care Testing (<http://www.nhsbsa.nhs.uk/5242.aspx>).
- Plans to use the GE V-scan portable ultrasound and echo in the Ambulatory Assessment Unit (AAU) at the John Radcliffe Hospital are underway and will include training, and assessment of the impact on patient flows and patient experience.

The diagnostics programme has built strong links across the whole Oxford AHSN region and will continue to develop the opportunity for closer collaboration between NHS partners and industry. The team continues to work closely with the Oxford Diagnostics Evidence Co-operative and is a partner in the application

submitted by Oxford Health NHS Foundation Trust under the NIHR MedTech and In Vitro Diagnostic Co-operative.

The team is working with the Oxford Genomics Medical Centre (GMC) to support the programme for collecting and analysis samples for genomic analysis across the region. This involves identifying patients from partner trusts across the region including Buckinghamshire Healthcare, Great Western Hospitals, the Royal Berkshire Hospitals, Frimley Health and Milton Keynes University Hospital.

The diagnostics programme is building support for diagnostic businesses through a collaboration with DEC London to achieve rapid assessments of medical technologies, and to support their translation from concept to product, and to eventual adoption within the NHS. The assessment will be based on a specific LEAN methodology pathway developed by DEC London. Recruitment has commenced for a health economist that will be funded by the Oxford AHSN.

The Diagnostics Industry Advisory Council (DIAC) was established in 2015 to support regional diagnostic companies in their interactions with the NHS and to share knowledge and experience in the evaluation and adoption of diagnostic tests. The Council met twice during the year to discuss national policy opportunities and regional activities. The team has developed close links with the British In Vitro Diagnostics Association (BIVDA), in particular through the membership of Julie Hart on BIVDA's Point of Care Working Party.

During the quarter Julie Hart presented at the Chief Scientific Officer's Annual Conference organised by NHS England. The talk entitled "Embedding Innovation and Change" was part of a session on *The Fight Against Antimicrobial Resistance*.

### Digital

The main focus of the digital health programme has been to establish a solid platform across a range of activities that ultimately will support effective identification and uptake of new opportunities into the NHS. While the emergence of digital health is seen as a key enabler to the NHS in supporting the transformation of care across complex pathways and care settings, there remain significant challenges in defining the most effective ways of embedding new digital health innovations into the NHS. The digital health team, led by Nicki Bromwich, has made good progress in building a robust approach to this problem through the development of several interconnected strands of activity, and has worked closely with the Informatics team in this process.

These can be broken down into the following areas:

- A clear understanding of the asset base in digital health across the Oxford AHSN region that encompasses academic, NHS and industrial activity. This has culminated in the publication of the report *Digital Health in Oxford and the wider Thames Valley*.
- The development of a regional digital health strategy, which builds on this understanding and includes broad stakeholder engagement. This strategy focuses on how industry, academia and the NHS can work more closely together and is focused on the development of new innovations and the pathway from concept to market.
- A clear pathway for digital health innovators and companies from concept through to market
- A well-defined approach to assessing innovations that has the potential to be embedded within the NHS.

The starting point for the digital health strategy has been a scoping exercise to understand the digital health needs, capabilities and opportunities across the region. This outputs of this process were then

shared with key stakeholders and used to develop a shared vision and set of objectives. One of the requirements to emerge from this process has been the need to create a clear brand for digital health across the region, and which can act as a 'front door'. Bringing together the diverse activities of different digital health stakeholders will strengthen the existing activities of organisations such as Digital Health Oxford, which has strong support within the development community. An important objective will be to create a Digital Health Test bed for the region that will allow innovators and companies to undertake real-world evaluations in a variety of clinical settings and generate meaningful data to support the adoption of their products and services into the NHS at a regional, national and where appropriate, a national level.

A number of meetings were held during the year with stakeholders to generate feedback for the strategy and the award of a Science and Innovation Audit (SIA) to the *Oxfordshire Transformative Technologies Alliance* in the Autumn 2016 budget has provided an additional layer of engagement and assessment to support the Digital Health strategy.

The objectives and partners involved in the SIA are set out below:

## Digital Health sector as part of SIA



### Two main aims for the Digital Health workstream

**Identify critical points when integrating Digital Health inventions** within the current healthcare system

**Streamline the process** of local, regional and national **adoption** taking into account community settings and end-users to **maximise impact**



### Including support from the following business partners



The outputs of the Digital Health theme in the SIA will be published in June 2017 and will be integrated into the ongoing development of the Digital Health strategy. Two other factors will also impact on the strategy. The first is the Accelerated Access Review, which was published in October 2016, and which sets out recommendations to strengthen the digital health pathway from concept to adoption of innovations in the NHS, and second the Industrial Strategy, which was announced by the Government in January 2017. Specific initiatives highlighted in these policies will mean that the Digital Health strategy will continue to evolve over the coming months.

During the development of the Digital Health strategy it became evident that there was a real need to develop more robust processes for the identification and assessment of digital health opportunities. There

is significant variation across the digital health innovation space in terms of needs assessment and evidence base for potential products, and in particular the lack of robustness in determining whether any given innovation will provide a clear benefit to the NHS. The digital health team has developed a detailed development pathway map, from concept through to market, which highlights in detail the different stages required. This has been accompanied by the creation of a series of service packages for innovators, based on the LEAN methodology approach. A number of workshops have been held to test this offer.

An update to *Map the App*, which was first published in 2013, has been initiated in collaboration with Oxford University Innovations. The pace of development of digital health has been such that a revised and expanded edition is necessary and will be renamed as the App Development Roadmap. This will be published in June 2017.

During the year a number of projects have progressed:

- Evaluation of the Intelligent Ultrasound audit process for ultrasound images at Royal Berkshire Hospitals.
- Now Technologies has developed a specialised headset, Gyroset™ Glory, that constantly monitors the spatial position of the user's head. This enables tetraplegics to control their wheelchair with head movements in an intuitive manner. A research evaluation is ongoing at the National Spinal Injuries Unit in Stoke Mandeville Hospital, Buckinghamshire Healthcare.
- The evaluation of the Isansys Lifecare Patient Status Engine in an Out of Hours setting through the Ambulatory Assessment Unit at the John Radcliffe Hospital, Oxford University Hospitals.
- Physiomics was awarded a grant under the Innovate UK Biomedical Catalyst 2016 Feasibility programme. The project, entitled 'Decision Support Systems for Stratified Cancer Treatment', will focus on the development of a software decision support package. The team will be supporting work on evaluating the pathway to adoption for the system. This project is also a good example of where the digital and diagnostics converge.
- During the year the team has provided support to a team in the Department of Psychology at the University of Reading, which is developing an online and smartphone application treatment programme for childhood anxiety disorders. The development of the software is funded through the NIHR i4i programme.
- Support in business planning and corporate development of the GDM-health system led to the formation of a collaboration between Drayson Technologies and the University of Oxford. In conjunction with the CIA team, support for the commercialisation of the product with Drayson Technologies is ongoing.
- The team has also been providing business development support to SEND, a system for vital-signs observation in hospital patients, which has enhanced the care of over 80,00 patients in the last two years. The SEND system has also been licensed to Drayson Technologies and the team has given evaluation and procurement support.

The Wealth Creation team has worked closely with the Informatics team on a series of opportunities relating to the Global Digital Exemplars with Arden & GEM Commissioning Support Unit (CSU).

- In February 2017, the partners were awarded a contract by NHS England for £150,000 to deliver Baseline Evaluation of the Global Digital Exemplars across England. The team is supporting the Informatics team in undertaking site visits as part of the data collection and analysis.
- A second contract for the Provision of Learning Network Support for Global Digital Exemplar Sites has just been awarded to the partners by NHS England with a value of £300,000.

- A third contract for a Place-Based Digital Maturity Assessment Development has been awarded to a partnership of the Oxford AHSN, Arden & GEM CSU, and the Greater Manchester AHSN. Total value for the contract is £95,000 and the team will provide resource and support to the Informatics team in delivering the project.

The Oxford AHSN has also partnered with MindTech (<http://www.mindtech.org.uk>), which is lead organisation in the submission of a NIHR MedTech and In Vitro Diagnostic Co-operative covering the evaluation of digital health opportunities in mental health.

The Oxford AHSN is supporting the Smart Oxford initiative (see <http://oxfordsmartcity.uk/cgi-bin/index.pl>), specifically around the opportunities in health and social care.

The Wealth Creation team has provided support to the NHS Innovation Accelerator programme 2016/17 call for applications.

### **Building investment opportunities across the Oxford AHSN region**

The focus of the team's investment strategy has been across four areas of activity: the first is in supporting the creation of two incubators across the region, one in Buckinghamshire and one in Oxfordshire; the second is through the NHS England Healthy New Towns programme with Bicester; the third is through the promotion of the regional cluster, not only through a robust, ongoing baseline analysis of companies across the region, but also in the promotion of cluster specific activities for the overall benefit of the region. The final area is focused on the drug discovery pathway and in exploring new models of drug development based on open access.

#### Incubators

- The Buckinghamshire Life Sciences Innovation Centre has received £1.3 million in Local Growth Fund support from the Bucks TVLEP. Full details of the Centre and its plans for growth are set out in the case study.
- TheHill was launched in the early summer of 2016 as an incubator and accelerator for the identification and development of digital health innovations for the NHS. The vision of TheHill (<http://www.thehill.co>) is to help build the next generation of healthcare projects and businesses. TheHill is a non-profit grass roots ideas lab based at the John Radcliffe Hospital. TheHill is a partnership between Oxford University Hospitals, the Oxford AHSN and Digital Health Oxford. A series of events culminating in a pitch session, were held for local and NHS innovators. Over 30 new innovations were identified, of which five were selected for rapid commercialisation. During the year the team has been working with the Oxfordshire LEP as part of a partnership led by Oxfordshire County Council entitled *Innovation Support for Business* (ISfB) for European Regional Development funding. A total funding package of £402,000 has been applied under ISfB.

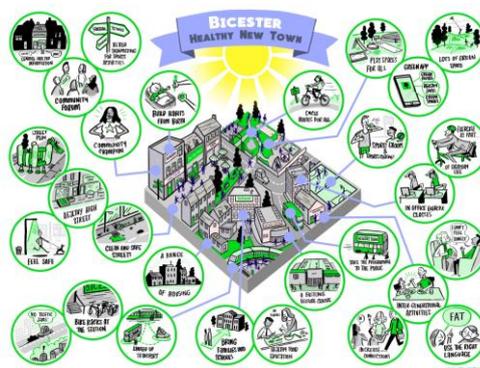
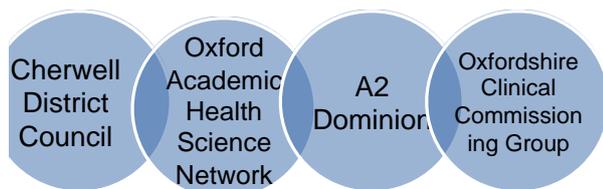
#### Bicester Healthy New Town

Following the announcement in March 2016 that Bicester had been selected as one of ten sites across England to be designated a Health New Town, the core partners (Cherwell District Council, A2 Dominion, Oxford AHSN and Oxfordshire CCG) have worked closely together to develop a robust strategic and implementation plan with a core focus on obesity and social isolation. During the year a number of

stakeholder events have been held to support the plans across three main themes: the built environment; community activation; health and care services.



- 1<sup>st</sup> wave 393 new homes
- 6,500 homes NW Bicester development



These themes are underpinned by digital technology to support health and well-being, and evaluation to understand the impact of changes and to share learning. The programme has been successful in generating additional support for a range of projects over the next two years, with a value in excess of £750,000.

Regional cluster development

The Oxford AHSN is a partner in several regional initiatives including:

- The report *The Oxfordshire Innovation Engine Update* was launched in July and was attended by the Minister for Life Sciences, George Freeman. The Oxford AHSN co-funded the report. As a result of the recommendations set out in the *Update*, a new industrial group, Advanced Oxford, has been set up. The Oxford AHSN is a founder member of Advanced Oxford.
- The Harwell Campus has launched a HealthTec Cluster to promote the life sciences and is an example of new opportunities arising across convergent technologies such as space, health and digital. The Campus hosted an event with Tim Peake, *Accelerating Healthcare Innovation*, in September which included a panel comprised of the Life Sciences Minister, George Freeman, Professor Sir John Bell and Major Tim Peake. The Oxford AHSN is actively involved in supporting the development of the HealthTec Cluster at Harwell and supported the proof of concept call for companies.
- The second wave of Science & Innovation Audits awarded by BEIS included the Oxfordshire Transformative Technologies Alliance. There are four themes in the programme: digital health, space-led data applications, autonomous vehicles and technologies underpinning Quantum computing. The Oxford AHSN is leading the Digital Health theme supported by Oxford University Innovations.
- In partnership with the Oxfordshire LEP and the Science and Technologies Facilities Council, Harwell, a new position, Life Sciences Business Development Manager. The role is focused on developing a long-

term inward investment strategy that plays to the regions strength. Deborah Spencer has been in post since January 2017.

- The Wealth Creation team has provided input and support into the Oxfordshire LEP's Strategic Economic Plan and Innovation Strategy.

### Drug discovery

The Oxford Martin School has awarded a grant of £300,000 for a programme on 'Affordable Medicines for Future Generations'. This is a joint collaboration between the Structural Genomics Consortium (University of Oxford), the Oxford AHSN and the Office of Health Economics.

The programme will examine new R&D models from the perspective of economic benefits to stakeholders, alternative strategies to intellectual property development and the societal benefits of these new models (<http://www.oxfordmartin.ox.ac.uk/research/programmes/affordable-medicines>).

### **Building a culture of innovation in the NHS**

The main focus for supporting cultural development within the NHS has come through the activities of 'The Hill', where healthcare workers have an opportunity to learn about the process of innovation and also to take ideas and concepts and receive and support and mentoring to help with their development.

The third Entrepreneurs Programme was held at the Henley Business School and was attended by 16 delegates. The Oxford AHSN has been very grateful for the support received from Health Education England Thames Valley for these programmes. However, due to increasing pressure on budgets, there are no further plans to hold any more courses for the foreseeable future.

### **Building long-term partnerships with businesses and other organisations**

So much of the activity in Wealth Creation concerns the creation of partnerships between different stakeholders, and in particular with industry. The team's approach to partnership building is to identify areas of common interest with potential partners, and then to develop specific projects that can help deliver tangible outcomes and benefits to all involved. The team has continued to build strong partnerships with a number of companies, ranging from large, multi-national businesses through to SMEs. The strategic collaboration with Janssen/Johnson & Johnson is a good example of this. At the same time, more strategic relationships between different constituent bodies is also actively encouraged, and this has led to the Sustainability Network, which has brought together universities and NHS organisations to share learnings across the carbon and energy savings space. More detail on these partnerships is provided below:

- The strategic partnership with Janssen/Johnson & Johnson has continued to build and the executive teams from the partners met once during the year. The focus on activities continues to be across R&D, medicines optimisation, regional support and infrastructure, and the innovation ecosystem. Janssen/Johnson & Johnson will be a delivery partners in the Buckinghamshire Life Sciences Centre and are a partner in the Science & Innovation Audit.
- The Sustainability Network has met four times during the year. The principal focus of the group continues to be the implementation of the energy savings projects identified in the baseline assessment project. Progress across three of the projects (Great Western Hospital, Swindon; Buckinghamshire Healthcare with connection to Bucks New University, High Wycombe; and

Heatherwood & Wexham Park and Frimley Park Hospitals) continues, and in two of the projects is supported by The Carbon and Energy Fund. The broad range of additional activities covered by the Network has been highlighted in the report *Making Sustainability Happen*, and includes culture change, sustainable transport, sustainable food and solar opportunities.



- The Wealth Creation team has been in discussions with the West Midlands AHSN to develop a strategic partnership across areas of mutual interest and scalable benefit for the combined population. The key areas of focus include the sharing of opportunities across the diagnostics, digital and medtech sectors, and a number of meetings have been held to identify specific projects for collaboration.

### Conferences, publications and promotion

#### Conferences/Events

During the year the team was involved in organising and sponsoring seven conferences.

Date	Conferences	Delegates	AHSN Role
7-8 April	<i>IDEAL Conference</i> <a href="http://www.ideal-collaboration.net/ideal-conference-2016-evaluating-innovation-in-surgery-and-therapeutic-technology-the-ideal-approach/">http://www.ideal-collaboration.net/ideal-conference-2016-evaluating-innovation-in-surgery-and-therapeutic-technology-the-ideal-approach/</a>	130	Sponsor
25-27 April	<i>BioTrinity 2016</i> <a href="http://www.biotrinity.com/biotrinity-2016">http://www.biotrinity.com/biotrinity-2016</a>	1,020	Cornerstone Sponsor

6 July	<i>Big Healthcare Challenges in Chronic Diseases</i> <a href="https://innovation.ox.ac.uk/events/big-healthcare-challenges-in-chronic-disease/">https://innovation.ox.ac.uk/events/big-healthcare-challenges-in-chronic-disease/</a>	233	Co-Sponsor & co-organiser
8 July	<i>Realising the Growth Potential. The Oxfordshire Innovation Engine Update</i> <a href="http://www.sqw.co.uk/insights-and-publications/oxon-innovation-engine-update/">http://www.sqw.co.uk/insights-and-publications/oxon-innovation-engine-update/</a>	99	Co-sponsored the publication
7 September	<i>Facilitating Effective Antimicrobial Stewardship in Primary Care</i>	20	Organiser
21 September	<i>Accelerating Healthcare Innovation with Tim Peake</i> <a href="http://www.stfc.ac.uk/news/tim-peake/">http://www.stfc.ac.uk/news/tim-peake/</a>	250	Organisational support
Various	<i>Innovation Forum Lecture Series on Health and Life Science Entrepreneurs</i> <a href="http://oxford.inno-forum.org/events/">http://oxford.inno-forum.org/events/</a>	> 250	Sponsor

#### Presentations by the Wealth Creation Team at Conferences

The team either chaired or gave presentations at nine events during the year.

Date	Conferences	Organiser	Topic
7-8 April 2017	BioTrinity Oxford AHSN Parallel Session	OBN	Open innovation and the translation of university research into new companies
26-27 May	5 <sup>th</sup> UK Diagnostics Forum	Oxford Diagnostics Evidence Co-Operative	Innovation adoption
26 April	British In Vitro Diagnostics (BIVDA) AGM	BIVDA	Wealth Creation Diagnostics Programme
29 June	Venturefest 2016	Venturefest	What is the Internet of Things and how can we use it?

15 June	Chemistry Means Business	Royal Society of Chemistry	Chair of session on Health & wellbeing pitches
12 July	Driving Innovation and Collaboration in Digital Health	OBN and University of Warwick	Digital Health
22 September	Innovation Forum 2016 – Leaders Conference	Innovation Forum	Innovation and healthcare systems – Creating access
22 February	BIVDA Point of Care Working Party	BIVDA	Overview of diagnostics programme
6 March	2017 Chief Scientific Officers Annual Conference	NHS England	The Fight Against Antimicrobial Resistance – Embedding Innovation and Change

### Publications

The following reports were published during the year, reflecting a broad scope of activity across a number of key themes for the Wealth Creation programme.

- **Four Case Studies to Explore the Added Value of Oxford AHSN** (*Office of Health Economics and RAND Europe*) - <http://www.oxfordahsn.org/wp-content/uploads/2016/08/Oxford-AHSN-Phase-2-report-Final-4-studies.pdf>
- **Realising the Growth Potential. Oxfordshire Innovation Engine Update** (University of Oxford, Oxfordshire LEPO, Oxford Innovation and Oxford AHSN) - <http://www.healthandwealthoxford.org/wp-content/uploads/2016/09/Oxfordshire-Innovation-Engine-Update-2016-FINAL-REPORT-2.pdf>
- **Digital Health in Oxford and the wider Thames Valley region** (*Oxford AHSN, Oxford University, Oxford University Innovation*) - <http://www.healthandwealthoxford.org/wp-content/uploads/2016/11/Digital-Health-in-Oxford-Wider-Region.pdf>
- **Making Sustainability Happen** (*Oxford AHSN*) - <http://www.healthandwealthoxford.org/wp-content/uploads/2017/02/Sustainability-Report-Feb-2017.pdf>

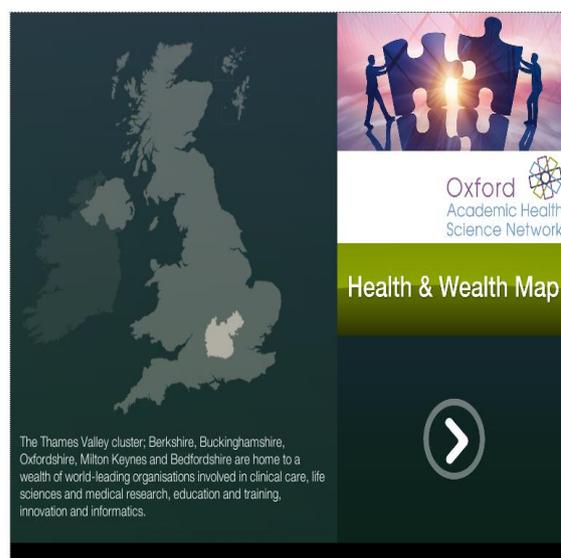
### Updates

In addition two brochures were updated:

- An updated **Oxford AHSN and industry** brochure - <http://www.healthandwealthoxford.org/wp-content/uploads/2016/09/Oxford-AHSN-and-Industry.pdf>
- **Oxford and the Thames Valley – A favoured location for life science inward investment** was updated – <http://www.healthandwealthoxford.org/wp-content/uploads/2016/11/Favoured-location-Oct-2016.pdf>

### Web Site

- An industry focused website ([www.healthandwealthoxford.org](http://www.healthandwealthoxford.org)) was launched in September with the objective of supporting industry engagement and providing information on the adoption pathway. The site includes an interactive map detailing the types and numbers of organisations across the region broken down into therapeutics, medtech, diagnostics and digital health.



### Other Activities

During the year the team has continued to support Theme 2 of the Oxford AHSC on Novel Partnerships, and is working with the CLAHRC to identify new opportunities for collaboration.

### Metrics

The table below sets out the main metrics relating to Wealth Creation.

Metric	2016-17	2015-16	Total
No of companies across the region	644	636	N/A
No of companies engaged	204	211	>400
No of formal industry partnerships created	21	11	32
Investment leveraged across the region	£912,000	£5,518,000	£14.5 M
Future savings projected	0	0	£6 M
Return on investment	1.5	11	
No of attendees at wealth creation events	2,489	1,160	3,719

## **Informatics Theme**

### **2016/17 reflection**

As we approach year end we can reflect on a successful last quarter where the core AHSN programme support activity for 2017/18 has been set out for assessment and current year commitments are scheduled to complete on time.

We have embraced the challenges around funding and have already started building on strategic opportunities and partnerships.

- The Informatics Team has continued to work well together with the team remaining constant this year – the first time that there has been no turn-over during [a] year. The Informatics team continues looking forward to the challenging work ahead in 2017/18.
- CIO Forum – We held the seventh CIO forum in March of Quarter four. There was wide representation from partner NHS organisations across the network. During the previous CIO Forum (November 2016) there was a presentation from the Digital Lead at the Berkshire Oxfordshire and Buckinghamshire (BOB) STP who provided an update on the Local Digital Roadmaps. There was an overview of interoperability plans, a vision beyond paperless 2020 and how the NHS Feedback and updating process will continue.
- Oversight Group – the oversight meetings this year proved invaluable, with the group starting to steer, question and challenge, rather than solely present to each other. We have had good engagement around the strategy put forward which was [overwhelmingly] supported. Unfortunately we learned that two members will be stepping down, Paul King (Microsoft) and Caroline Hargrove (Maclaren). They will be replaced by new members from their organisations and we look forward to welcoming them to the group.

### **Information Governance (IG)**

The IG framework continues to be used to benefit projects across the network.

Q4 saw the inaugural IG Steering Group come together. The group agreed guide timings for signatories to turn around agreements; this was exemplified with an AKI protocol being signed off by one partner trust in two days, the record to date. The Group will continue to oversee and manage the framework going forward.

Bedford Hospitals and CNWL signed up to the Data Sharing Agreement as part of the IG Framework in October (2016) and December (2016) respectively, taking the total number of trusts signed up to 12.

The milestone to engage GPs through CCGs has been moved to Year five, reflecting the time needed to undertake this process properly, this will also provide the opportunity to discuss this process with IG peers at the meeting next quarter.

## **Operational Hybrid Analytics Service**

Over the last 12 months the Informatics team has been working with NHS Digital to secure HES data sets to support the core programmes. A data sharing agreement was signed and data disseminated to us in December.

We have implemented a new version of the Data Warehouse, built by our in-house Database Administrator – this in itself is a shift in our working to not being so reliant on 3<sup>rd</sup> party vendors for our support requirements.

We continue to have 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.

## **Informatics Strategy**

The Informatics strategy has been discussed and agreed at both the Oversight Group and the CIO Forum. This guidance on the operationalisation of the strategy, in addition to the identification of resource available across organisations to support the delivery, presents the vision and direction of the Informatics team drawing on the importance of digital integration and maturity.

Work has been undertaken to engage with partner trusts locally in line with interoperability requirements reducing dependency on external data providers.

Informatics took part in an internal strategy day focused on key deliverables of the strategy and re-licensing activities, this will be proceeded twice monthly strategy meetings to monitor the progress of key activities.

## **Digital Maturity Model**

Through the CIO forum, trusts have been engaged and enlisted to provide support in developing a Digital Maturity plus programme and are now in agreement to start the process.

The Oxford AHSN, in partnership with Greater Manchester AHSN and Arden and Greater East Midlands CSU has successfully bid to redesign the Digital Maturity Assessment in collaboration with local partners which will be rolled out nationally. The new assessment will aim to provide a view of digital maturity reflecting experience of staff whilst recognising the importance of digital maturity for potential industry partnerships with the NHS. The milestone to initiate a cross organisational assessment will be moved to 2017/18 following the design activities that need to take place.

## **Research Informatics for Mental Health, Clinical Research Interactive Search – CRIS**

Progress with Oxford Health has been made during this year; a service agreement has been signed and the governance arrangements have been finalised. Initial testing has been carried out successfully which initiated the full dataset load. This will enable federated queries to be run against local CRIS databases. Additional funding was also secured in the form of a tax rebate.

## New Opportunities

- DHL/ Vizient / OAHSN Supply Chain Bid – Informatics has been working closely with the bid team and have agreed with 3 Trusts ongoing data sharing, storage, IG and analyse vendor spend against patient encounters and outcomes in collaboration with DHL and Vizient.

The Informatics team has also been working closely with the Wealth Creation Team on a number of new opportunities:

- **Global Digital Exemplar's** – This is a short-term engagement, working with partners Arden & GEM CSU and Optimity Advisors, to undertake a baseline assessment of all GDE sites for NHS England. This assessment will be the baseline for a longer-term evaluation that NHSE intend to commission.
- This work led to a successful bid for the **Provision of Learning Network Support for the GDE sites**
- **Place-Based Digital Maturity Assessment Development** – The Oxford AHSN in partnership with Arden & GEM CSU and the Greater Manchester AHSN was successfully awarded the contract for this work.

## Programme and Theme Support

### Best Care

- **Children's** – The third variation report requirements were finalised last quarter, covering the inclusion of new diagnosis codes for disease areas. The extraction and organisation of the data has been delivered, but was delayed due to the issues surrounding the supply of HES data from NHS Digital.
- **Imaging** – The Mirada data sharing protocol was completed and submitted to the OUH as the data owner for signature and was signed off in December. Informatics have provided support in the collection of prostate data, following a cancer submission database query to the OUH, to provide clarity around the exact metrics that should be pulled from the database.
- **Respiratory** – due to the delayed HES data, Informatics worked with OUH to extract operational hospital data across emergency, outpatient and inpatient datasets. This was organised and analysed to provide content for Respiratory's first report and to support the network launch in October. Once the NHS Digital HES data was available in Q4, Informatics analysed the wider regional data and delivered a comprehensive report detailing the variation in COPD and asthma admissions across the region.
- **Dementia** – We worked with Oxford Health to collect updated figures on the number of patients seen and assessed by memory clinics in Oxfordshire and Buckinghamshire. In addition to analyses into patients diagnosed with Dementia by CCG area older or younger than 65, this allowed exploration of local variation and an understanding of younger patients diagnosed.

### **Clinical Innovation Adoption (CIA)**

- **IOFM** – Continuing support in reporting and analysis of National Emergency Laparotomy Data shared under the IG Framework. Data has now been received from Royal Berkshire Hospital, Milton Keynes Hospital, Great Western Hospitals, Wexham Park Hospital and Buckinghamshire Healthcare. The data has been organised to provide an understanding of variation across the trusts; the percentage of procedures using fluid therapy and outcomes data.
- **Falls** – following the data sharing protocol sign off, Informatics supported the CIA project manager to design the dataset required with an Informatics manager from Buckinghamshire Healthcare. During the last quarter the initial dataset over a retrospective period was received and subsequent monthly refreshes. The data is now being analysed.
- **Heart Failure** – Data was collated from pathology labs across the hospital trusts to understand the number of BNP and Post BNP tests that are carried out both in hospital inpatients and in primary care. All trusts were approached to provide aggregate data in December, numbers have been received from Oxford University Hospitals.
- **Prostate** –Following the receipt of the HES data at the end of last quarter, we have delivered analysis of HES data documenting the number of prostate procedures in men over 50

### **Wealth Creation / Industry Partnerships**

Informatics has supported the wealth creation team with a data sharing protocol allowing the sharing of data to evaluate the impact of a point of care test done by Out of Hours GPs. This aims to ensure better diagnosis and treatment at home, to avoid ambulance call outs, hospital attendance and admission. We have also been involved with the 'Map the App' project which is being updated in collaboration with Oxford University Innovations. This is due to be published in June 2017.

### **Patient and Public Involvement Engagement and Experience**

Informatics has supported the PPIEE in their endeavour with other health organisations across the region, such as the BRC and the CLAHRC, to work towards a database of patient and public representatives to support projects. Information Governance considerations have been provided such as the process of notifying citizens, giving people clear options around involvement and opt out and the security of the platform.

### **Patient Safety Collaborative**

- **Sepsis** – working collaboratively with the PSC team, the Sepsis data has been slightly re-organised in response to requirements set out as part of the paper review process following submission for publication. During the last quarter the Lead Analyst for the sepsis work has presented alongside the former clinical lead at two events, the first in October at 'Sepsis Unplugged' and second in December at UCLP's patient safety presentation day. The presentation, highlighting suspicion of sepsis among hospital inpatients, was well received on both occasions.
- **AKI Inpatients** - supported the PSC with IG requirements to replicate pathology and hospital linkage work to understand the burden of AKI among inpatients across the Oxford AHSN region. This will provide additional data to match the biochemical data from the OUH linked to OUH hospital operational data already collated. Linked data has enabled analysis of AKI alerts, the number of deteriorating patients, hospital spell details, demographic and outcomes data. Regional data will support the project's aim of understanding the current position, so AKI can be better managed, resulting in fewer patients deteriorating and improved hospital outcomes.

- **AKI Hydration** - Analysis has been undertaken on UTI's in care homes across Oxfordshire, as part of the hydration work, looking at days between treatments and hospital admissions. Improved hydration in care homes decreases the likelihood of a UTI leading to AKI, thereby reducing the number of hospital admissions. Analysis has also been undertaken on OUH inpatient admissions and emergency attendances by care home, examining demographic information, mortality rates and length of stay for UTI and cystitis patients.
- **Maternity** – development of a spreadsheet produced for the maternity project to capture measures concerning retained swabs and to support the consistent collection of swab handover data. Data is being monitored to support the project work towards eliminating these errors, which can lead to serious medical problems for the patient such as infection, fever and haemorrhaging.
- **Gastric buttons** – informatics presented at the December steering group meeting as a way of introducing the service that can be provided to the group and to give an overview of the data available for analysis.

## **Patient and Public Involvement, Engagement & Experience (PPIEE)**

This year has seen the most activity for our programme to date. Planning for involvement and engagement training and events has been realised in the innovative Leading Together Programme and the success of our application for a Wellcome Trust Public Engagement grant to take forwards our Living Well Project.

### **The Team**

#### **Our lay leaders**

We very sadly said goodbye to Carol Munt, our long-standing lay partner who moved out of the region. We have however appointed three new lay partners – Douglas Findlay who chairs our Operational Group, Rebecca Day who joins the PPIEE Team, with responsibility to liaise with the Best Care Programme and Raj Arora who will become a member of the Best Care Programme Oversight Group.

### **Training and development**

#### **The Leading Together Programme**

Over the past year we have co-designed and co-delivered with lay partners an innovative leadership development course. The course was grounded in our experience of running and evaluating a pilot in early 2014. This allowed us to design a course that built on the experience of the initial 20 participants – increasing the experiential components and the support for action learning.

Over 100 professionals and lay partners, across the South of England, have taken part in the Programme, generating local groups of professionals and lay partners who get coproduction and can take forward local projects together. Participants ranged from medical directors and directors of nursing to members of the voluntary sector, patients and carers.

Jeremy Taylor, Chief Executive of National Voices, Nigel Acheson, Medical Director NHS England South and Neil Churchill, head of patient experience for NHS England, alongside 50 Programme Graduates, attended our Celebrating Success event in November. The event showcased the wide diversity of projects they undertook, leading to creation of a video of the event – insert video link.

We were runners-up for the NHS Thames Valley and Wessex Leadership Academy award for Leading for Service Improvement and Innovation.

We also ran a very well attended pop-up university at NHS EXPO that generated interest in the Programme from across the country. We will be developing options for continuation of the Programme over the coming months, including a course for people with learning disabilities and professionals.

#### **Other training**

During the year we published the report of our event to explore the recording and measurement of impact of involvement activities.

In December, we ran a one-day workshop on outcomes that matter to patients and the public. We covered outcomes from the perspective of research, service delivery, commissioning and education. The event was well attended by a range of professionals and lay partners and we have published a report of the event (<http://www.oxfordahsn.org/wp-content/uploads/2017/03/Outcomes-that-matter-to-patients-and-the-public-final-report-v3.pdf>).

We ran our first PPIEE lunchtime seminars for 30 lay partners on “increasing your impact” and we are planning further seminars for next year.

We will also be running our one-day workshops on participation techniques from May 2017 and will invite a range of professionals and lay people from across research, service delivery and education to take part.

### **Public Engagement**

We have been working with partners across the AHSN, Science Oxford, the Cochrane Collaboration, the University of Oxford and Brookes University to develop the Living Well Project and have established a Steering Group to guide the work.

We ran several successful events as part of the Oxfordshire Science Festival:

- a storytelling event with a focus on stroke at the Oxford Story Museum;
- a series of lunchtime talks 'A short introduction to mental health with Oxford University Press and Blackwell's Bookshop
- A panel debate on genomics and data privacy with the British Science Association and the Wellcome Centre for Human Genomics

As the result of being awarded a Wellcome Trust grant we are now in the last stages of planning our pop-up shop in a local shopping centre. Development of the pop-up shop has been informed through focus groups with local school children and community groups. The event will focus on aging and dementia and will be a week of activities to coincide with National Dementia Awareness week in May.

### **Developing metrics**

As the result of a joint event with research, education and service delivery colleagues we are exploring tools and other methods to trial for recording and measuring impact of PPI. We have started to draft a template for recording and evaluating PPI activities. We will trial this in the coming year.

We are also exploring an approach for using routine data to show how organisations are delivering person-centred care. We have put together a long list of possible metrics and ran an initial workshop with Knowledge Exchange fellows from the Care Quality Commission (CQC) and NHS England to explore this idea. We will be further refining this list over coming months and working with local providers and commissioners to see if we can produce a way of presenting this data that would be useful to them.

### **Joint Communications**

As a result of our survey to find out how people across the Thames Valley want to be kept informed we have developed a regular news bulletin - Involvement Matters - working with the CLAHRC, CRN and NHS England. It covers opportunities for involvement across research, service delivery and education. We have circulated the first three bulletins across our networks.

## **Patient Safety**

### **Progress in Quarter Four**

In Q4 our clinical projects gained significant traction with improvements in patient safety evident the Maternity programme and the Acute Kidney Injury programme. The Absence without Leave programme was published in BMJ Quality and the programme was also presented at the Patient First Conference. For the Sepsis programme a paper has been submitted to BMJ Open and we await reviewer comments. The Maternity programme has had a poster accepted at the IHI London conference in April 2017. The Paediatric Gastrostomy programme has now completed three Steering Boards and expanded its membership to become a fully regional and multi-professional cohort. Programme diagnostics are nearing completion and the design of QI projects becomes clearer. QI capability within the Steering Group will be enhanced by provision of training from NHS Elect, and coaching from the PSC. The review of the Pressure Damage Prevention programme is complete, and Phase I of the programme will complete at the March Steering Board.

The PSC is actively engaging in the new National Maternity Collaborative. The PSC and the Best Care Maternity Clinical Networks will both engage in supporting the new collaborative.

The Patient Safety Collaborative (PSC) continues to develop the clinical programmes and its capability and capacity building work across the region (discussed further below).

Eileen Dudley and Jo Murray have now joined us as patient safety managers to complete the team of four with Katie Lean and Geri Briggs. However, Jill Bailey, Head of Patient Safety, is returning to Oxford Health (from her secondment) to take up a position as leading a new Centre of Quality Improvement in the Trust. This is a great loss for us but a huge opportunity for Jill and for Oxford Health. We are advertising for a new Head of Patient Safety and will interview in early April. Charles Vincent will assume the leadership of the PSC in the transition period.

Our growing programme and the aligned stakeholders are outlined in Table 1.

Table 1. Q4 programme status and stakeholder groups

Patient Safety Programme	Our Aim	Our Measures	Our Partners	Project Status
<b>Acute Kidney Injury</b>	Reduction of UTIs requiring hospital admission or antibiotics in residential and nursing homes	Introduction of a structured drinks round and drinks chart	Windsor, Ascot and Maidenhead CCG	<b>Active</b>
	To ascertain the use and benefit of sick day rules cards	Qualitative work with cohort of patients with Long Term Conditions who have attended a polypharmacy clinic Survey monkey with GPs and Pharmacists	Bracknell and Slough CCG  Oxfordshire CCG, Berkshire West and East CCGs	<b>Planned 2017</b>
	Reduce AKI by improving the management of CKD patients	Reduction in hospital visits by holding Virtual Nephrology Clinics	Royal Berkshire Hospital	<b>Active</b>
	Reduce mortality from AKI	Ensure that the AKI care bundle is completed within 24 hours of the AKI alert	Great Western Hospital	<b>Active</b>
	Reduce regional mortality, length of stay and readmission from AKI	The introduce the National Patient Safety Alert algorithm into laboratories and release with training into community and secondary care settings	Oxford University Hospitals, Great Western Hospital Buckinghamshire Healthcare, Milton Keynes University Hospital, Royal Berkshire Hospital, Frimley Health (Wexham Park), Oxford Health, Berkshire Healthcare	<b>Active</b>
	To reduce the incidence of AKI in the community setting	Introduce care bundles into primary care with training for GPs	Oxfordshire, Milton Keynes, Wiltshire, Swindon, West and East Berkshire CCGs	<b>Active</b>
	To reduce the disease progression of in patients	Introduction of an electronic AKI care bundle linked to the AKI alerts.  To introduce a medicines review electronically	Oxford University Hospitals  Oxford University Hospitals	<b>Active</b>  <b>Set up</b>
<b>Reducing Pressure Ulcers</b>	We aim to reduce the number and severity of pressure ulcers across the Oxford AHSN region over the next five years. In particular, we aim to reduce the number of the most severe pressure ulcers (grades 3 & 4)	Multiple projects 18 underway using a variety of measures Process measures: % completion scores of risk assessment tools and prevention/care bundles, % compliance with required reporting reaction times Outcome measures: Numbers of new PUs developed, days between new PUs developed, grade progression of existing PUs	Oxford Health, Oxford University Hospitals, Berkshire Healthcare, Royal Berkshire Hospital, Buckinghamshire Healthcare	<b>Active</b>
<b>Safety in Mental Health</b>	For each ward to reduce failure to return from Section 17 leave or agreed time away from the wards by 50% within 12 months of the start of their project	% inpatients, detained or informal, who fails to return to the ward later than 10 minutes over the leave period that was agreed and documented by ward staff, and who have not made contact with the ward to agree a later return time	Oxford Health, Central and North West London, Berkshire Healthcare	<b>Active</b>

Patient Safety Programme	Our Aim	Our Measures	Our Partners	Project Status
Safety in Maternity	To reduce the incidence of retained swab 'never' events to zero within 36 months of the start of the project	% of handover of swabs between clinicians when moving from delivery suite to theatre and theatre to observation area.	Oxford University Hospitals	Active
Sepsis	To reduce mortality by using a regional sepsis pathway	Review of aspects of the sepsis 6 bundle including IV antibiotics within the hour and review within 72 hours	Oxford University Hospitals, Great Western Hospital, Buckinghamshire Healthcare, Milton Keynes University Hospital, Royal Berkshire Hospital, Frimley Health (Wexham Park)	Active
	Ensure septic patients seen promptly in ED	Introduce a clinician led pre-alert	SCAS Frimley Health (Wexham Park)	Pilot
	Identify deteriorating patients in care homes	Introduction of a tool to assist carers to identify the deteriorating patient	Oxfordshire Care Home Services	Design phase
	To ensure the prompt recognition of the septic patient	The use of the sepsis pathway for deteriorating patients	Royal Berkshire Hospital	Planning
Paediatric Gastrostomy	To improve patient safety along the pathway for children receiving gastrostomies.	Programme in set up phase, projects and measures yet to be finally defined	Oxford University Hospitals, Royal Berkshire Hospital, Berkshire Healthcare, Frimley Health, Milton Keynes University Hospital, CNWL, Great Western Hospital, Helen & Douglas House	Set up

## Clinical Programmes

### Safety in Mental Health: Absence without leave project

#### Clinical Lead Dr. Jill Bailey, Head of Patient Safety

The project continues to sustain at Oxford Health. Aggregated data for all wards shows that the baseline mean return on time rate was 51.6% and this has now increased post-intervention to a mean return on time rate to 88.2%

Berkshire Healthcare reports that Bluebell Ward has achieved its aim and they are now working on adoption across a further three wards. Central and North West London have launched the project on two wards at Milton Keynes and in central London on Ebery Ward. They are currently collecting their baseline data and designing their first test of change. A team from CNWL plan a visit to Oxford Health to learn about the project implementation.

#### Project successes

- The project was published in BMJ Quality in November 2016.
- The project is documented as one of four case studies focusing on high impact projects in the PSC national report
- Nokuthula Ndimande, the most prominent nurse leader on this work at Oxford Health, has won 'Mental Health Nurse of the Year' by the British Journal of Nursing. This project was a critical part of the commendation made by Oxford Health.

## Key Issues

The Data Sharing Agreement is in process with CNWL. Once authorised a full analysis of AWOL data across the region can be undertaken. The project has now been successfully published in BMJ Quality.

### **Acute Kidney Injury (AKI)**

#### **Clinical Lead Emma Vaux and Patient Safety Manager Katie Lean**

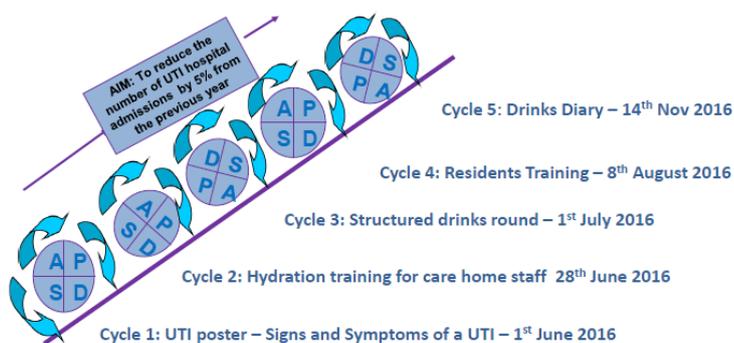
There are 17 projects being undertaken in this programme throughout the region which are mapped out on a driver diagram. The work is broken down into 3 work streams prevention, recognition and management to allow for focused project work. The group link with the national AKI cluster. A poster presentation on the regional work has been accepted at the British Renal Society National Conference in April 2017 and an abstract submitted to the UK Kidney week (June 2017) conference and the national patient safety conference (May 2017).

The prevention work stream commenced a hydration project in May 2016 and it continues to run in 3 residential care homes and one nursing home in Windsor, Ascot and Maidenhead. A second nursing home in the region has asked to take part in the project and the project has been presented to Oxfordshire Care Home Services.

The outcome of the project is to reduce the number of urinary tract infections (UTI) requiring antibiotics +/-admitted to hospital. The first process measure was introducing a structured drinks round where care homes offer a variety of drinks at set times ensuring a minimum of 7 drinks rounds are undertaken each day. They are encouraged to theme drinks rounds to keep it special for the residents. A second test of change was implemented on 14<sup>th</sup> November introducing a drinks diary for residents who were noted to be more at risk of a UTI. The 5 PDSAs (plan, do, study, act) cycles are listed above.

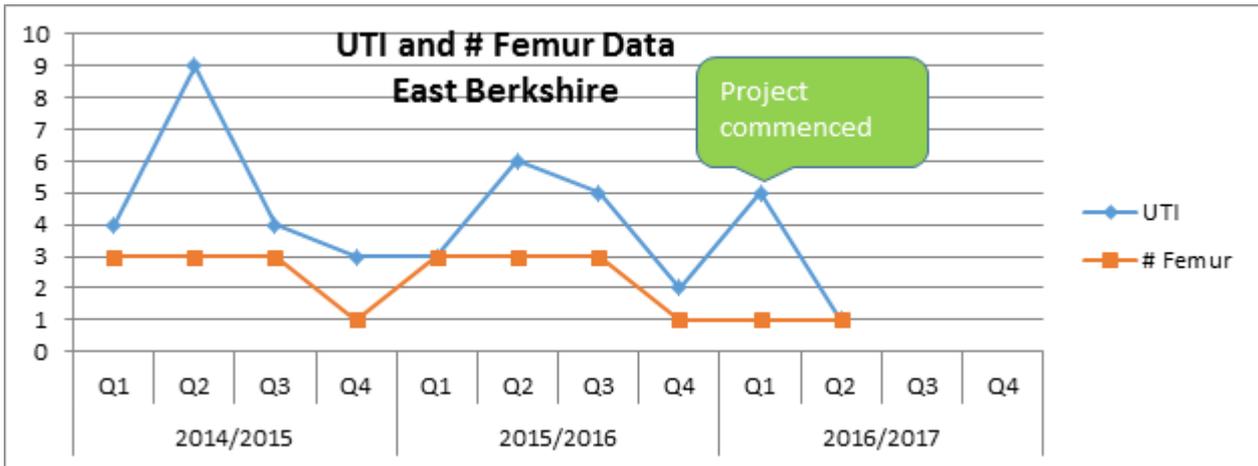
Reliability of delivering the structured drinks rounds is on average 98% compliant and over the last 3 years there has been a significant reduction in UTIs and fractured femur in the Windsor Ascot and Maidenhead care home population which has continued to fall throughout the project timeline.

### **Tests of Change: Hydration PDSAs**



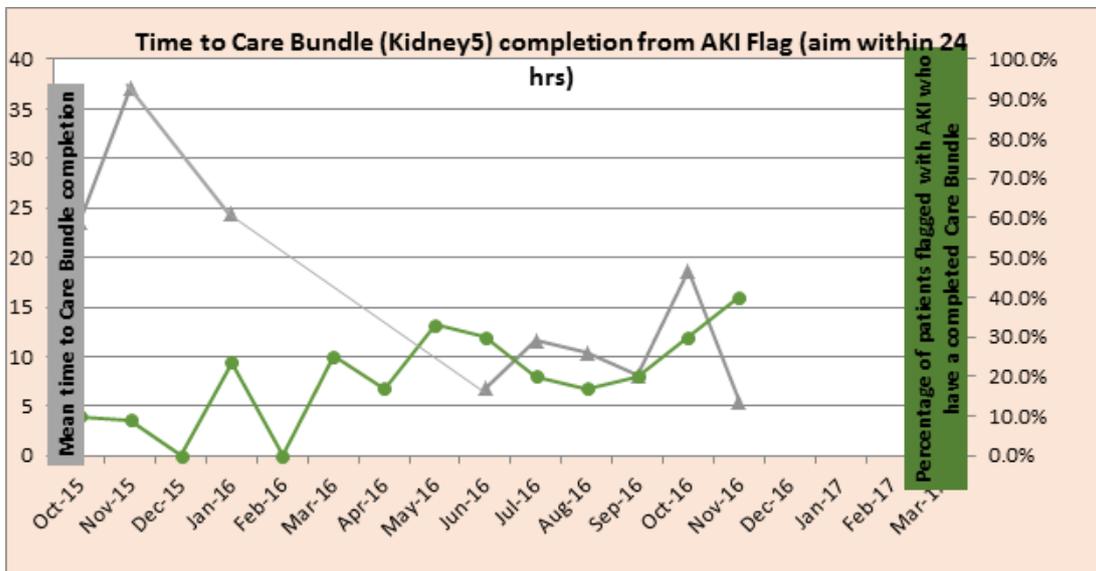
**NHS**  
Windsor, Ascot and Maidenhead  
Clinical Commissioning Group

Oxford  
Academic Health  
Science Network  
Patient Safety



A focus group is set up to review more qualitative aspects of the project to observe if there are other changes within the patient population as a result of improved hydration.

The recognition work stream is being led by our partners at the Great Western Hospital, Swindon and aims to reduce the incidence of mortality by 3% from AKI by ensuring the implementation of the AKI care bundle within 24 hours of alert. There has been a marked improvement on the care bundle being completed within 24 hours and work is underway to ensure that more care bundles are completed for AKI alerts. This work includes the pilot of an electronic care bundle in the Emergency Department and a revised Sepsis and AKI care bundle.



The management group have designed and implemented an electronic care bundle at Oxford University Hospitals (OUH) which is linked to the AKI alert on creatinine testing. This was released on the 18th April 2016. The aim is to identify if the introduction of an electronic AKI care bundle reduces the progression of the disease during the inpatient stay. A further download of data has been requested from OUH so that a more up to date review can be undertaken. Clinicians locally are reviewing the use of the AKI care bundle alongside this data.

A separate part of the project is looking at introducing an electronic medications review tool which will be linked to the AKI alert. This is in a testing stage and it is hoped to be in action at the start of the financial year. This will ensure that if a patient triggers an AKI alert in hospital their medications are reviewed by a pharmacist within 24 hours of the alert. The service will initially be covered Monday-Friday 0800-1700.

Data sharing agreements are now in place with each Trust to review the burden of AKI throughout the region looking at biochemical markers linked to hospital operational data. Combined data sets have been received from Milton Keynes, Great Western Hospital and OUH. Once the data set is merged analysis will begin to identify trends.

The AKI national patient safety alert noted that AKI alerts should also be released into the community settings. Within our region 4 out of the 6 community areas now have these alerts live in community. Oxfordshire's alerts went live in November 2016 and primary care AKI bundles were developed as guidance for GPs when they receive an AKI alert. An electronic template has been designed by an Oxfordshire GP to assist GPs in the documentation and treatment of patients with an AKI alert. This will be ratified at the beginning of the financial year. The remaining two areas have a plan for switch on of the AKI community alerts – Swindon/Wiltshire March 2017 and Milton Keynes May 2017. Adoption of Oxfordshire's primary care bundles has been agreed with minor amendments.

## **Sepsis**

### **Clinical Lead Andrew Brent and Patient Safety Manager Jo Murray**

Stakeholders meetings take place every 3 months where there are around 30 representatives from community and secondary care. The group has been focused around many changes within Sepsis guidance nationally and internationally. The group has divided into 2 work streams to allow for focussed project work; sepsis leads and nurses in secondary care and community care. The group link with the national sepsis cluster. An abstract has been submitted to the National Patient Safety conference (May 2017) and the suspicion of sepsis data was presented at the national Sepsis Unplugged Conference (Oct 2016).

There has been a scoping exercise of existing work (including QI) already undertaken for acute settings. Following on from publication of new NICE Sepsis Guidelines in July 2016 a regional pathway based on this and the UK Sepsis Trust toolkit has been designed and agreed by all stakeholders within the group. An agreement has also been made in conjunction with the AHSN Paediatrics Best Care network to use the Paediatric critical care operational delivery network's sepsis screening tool (designed with Wessex AHSN) for paediatric sepsis regionally. This has so far been adopted by Buckinghamshire Healthcare, Royal Berkshire Hospital, Milton Keynes University Hospitals, Oxford University Hospitals and Wexham Park.

Following the receipt of 5 Trusts CQUIN data it was noted that Trusts are collecting the data differently. At present we are awaiting the re-submission of CQUIN data so that we can review regional data. The key outcome of this is to identify a more robust picture of the burden of sepsis, and to measure patient outcomes from our improvements in managing septic patients. Additional data is being reviewed from ICNARC and blood culture data to identify the burden of sepsis and outcome measures to demonstrate the effectiveness of the changes implemented.

A powerful 8-minute film on the story of a sepsis survivor (created by OUH) and the importance of prompt recognition and treatment now uploaded onto PSC website for regions to use in training. A resources section has been added to the PSC website to upload research papers, training tools and regional pathways.

A paper on the suspicion of sepsis has been submitted to the BMJ quality journal and we awaiting a response.

The Community Group have chosen to commence their regional work with a focus on 4 community areas – Urgent Out of Hours, District Nursing, SCAS and care homes. A quality improvement project is in the design phase that will be undertaken in Berkshire Trust looking whether deteriorating patients are identified promptly and treated for sepsis/transferred urgently, including SCAS pre-alerts to ED. Oxford Health is in the process of developing safety netting for their out of hours patients and Berkshire Westcall Out of Hours have successfully introduced a lactate point of care testing kit that has demonstrated out of the patients who were identified as having a high lactate – 72% had a confirmed diagnosis of sepsis and were treated promptly. Work is also being undertaken with Oxford Health community hospitals in developing a sepsis pathway/bundle which will in turn be tested with the hope of being adopted throughout the region.

## **Maternity**

### **Clinical Lead Jane Hervè and Patient Safety Manager Katie Lean**

Programme Aim: To reduce never events of swab retention to zero by November 2018 within the Maternity Department at Oxford University Hospitals.

Meetings take place monthly to monitor progress and discuss any further action that could improve outcomes. The project uses QI methodology and has been uploaded in to the LIFE system and the SPC charts updated within this. An approved driver diagram maps the work within this group. A poster has been accepted for the IHI international quality conference (April 2016) and an abstract submitted for the National Patient Safety Collaborative conference (May 2016).

The first test of change was implemented on the 1st February 2016 to improve handover of swabs from delivery suite to the operating theatres. This test introduced an updated swab counting policy, adding a paper bag for swabs into delivery packs, and informing staff through various mediums.

Since the project has been collecting data maternity has been incident free of “Never Events swab retention” for 618 days. Although the process remains variable, there is marked improvement in the following 3 areas:

- Verbal handover from Delivery Suite to theatre staff when swabs have been opened – 27%-79%
- Written handover of swabs from Delivery Suite to theatre staff – 4%-67%
- All 3 aspects of the swab policy followed when transferring women form Delivery Suite to theatre – 0%-98%

Work continues to be undertaken to reduce variability including the use of a catchphrase to remind staff “save it, say it, sign it”. Pens with this motto have been given to staff as a reminder of the policy. This has been well received by all grades of staff.



A second test of change commenced 5<sup>th</sup> December looking at the handover of an intentional vaginal pack from theatre to Observation Area. A sticker has been introduced to identify that the woman has a vaginal pack “VP” in situ which is part of the handover of care. Since December every woman bar one who has had a vaginal pack in situ has had a sticker placed on her wrist. Anecdotal feedback from staff is that it is a positive change and a small qualitative study will take place in March 2017 to review the patient’s perspective.

This project has been shared regionally in the January 2017 Best Care Maternity Clinical Network’s Newsletter.

### **Pressure Damage Prevention**

#### **Clinical Leads Ria Betteridge and Sarah Gardner, Patient Safety Manager Geri Briggs**

The Pressure Damage Prevention programme aims to reduce acquired pressure damage across the boundaries of community and acute care throughout the region. The initial objective was to improve the reliability of pressure ulcer baseline assessments with tests of change being implemented at multiple sites. Knowledge and experiences associated with harm reduction strategies have been shared, and which has influenced clinical practice.

Following the review of programmes at the PSC Programme Board and the Oversight Group in Q3, the current programme’s projects have undergone a root and branch review by Professor Jackson (Chair), with Professor Vincent, Jill Bailey and Geri Briggs. The programme is very large with 18 individual testing sites, some of which are progressing well and some that are facing a range of challenges. A decision has been taken to rest those projects which, for a variety of factors, have been unable to demonstrate the anticipated improvements, and to relaunch Phase II of the programme with a sharper focus and fewer projects at the next Steering Board in March. All leaders for rested projects will be invited to stay on the Steering Board to maintain networking.

A Phase I report will be compiled which will recognise the complexity of the problems encountered and reflect on the lessons learned.

### **Paediatric Gastrostomy**

#### **Clinical Lead and Chair: Dr Alex Lee, Patient Safety Manager: Geri Briggs**

The Paediatric Gastrostomy programme has now completed three Steering Boards.

Representation on the Steering Group has expanded such that it is now a fully regional and multi-professional cohort, with contacts being established with an additional stakeholder group. The Steering Group now considers itself to be complete with the exception of PPI involvement, for which a potential candidate has been identified and will be approached.

Programme diagnostics are nearing completion; semi structured interviews with the parents of a number of patients have been undertaken, and the outcome of these, in conjunction with pathway mapping, have enabled the design of QI projects to become clearer. It is likely that QI projects will focus on improving critical communications between professionals along the pathway, and developing training packages for parents to support them in caring safely for their children, who frequently have very complex needs.

QI capability within the Steering Group will be enhanced by provision of training from NHS Elect, and coaching from the PSC.

### **Capability Building and Leadership Development**

#### **Lead Jill Bailey, Head of Patient Safety**

The PSC continues to develop the capability for safety and quality improvement through a wide range of different activities. These activities are designed to increase skills in quality improvement methodology, clinical human factors, measurement for improvement and leadership skills.

#### ***Coaching in quality improvement programmes***

The Head of Patient Safety and the Patient Safety Managers continue to offer QI coaching to all clinical project teams to develop skills in-vivo. The approach is particularly helpful to clinical teams who can learn together in busy clinical environments as they advance their projects.

This issue of building serious capacity is being given increasing attention by NHS Improvement and others and the PSCs are being monitored for their efforts on this front. Some have interpreted this as a need to simply increase the numbers of people who receive some kind of quality improvement training, however brief. The Berwick report, the stimulus for these efforts, pointed out that the NHS had very little knowledge or capacity in quality and safety improvement. However, the report makes it clear that the NHS needs a range of levels of understanding and skills with the priority probably being to develop a cadre of people with both understanding and experience of improvement. Our approach in the region has been to try to support and coach people in the longer term within AHSN clinical programmes (eg sepsis, AKI, the Clinical Innovation Adoption programmes etc) of quality improvement and adoption. We also run specific courses but put a strong emphasis on coaching and longer term support. In addition, we also have the GP school identified for the future to engage in the training of 100 GP trainees focusing on QI in sepsis work starting in September. Our work with the Royal College Physicians mortality review will produce a further cadre of people training in medical record review and related methods.

#### ***Learning from Serious Incidents and Clinical Human Factors***

Dr Jane Carthey, clinical human factors expert, undertook her final report into 60 serious incident investigations across three integrated care trusts and presented her findings to the learning from incidents teams. Areas of good practice, and those for learning, were identified. A learning event took place on October 18<sup>th</sup>, 2017, that brought together the three learning from incidents teams to develop ideas for improving the understanding of clinical human factors in the incident investigation process, the action planning process, and support and reparation for the family. A further event will be developed to take account of the participant's views on how best to improve local practise. This is likely to include commissioning colleagues to share challenges, good practise and develop a joint plan.

Following the learning event on 18 October 2017, Dr Jane Carthey, clinical human factors expert, will carry out two further learning days for each of the three learning from incidents teams. Following these days a further event is to take place on 15 June 2017

#### ***LIFE Platform***

The PSC continues to fund the LIFE system for quality improvement projects under our programme and in collaboration with our partners across the region. The system offers full QI project functionality. The PSC provides feedback to the developers to support enhancements to the software to reflect its use in clinical

practice. At Oxford AHSN PSC we currently have an average number of 'active' users when compared to other PSCs using the system. The first year contract is for review in January, 2017. Issues surrounding the AHSN boundaries and licencing arrangements will be reviewed jointly amongst all PSCs with Seedata and our informatics team.

The LIFE contact has recently been reviewed by a solicitor as there were concerns regarding governance issues. The solicitor did a thorough review and agreed that the PSC was correct to be concerned.

#### ***South of England Mental Health Collaborative***

The PSC funded attendance for 10 places per integrated trust to attend the South of England Mental Health Collaborative. This runs on IHI Breakthrough series principles underpinned by an 'all teach, all learn' ethos. Learning Set 11 was attended by 25 participants from across the three integrated trusts. In the light of our own funding cuts we have recently reviewed the programme and considered demonstrable outcomes, faculty development. Some Trusts in the region are now building on the work begun by the collaborative and developing their in-house programmes. Following discussion, the PSC will not be continuing to fund the South of England Mental Health Collaborative.

#### ***Health Foundation Q initiative***

The Oxford PSC has opted to support the Q initiative during the third wave of recruitment in 2017. The decision follows close collaboration with the Health Foundation on the best phase of the project for developing local capability building. The PSC has decided to allow the necessary troubleshooting and testing inherent in any new initiative to pass before entering the recruitment process. This will also allow us to become clearer about the 'product' under offer to our partners should they support their clinicians to join Q.

The Oxford PSC is bidding for phase 4 of the Q initiative. The bid is to be submitted by the end of March 2017. Eileen Dudley and Jo Murray, Patient Safety Managers, will be applying to join Q when wave 2 of recruitment opens in March 2017.

#### **Measurement for Improvement: Lead: Jill Bailey, Head of Patient Safety**

The AHSN continues to support the provision of measurement for improvement surgeries with Mike Davidge for all project leads across the PSC and the AHSN.

#### **Informatics. Leads Charles Vincent, Clinical Lead and Jill Bailey, Head of Patient Safety**

The Informatics provision of data requests is on schedule with no outstanding issues.

## Stakeholder Engagement and Communications

In Q4 and over the course of the year 2016/17 there were a large number of stakeholder events including the Partner Showcase events held in May 2016. These proved very successful with a wide range of presentations and topics covered in the meetings including Absent without Leave - an important patient safety projects in mental health, the MSc course in evidence based healthcare, anxiety and depression update, reducing catheter induced infections and developments in clinical imaging.

These events demonstrated engagement and partnership with over 350 people attending. 2017 will see a repeat of these important meetings with new presentations on new projects and updates on existing work.

Other events such as BioTrinity, a major event for the life sciences industry, provide a shop window for the AHSN and its partners in industry and the NHS. BioTrinity 2017 in May will provide this opportunity again, with an increased focus on the strengths in these important areas across Oxfordshire and the wider AHSN region.

Other events that had significance in terms of stakeholder engagement both within and without the NHS were the workplace wellbeing roadshows held at Unipart, Vodafone and Janssen/J&J. These partnerships focus on the health and wellbeing of staff which in turn bring great benefits for the care of patients and their families. Over 200 people representing over 100,000 staff in the private and public sectors attended these events, to share experiences and ideas on the importance and practice of health and wellbeing in the workplace. The related engagement in County Sports Partnership will impact on the mental and physical health of all.

Nationally, we took part again in the NHS England AHSN Survey which had a lower response rate than the ComRes survey we organised locally. This survey proved to be extremely valuable both in the support it provided for our work and also for pointing out areas for further work in engagement. Some responses to the survey are included below:

**“Value is seen to be added primarily through the collaborative focus of the AHSN, creating connections stakeholders report would not have occurred without the AHSN.”**

“The Oxford AHSN ... is critical to developing a more innovative, safe and cost-effective health system in the region.

**“Stakeholders have seen the AHSN’s impact in their own work creating positive outcomes in their region, citing numerous examples.**

Full information is contained in the report available here <http://bit.ly/OxfordAHSNsurvey>.

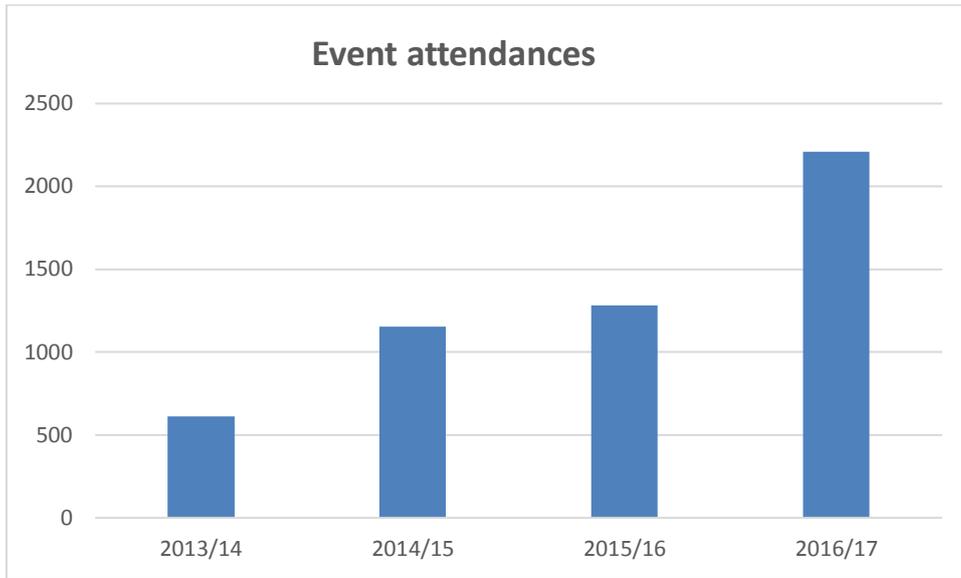
In November, we published a document which showed the Story so Far and the increasing range and scope of activities with partners across the AHSN.

### Communications

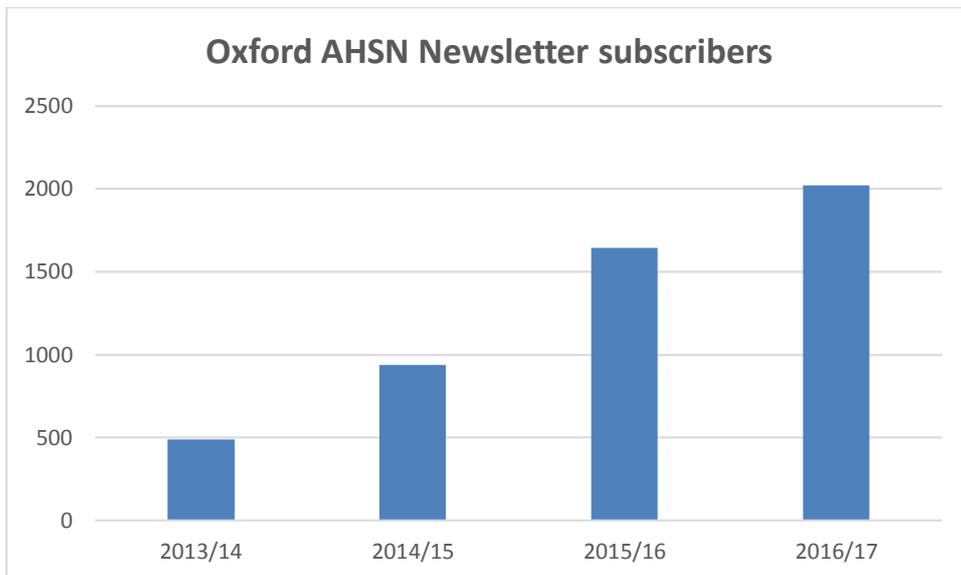
We have continued to ensure that our monthly email newsletter (which reached its 40<sup>th</sup> edition in March 2017) provide information for partners and stakeholders but also includes information *from* our partners and stakeholders. The work within partners is critical to our overall success – the success of the AHSN is built on the success of the partners in all sectors.

The charts and tables below summarise our communications activities.

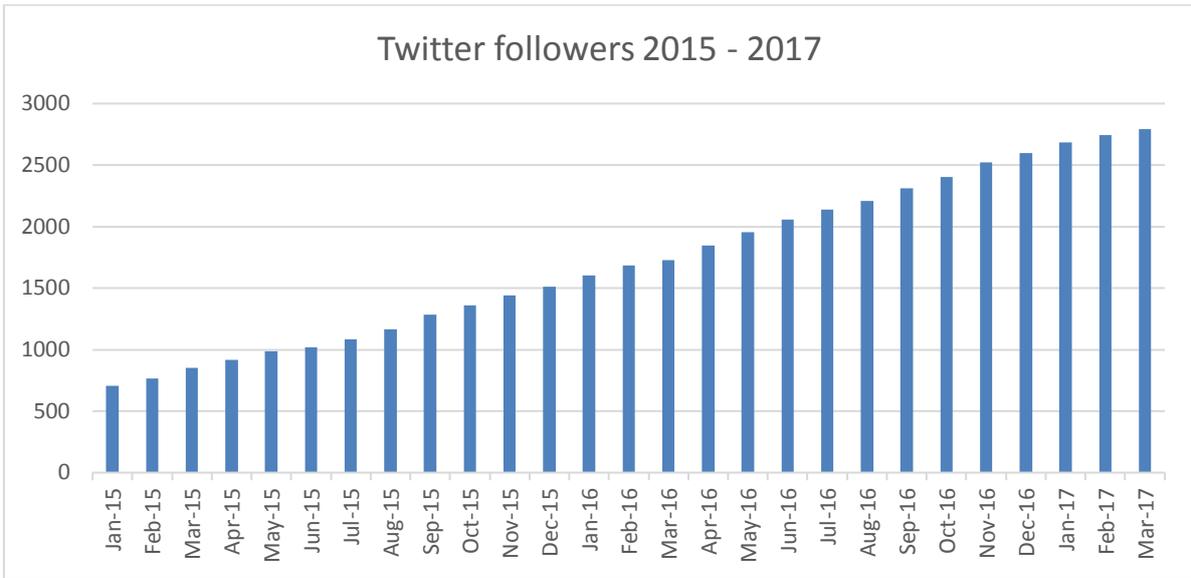
The following chart shows the increase in attendance at events organised by the Oxford AHSN or sponsored and contributed to by the AHSN.



Our subscribers to the Newsletter has risen steadily since 2013/2014 and it remains a key part of our communications work and increasingly links are developing with the communications leads of partner organisations to ensure good exchange of information.



Twitter followers show a significant and continuous rise with additional activity being seen in other AHSN accounts, including those for the clinical networks, programmes and themes.



Website activity has been more variable but the following charts show page views and visits for the last two years in which full activity data are available. It continues to be updated and refreshed and a new site, [www.healthandwealthoxford.org](http://www.healthandwealthoxford.org) was set up during the year to focus on the activities of the wealth creation programme, now renamed Strategic and Industry Partnerships.

## Oxford AHSN Events

Date	Event	Speakers
<b>April 2016</b>	BioTrinity 2016 Entrepreneur programme, Henley Business school Stand at BRC open day, JR	Nick Scott-Ram chaired workshop at BioTrinity Nick Scott-Ram speaks at IDEAL Conference - St Catherine's College Julie Hart speaks at BIVDA AGM Meeting London BIVDA – The British In Vitro Diagnostics Association
<b>May 2016</b>	Six AHSN and partner Road Shows Patient Safety Conference Children's Network event EIP Workshop Network event	Imaging Clinical Lead Professor Gleeson speaks at Royal College of Radiologists Julie Hart speaks at BIVDA Funding Forum
<b>June 2016</b>	PPIEE Event Said Business School EIP Berkshire launch event The Hill Digital Launch and four following events to September 2016 VentureFest Oxford	Nick Scott-Ram, Panel member at Venturefest Oxford
<b>July 2016</b>	Oxford University Innovations, AHSN and BRC Innovations Day Health Fair PPIEE Stroke related event at Oxfordshire Science Festival We are Brighter Together (Berkshire Healthcare)	Nicki Bromwich speaks at innovation and collaboration in digital health event, Warwick Nick Scott-Ram speaks at OUI Tech Showcase - Oxford
<b>September 2016</b>	Better together conference with HEETV Oxford PSC sepsis event with national speakers Harwell Life Sciences event with Tim Peake and John Bell AHSN Partnership Board meeting	Nick Scott-Ram speaks at innovation leaders conference, Cambridge Paul Durrands, Sian Rees, Lindsay Roberts EXPO speakers in Manchester Julie Hart speaks at Antimicrobial Resistance Workshop - Reading and at EDCA event - Paris
<b>October 2016</b>	OBN Awards dinner, AHSN sponsored award – SGC winners	Paul Durrands spoke at OBN to introduce AHSN sponsored Award

Date	Event	Speakers
	<p>Launch of Respiratory Clinical Network</p> <p>AHSN Board meeting</p> <p>Asthma &amp; COPD Care in Oxford AHSN Region Understanding &amp; Reducing Variation</p> <p>PMO Visit EIT Health UKI Partners/Activity Leaders/WP Leaders (EIT Health, London)</p> <p>Berkshire East Cardiology Engagement Forum (NHS Slough CCG)</p> <p>Alcoholics Anonymous Awareness Day</p>	
<b>November 2016</b>	<p>Anxiety and Depression extended Network conference</p> <p>Leading Together – Celebrating success</p> <p>EIT Health Summit, Barcelona</p> <p>HEETV innovation and research showcase</p> <p>Three Get Physical Road Shows</p> <p>NICE Implementation Collaborative meeting</p> <p>BBA Biosimilars National Stakeholders Meeting</p>	<p>Lindsay Roberts talks re CBT Training at Patients’ First National event</p>
<b>December 2016</b>	<p>EIT Health- Health star-ups &amp; SMEs workshop</p> <p>West Berks- Meds optimisation committee</p>	<p>Gary Ford chairs Future of nursing panel, Oxford Brookes</p> <p>Charles Vincent co-leads national webinar on safer healthcare</p>
<b>January 2017</b>	<p>AHSN Board</p> <p>TVSCN-Closing the health and Wellbeing Gap</p> <p>Dementia Clinical Network Driving and cognitive impairment event</p> <p>EIT Health- IT services workshop, Germany</p> <p>Digital Health Innovation Conference</p>	<p>Gary Ford and Paul Durrands speak at SCN communities of practice event</p>
<b>February 2017</b>	<p>Get Active Berkshire awards event</p> <p>HEE Thames Valley summit</p> <p>NICE event London</p> <p>Fracture Reduction in South Central</p>	<p>Mike Denis speaks at Westminster Health Forum Wachter event</p> <p>Julie Hart speaks at BIVDA POC Working Party – London</p>

Date	Event	Speakers
	Policy spring Meeting Regional Medicines Optimisation Committee Roadshow	
<b>March 2017</b>	EIP Stakeholder event Leadership Academy Awards event AHSN Partnership Board meeting Maternity network shared learning event at AHSN International Symposium on Intensive Care and Emergency Medicine, Brussels	Paul Durrands workshop on Get Physical at national County Sports Partnerships conference Nick Scott-Ram and Julie Hart contributing on digital health at Chief Scientific Officers conference

## Publications

Publication	Programme/Theme
<b>Annual Review, the Year in Numbers</b>	All
<b>Patient Safety Activities</b>	Patient Safety, CIA and Get Physical/Corporate
<b>Developing Leaders Through Partnership with HEETV</b>	All
<b>The Story So Far</b>	Corporate
<b>Mental Health Activities</b>	Best Care, Patient Safety and Get Physical/Corporate
<b>Best Care Impact Report</b>	Best Care
<b>Work Place Wellbeing Road Show reports</b>	Get Physical/Corporate
<b>ComRes Stakeholder survey report</b>	All
<b>Digital Health in Oxford and the wider Thames Valley Region</b>	Industry Partnerships and Informatics
<b>Patient Safety Collaborative national report</b>	Include Patient Safety AWOL work
<b>National AHSN Impact Report</b>	Two Oxford AHSN Case studies – memory clinics and Anxiety

Publication	Programme/Theme
	recovery
<b>Making sustainability happen</b>	Strategic and Industry Partnerships (Wealth Creation)
<b>IN ADDITION, two papers were published by the BMJ online: Patient Safety and EIP</b>	

## Finance

OXFORD AHSN FINANCE PLAN			
	Model Period Beginning	01-Apr-16	
	Model Period Ending	31-Mar-17	
	Financial Year Ending	2017	
	Year of the 5 Year Licence Agreement	4	
INCOME (REVENUE)		Fcast	Budget
NHS England funding		2,419,650	2,419,650
Partner contributions		412,000	472,800
Other partner income		150,000	150,000
HEETV income for continuous learning		0	60,000
Other income		27,842	0
NHS England funding - PSC income		447,925	447,925
<b>Total income</b>		<b>3,457,417</b>	<b>3,550,375</b>
AHSN FUNDING OF ACTIVITIES			
Best Care Programme		978,597	1,078,875
EIP Preparedness		2,024	0
Clinical Innovation Adoption Programme		497,999	507,575
Industry Partnerships Programme		516,232	521,236
Informatics Theme		393,892	376,462
PPIEE Theme		111,185	111,185
Patient Safety Collaborative & Patient Safety Academy Theme		447,925	447,925
<b>Programmes and themes</b>		<b>2,947,854</b>	<b>3,043,258</b>
CORE TEAM AND OVERHEAD			
Pay costs		570,673	607,875
Non-pay costs		319,396	473,868
Communications, events and sponsorship		227,994	264,348
<b>Total core team and overhead costs</b>		<b>1,118,063</b>	<b>1,346,091</b>
<b>Total expenditure</b>		<b>4,065,917</b>	<b>4,389,349</b>
Programme funding previously committed		-608,500	-838,974
<b>Surplus/(deficit)</b>		<b>0</b>	<b>0</b>

The Forecast expenditure for Oxford Academic Health Science Network for the year ending 31 March 2017 is £4,065k; Forecast income is £3,457k.

Expenditure is £295k lower than 2015/2016 (£4,362k) mainly due to the £250k invested by Health Education England last year on a South Wide Early Intervention in Psychosis (EIP) Programme.

Partnership contributions received are £412k, and this is 7% / £33k lower compared to 15/16 and 11% /£60k lower than budget.

Our forecast expenditure is £324k lower than budget partly due to £93k not received from Health Education England for Training and lower partnership contributions. Savings have been made within our Best Care Programme due to various vacancies over the year, there has been some pay savings within the core team and overhead due to reduced WTE's. There was a significant one off benefit in non-pay following the closure of 1 year old Purchase Orders previously accounted for.

The Outturn requires the release of prior year reserve of £0.6m to achieve financial balance with the remaining release planned over the next two financial years until 31 March 2019.

## Appendix A - Review against the Business Plan milestones

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
Establishment of the Oxford AHSN	Partnership Council Meetings/roadshows		✓	✓	✓				◆
	Delivery of the Annual Report and Annual Review	✓	✓	✓	✓ ✓				◆
	Oxford AHSN 5 Year Strategy			✓					
Best Care	Open publication of Annual Report for each Clinical Network (1 <sup>st</sup> report due April 2015)			✓			✓		
	Annual review of network progress and plans			✓			✓		
	Review of network progress and plans. Decisions on future funding for networks			✓				✓	◆
	Publication of 'Best Care Review'			✓		✓			◆
(Anxiety and Depression)	Reduce variation in IAPT outcomes – Implementation plan agreed  - Further increase in recovery rates			✓					◆

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
(Anxiety and Depression)	Support/expand local service innovation – Report on adoption progress  -Roll out of additional service innovation			✓					◆
(Anxiety and Depression)	Local service innovation – Reduced secondary care utilisation report - Economic benefit of integrated care analysis					Closed			
(Anxiety and Depression)	Data Completeness in Child and Young Persons IAPT – Implementation plan agreed  -25% increase in the use of ROMS in target groups			✓				Closed  ✓	
(Children)	Reduce admissions and length of stay for childhood pneumonia, asthma, bronchiolitis and meningitis in outlying CCGs			✓				Closed  	◆
(Children)	Improve research facilitation - Enrol children into a research study at Milton Keynes Hospital, Wexham Park & Stoke Mandeville (6,5,5)			✓				Closed	

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
(Children)	Improve 'flu vaccination rates in region		✓	✓				Closed	
(Children)	Standardise antibiotic prescribing guidelines across network and audit adherence						✓	Closed	
(Dementia)	<p>MSNAP accreditation - 8 of 13 Trust localities across the network working through the Self-Review Phase of the Royal College of Psychiatry Memory Services National Accreditation Programme.</p> <p>- All Trusts to record BME data for 90% patients accessing memory clinics</p> <p>- 85% of memory clinics to be reaccredited under new MSNAP standards</p>			✓		Closed		Closed	✓

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
(Dementia)	<p><b>Unwarranted variation</b></p> <ul style="list-style-type: none"> <li>- Hold at least 5 webinars across region, aimed at reducing variation in dementia</li> <li>- webinar participation increased</li> <li>- variation reduced in three areas of unwarranted variation</li> <li>- Establish LTC PROMS for dementia patients and carers</li> </ul>				✓			Closed  ✓  ✓	◆
(Dementia)	<p><b>Young Onset Dementia (YOD)–</b> Secure commissioner funding for rollout of service throughout at least 1 county in region</p> <p>-Evaluate roll-out of workshops to East Berkshire. Report on outcomes and achievements</p>			✓			✓	Closed	
(Dementia)	<p><b>Addressing variation in service delivery for YOD- YOD service in at least one more CCG area than at baseline</b></p>							✓ Closed	

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
(Dementia)	Post-diagnostic support – all post-diagnostic services participating in best practice network				✓				
(Early Intervention in Psychosis)	<p>Reduce Variation</p> <ul style="list-style-type: none"> <li>- Action plans for improving care quality in each Mental Health Trust</li> <li>- Implementation of service improvement plan across all Trusts/agreement from all EIP service leads</li> </ul>			✓				Closed	
(Early Intervention in Psychosis)	<p>Service Innovation</p> <ul style="list-style-type: none"> <li>- All four EIP services in the Oxford AHSN geography supported to adopt at least one new service innovation</li> <li>- Baseline report detailing examples of EIP service innovations in local and national services</li> <li>- Improved patient experience of people accessing EIP service by 5%</li> </ul>					<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> </ul>		Closed	◆

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
(Imaging)	Standardise prostate cancer diagnosis pathway and demonstrate improved referral to treatment times and reduced biopsies			✓					→ ◆
(Imaging)	Network-wide data sharing platform installed (1) and in use for specialist opinions (2)					✓ (1)		✓	
(Imaging)	Common pathway for PET-CT in lung cancer established (1) and demonstrating improved outcomes (2)							✓	◆(2)
(Imaging)	Publish and publicise 5 patient videos (1) and a further 5 patient videos (2) describing typical patient experiences							✓	◆(2)

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
(Maternity)	<p>Care &amp; Consistency - Improvement in outcomes/ reduction in variation across network by &gt;5%:</p> <ol style="list-style-type: none"> <li>1) Rhesus: assessment of anaemia once antibody titre &gt; accepted threshold</li> <li>2) Growth restricted babies: delivery in unit with Level 3 neonatal care</li> <li>3) No variation in magnesium sulphate regime for eclampsia across the region</li> <li>4) Increase in use of magnesium sulphate for neuroprotection</li> </ol>				✓				
(Maternity)	<p>Care &amp; Consistency - Improvement in outcomes/ reduction in variation across network in:</p> <p>(1) Syntocinon use, cardiotocograph interpretation, and use of (2) placental histology.</p>								

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
(Maternity)	Information sharing – all trusts contributing to regional database			✓					
(Maternity)	Launch Small for Gestational Age identification pilot (1) and publish initial findings (2)				✓				◆
(Medicines Optimisation)	Medicines reconciliation database used across network (1) and demonstrating improvements (2)				✓			Closed	
(Medicines Optimisation)	Roll out CBT training to pharmacists (1) and report improved adherence (2)			✓	→			✓	◆(2)
(Medicines Optimisation)	Transfer of Care – interim (1) and full-term (2) report demonstrating improved outcomes			✓		✓ (1)		→	◆
(Medicines Optimisation)	Implement (1) and show impact of (2) Medicines Authentication System					✓		→	◆
(Respiratory)	Build network engagement and launch						✓		

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
(Respiratory)	Audit current ED asthma protocols (1), revise protocols and show impact of revisions (2)							✓ Closed	◆
(Respiratory)	Audit existing clinical trial participation in network (1) and show improvement (2)						✓ (1)	Closed	◆(2)
Clinical Innovation Adoption	Collection of data regarding adherence to all relevant NICE TAs and High Impact Innovations		✓	✓	✓				◆
	Establishment of a Clinical Innovation Adoption Oversight Group and Programme	✓							
	Establish process and governance under CIA Programme Board for the 2013/14 and 2014/15 implementation of 5-10 high impact innovations  CIA Oversight Group established and meeting	✓	✓						

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	Establish full process for Clinical Innovation Adoption (CIA) Programme and its Oversight Group (Providers, Commissioners) to include PPIEE		✓						
	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.	✓	✓	✓	✓				◆
	Identification of potential funding sources for innovation initiatives (cf RIF, SBRI Grand Challenges etc.) SBRI and Horizon 2020 briefing meetings held (see also Wealth Creation)		✓						
	Creation of an innovation dashboard (including uptake)			✓					
	Creation and Implementation of an Innovation Adoption course for NHS partners (based on CIA 10 Step Process)			✓					

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	Creation and Implementation of an automated online platform that will enable the organisation to create, manage, track and measure the innovation process from idea creation through to final implementation and impact reporting								
	Work with Wealth Creation to create a plan to grow local focused innovations for adoption				✓				
	Intra Operative Fluid Management Project Estimated Completion (commenced 2014/15)			✓ Phase 1					◆
	Catheter Acquired Urinary Tract Infection Project Estimated Completion (commenced 2014/15)								◆
	Intermittent Pneumatic Compression Devices for Stroke Project Estimated Completion (commenced 2014/15)			✓				◆	

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	Atrial Fibrillation (NICE) & Ambulatory ECG Project Estimated Completion (commenced 2014/15)								
Deploying to 4 trusts only - will complete year 4, Q2	Gestational Diabetes m-Health Project Estimated Completion (commenced 2014/15)					✓		◆	
	Early Inflammatory Arthritis NICE Project Estimated Completion (commenced 2014/15)			✓ Phase 1&2					◆
Scope impact & agree implementation approach	Biosimilars						✓		
	Alcohol Services Project Estimated Completion (commencing 2015/16)							◆	
	Fragility Fracture Prevention Service Estimated Completion (commencing 2015/16)							◆	◆

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	Falls Prevention Strategy Project Estimated Completion (commencing 2015/16)							◆ →	◆
	Respiratory- Estimated Completion (commencing 2016/17)								◆
	Pneux (tracheal tube for ICU ventilator)								◆
	NIC (Non-injectable Connectors)								◆
	Wiresafe (guidewire patient safety)								◆
	Thrombectomy (Mechanical device)								◆
	Urolift (benign prostatic hyperplasia implants)								◆
	Wealth Creation Project to be agreed - Estimated Completion (commencing 2015/16)								◆

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	National AHSN Innovation Project to be agreed- Estimated Completion (Commencing 2016/17)								◆
	National AHSN Innovation Project to be agreed- Estimated Completion (Commencing 2016/17)								◆
Research & Development	Publication of Annual Report (or section within AHSN Annual Report) on agreed research metrics							CLOSED	
	Establishment of baseline from NHS partners for commercial research activity							CLOSED	
	Establish network of R&D Directors in NHS providers, agree strategy for commercial research development							CLOSED	
	Support commercial research plans for each NHS providers							CLOSED	
	Develop a nursing and AHP research strategy							CLOSED	

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
Wealth Creation	<p>Establish pipeline of innovations for commercialisation</p> <ul style="list-style-type: none"> <li>ensure industry and academics can access the NHS clinicians they need to work on concepts and pilots of new products and services</li> <li>work with tech transfer offices and other partners to ensure commercialisation is more efficient and effective</li> </ul>			✓	✓				◆
Wealth Creation Objective 1 Supporting companies along the adoption pathway	Establish a regional evaluation and adoption programme in diagnostics				✓				
	Establish a regional evaluation adoption programme in digital health						✓		
	Provide on-going support for existing pilot projects across the region				✓	✓	✓	✓	

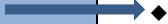
Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	Work with the Oxford Biomedical Research Centres, the CLAHRC and Oxford University Innovation, to develop clear pathways for the adoption of innovations into the NHS				✓	✓	✓	✓	
	Lead the assessment of ROI and health economic outputs across the AHSN				✓				
Wealth Creation Objective 2 Supporting investment into the region	Support industry group to improve infrastructure across Oxfordshire			✓		✓			◆
	Support plans with key partners for a science park at Milton Keynes			✓	CLOSED				
	Provide support to the partners in establishing Oxford as Centre of Excellence under the Precision Medicine Catapult				✓	✓	✓	CLOSED	
	Work with the Structural Genomics Consortium to develop open innovation models of drug discovery							✓	

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	Provide input into the development of a Gestational Diabetes Health Management (GDHM) business opportunity						✓		
	Host the Bicester New Towns working group and work with the partners to further refine the opportunity				✓		✓		
	Engage with the Smart Oxford project and provide support in healthcare				✓			✓	
	Continue to support the development of the Oxford – Thames Valley cluster as a leading national and international region				✓		✓		
	Work with the Academic Health Science Centre, in particular on the theme of building novel partnerships				✓	✓	✓	✓	
	Run a joint showcase event with Isis Innovation and the Biomedical Research Centre					✓			

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	Run at least two other wealth creation events across the region						✓	✓	
Wealth Creation Objective 3 Building a culture of innovation in the NHS	Run two entrepreneurs programme events for healthcare workers			✓	✓		CLOSED		
	Deliver the Challenge 2023 Competition across the Oxford AHSN region with Health Education England Thames Valley and the Thames Valley and Wessex Leadership Academy						CLOSED		
	Establish a mechanism of IP and legal support for those Trusts across the region that require it							CLOSED	
Wealth Creation Objective 4 Building long-term partnerships with businesses and other organisations	Provide support in the running and marketing of digital health events across the region	✓	✓	✓	✓	✓			◆
	Sign strategic partnership with Johnson & Johnson. Continue to support and build on the Strategic Collaboration			✓		✓			

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	Support the development of the IBD PROMS collaboration with ICHOM						✓		
	Continue to support the Sustainability and Energy Working Group				✓	✓	✓	✓	
	Identify a further project within sustainability and energy				✓				
Informatics Informatics Strategy	Final draft for approval by AHSN Board				 ✓				
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								

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
Informatics Research Informatics Focused on the deployment of Clinical Records Interaction Search (CRIS).	Partner engagement			✓					
	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			

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
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					✓			
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.								

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	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 and implemented across all partner organisations								◆
	Broadening public and patient involvement 1 <sup>st</sup> mtg of lay partners from across Thames Valley								◆
	Strategic direction Strategy and work plans presented at Oxford AHSN Partnership Board (Jan 2015)		✓						
	Communications and broadening PPIEE activity across the Oxford AHSN region Involvement newsletter up and running, including publicising PPIEE events and case studies					✓			

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	<b>PPIEE Network development</b> Visits to partner organisations completed and case studies of good practice publicised, and at least two events held to address concerns/issues highlighted by partners				✓				◆
	<b>Patient stories evaluation completed and case study written</b>							CLOSED	
	<b>Leading Together – full roll out</b>						✓		
	<b>Informatics</b> Agreed set of measures and data collection developed				✓				
	<b>Three case studies across networks and CIA written up and disseminated</b>								◆
	<b>Development of lay involvement in strategic priority setting for networks and CIA, built into process for AHSN strategic work going forwards</b>			✓	✓	✓	✓	✓	◆

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
Living well Oxford	Public involvement Pilot events run and additional funding secured							✓	
	Research Joint statement on PPI in research with links into work plans for individual organisations. Research included in Patient Leadership Programme				✓				
	Continued education Links with PPI in Universities to be developed over the year		✓	✓	✓	✓	✓	✓	◆
Patient Safety	Patient Safety Collaborative Establish data sources and analytic requirements					✓			
	Patient Safety Collaborative Establish baseline metrics					✓			
	Patient Safety Collaborative Consolidate and review requirements					✓			

Programme/Theme	Milestone	Year 1	Year 2	Year 3	Year 4 Q1	Year 4 Q2	Year 4 Q3	Year 4 Q4	Year 5
	Patient Safety Collaborative Produce report on safety in Oxford AHSN region							✓	
	Patient Safety Collaborative Clinical programmes Consolidate and review interventions				✓				
	Patient Safety Collaborative Clinical programmes Initial review and evaluations				✓				
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		✓	✓	✓	✓	✓	✓	◆
	Communications (strategy and plan linked to overall AHSN 5 year strategy)				✓				

## Appendix B- Matrix of Metrics

No.	Core License Objective	Purpose of the programme	Health/Wealth delivery KPI (Year 4)	Milestone activities (Year 4)	Outcome Framework Domain	Associated Funding	Current Status
1	Focus upon the needs of Patients and local populations (A)	<p>Best Care Programme (Clinical Networks)</p> <p>The Best Care Programme is designed to deliver AHSN licence objective one: focus on the needs of patients and the local populations.</p>	<p>Further improve the recovery rate of patients suffering from Anxiety and Depression</p> <p>Improving access, including waiting time standards for Early Intervention in Psychoses</p> <p>Improve medicines reconciliation rates across network</p> <p>Reduce admissions and length of stay for childhood pneumonia</p>	Imaging and Maternity clinical networks collecting high quality data from across the region through interoperability	1,2,3,4,5	£980,621	
2	Speed up innovation in to practice (B)	Clinical Innovation Adoption Programme	Average number of Trusts adopting	5 more projects in final stage of deployment	1,2,3,4,5	£497,999	

No.	Core License Objective	Purpose of the programme	Health/Wealth delivery KPI (Year 4)	Milestone activities (Year 4)	Outcome Framework Domain	Associated Funding	Current Status
		<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>each innovation</p> <p><u>Acute trusts to date:</u></p> <p>Implemented relevant innovations = 29%</p> <p>Plan to implement relevant innovations = 48%</p> <p><u>Mental Health trusts to date:</u></p> <p>Implemented relevant innovations = 33%</p> <p>Plan to implement relevant innovations = 40%</p>	Measuring and monitoring phase			
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		1,2,3,4,5		

No.	Core License Objective	Purpose of the programme	Health/Wealth delivery KPI (Year 4)	Milestone activities (Year 4)	Outcome Framework Domain	Associated Funding	Current Status
			national priorities.				
		<b>R&amp;D</b> The R&D Programmes aims are to improve R&D in the NHS through closer collaboration between the Universities, NHS and Industry.	Commercial R&D income increase	Trust R&D plans developed and progress made on Nursing/AHP strategy		£17,000	
		<b>Informatics</b> The informatics business plan for 2016/17 represents programme of capacity building and delivery to support the key aims of the Oxford AHSN.		Develop a comprehensive IG training programme for our partners		£393,892	
		<b>PPIEE</b> Patient and Public Engagement and Experience (PPIEE) is a crosscutting theme, working across the programmes of the AHSN, relevant work is		Leading Together programme		£111,185	

No.	Core License Objective	Purpose of the programme	Health/Wealth delivery KPI (Year 4)	Milestone activities (Year 4)	Outcome Framework Domain	Associated Funding	Current Status
		cross-referenced to other sections of the business plan.					
		Team, overhead, communications, events and sponsorship	<p>Number of subscribers to the Oxford AHSN Newsletter and Twitter 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>	<p>Raising awareness of benefits of collaborative work, to improve patients outcomes and grow the economy, with local partners and external stakeholders</p> <p>Generation of support from Stakeholders for continued activities post 2018</p>		£1,101,063	
4	Create wealth (D)	The Wealth Creation Strategy is to help the region become the	Number of health and life science companies in	Work with partners to develop 3 exemplar projects for Precision	1,2,3,4,5	£516,232	

No.	Core License Objective	Purpose of the programme	Health/Wealth delivery KPI (Year 4)	Milestone activities (Year 4)	Outcome Framework Domain	Associated Funding	Current Status
		<p>favoured location for inward life science investment, life science business creation and growth, whilst helping the NHS to accelerate the adoption of medical innovations of significant benefit to patients.</p> <p>The aims of the programme are to:</p> <p>Support companies along the adoption pathway, and provide a continuum with the Clinical Innovation Adoption Programme</p> <p>Support investment into the region</p> <p>Build a culture of innovation in the NHS</p> <p>Form and sustain long-term partnerships with businesses.</p>	<p>region</p> <p>Number of people employed in life science industry</p>	<p>Medicine Catapult</p>			

No.	Core License Objective	Purpose of the programme	Health/Wealth delivery KPI (Year 4)	Milestone activities (Year 4)	Outcome Framework Domain	Associated Funding	Current Status
5	Patient Safety	<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>Progress work in pressure ulcer reduction programme towards zero harm in project areas</p> <p>Increase adoption of AWOL project in Berkshire Healthcare and CNWL to increase return rates by 50% on all acute wards</p>	Six themes showing improvement		£447,925	
						£4,065,917	

## 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	<p>Leadership supporting a culture of collaboration, transparency and sharing. Agreed organisational Vision, Mission and Values. Stakeholder analysis to ensure geographic spread and multi-disciplinary representation across the programmes. Partnership Board representation drawn from across the geography and key stakeholders. Oversight Groups in place for each Programme and Theme, broadening representation across our stakeholders. Celebrate successes through Case Studies &amp; Events. Regular monthly newsletter and Twitter. Regular refresh of website and monitor usage. Quarterly review of breadth and depth of engagement by programmes and events.</p> <p>CIA analysis of strategic priorities of commissioners and providers.</p>	AHSN Chief Executive	Programme SROs	06-Sep-13		AMBER

#	Prog/Theme	Risk	Description of Impact	Likelihood	Impact	Time	Mitigating Action	Owner	Actioner	Date added	Date mitigated	RAG
							<p>7 Roadshow events held across the region in 2016. Roadshows for 2017 being planned.</p> <p>Oxford AHSN commissioned a stakeholder survey on the effectiveness and impact of the Oxford AHSN. 563 response rate (26% of those approached). Results are very encouraging. 80% saying that the AHSN is essential. We will commission another survey in 2018.</p> <p>In addition to the local survey, Oxford AHSN also took part in the National YouGov Stakeholder Survey.</p> <p>Oxford AHSNs 'Get Physical programme' extended across BOB STP.</p>					
6	Oxford AHSN Corporate	Failure to sustain the AHSN	Programme activities cease	Med	Med	> 6 / 12	<p>NHS England has confirmed that AHSNs will be re-licensed. We must be successful in securing a new licence.</p> <p>We are actively pursuing industry partnerships, joint venture opportunities, and grants to reduce our reliance</p>	AHSN Chief Operating Officer	AHSN Chief Operating Officer	31-Jul – 14		AMBER

#	Prog/Theme	Risk	Description of Impact	Likelihood	Impact	Time	Mitigating Action	Owner	Actioner	Date added	Date mitigated	RAG
							on NHS England/ Improvement funding. Action has been taken reduce our costs and we have a robust financial plan for the next two years.					

### Issues Log

#	Programme / Theme	Issue	Severity	Area Impacted	Resolving Action	Owner	Actioner	Date Added	Current Status	Date Resolved
18	Oxford AHSN Corporate	Clarity of NHS England funding	Significant	Financial	NHS England has confirmed that AHSNs will be re-licensed. We must be successful in securing a new licence. We are actively pursuing industry partnerships,	AHSN Chief Operating Officer	AHSN Chief Operating Officer	28/11/2013	Action – 100% Complete CLOSED 07/03/17	

#	Programme / Theme	Issue	Severity	Area Impacted	Resolving Action	Owner	Actioner	Date Added	Current Status	Date Resolved
					joint venture opportunities, and grants to reduce our reliance on NHS England/ Improvement funding. Action has been taken reduce our costs and we have a robust financial plan for the next two years.					
19	Oxford AHSN Corporate	The interface with, and respective roles of, the Strategic Clinical Networks (SCN) and the Senate remain unclear. There may also be elements of duplication.	Minor	Strategy	Results of the improvement architecture review received – AHSN Best Care programme has aligned its clinical networks with SCN. Round 2 panel for clinical networks included SCN Director. Regular meetings by Best Care with SCN to ensure alignment	AHSN Chief Executive	Best Care SRO	03/06/2014	Action – 100% Complete 07/03/17	
25	Oxford AHSN Corporate	Lack of awareness by local partners and national stakeholders of progress and achievements of	Minor	Culture	Overarching comms strategy that is refreshed regularly. Website refreshed regularly and new content added – visits per month increasing	AHSN Chief Operating Officer	Head of Communications	19/01/15	90% complete	

#	Programme / Theme	Issue	Severity	Area Impacted	Resolving Action	Owner	Actioner	Date Added	Current Status	Date Resolved
		the AHSN			<p>Followers and subscribers increasing.</p> <p>Links being enhanced throughout the region through Comms networks.</p> <p>Roadshows with all partners.</p> <p>Level of engagement closely monitored across all programme and themes (see KPIs).</p> <p>Oxford AHSN survey has been commissioned by the Board.</p> <p>Stakeholder participation in AHSN growing each quarter.</p> <p>Pipeline of publications.</p>					
	Best Care	Delays in obtaining required data have delayed project delivery and eroded reputation of core AHSN	Medium	Organisation	Work is ongoing to try and obtain prostate MRI data. Network Manager (Parwaez Khan) has now collected some of this data himself.	AHSN Chief Operating Officer	Imaging Lead Parwaez Khan	29-Jun-16  Issue Updated 21/12/16	Action – 100% complete 07/03/17	
	Best Care	Delays in delivering a	Medium	Organisation	Maternity network now progressing the preferred	AHSN Chief Operating	Maternity Lead	29-Jun-16	Action – 100% complete	

#	Programme / Theme	Issue	Severity	Area Impacted	Resolving Action	Owner	Actioner	Date Added	Current Status	Date Resolved
		functioning data sharing system have delayed project delivery and eroded reputation of core AHSN			solution, having liaised with John Skinner and OHIS directly.	Officer	Katherine Edwards	Issue Updated 21/12/16	CLOSED 07/03/17	

**Appendix D - Oxford AHSN case studies published in quarterly reports 2013-2017**

Quarterly report	Case study summary	Programme/Theme
Q4 2016/17	Better data sharing through regional information governance framework	Informatics
Q4 2016/17	Lives of more premature babies saved through improved referral pathways	Best Care (Maternity)
Q4 2016/17	Digital health initiative leads to better monitoring and fewer hospital visits for women who develop diabetes during pregnancy	Clinical Innovation Adoption
Q4 2016/17	Catalysing innovation and driving economic growth in Buckinghamshire	Wealth Creation
Q3 2016/17	Promoting workforce health and wellbeing through our Get Physical initiative	Corporate
	Improving detection and management of atrial fibrillation (AF)	Clinical Innovation Adoption
	New standard measures to improve care for patients with IBD developed by international collaboration	Wealth Creation
	Leading together – patients and professionals take a collaborative approach to solve health issues	PPIEE
	Better network-wide data sharing improves patient care	Best Care (Maternity)
Q2 2016/17	Digital survey results	Wealth Creation
	Imaging patient info films	Best Care
	Sustainability project	Wealth Creation
Q1 2016/17	Bicester healthy new town	Wealth Creation
	Children's immunisation	Best Care
	Perinatal SHaRON	Clinical Innovation Adoption
Q4 2015/16 (annual report)	Memory clinic accreditation update	Best Care
	Meds optimisation CBT programme	Best Care
	AWOL project	Patient Safety
	J&J collaboration	Wealth Creation
	CAUTI project	Clinical Innovation Adoption
Q3 2015/16	EIP data based approach	Best Care
	Leading Together programme starts	PPIEE

	Get Physical event review	Corporate
Q2 2015/16	Targeted medicines support	Best Care/Patient Safety
	Memory clinic accreditation	Best Care
	IPC stockings	Clinical Innovation Adoption
	Alumni Summit review	Wealth Creation
Q1 2015/16	A&D recovery rates	Best Care
	Pre-term birth location saves lives	Best Care
	In2vu data visualisation	Informatics
Q4 2014/15 (annual report)	GDM remote monitoring	Clinical Innovation Adoption
	IOFM benchmarking	Clinical Innovation Adoption
	Sustainable energy	Wealth Creation
Q3 2014/15	Developing patient leaders	PPIEE
	CFT – heart attack test	Wealth Creation
Q2 2014/15	Memory clinics	Best Care
	Managing acute appendicitis	Best Care / Patient Safety (PSA)
	A&D recovery	Best Care
Q1 2014/15	Dementia network launch	Best Care
	Medicines optimisation launch	Best Care
	Wealth creation explained	Wealth Creation
	GDM remote monitoring	Clinical Innovation Adoption
Q3 2013/14	App development route map	Wealth Creation
	2023 Challenge	Wealth Creation