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1. Executive Summary

Kent, Surrey and Sussex (KSS) AHSN is pleased to submit its prospectus and application for licensing as one of the initial waves of AHSNs across England and Wales. We are excited at the prospect of achieving the goals and objectives outlined in “Innovation, Health and Wealth”. Establishing an AHSN for KSS provides clear opportunities for wider and better engagement of the NHS with industry and academia. It will facilitate improved collaboration with local government and the voluntary sector. This will make a clear and marked contribution to increasing wealth in the area and supporting the Plan for Growth. It will also contribute to improving health and healthcare outcomes within KSS.

Our application contains three key characteristics:

- There is already a tradition of innovative activities across the geographic patch entirely consistent with the policy aspirations of AHSNs. Our proposal will draw on the success of Enhancing Quality (EQ) in achieving service improvement. But this is not “more of the same”. We shall demonstrate that by combining with industry and academia we can enhance EQ to achieve further service improvement at scale and pace.

- Our programme of work is focused on combining all our local strengths within the NHS, industry and academia to achieve demonstrable benefits in service improvement, (including translating research into practice), research, people development, and wealth creation. The KSS AHSN will facilitate industry’s adoption of the NHS as a clear customer of first choice by providing opportunities to collaborate across design, development, validation, and systematic early implementation of new services or products. Academia will contribute to the initial research and to validation and evaluation, ensuring that innovative evaluation techniques are deployed. The early adoption of innovation will improve services and enhance the growth of local industry in the health sector, benefiting health outcomes and underlying UK wealth. We will work to ensure enhanced capability of the workforce both to create and develop innovation, and to support the implementation of new services and products.

- All of which would be undertaken within a structure that provides assurance that best practice governance is in place, ensuring that members and stakeholders are engaged in identifying priorities and directing the AHSN’s agenda. The AHSN will be more than an NHS organisation. Its success will depend on the extent to which it works with and draws from the respective strengths of its healthcare, industry and academia members, engaging with local government and the voluntary sector, whilst collaborating across a broader “network of network” of AHSNs.

The strategic priorities of the AHSN will be;

- To implement high impact innovations, push technologies and reduce unwarranted clinical variation through the uptake of NICE guidance and implementation of examples of best practice across KSS.

- To deliver a step change improvement in the initiation and delivery of clinical research on time and on target.
To ensure consistent delivery of healthcare services across KSS, ensuring coherent and consistent evaluation of metrics and data.

To harness the combined potential of academia, industry and the NHS to deliver the innovation, consequent better healthcare provision and improved wealth opportunities across KSS.

To design and embed the required skills and competencies within our people and their incentives and reward mechanisms.

We will achieve this because of the resources, drive and dynamism, that can be brought to bear. Within the KSS geography, there are;

- A spread of NHS institutions covering both provider and commissioning communities.
- Eight HEIs, including the Brighton and Sussex Medical School.
- A wide array of healthcare orientated industrial organisations, with circa 700 separate companies and three nationally recognised science and business parks.

Mobilising this array of capability provides the KSS AHSN with an excellent opportunity to create a strong and effective partnership between industry, academia, and health that co-creates innovative solutions to healthcare challenges in the region. These solutions will be designed to transform the experience of patients. The partnership will collaborate in ensuring the adoption and spread of proven innovations that deliver measurable benefit to patients, the population, members and partners.

Our success will be consistently evaluated. Within this prospectus we outline our approach to the key functions and levers that will be deployed. Although not complete, our thinking indicates a clear direction of travel which allows us to articulate our initial views on the likely programme of work, including the ‘must-do’s’ of high impact innovations. At the heart of this will be robust prioritisation, based on academic research and health needs, setting an agenda of service improvement to be created, developed, spread and exploited to the mutual benefit of NHS, academia and industry.

The prospectus reflects the following structure. Within section 2 we provide a strategic context, not just the policy imperative, but also a statement on the current position within KSS. Section 3 outlines our proposed operational model, from both the strategic perspective but also the legal governance arrangements. We outline in section 4 how the AHSN intends to address its priorities in respect of the levers and functions, whilst section 5 outlines our prospective programme of work. Financial principles are discussed in section 6, and these, of course, will be refined as priorities and plans are finalised and the transitional structure takes shape. Supporting documentation is provided within a number of appendices.

Delivering this prospectus has been a result of teamwork across the NHS, academia, and industry. Through a range of meetings and workshops, attendance at national and local briefing sessions, and the establishment of a representative steering group, we have been able to ensure broad commitment to our proposals and joint development of our strategic goals. It is this momentum that we will wish to maintain as we move into the next phase of this process. During this period we will establish the transitional arrangements for the AHSN and finalise the detail of our proposed programme of work, in anticipation of the formally constituted KSS AHSN standing up in April 2013.
2. **Strategic Context**

This prospectus outlines initial thinking on what the KSS AHSN will do to address the policy challenges. We recognise that this will be a journey. What we have provided at this juncture is progress to date. Further analysis will be undertaken to ensure our strategic challenges and associated priorities are better understood. Alongside further analysis will be further work on engagement of in particular CCGs and primary care. This is likely to impact on the detail of our mission, vision and strategic priorities which we outline in section 3. Throughout the document we have referred to case studies which demonstrate good practice that exists in part of the system from which other areas would benefit. Initially, we present a statement of the current position and strategic context.

2.1 **Strategic factors**

The evolution of AHSNs in the NHS takes place in the context of four significant issues. These are:

- the challenge to the United Kingdom for economic recovery and sustainable growth especially within the life sciences industries.
- organisational development within the NHS including clinically-led commissioning.
- the ageing population and associated challenges to rising health care costs.
- opportunities arising from the above for leading development of innovative service and care models as well as novel therapies.

These challenges will need to be addressed by a combination of wider societal and UK infrastructure changes as well as actions undertaken individually and collectively by AHSNs.

2.1.1 **Background leading to Innovation Health and Wealth**

“Innovation, Health and Wealth” is the NHS’s response to the government’s Plan for Growth. It, and the establishment of AHSNs is not just the response to clinical challenges, but outlines the importance of these and other actions to be undertaken by the NHS to ensure it contributes to the economic well-being of the country. Indeed the Plan for Growth describes sixteen objectives in which the NHS can support the broader government recovery imperative – these are outlined in Appendix A.

It is in this context that the KSS AHSN mission, vision, goals and priorities should be seen. However as we have indicated this prospectus is a point on the journey, and whilst much work has been done on our approach and the activities we aim to undertake, the further work to be done after the publication of this prospectus may lead to a refinement of our priorities.

2.1.2 **Innovation Health and Wealth**

Innovation Health and Wealth builds on the strategic factors described above. Following publication of the report, 25 task and finish groups were established to develop actions specifically for the NHS to undertake. One of those actions was the development of a systematic delivery mechanism to accelerate the adoption and diffusion of innovation, AHSN. All of the other task and finish groups will need a means by which their agreed plans are
delivered. In all cases AHSNs can play a supporting and facilitating, if not leading, role.

The actions are grouped into eight themes, which are:-

- Reducing variation and strengthening compliance.
- Creating a system for delivery.
- Incentives and Investments.
- Procurement.
- Metrics and information.
- Developing our People.
- Leadership for Innovation.
- High Impact Innovations.

### 2.1.3 Academic Health Science Networks

The policy document on AHSNs describes in further detail the expectations for local AHSNs, the core purpose and the six key functions and levers. Our prospectus describes how the KSS AHSN will address the themes summarised above. It outlines what we have done to date across our geographical patch, the processes we intend to adopt, and the actions already in place or being planned.

### 2.2 Local health priorities (Kent, Surrey and Sussex)

The KSS AHSN will identify priorities from within three broad areas subject to principles described later in this prospectus. These are:

- Supporting people to live healthy lives.
- Improving outcomes.
- Reducing variation in care.

These are described below, although it should be noted that the theme of reducing variation is included within Improving Outcomes.

#### 2.2.1 Supporting people to live healthy lives

The population of Kent, Surrey and Sussex totals some 4.3 million. Some key facts about that population are:

- The health of people in the South East Coast SHA area is generally better than the average for England.
- Levels of deprivation are low and life expectancy for both men and women is higher than the England average.
- There are inequalities in health within South East Coast. For example, the health of people in Thanet, Hastings and Brighton & Hove is generally worse than for England as a whole. In contrast, the health of those living in more affluent areas such as Elmbridge, Waverley and Guildford is predominantly better.
- Early deaths from cancer and from heart disease and stroke are lower than the England average. Death rates from all causes for males and females continue to fall, but deaths and serious injuries from road accidents are worse than average.
• The health of children in South East Coast is better than the England average. Although the proportion of children spending at least 3 hours a week on school sport is worse, the percentage of children in Reception Year classified as obese is lower than average.

• The rate of hospital stays for alcohol-related harm is below average but rising.

The causes of these variations in health are of course multi-factorial. However, smoking, obesity and alcohol misuse are key factors which impact on health outcomes and indeed the quality of life for people in KSS. In addition, for some areas the reduction in teenage conception is a priority. The responsibility for addressing public health issues is largely transferring to local authorities in April 2013, with Health and Well Being Boards charged with developing Health and Well Being Strategies for their local population, while the National Commissioning Board and CCGs will take on the responsibility of commissioning healthcare services. The partnership between local authorities, CCGs and the Local Area Team of the National Commissioning Board will be critical in addressing these challenges. Many of the interventions which are most successful are initiated in primary care. Case Study 6 in Appendix B describes AuditPlus, an innovation which has been implemented within Medway enabling the PCT and its successors to work with GP practices to ensure that patients at risk of developing ill health (either through lifestyle or inherited factors) are identified and supported early.

Effective screening is also critical in ensuring early diagnosis of ill health or identification of risk factors, and effective immunisation programmes reduce risk for populations and individuals. Responsibility for commissioning screening and immunisation programmes will transfer to the Local Area Teams of the National Commissioning Board in April 2013, but as noted above, the relationship with CCGs and local authorities will remain critical. Across KSS LATs will be focusing in particular on ensuring the following programmes are in place and effective:

• Newborn Hearing Screening.
• MMR Immunisation.
• HPV Immunisation.
• Chlamydia Diagnosis Rates.
• Cervical Screening.
• Breast Screening.
• Bowel Screening.

The approach adopted in Medway and described in Case Study 6 of Appendix B is equally applicable to reducing variation in access to screening and immunisation programmes.

2.2.2 Improving Outcomes and Reducing Variation

The Integrated Strategic and Operational Plans (ISOPs) developed in the three PCT Clusters have been used to take a high level perspective of need. There is a considerable degree of consistency across the three counties in the key priorities identified. In each ISOP, the recurring themes are those of supporting people to live well, meeting the priorities set out in the NHS outcomes framework and within both of those contexts reducing inappropriate variation in practice.

In particular, each county has prioritised meeting the needs of the growing population of people who have multiple long term conditions, including the
frail elderly and those who have dementia, within an environment of no real terms increase in resource to tackle this demand. Across KSS the importance of effective care planning and information sharing is recognised as key to preventing unnecessary use of urgent care.

Much of the content of the ISOPs focuses on the changes to health services which are required to improve performance against the NHS Outcomes Framework. Key priorities which are common across KSS are summarised below.

1. **Preventing people from dying prematurely**
   This has three elements:
   a) Increasing early diagnosis of ill health, for example increasing the availability and take-up of NHS Health Checks for vascular disease.
   b) Reducing variation in access to expert or specialist care (e.g. Stroke and Major Trauma units).
   c) Reducing variation in access to healthcare for vulnerable groups, for example people with learning disabilities.

   A number of specific priorities are common across the Kent, Surrey and Sussex health economies. These are summarised as follows, organised around the domains of the NHS Outcomes Framework.

2. **Enhancing quality of life for people with long-term conditions.**
   This is a major drive for the NHS in Kent, Surrey and Sussex over the next few years and this will include work on:
   a) Early diagnosis.
   b) Better and more integrated care for people with complex needs.
   c) Greater scrutiny of patterns of admission to A&E.
   d) Integrated work to ensure that people are not admitted to hospital, or kept in hospital when it is not the best place for them to be. This needs all parts of the health service, social services, and voluntary sector to work together more effectively. It applies in mental health services as much as in services for people with physical ill health.
   e) Enabling patients to have more ability to manage their own care, including advances in telehealth, telecare, and telemedicine where people can, for example, monitor and communicate their blood pressure or other symptoms using technology at home rather than going into a clinic.
   f) A significant new strategy for people with dementia including more work on early diagnosis and more support for people just after diagnosis.
   g) End of Life care needs to be managed to best effect for patients, allowing them to die at the location of their choice, minimising inappropriate interventions, aiding comfort and dignity.

3. **Helping people recover from episodes of ill-health or following injury**
   The key actions here are:
   a) To change the way that people use the urgent care services, lessening reliance on accident and emergency. This means strengthening the range of other services such as walk-in centres and minor injuries units plus working with NHS staff so that people
are directed to the most appropriate place or provided with urgent treatment at home by more highly qualified ambulance staff.

b) Communications campaigns for the public, particularly in the winter, to ensure that they know where to go for urgent help.

c) Launching of the 111 service – a phone number enabling the public and clinicians to access urgent care which does not require a 999 response, supported by a Directory of Services and by staff who are trained in providing high quality care at a distance.

d) Joint work with social services to help people stay out of hospital.

e) Reviews of specialist services including care for stroke patients, people requiring vascular surgery and people experiencing major trauma.

f) Continued focus on efficiency and effectiveness in elective care, where appropriate reducing consultant to consultant referrals and shifting activity from consultant-led acute outpatient services. Ensuring clinically appropriate referral and treatment criteria in place to reduce variation in compliance with NICE guidelines. South East Public Health Observatory Briefing Paper (see Appendix H) shows that the estimated cost of variation in surgical practice across KSS exceeded £7.5 million in 2010/11.

4. **Ensuring people have a positive experience of care**

Our aim is to make sure that the patient’s experience of their care is good. This includes making sure that patients are involved in designing the services that they use. Maintaining high quality services means having good assurance processes and these are a priority for the future, too. This work will be taken forward in four work-streams looking at:

a) clinical performance.

b) safety and patient experience.

c) clinical effectiveness and commissioning development, again focusing on ensuring a reduction in inappropriate variation in practice.

d) safeguarding.

5. **Ensuring people receive safe care**

Actions include:

a) Our contracts with providers have safe care targets built in – for example for MRSA avoidance and for how long patients wait.

b) Our EQ programme is a very detailed analysis of the safety and quality of patients’ experience, ensuring that every patient gets the right care every time.

c) Stringent audits are carried out to make sure that standards are maintained on, for example, discharge instructions and readmission rates.

### 2.3 AHSN Footprint (Kent, Surrey and Sussex)

#### 2.3.1 NHS Services and Groups

Acute services are provided by 12 NHS Trusts across the counties through numerous sites. One Trust is an integrated acute and community services
provider in East Sussex. Some have a range of specialist services offered to a wider population. There are three Mental Health Trusts, one covering each county, and six community providers in a range of organisational forms including community interest companies and independent sector provision. A single ambulance Trust covers all three counties and is developing the NHS 111 service across all three counties in collaboration with an independent GP out of hours service. There is a rich picture of independent and charitable sector provision across KSS, most of which are already well engaged in service planning and improvement. There are 640 General Practices in KSS, within 20 Clinical Commissioning Groups, 8 in Kent and Medway, 5 in Surrey, and 7 in Sussex. These have diverse provision patterns and levels of engagement in service improvement activities. There are significant patient flows into London from parts of KSS notably Kent and Surrey and smaller flows west into Hampshire out of Sussex and Surrey.

Given patient flows, there are strong relationships between NHS providers within Kent & Medway and those in South East London, which include relationships supporting research and innovation. The same is true of providers in Surrey who have links into South West London and into Hampshire. Consequently, strong relationships between the KSS AHSN and our counterparts in South London and Wessex are important, and we have worked with colleagues from both areas in the development of our proposals.

All providers have links with the universities in their county which provide education and training in the largest health disciplines. Some smaller provision is secured from national centres and the developments required by the drive to modernise scientific careers in the NHS will also benefit from the partnership expertise provided by the AHSN in particular from industry. The one medical school in KSS is a faculty of the Universities of Brighton and Sussex.

The area will be served by two LATs of the National Commissioning Board, Kent and Medway and Surrey and Sussex, who will also host Specialist Commissioning for KSS. Two Commissioning Support Units will serve the area, both coterminous with the LATs.

**Figure 2.3a: AHSN Footprint**

[Image of AHSN Footprint]

Strategic Clinical Networks and Senates, Local Education and Training Board and the Post Graduate Deanery all share the same footprint as the proposed AHSN (Figure 2.3a).

The two Comprehensive Local Research Networks are coterminous with the KSS geography, albeit this is not the case for all NIHR Topic Research Networks.
2.3.2 Higher Education Institutions

There are eight HEIs within the footprint of KSS who will be affiliated to the KSS AHSN.
These are:-

- University of Brighton
- University of Sussex
- Brighton and Sussex Medical School
- University of Surrey
- University of Kent
- Canterbury Christ Church University
- Greenwich University
- Royal Holloway University of London

There are a number of institutions with which we have yet to make contact, and would now intend to do so. These include the University of Creative Arts and University of Chichester.

The following summarises the particular strengths of these institutions as members of the KSS AHSN

**Figure 2.3b: Higher Education Institutions in KSS AHSN Footprint**

2.3.2.1 University of Sussex

As a research-intensive university, Sussex has a dynamic and thriving research agenda. Strengths range across the arts, social sciences, science and medicine, with excellence demonstrated both within individual subjects and across thematic areas.

In the 2008 assessment of the standards of research in UK universities, the Research Assessment Exercise (RAE), over 90 per cent of Sussex research activity was rated as world-leading, internationally excellent or internationally recognised, confirming Sussex is among the leading 30 research universities in the UK.
We have counted three Nobel Prize winners, 14 Fellows of the Royal Society, six Fellows of the British Academy and a winner of the prestigious Crafoord Prize on our faculty.

2.3.2.2 University of Brighton

The University of Brighton’s research facilities were enhanced with the opening of the £23m Huxley building in 2011, including a dedicated Pharmacy and Biomolecular Sciences space including bespoke teaching and research laboratories. Research in the area of health has received international and national publicity and recognition. The Allied Health Professions Research Network was founded and is chaired by Professor Ann Moore whose work with physiotherapists and osteopaths has introduced standardised systems for collecting data to improve the quality of information for researchers. This work has been transformational for many of the professional bodies and organisations. Work undertaken by the university’s school of nursing and midwifery on community health care in the UK has been shared and used by health professionals in Shanghai. Other research projects include tackling tuberculosis with genetics; reducing urinary infections in hospitals and using phages to beat MRSA.

2.3.2.3 Brighton and Sussex Medical School (BSMS)

BSMS is approaching its 10th anniversary, having been founded in 2003. The school is a joint venture of the Universities of Brighton and Sussex, working closely with local NHS trusts, and is one of the UK’s most successful ‘young’ undergraduate medical schools, having graduated its first doctors in the summer of 2008. We are developing an enviable reputation for the quality of our undergraduate medical teaching programme, with a score for student satisfaction of over 90% for 4 of the last 5 years. Applications to study on our undergraduate programme at BSMS were up 14% this year, in the face of a substantial fall nationally in university applications for medicine. BSMS is also evolving into a fully research-active medical school – and fulfilling our potential in the research domain has to be our highest priority for the next five years.

We have focused our research in a number of key areas, including neuroscience, imaging, cancer, paediatrics, global health, and infection and inflammation. We have made, and continue to make, key academic appointments in these domains, as well as investing in the physical infrastructure needed to develop an internationally-competitive position. The Clinical Imaging Sciences Centre and Medical Research Building (based at the University of Sussex), and Clinical Investigation and Research Unit (at the Royal Sussex County Hospital, Brighton) are all state-of-the facilities designed for either basic biomedical or translational research. All are now fully functional; the CIRU is one of the best-performing units of its kind in the UK in terms of commercial research activity. The endeavours of the researchers working in these units and at BSMS laboratories are already bearing fruit. Recent high impact outputs have, for example, delineated the genetic basis of podoconiosis a devastating foot disease, and closer to home, determined why some children respond better to specific asthma treatments than others, work receiving national and international recognition.

2.3.2.4 University of Kent

The University of Kent, the ‘UK’s European University’, is one of the UK’s leading research-intensive Universities. The largest campus is at Canterbury,
but there is also significant activity at the Medway campus, including the Medway School of Pharmacy. There are smaller campuses in Tonbridge, Brussels and Paris. The three faculties at Kent (Humanities, Sciences, Social Sciences), comprise 18 academic schools and several academic centres. There are 2887 staff and over 19,600 registered students.

Our strengths in Health Training, Research and Innovation are not concentrated in a Faculty of Health but extend across several schools on our major campuses. KentHealth (www.kent.ac.uk/health) is the vehicle which brings these cross-University activities together into a coherent interface for internal and external stakeholders. The University hosts a number of centres, including the prestigious Centre for Health Services Studies, the Centre for Cognitive Neuroscience & Cognitive Systems, the Centre for BioMedical Informatics, and the Tizard Centre. Our research at the health and social care interface is world-leading, especially the Personal Social Services Research Unit (joint with LSE) which specialises in adult and children's social and health care, including mental health, long-term care funding, cost/outcome measurement, and cost-effectiveness evaluation. In Sciences, there are strengths in biomedical sciences (especially microbiology and molecular biology), optometry and assistive technologies. The Medway School of Pharmacy on the Medway Campus is a joint venture with the University of Greenwich with strengths in life sciences, community pharmacy research and in Chemistry and Drug Delivery.

Business links are forged via Kent Innovation and Enterprise which brokers relationships with industry, whilst the University also co-hosts the NIHR Research Design Services (SE), a collaboration between Brighton, Kent and Surrey Universities.

2.3.2.5 University of Surrey

Working in partnership with the NHS and industry locally and nationally is a key aspect of our health-related research and teaching at Surrey, complementing our international profile. Academics across our four Faculties undertake basic, translational and applied clinical, management and policy research in health-related areas. We are a major provider of undergraduate and postgraduate education and CPD in health related disciplines. Examples of our cutting edge research areas include targeted therapies for cancer, diagnostic biomarkers to detect prostate cancer from patient urine and to aid diagnosis and prognosis of prostate cancer, and in primary care includes studies in radiotherapy toxicity, rehabilitation after prostate cancer treatment and self-assessment methods for analysing the impact of lung cancer on the patient's quality of life. Research in the Centre for Nuclear and Radiation Physics ranges from pure nuclear physics to more applied research such as developing techniques for medical imaging. There is significant collaboration with the Royal Surrey County Hospital on a 5 year programme of research into breast cancer imaging (OPTIMAM), involving a multi-disciplinary and multi-centre consortium of radiologists, physicists and engineers.

Research in drug design encompasses the entire spectrum from bench to bedside, with the aim of enabling the delivery of novel, safe therapeutics to patients.

We are developing further our portfolio of applied clinical research, including clinical trials, in collaboration with NHS, industry and academic partners.

In Health Care Management and Policy our researchers have explored the role of front-line managers in health organisations and development of approaches to talent management and succession planning in health systems, and are currently exploring patient involvement in patient safety issues.
Clinical Informatics research group focuses on the use of technology at point of care and use of routine data to improve and measure quality. Our Health Research Group focuses on health economics and health services research. In psychology, current projects focus on food allergy, food labelling, rumination and recovery from work stress, recovery from office based surgery, rehabilitation following bariatric surgery and dietary control.

The Surrey Sleep Research Centre undertakes a wide range of multidisciplinary and translational studies, in the real world and in the laboratory, with partners in research institutes, the medical community, industry and commerce. Surrey Clinical Research Centre is one of only two university-owned MHRA supplementary accredited Phase I Clinical Trials Units in the UK, providing state of the art facilities including a twelve bed ward and 12 individual sleep laboratories. The University-owned Surrey Research Park is a major centre of excellence in technology, science, health and engineering.

2.3.2.6 Canterbury Christ Church University

Canterbury Christ Church University is the largest provider of health and social care professional education and training in Kent and Medway. We offer a range of courses, from foundation and undergraduate degrees, to postgraduate and professional development and have a growing reputation for postgraduate medical provision.

The University is divided into four faculties: Arts & Humanities, Applied Social Sciences, Education and The Faculty of Health & Social Care, which contain departments and centres for teaching and research. In total we have 20,000 students studying across our five campuses and employ nearly 1,800 full-time and part-time staff. We are committed to being a centre of excellence in health and social care education and take pride in providing a supportive environment to prepare our students for successful careers.

As a University renowned for its strong and established higher education connections with public services, our research cuts across many areas of public life. We place a particular emphasis on mutually beneficial partnership activity, and are actively helping to shape regional and national policy and practice. We have research expertise across the University in Health and Social Care, Applied Psychology, Sports Science & Physical Activity, Arts & Health, Education and Media. Current research broadly falls under the key themes of Age and Ageing, Health and Social Care Problems, the Organisation and Delivery of Health and Social Care, Public Health and Mental Health.

Expanding our research and knowledge exchange activities for the cultural, social and economic prosperity of the region, as well as national and international communities, is one of our key priorities for 2011-15.

2.3.2.7 Greenwich University

The University of Greenwich has three campuses in London and Medway, Kent, with over 26,000 students, one in five of them postgraduate. It combines strong regional, national and international links, with excellence in applied research and a mission for access.

Greenwich is the best University in London for teaching excellence (Sunday Times). Greenwich is the winner of three Queen’s Anniversary Prizes for Higher & Further Education, seven Times Higher Education awards and has four prestigious National Teaching Fellowships for academic staff. Research by Greenwich to tackle spread of Africa's killer disease, sleeping sickness, was named as one of the eight most important discoveries to be made in a UK university over the past 60 years. Philanthropic partners include the Bill & Melinda Gates Foundation.
The School of Health and Social Care is one of the largest in the University and has a well-established and highly-regarded reputation in the South-East for the delivery of programmes that include nursing, midwifery, social work, psychology, counselling, paramedic science and speech and language therapy. The School’s success is built on a firm foundation of partnership with local health and social care providers and these relationships are regularly commended by external reviewers as aspects of good practice. Programmes aim to provide graduates with knowledge and skills for employment and further study and many of them gain professional employment in the local health and social care economy. The University is proud of the fact that many students return to undertake continuing professional development activity, either through the study day programme, or to complete a post-qualifying or postgraduate degree. Students consistently rank the School’s nursing programmes in the UK top ten for students who are satisfied with their teaching (Guardian, Times and Independent).

2.3.2.8 Royal Holloway (University of London)

Royal Holloway is ranked 107th in the world and 15th in the UK. It has over 1500 staff and 9,000 students (2,000 of which are post-graduates). Royal Holloway has an established track-record in designing, conducting and executing high quality research in bio-medical, life sciences and social sciences. The impact of such research is wide-reaching, having been ranked 3rd in the UK for citations.

RHUL has a significant ‘footprint’ in health research, judged by research grant income, active researchers and multi-disciplinary collaborations. Leading health-related research fields at Royal Holloway include:

- Health and clinical psychology (including patient reported outcome measures).
- Gene Therapy.
- Health management and policy (including organisational change, service improvement and health service commissioning).
- Information security (including e-health).
- Innovation and knowledge management.
- Medical sociology.
- Rare diseases.
- Social work.

Royal Holloway’s research has been strengthened by the formation of a cross-disciplinary approaches, one of which is entitled ‘Health, the human body and behaviour’ (led by Prof. George Dickson), which is accelerating the promotion of new research and is fostering a wider engagement with policy and practice.

Royal Holloway’s health research is complemented by a range of postgraduate teaching and learning. Doctoral and Masters programmes operate across most departments. These include (but are not limited to):

- Doctorate in Clinical Psychology.
• MSc in Leadership and Management in Health.
• MRes in Biomedical Science.

2.3.3 Industry

The proposed KSS AHSN is nested within the richest group of health technology companies in Europe and includes three nationally recognised science and business parks (Surrey Research Park, Kent Science Park and Sussex Innovation Centre). These have a track record of supporting companies involved in the commercialisation of a wide range of sciences, including social science, technologies, health related activities and engineering.

KSS has approximately 700 health related companies within its geographical boundaries including a well-established supply chain. The region includes significant representation of international pharmaceutical research and development, pharma manufacturers and integrated pharmaceutical and biotech companies. Significant pharma research capacity is retained at Pfizer in Sandwich and is also resident in Novartis in Surrey and at Eli Lilly. Recent expansion of the Eli Lilly site to accommodate more neuroscience research including work on Alzheimer’s may be significant in the KSS AHSN priorities. Many other major pharma companies have distribution, marketing and sales offices including GSK, Sanofi and Novo Nordisk. There is good representation of biotechnology companies including the AIM listed Proteomics company, Proteome sciences and Reneuron, the pioneering stem cell research company which is responsible for the first human trials of stem cells to alleviate symptoms of strokes.

KSS has around 250 medical device companies, many of them SMEs but including larger international companies such as Smiths Medical, Philips, Bausch and Lomb and Siemens. The region is well represented by pioneering diagnostics companies, again many of them SMEs but also including a major presence of the multinational Roche diagnostics and Sanofi-Aventis (formerly Genzyme diagnostics).

The counties of Kent Surrey and Sussex have considerable history, strength and expertise in telecare and telehealth. The region has around 20 companies developing products and services for this sector including one of the oldest and most experienced telehealth companies, Docobo and McLaren Applied Technologies who have exciting sensor technologies which they are applying to this new and emerging industry.

Kent Surrey and Sussex accommodates a relatively dense population of Venture Capital companies and business angel networks who will at some stage be important partners to companies and consortia emerging from the AHSN. All the science and business parks have special relationships with investor networks, for example the Kent Science Park has strategic links with the Kent Investor network and the Surrey Research Park and University has created the Surrey angel investors ‘100’ club. The KSS AHSN is of course geographically convenient for the London investment market, the largest in the world outside the US.

A number of Government bodies with a strong industry focus have been working with the KSS AHSN in a variety of ways. These include the Technology Strategy Board building on collaboration with NHS South of England (East) successful Small Business Research Initiatives (SBRI) programmes and the Knowledge Transfer Network (KTN) who have funded industry meetings and projects including creating cluster mapping of assistive technology expertise for the south east. UKTI regional staff have agreed to support the AHSN through programmes to assist regional companies to
export. Regional organisations concerned with economic growth including the Local Enterprise Partnerships (LEP) in Kent, East Sussex and Essex and the Coast to Capital (West Sussex, parts of Surrey and Brighton) are also enthusiastic about engaging with the AHSN to foster regional economic growth and create new jobs.

2.4 Developing the AHSN Proposal.

2.4.1 A four-phase approach

The KSS AHSN has a four-phase implementation plan and will begin its initial programme of work progressively in the third phase before becoming fully operational in April 2013 (see Figure 2.4, below):

- We are currently in the planning phase where partnership arrangements are newly defined but not yet tested. Submission of this prospectus on 1 October 2012 marks the end of the initial planning phase. Planning and further analysis will continue throughout the next phase.

- With planning underway we will embark on the three-month establishing phase to appoint the Transition Board who will oversee completion of the planning, detail all core processes, procure facilities, and recruit staff.

- In January 2013 we begin shadow running, phase three and for three months we test out the AHSN processes, develop staff and build collaborative routines amongst our members.

- Finally, we will launch the KSS AHSN in April 2013.

![Figure 2.4: Four-Phase Implementation Plan](image)

Publication of this prospectus is not an end in itself. Much work needs to be done between now and formal authorisation of the KSS AHSN. Next steps, during the establishing phase, will include:

- Establishment of transitional board and supporting arrangements.
- Continuing engagement with key stakeholders.
- Further analysis work and potential review and refinement of objectives and proposed activities as a consequence.
- During this period we would anticipate the strong heritage of innovative activities which we describe below to continue.

Further details of our activities is provided in section 5.
2.4.2 What has already been achieved in Phase One

This is a summary of key engagement and planning events:

- Early consultation and discussion across HEIs and NHS Providers about the principles of a KSS AHSN.
- Meeting and review of options with the team developing proposals for a South London AHSN.
- Key all-party seminar to discuss and agree the principle of an AHSN for KSS, widely attended (comprehensive senior representation of HEIs and NHS Providers), fully debated, robustly and unanimously approved - also approved membership and chairmanship of the AHSN steering group.
- Presentation of proposed KSS AHSN and EQ programme to 35 industry representatives at SEHTA workshop.
- Presentation of AHSN policy to Ethical Medicines Industry Group AGM.
- Presentation to various individual pharmaceutical companies.
- Presentation to both local Comprehensive Local Research Networks.
- Initial discussions with members of regional UKTI teams, Local Enterprise Teams and Technology Strategy Board.
- SHA's Partnership for Innovation steering group broadened and extended to become the steering group for the project. Working groups established representing all constituencies.
- Expression of interest developed and signed off by principals of HEIs and NHS Providers.
- Presentations to county level CCG forums including a seminar with Clinical Commissioners, Clinical Networks and Clinical Leads to shape the respective roles and responsibilities of AHSN, Clinical Senates and Strategic Clinical Networks.
- Second plenary session to approve the principles of the submission and constitution of an interim or Transition Board.
3. **KSS AHSN Operating Model**

3.1 **Mission, Vision and Values**

As described earlier this prospectus describes a journey. Our proposed mission, vision and strategic priorities reflect current thinking. Further engagement of stakeholders and analysis of strategic issues may lead to changes in the detail below. That said, these statements are the basis for the development of the AHSN. They will form a test against which the activities and aspirations of the AHSN can be judged.

Within the operating model the mission drives our vision of where we will be in five years. This enables a set of strategic priorities, consistent with policy objectives, which our programme of work (once fully developed) will reflect.

3.1.1 **Mission**

To catalyse a step change in healthcare performance through combining creativity with adoption of proven innovation and best practice at pace and scale, improving healthcare outcomes and population health, and creating wealth.

Within this we mean;

- Creativity – enabling new concepts across industry academia and NHS to surface and be developed into working proposals.
- Proven innovation – evaluated new products, or new ways of doing things better.
- Wealth – economic prosperity.

3.1.2 **Vision**

By 2015, through the achievements of the KSS AHSN:

- Patients are experiencing the benefits of innovation in the areas on which we have chosen to focus, demonstrating consistent patient outcomes and delivery improvements that reduce needless variation.
- HEIs across KSS are actively engaged with the AHSN in the research needed to roll out innovation that translates into practice.
- Industry partners, academic institutions, and healthcare providers are all energetic drivers of creativity, innovation, and collaboration to ensure that more effective and efficient healthcare provision translates to wealth and prestige benefits for partner organisations.
- Information is used extensively by the AHSN to evaluate and monitor the impact of innovations – targeting programmes to spread good practice in KSS healthcare and the development of skills in the workforce to achieve this, with the importance of evaluation recognised by all.

3.1.3 **Values**

The KSS AHSN values will be a set of fundamental moral and ethical principles to which all members and the leaders of the organisation are committed.
Values are important because they help to guide action and for the AHSN the actions that are required are ones that will lead to a commitment to the diffusion of innovation – to benefit patients, and to produce economic gain for the United Kingdom.

The agreement of the values will be an important developmental aspect of the KSS AHSN and will help bind all members to the vision. Whilst the AHSN will have core funding from the NHS Commissioning Board and it will have a majority of NHS members, it also has voluntary membership of equal partners including academia and industry. In light of the fact that engagement of CCGs and Primary Care representation has not advanced sufficiently further development of the values will not be undertaken until engagement is more complete and either the Transition Board or a permanent board is in place. This will allow the inclusion of those not yet engaged.

To start that process, members present at a plenary session have agreed to base further work on the NHS Values (shown below).

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**THE NHS VALUES**

**Respect and Dignity**
We value each person as an individual, respect their aspirations and commitments in life, and seek to understand their priorities, needs, abilities and limits. We take what others have to say seriously. We are honest about our point of view and what we can and cannot do.

**Commitment to Quality of Care**
We earn the trust placed in us by insisting on quality and striving to get the basics right every time: safety, confidentiality, professional and managerial integrity, accountability, dependable service and good communication. We welcome feedback, learn from our mistakes and build on our successes.

**Compassion**
We respond with humanity and kindness to each person’s pain, distress, anxiety or need. We search for the things we can do, however small, to give comfort and relieve suffering. We find time for those we serve and work alongside. We do not wait to be asked, because we care.

**Improving Lives**
We strive to improve health and well-being and people’s experiences of the NHS. We value excellence and professionalism wherever we find it – in the everyday things that make people’s lives better as much as in clinical practice, service improvements and innovation.

**Working Together for Patients**
We put patients first in everything we do, by reaching out to staff, patients, carers, families, communities, and professionals outside the NHS. We put the needs of patients and communities before organisational boundaries.

**Everyone Counts**
We use our resources for the benefit of the whole community, and make sure nobody is excluded or left behind. We accept that some people need more help, that difficult decisions have to be taken – and that when we waste resources we waste others’ opportunities. We recognise that we all have a part to play in making ourselves and our communities healthier.
3.1.4 Strategic Priorities

Our priorities, based on the work we have done to date, are:

- To implement high impact innovations and reduce clinical variation through the uptake of NICE guidance and implementation of examples of best practice across KSS.
- To deliver a step change improvement in the initiation and delivery of clinical research on time and on target.
- To ensure consistent delivery of healthcare services across KSS, ensuring coherent evaluation and systematic use of metrics and data.
- To harness the combined potential of academia, industry and the NHS to deliver the innovation, consequent better healthcare provision and improved wealth creation opportunities across KSS.
- To embed the required skills and competencies within our people and their incentives and reward mechanisms.

These priorities will be achieved by meeting our objectives through the six functions and levers. Our initial thinking on how this will be achieved is outlined in section 5, and will be reviewed as our thinking matures.

3.2 KSS AHSN Structure

3.2.1 Legal Structure

The AHSN will take the legal form of a company limited by guarantee. As such, the AHSN must reinvest profits in the work that it does and will have directors and members (rather than shareholders) who act as guarantors.

3.2.2 Membership Categories

There will be two categories of member in the KSS AHSN:

Full Members - These will have voting rights and representation on the Board. It is envisaged that the KSS AHSN will have in excess of 60 full members across Kent, Surrey and Sussex. Full member organisations of the KSS AHSN are described in policy to be:

- CCGs.
- NHS Providers including representation of primary care.
- Higher Educational Institutions engaged in health and healthcare.
- Local Authorities, including sub-national Public Health England structures¹.
- Other private or third sector providers whose primary purpose is to deliver NHS funded health services.
- Industry representative organisations.

Affiliated Members² – who will be part of the AHSN and will be able to participate in AHSN activities and programmes but will not set or direct

¹Local Authorities may be eligible as Full Members although this would be a local KSS decision and is not assumed centrally or in policy.
the strategy of the KSS and will not have voting rights or representation on the Board. These include:

- LETBs.
- Clinical Senates and Networks.
- NIHR Clinical Research Networks, including CLRNs.
- Postgraduate Deanery.
- Local Area Teams of NCB³.
- Individual private sector companies.
- Third sector organisations.
- Neighbouring AHSNs.
- Commissioning Support Units and Procurement Hubs.

3.2.3 Legal duty - Public sector equality
As a public authority the KSS AHSN will follow the guidance issued by the Equality and Human Rights Commission⁵ to ensure that it fully meets its statutory obligations under the Equality Act 2010.

3.2.4 Locations and facilities
The KSS AHSN will have a small permanent staff on full or part time contracts. Those seconded by member organisations on part-time contracts will, by agreement with the member organisations, perform their AHSN duties from their offices. Arrangements will be made for the few staff on permanent contract to the KSS AHSN to be hosted at one or more member offices.

3.3 KSS AHSN Governance
The KSS AHSN will implement a three-tier governance model (see Figure 3.3a). The Principal Officers of the 60+ member organisations will form an overarching Partnership Board which will act as the Governors or Shareholder Body of the organisation.

A Board of Directors will be elected from constituencies on the Partnership Board and will act on behalf of the Partnership Board in overseeing the work of the Executive Team. These directors will effectively operate in a non-executive capacity.

The AHSN will have an independent chair with responsibility for both the Partnership Board and the Board of Directors.

The Executive Team will run the AHSN on a day-to-day basis. Led by a Chief Executive (who also sits on the Board of Directors) the Executive team

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²Health and Wellbeing Boards are not discrete bodies and cannot therefore be members. Their membership would be through Local Authorities.

³General Practitioners (GPs) should have membership through some other collective representation.

⁴Subject to clarification

includes senior officers with accountability for the different aspects of AHSN activities.

**Figure 3.3a: Three-tier Governance Model**

![Three-tier Governance Model Diagram]

### 3.3.1 Partnership Board

Member organisations would be represented at the Partnership Board by their Principal Officers (CEOs or equivalent) (for HEIs, this would be either Vice Chancellors or Faculty Deans). Deputies that have full delegated authority of principals may attend by agreement of the Chairman.

### 3.3.2 Board of Directors

The Board of Directors has 11 members, ten are elected from the membership of the Partnership Board and one is a representative of the Executive Team (the KSS AHSN Chief Executive Officer). Elected Executive Board members will serve for a 2 year period renewable for up to 3 terms.

The election process will ensure that the Executive Board members are representative of the Partnership Board in terms of geography and sector.

Elected members are selected from the following constituencies:

- 3 Acute Provider representatives (one from each county; includes Ambulance Trust).
- 1 Community Health Services.
- 1 Mental Health Services.
- 1 CCG representative.
- 3 HEI representatives (one from each County).
- 1 Local Authority representative.
- 1 Industry representative.

### 3.3.3 Executive Team

The Executive Team comprises the Chief Executive Officer and, it is currently assumed, five senior officers. Figure 3.3b illustrates the executive team, but
it should be emphasised that this is a conceptual model. Although it is accepted the roles that are described will be required, the precise specifications need to be defined as do such things as part or full time, tenure, in-house or secondment, etc. Provisional job specifications are provided at Appendix C.

The Finance Lead is accountable, on behalf of the KSS AHSN for safeguarding public funds as set out by Her Majesty's Treasury in “Managing Public Money” (Oct 2007). In particular, the Finance Lead will implement control processes to ensure that the KSS AHSN applies the standards expected of all public services as enshrined in the 10 principles of: honesty, fairness, impartiality, integrity, openness, transparency, accountability, objectivity, accuracy and reliability.

The Programme Lead is accountable for the efficient running and successful completion of the KSS AHSN's programmes of work. These programmes are driven by the clinical leadership programme, supported by the Programme Lead, sponsored and overseen by other Executive Team members, and delivered through networks.

The heads of functions (clinical, research, and wealth creation) are accountable for ensuring that KSS AHSN programmes obtain full support of members and deliver benefits for members. They are the route into the many other networks and partnerships in KSS and beyond. Through their joint and collaborative efforts the KSS AHSN makes plans that will achieve the strategic objectives and ensure the success of individual projects.

**Figure 3.3b: The KSS AHSN Executive Team**

![Diagram of the KSS AHSN Executive Team]

### 3.4 Reporting

The Partnership Board will meet bi-annually. It will approve the appointment of the CEO and auditors, and approve the annual plan and annual report and accounts.

The Board of Directors will meet monthly. It will hold the Executive Team to account for achievement of the business plan and delivery of the objectives of the organisation.

The Executive Team meets formally weekly to control and coordinate AHSN activities.

Senior officers on the Executive Team who are leading in respect of Clinical, Research and Wealth constituencies will meet regularly with members of their constituency groups to inform their activities and to enlist the support of members in the work of the AHSN.
The Clinical, Research and Wealth Leads will also be the conduit through which sub-groups of the AHSN membership and member-teams working on AHSN programmes report back to the AHSN.

The Programme Lead on the Executive Team receives regular reports from project managers and provides programme status reporting to the Executive Team for sharing with the Board of Directors and Partnership Board.

Alongside the formal reporting regime there will be a need to maintain on-going engagement both within and without the AHSN;

- There has been significant engagement to date with prospective members of the AHSN and this will need to be maintained throughout the transitional period. The membership will consist of a different stakeholder groups and it will be important that their individual drivers are understood. This will involve on-going communication and engagement activities, such as regular newsletters, workshops and seminars, as priorities and activities are finalised.

- Equally the KSS AHSN will be part of a wider “network of networks” of AHSNs. It will have a responsibility to support horizon scanning from other AHSNs and to promote its successes to them. This will require early formal and informal links to be established, which could extend to regular network meetings, sharing of priorities and plans, and joint attendance at events. Through the networks we will access learning, not just from AHSCs but other leading-edge researchers.

3.5 The Transitional Phase

The following comments relate to activities in respect of establishing the formal structure.

The project team that has led the development of this KSS AHSN prospectus through phase one of the AHSN launch programme recognises that there needs to be a more formalised structure to carry the emergent AHSN through to operations in April 2013, as illustrated in figures 3.3a and 3.3b above.

To achieve this, a Transition (or shadow) Board will be established to replace the current Steering Group arrangement. This Board will appoint a Managing Director – either on a designate or interim basis.

The establishing of a Transition Board of Directors will give proper legitimacy to the early work of the prospective AHSN, will ensure proper representation and participation, and will give confidence to the NHS Commissioning Board as they consider this application. Such a Transition Board would not have an independent Chair, but would elect an interim Chair from among its members.

The membership of the Board of Directors will be drawn appropriately from the various membership constituencies to ensure that it properly represents the spread of interests and expertise from across the AHSN.

The future membership of the Board of Directors will be subject to revision and modification by the Transition Board. The Transition Board would be appointed for a six month period, or until such time as the AHSN was formally established.

For the Transition Board, the membership will be as follows:

3 Provider representatives from acute hospitals/ambulance trust (one from each county).

1 Provider representative from mental health.
1 Provider representative from community health services.
1 CCG representative.
3 HEI representatives (one from each county).
1 Industry representative.
1 Executive representative (KSS AHSN Managing Director designate - to be appointed by the Transition Board).

Nominations of individuals to this Board are currently being made. It is intended that the Board will take effect from the end of October.
4. Operating Principles and Mechanisms

This section describes firstly the operating principles of the KSS AHSN. The second section describes the mechanisms by which the KSS AHSN will both align separate levers and functions for the main projects and how other more opportunistic health and wealth gain activities will be coordinated. This leads into section 5, which outlines our programme of work. Given the further work that needs to be done and which we have outlined, there may, on occasion be overlap between what is written in sections 4 and 5.

4.1 The KSS AHSN Operating Principles

The KSS AHSN operating model is based on the delivery of carefully targeted programmes agreed by members – resourced by and delivered through its members. Within this operating model, KSS AHSN builds on the nationally designated innovations (the high impact innovations and the designated “push” technologies) and additionally identifies clinical areas that are most relevant to the 4.5million regional KSS population.

However, the AHSN is a new body and is not responsible for replicating existing activities and initiatives. For these prioritised local needs the process is used to identify gaps and through a root cause analysis and discussions amongst members, brings together services, industry, and academia to identify new innovations for adoption, best practice for dissemination, and new opportunities for research to inform and examine care pathways, whilst also providing opportunities to increase wealth.

The approach the AHSN will adopt will be governed by the following principles, themselves consistent with the AHSN goals and priorities.

4.1.1 Managing the scope of activities

The operating model (see Figure 4.1) recognises the need to constrain the activities undertaken in a number of ways to ensure the maximum return on its resources. These scoping choices are as follows:

- **Clinically-led priority setting** – programmes will be focused around an agreed set of health priorities that are relevant to the local population, meet NHS requirements (for example the High-Impact Innovations), and exploit unique opportunities presented by members. The focus is on the broader health of the population.

- **Leveraging the work done by other AHSNs** – KSS will engage fully with other AHSNs to identify potential overlaps in programme activity and will seek to reuse solutions and offer solutions for reuse by others in the wider AHSN ‘network of networks’.

- **KSS wide** - Programmes will meet the needs of the whole of KSS and not just specific areas within it.

Figure 4.1 provides a simple diagrammatic representation of the process. Decisions will be informed by industry and academic thinking, and the opportunity will exist to deploy creativity and innovation throughout the process and particularly by introducing new ideas and thinking to the Board.

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6As an example of collaboration that has already started with other AHSNs, South London are keen to overlap with KSS on diabetes and dementia; Wessex on tele-health, Oxford, Wessex and South London on working with industry.
4.1.2 Being additional to business as usual
The KSS AHSN will avoid taking on work that is already funded under an existing business-as-usual process. It will work alongside but will not substitute for the commissioning process. However it will complement and work with the various networks that are in place.

4.1.3 Exploiting the skills and resources of members
The KSS AHSN will have a diverse and capable membership with particularly strong industry links. The KSS AHSN will ensure that it makes full use of members’ intellectual and productive capacity at every stage of programme conception, planning, resourcing, and delivery. The process by which this will be achieved is described below in Section 4.2.

4.1.4 Reusing best practice approaches in the NHS and elsewhere
The NHS Change Model has been created to support the NHS to adopt a shared approach to leading change and transformation. All eight components of the model are relevant to the work of the AHSN with ‘spread of innovation’ being especially significant to accelerate the speed and extent of the spread and adoption of innovation. KSS AHSN will adopt the NHS Change Model as one of its core processes.

4.1.5 Member organisation commitment
There will be obligations of membership – active participation both in governance and project implementation, data contribution, and resource
contribution (in cash or kind). The effectiveness of these mechanisms in driving change is already demonstrated in the EQ model (described in Appendix D). This commitment will be a condition of continued membership.

4.1.6 Comparative evaluation

The KSS AHSN will provide a clear statement of metrics to be monitored on both generic issues (e.g., engagement with industry, research activity) and project specific issues (e.g., HIU uptake). Publication of regular reports will show comparative performance of members and participating organisations.

4.1.7 Influencing the commissioning agenda

While the AHSN is not a substitute for and will not be directly involved in commissioning processes, it will work with CCGs to ensure that commissioning levers (e.g., CQUIN payments) are used to complement the work of the AHSN where appropriate. The AHSN recognises and will take pains to avoid the risks of unintended disincentives in such interventions (such as reductions in allocated budgets as a consequence of success in AHSN projects).

4.1.8 Peer pressure and clinical networks

Each project is currently anticipated to have a senior clinical lead or director nominated from among the membership organisations. Dedicated time will be provided in that clinician’s job plan for their AHSN role. Support will be given for the establishment of key networks in support of each project. These networks will have to justify themselves, and are expected to be designed to exploit the skills of members across the whole of KSS. The interface with and relationship to Strategic Clinical Networks and Senates which share the same footprint of KSS has been explored as part of the planning for the AHSN.

4.1.9 Quality Assurance

Before commencement of any AHSN project, there will be a rigorous assessment of the proposals for it, covering (among other things) purpose, feasibility, resourcing, and evidence base. Projects will be vetted by a programme assessment panel, which will include clinical representation from the AHSN membership. Final approval will be given by the executive team. This will ensure the quality and probability of success for any project.

4.1.10 Formal reporting and accountability to the Board of Directors and Partnership Board

The executive team will be held to account for delivery of the strategic objectives and annual plans by the Board of Directors. They will produce a formal, public annual report of progress which will be received and approved by the Partnership Board. Interim project specific reports will be produced and reviewed by the Board of Directors and Partnership Board according to a timetable specific to each project.

4.2 KSS AHSN Functions

This section describes the overarching mechanism of the KSS AHSN and how alignment of members, functions and levers will be achieved. The model describes how these come together in the main programmes that will address priority issues. The KSS AHSN model builds on the successes of the KSS
Enhancing Quality & Recovery Programme as described below as the core of the AHSN wide system.

There will be other opportunities to contribute to the strategic goals that sit outside the main programme. The separation of the KSS AHSN activities into four separate themes is artificial but allows responsibilities and groups of activities to be divided into more manageable agendas.

The KSS AHSN will deliver its objectives through the following groups:

- Service Improvement*.
- Research.
- People Development.
- Wealth Creation.

*Service Improvement will encompass the aspects of Translating Research into Practice and Information. People Development encompasses the aspects of Training and Education.

The activities of the separate groups will not be independent of each other, and will be coordinated by academics, health professionals and representatives of industry on the Executive Team of the KSS AHSN. They in turn will be overseen by the Board. This will ensure that activities within one function will have links and relationships to another.

The KSS AHSN Operating Model (see Figure 4.1, above) shows, in simple terms, how priorities for main projects will flow. The top half of the diagram relates well to the initial stages of service improvement. The bottom half shows where opportunities for development of novel solutions arise along with opportunities for new research and evaluation.

### 4.2.1 Service Improvement

A service improvement group will be created that brings together members of health professionals, commissioners, academics and industry partners. This group’s plans and activities will be led by a member of the Executive Team and overseen by the Board of Directors with regular reports to the wider Partnership Board.

The KSS AHSN approach to service improvement will build on the experience gained from the highly successful Enhancing Quality and Recovery (EQ) Programme. The essential method of the EQ programme is, through broad clinical participation, to achieve consensus on core elements of a treatment pathway for a given condition that have an impact on patient outcome, to establish a systematic audit of care in all participating organisations to assess the degree of compliance with these core elements, to identify clinical leadership for change within each participating organisation, to provide regular comparative reports showing levels of compliance, and to identify key outcome measures which are also audited and published. In all pathways to date, the EQ programme has showed significant increases in compliance with best practice, along with significant benefits to patients in terms of reduced morbidity and mortality. This approach, which is fully explained in Appendix D, will increase the breadth of programmes, and ensure a more comprehensive engagement of stakeholders including academia and industry. In essence we will add to all stages of the EQ process;

- At the front-end – through greater engagement with and contribution from academia and industry, which should include finding ways to streamline the process by which organisations can access clinical data.

“EQ is important for clinicians and patients because adapting to best practice and improving service quality are fundamental to modern healthcare. EQ provides the structure that keeps best practice and quality at the centre of every patient’s care.”

Dr Terry Lynch GP and Dementia Primary Care Lead
During the middle and end by evaluating progress and success and at the same time ensuring information sharing and the avoidance of duplication.

Through show-casing EQ as a successful tool and providing opportunities for wealth creation through its wider adoption.

In addition, by virtue of its position and relationships, the AHSN will be in a good position to ‘horizon scan’ and outline what the forward looking agenda for EQ should be, in conjunction with industry and academic partners.

The service improvement programme will be the primary means for ensuring a systematic approach to adoption and diffusion of innovation at scale and pace. The programme of work will address issues around variation, NICE adoption, service redesign and embedding best practice including developing strong links to the LETB to take forward innovation in the development of the workforce to deliver innovation.

4.2.1.1 Building on the Enhancing Quality approach

Enhancing Quality is a clinically-led rapid quality improvement programme which triangulates information to drive quality improvements in clinical interventions, patient reported outcomes and patient experience. It involves all Acute Trusts, Community Trusts and Mental Health Trusts across Kent, Surrey and Sussex. It is a flexible methodology that can be applied to numerous pathways and areas. The focus to date has been the adoption and rapid spread of NICE Quality Standards and Guidance working closely with NICE to translate these into local process measures. In August 2012, the CCGs in Kent Surrey and Sussex agreed to use this approach for the KSS adoption plan for High Impact Innovations. The EQ methodology is described in Appendix D and Case Studies illustrating in action are presented in Appendix B (Case Study 2 and 3).

4.2.2 Research

4.2.2.1 Organising to deliver research

An AHSN wide research group will be created that brings together members of NIHR Research Networks and NHS Trust R&D leads, academics and industry partners. This group will be led by the Head of Research. Its plans and activities will be overseen by the Board of Directors with regular reports to the wider Partnership Board.

The primary focus of this group will be to work with CLRNs to improve trial recruitment to time and target. The volume of all research activity within KSS is relatively small compared to some other regions. The absence of well-established research communities and the proximity to London are contributing factors. Without significant pump-priming a step-change in recruitment to trials will be constrained by limited existing resources. The group will focus initially on the immediate opportunities to improve participation in research in the following areas and will work closely with and complement the work of the CLRNs.
Building the research programme

The CLRNs and NIHR Topic Research Networks all have agreed work plans. A summary of the combined Surrey and Sussex and Kent and Medway CLRN plans are referenced in Appendix E and attached with this document. They include:

- Increasing the number of patients recruited to trials through improvement in patient awareness of trial opportunities.
- Reducing time taken to establish trials through the development of a single approval process for trials removing the need for each Trust to seek separate approval.
- Increasing the opportunity for trial recruitment through more selective choice of trials and number of trials within the portfolio at any one time.
- Increased awareness of individual trust performance with Trust CEOs.

These relatively low-cost changes will need to be underpinned through a range of medium to long term actions. These will include targeted pump-priming to increase research capability and capacity.

Extensive discussions both between HEIs and together with NHS colleagues have identified a number of thematic areas in which the research strengths in the region map to local health priorities. Our initial analysis of opportunities relevant to priority areas are illustrated in the diagram below (Figure 4.2a).

Figure 4.2a: KSS AHSN Research Priority Areas

![Diagram of research priority areas]

There will be awareness-raising of the broader health economy benefits and organisation benefits, as illustrated below (Figure 4.2b).
4.2.2.3 Areas of research focus

We have identified key areas where the research function can offer valuable benefits to other functions and to the strategic aims of the KSS AHSN. These are:

- Recruitment of more research active clinicians in NHS organisations.
- Recruitment of more joint clinical academic appointments in HEIs.
- Increased non-medical staff training in research.
- Greater engagement of HEIs with local Trusts including co-creation of health research strategies.
- Exploration of novel approaches to patient recruitment.

We also recognise the need to explore a broader range of opportunities to undertake more research in, for example:

- Different settings (e.g. Primary Care building on one of the most successful Primary Care Research Networks in the UK that is hosted by BSMS).
- Service Delivery.
- Different technologies (i.e. non-drug related trials).
- Different phases maximising use of Clinical Trial Facilities and in proof of concept (real world take up).
- Exploration of opportunities to work with researchers outside of KSS AHSN, interested in taking advantage of our large research naive and stable population. This is especially so for research in diseases related to ageing including dementia and neurodegenerative disorders.

The summary of research capability in academic institutions across KSS is in process of being compiled. This describes additional research interests which will be brought to the wider forum of the AHSN, ranging from research into aesthetics and design, to concepts of management and leadership in the delivery of healthcare services.
The research group will be able to support the service improvement process through the identification of evidence and evaluation of best practice, locally, nationally or internationally, through improved evaluation or research on priority issues, and through further evaluation of implementation.

The evolution of AHSNs provides broader opportunities for health research than the core requirements described above. A first draft of how we might combine these opportunities is shown in Appendix F.

We will increase integration of research between NHS, industry and academia, through establishing an industry research forum and acting as a single point of entry for industry to access information and research. This will build on recent Surrey & Sussex CLRN success that has seen them move into the fifth best performing CLRN with respect to commercial trials, by creating a KSS wide industry research group and developing the database of research active clinicians. We will ensure that we work closely with the Research Design Service to improve clinical trial design.

4.2.3 People Development

A People Development group will be created that brings together health professionals including representatives from the Local Education and Training Board, academics and industry partners. This group’s plans and activities will be led by a member of the Executive Team and overseen by the Board of Directors with regular reports to the wider Partnership Board.

Consideration needs to be given to the people impact of new interventions across the system as a whole, both in terms of roles/skills/competencies and the management of change.

The KSS AHSN will support the LETB by providing a wider evidence base as to the effectiveness of innovation to compliment the redesign of working practices and the work environment within which new (and existing) professional staff are engaged. This will in part be achieved by mutual engagement and representation on respective governance structures. The precise format of this will need to be agreed. The AHSN will also work closely with the local representation of the Leadership Academy to contribute to the fostering of a culture of leadership of change and innovation. We will also be informed by the outcomes of the IHW Leadership for Innovation Task and Finish Group.

Our thinking on the approach to education and training needs to be finalised. From April 2013 education and training will be managed by Health Education England and provider led Local Education and Training Boards. The new Kent Surrey and Sussex LETB, which is operating in shadow status, is leading and managing the education functions on behalf of the providers of NHS Funded healthcare within the area. There is a representative Governing Body which includes membership of Chief Executives from providers, senior representation from Primary Care Provision, Higher Education Institutions (HEIs) and the Post Graduate Deanery. Providers of NHS health funded healthcare will be both members and customers of the KSS LETB with responsibilities for commissioning and delivering education and training in partnership with HEIs. The Secretary of State will retain responsibility for the quality of education and training of the workforce and will discharge this via the new Education Outcomes Framework, which will be measured by HEE and evidenced by the LETBs.

The providers of NHS funded healthcare will also be within the scope of the KSS AHSN. (see Appendix G). In addition, the scheme includes all providers of NHS funded healthcare, including hospices, nursing homes and independent sector including pharmacists and optometrists.
The education providers included in the KSS LETB are all the higher education institutions with contracts for pre-registration and CPD education in KSS (the Universities of Surrey, Brighton, Canterbury Christchurch, Sussex and Greenwich). The four Universities have collaborated actively and meet via the established KSS HEI Forum. Examples of collaborative activities are the development of BSc level paramedic education within and across the SHA and a system of automatic APEL for continuing professional education modules across the four HEI’s. All of these Universities have significant research portfolios in relation to health. Four universities (Kent, Southampton, Royal Holloway (University of London) and St Georges (University of London)) provide specialist and research support to the scheme.

Further education (FE) colleges within Kent, Surrey and Sussex are involved in the provision of access courses, some dental support education and science provision. There are 26 FE Colleges in the region and most have some health related provision or capacity for science and technology support. They also work with the HEIs on access provision into pre-registration courses and foundation degrees.

The KSS LETB delivers its postgraduate medical education via a contract with the Kent Surrey and Sussex Deanery, which is currently hosted by Brighton and Sussex Universities Hospital NHS Trust until 31 March 2014. The Deanery is co-terminus with the geographical footprint of the KSS region.

Innovation in healthcare delivery, implementation and early adoption is wholly governed by the ability and adaptability of the people working in the health sector to make the changes needed to their way of working. The work context, management of work and people and an understanding of how to assess and evaluate the success (or otherwise) of the adoption of new process or systems is traditionally a poorly managed area in any healthcare or system change. It is also important that the requirements of the provider workforce are clearly understood and articulated within workforce plans to enable the KSS LETB to commission the appropriate education to respond to rapid response and roll out of innovation.

The AHSN is an opportunity to factor into the “test bed” environment the process of managing change and for the inventors and designers of any new system or process to be reminded and supported to consider the impact on people (knowledge, skills understanding and attitudes) and to factor this into any project plan. The active management of change and an increased understanding of the means whereby people are supported to review working practices is often overlooked, as is the requirement to review the organisational structure and culture (including the management of risk) of NHS organisations tasked with implementing new ideas, practices or technology.

Local arrangements for the provision of education have traditionally focussed on the support for professional preparation (doctors, dentists, nurses, midwives, allied health professions and so on) leaving little headroom for the development of professional staff to evaluate working practices. This is not to say that the health service has been lacking in support for managerial and research skills but that the synergy of these approaches has been applied to existing structures and practices. The AHSN by drawing on a greater variety of approaches (in particular from industry and research) has the opportunity to consider not just the immediate benefit to patients in the adoption of novel treatments or interventions, but to consider what the impact of these interventions might be on the health system as a whole.
As the KSS LETB takes on the task of reviewing and developing professional education (including the consideration of new roles) the AHSN can support this work. The KSS AHSN will provide a wider evidence base as to the effectiveness of innovation to complement the redesign of working practices and the work environment that new (and existing) professional staff are engaged in. The Education Expert Reference Group of the KSS LETB, provides a forum for education providers to develop the education provision within the LETB and in particular to bring together research and evidence-based best practice to be able to respond to the changes required of the healthcare workforce.

As research communities become increasingly international in outlook drawing on experience from other cultures and economic environments (with significant experience in this area drawn from industry) there are opportunities to consider our approach to professional preparation in a more global context and to evaluate and embed new ideas.

We will work closely with colleagues in academia and industry to understand respective cultural drivers and build appropriate sharing mechanisms for best practice sharing and innovation. Additionally, we will be guided by the outcome of the IHW Innovation Fellowship Task and Finish Group in formulating our local plans.

4.2.4 **Wealth Creation**

A Wealth Creation Taskforce will be formed that brings together health professionals both NHS and private, HEI representatives including those involved in knowledge transfer, health economists, government departments (TSB, KTN, LEPs, etc.), Local Authority and industry partners. This group’s plans and activities will be led by a member of the Executive Team and overseen by the Board of Directors with regular reports to the wider Partnership Board.

Two significant elements of wealth creation are already covered above. These are the improvements the NHS needs to make to undertaking trials to ‘time and target’ and the need to accelerate diffusion and adoption of innovation. These actions will support wealth creation through development of new technologies nationally and through realisation of benefits (health outcomes and productivity) of known innovation in a more timely manner.

The key Wealth Creation programme for the KSS AHSN will create a strong and effective partnership between industry, academia and health that co-creates innovative solutions to healthcare challenges in the region. Solutions will be designed to transform the experience of patients and then through collaboration, ensure the adoption and spread of the proven innovations that deliver measurable benefits to patients, the population, members and partners.

New relationships with industry will be developed based on greater trust and maximising joint opportunities. New relationships and a new understanding will be developed between NHS Procurement and industry based upon recommendations of the forthcoming Department of Health Procurement Review. Relations with industry and wealth creation opportunities will not be side-lined or confined to one aspect of the AHSN; they will be a cross cutting theme in all programmes, levers and in all thinking.

The underlying principle to all KSS AHSN activities, including wealth creation, is to engage with industry at every earliest opportunity. In addition to
representatives from industry being part of this Wealth Creation Taskforce, they will also be members of the other three groups, the Executive Board and Partnership Board. This will ensure that industry is actively engaged at all levels in priority setting and decision making.

The activities of the Wealth Creation Taskforce can be broadly divided between indirect and direct support for wealth creation.

Direct opportunities are:

- improving the identification, adoption and spread of innovative health care across KSS.
- creation of new technologies and services, whether led by clinicians, academics or industry.

Indirect opportunities are:

- Supporting the development of knowledge networks.
- Supporting people of a working age stay in or return to work.
- Supporting the development of high growth technology clusters in the locality.

Opportunities for direct wealth creation opportunities will be managed through members of the wealth creation group supporting the service improvement group on the priority projects, as below.

### 4.2.4.1 Improving the identification, adoption and spread of innovation

As each project is initiated, the Wealth Creation Taskforce through a variety of local, national, EU and other international networks seek out and highlight to the service improvement group, what products and services are on and near to market. In addition they will identify industry partners who may be able to support service redesign. Networks will include trade associations, the NHS Hub Alliance and other national networks such as BIS Knowledge Transfer Networks, UK Innovation Forum etc as well as HEI networks such as the local “Set Squared” involving Universities of Surrey, Bath, Bristol and Southampton.

Separately to supporting priority themes the Taskforce will provide regular and themed opportunities for industry to bring products and services to the attention of the KSS AHSN. This will include “Meet the Buyer” events and opportunities for detailed reviews of products and services. A recent example being the ‘3 Million Lives’ events that attracted 300 delegates and show cased a spectrum of telehealth technologies.

To support this work KSS AHSN will identify and develop a range of health professionals who will act on a part time basis to represent specialties or themes in reviewing technologies.

Procurement in general as well as specific to KSS AHSN projects can be improved. There is a national task and finish group reviewing ideas and evidence for improving procurement. The KSS AHSN will act on the findings of their report by supporting the implementation across KSS.

### 4.2.4.2 Development of new technologies and services.

At later stages of the service improvement projects there will be opportunities for the Wealth Creation Taskforce to support the development of new technologies and services.
Translating ‘need’ into meaningful information that industry can work with to develop commercially viable services and technologies.

A range of bespoke interventions will be considered in this work including:

- Signposting for business support service.
- Consortia building.
- Design, development and commercialisation of intellectual property*.
- Research and evaluation including making the case for adoption.
- Signposting for appropriate resources including funding such as private investment.
- Procurement.
- Adoption and spread of innovation.

* Intellectual Property is a significant issue for the AHSN and wealth creation. More detailed work will be required to look at both IP protection and IP sharing within and beyond the AHSN. The AHSN will review in more detail the report commissioned by NHS South of England, to better understand the opportunities and their relative values afforded through the activities of the NHS Innovation Hub Alliance members. These will need to be put in context with other IP related services available through member organisations including HEIs.

4.2.4.3 Small Business Research Initiative (SBRI)

SBRI is a very specific example of how elements of the interventions identified above can be systematically applied in the health setting. The structured process of an SBRI is an excellent means by which key individuals within AHSNs can develop greater understanding of the advantages that can be gained from cross sector (i.e. industry health, academia) collaboration and in doing so lead to greater mutual respect.

There is great interest within the KSS AHSN to support the national SBRI programme. Health and industry members of the KSS ASHN have experience of a range of different national SBRI challenges (HCAIs, Reducing admissions, Living well with dementia and Stroke).

The ‘Living well with dementia’ SBRI launched in 2010 will see three novel products or services launched during 2012/13, securing business for two SMEs and underpin a strategic move into the health sector for a third. The stroke SBRI has seen the creation of a company to take forward a device that can detect Atrial Fibrillation.

The SBRI programme has challenges and limitations. A hasty launch that does not undertake adequate preliminary activities including due diligence, clinical and procurement engagement activities and or fails to market test appropriately at various stages of development may severely limit potential return on investment. Information gained through a thorough approach may identify opportunities that can also be taken forward for health and wealth gain, but not under the contractual arrangements of an SBRI. Currently there is no guidance around the positioning of an SBRI and these adjacent activities. It is anticipated that the IHW SBRI task and finish group will propose a range of recommendations following a high-level review of the SBRI process and its wider opportunities, commissioned by NHS South of England. The experience, success and insight gained within KSS AHSN of the SBRI programme has led us to propose that we lead on these developments.

We have included an account of our considerable experience with SBRI as Case Study 1 in Appendix B.
4.2.4.4 Supporting the development of cross sector collaboration through knowledge networks and knowledge transfer

A number of ideas will be pursued under this heading to indirectly promote wealth creation aims:

- Providing the environment for the AHSN and its members to develop relationships leading to effective collaboration. This would include events and shadowing of key individuals in different sectors.
- Raising awareness of AHSNs and KSS activities – within industry networks, NHS organisations and HEIs. This will include co-production of programmes of engagement.
- Encouraging each HEI to have an equivalent to Kent Health – a single point of focus on campus for all issues health.
- Creation of a pool of health professionals who will support awareness-raising respond to and search for industry solutions.
- Improving the identification, adoption and spread of innovative health care across KSS.
- Working with networks undergoing EQ+ process from the outset.
- Bringing technologies from network members to the attention of network leads.

4.2.4.5 Supporting people of a working age to stay in work or return to work

Dame Carol Black’s review of 2008 ‘Working for a Healthier Tomorrow’ illustrated clearly the losses that occur in the workforce and therefore to indirect wealth creation potential through reducing illness. In 2008 the report concluded that approximately 175 million working days were lost to illness in 2008. It is likely that this figure has increased over subsequent years through reported increases in stress-related and mental illness; costs to the taxpayer were estimated at over £100 billion based on 2006 data.

Although progress on implementation of the recommendations from Dame Carol Black’s report have been slow to date, it is clear that improvement in service delivery of the NHS which enables patients to recover more quickly, and results in fewer re-admissions will make a substantial contribution to wealth creation by enabling people to return to work more quickly. A further key component in this agenda must be to help prevent sickness in the first place through preventive programmes, education and earlier diagnosis. The objectives of the KSS AHSN will help in both these aspects. Improvement in service delivery to local populations with a focus on key priority clinical areas together with an overarching strategy which recognises prevention and earlier diagnosis will result in a healthier workforce, fewer people getting sick and more people at work generating wealth.

4.2.4.6 Supporting the development of high growth technology clusters in the locality

Regional economic growth is important for the national economy and for the economies of Kent Surrey and Sussex. The creation and ability to sustain jobs, especially in the private sector, is critical for the government’s agenda for recovery from the recession. The life sciences industry has been identified in numerous reports as one of the key sectors to lead economic recovery and the AHSN will have a significant part to play in this agenda. Local Enterprise Partnerships (LEPs) in Kent Surrey and Sussex, including Coast to Capital (West Sussex and parts of Surrey) and the South East Local Enterprise Partnership (East Sussex, Essex and Kent) are committed to economic growth through a
variety of means including stimulating existing businesses and attracting new businesses and jobs into the region.

Preliminary discussions with CEOs of both of these organisations have enabled common ground to be established and common purposes to be identified between the KSS AHSN and the regional LEPs. There is a joint understanding that creating the AHSN as a focal point for life sciences research, education, service delivery to the NHS and wealth creation will be of immense benefit to the local economies in many ways. The AHSN will create internationally-renowned centres of excellence in a range of clinical areas and technologies which will prove immensely attractive to companies who need access to skilled and experience staff and proximity to organisations and other companies who can support them and provide collaborative opportunities. More open access to knowledge and potential markets through the AHSN within the NHS and in its partnerships will stimulate growth in existing companies and attract new companies into the cluster.
5. The Programme of Work

5.1 Overarching Approach

In this section we describe what we intend to do over the next five years. Inevitably some of what we say will be aspirational, and is reflective of the publication of this prospectus being part of the journey to establish the AHSN. This work can be seen within three domains;

- Initial work to refine and validate our ways of working and intended activities.
- Those “must-do” activities which can continue to be addressed over KSS throughout the transitional period.
- The established programme of work, currently aspirational, and to be refined as mentioned above.

The process for defining the KSS AHSN business plans will be developed by the Executive Team, scrutinised by the Board of Directors and formally ratified by the Partnership Board of all full members. However it is intended that this process will involve a broad spectrum of stakeholders. We recognise that, for instance CCGs and primary care as providers need to be engaged and we would look to build on the number of events and seminars that we have held to date. Indeed, through an NHS road-show targeting senior staff, and events by individuals HEI and trade association, we believe that we could connect with a significant number of key stakeholders and influencers. Assuming that across KSS these could total 100,000, a target of engaging with at least 2% over the remainder of the transitional period should be achievable.

Each year there will be projects within each of the four principal programmes – one for each of the four KSS AHSN functions (Service Improvement, Research, People Development and Wealth Creation). The size of each programme will be balanced to maximise the benefits to KSS in the particular year.

Each of the four major programmes, will be designed to deliver both the nationally designated innovations (the high impact innovations and the designated “push” technologies) and additionally projects that address the priority needs of the KSS population.

During the transitional phase there will be a focus on building on the work done to date to develop the programme of work. This recognises that not all the analysis and engagement across partners and stakeholders has yet been done. We would anticipate that this would be finalised by the time the AHSN had been authorised in April 2013. In terms of actual activities, these are currently perceived to be focused on achieving the following goals, themselves reflective of our priorities, vision and mission;

For instance we will look to:

- Drive service improvement by comparative evaluation & collaborative learning, with a suitable metric being the extension of the EQ model into an agreed number of new clinical areas per year.
- Ensure identification and adoption of evidence based best practice, with a suitable metric being the adoption of an agreed number of new projects by AHSN per year.
- Increase the numbers of people recruited into adopted studies in KSS, with a suitable metric being increased recruitment of an agreed percentage year on year, each year for the life of the AHSN.
• Adopt innovation in both products and services, with a suitable metrics of full implementation of HIIs and PTs; and other measures of rate of adoption to be agreed and targets set.

• Increase engagement with and uptake of research, with a suitable metric being an increase in the uptake of research by an agreed percentage year on year.

• Increase critical mass of people who create innovation, and increase competency and skills to deliver innovation, with suitable metrics to be defined and having to be agreed with the LETB as the AHSN is established.

• Increase effective engagement with industry, resulting in increased wealth with a suitable metric being timely (to be defined) quantified adoption plans to be co-produced between industry and NHS.

The above is only an initial view of potential goals and suitable metrics, and though it needs to be validated and is subject to review, particularly as transitional arrangements come into effect, we believe a clear direction of travel can be seen. For example, a plenary session on 18th September 2012 with CCGs, Clinical Networks and Senates considered the following opportunities:

<table>
<thead>
<tr>
<th>Plenary Session on 18th September 2012</th>
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<tr>
<td>The purpose of the seminar was to explore the relationship between the AHSN and those other bodies and how they should work together to create additional value. This generated the following recommendations for the AHSN to consider:</td>
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<tr>
<td>&gt; Support to strategic workforce planning and innovation in the preparation for healthcare careers through the Local Education and Training Board (LETB) will be welcome;</td>
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<tr>
<td>&gt; Support to horizon scanning would be invaluable;</td>
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<tr>
<td>&gt; Identifying projects which benefit from being part of a larger critical mass;</td>
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<tr>
<td>&gt; Using metrics to create the rationale for change including economic analysis;</td>
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<tr>
<td>&gt; Allowing more ability to think strategically and creatively – albeit data and evidenced based and deploying health economics across a larger area;</td>
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<tr>
<td>&gt; Being more creative not just fire-fighting – give credibility to making radical changes in both clinical and people development;</td>
</tr>
<tr>
<td>&gt; Supporting Intellectual Property management &amp; navigating rights so that everyone benefits</td>
</tr>
<tr>
<td>&gt; Good relationship between AHSN and Network Director is important and will add value</td>
</tr>
<tr>
<td>&gt; Ensure existing innovation projects are followed through and evaluated.</td>
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</tbody>
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There are numerous other metrics which could be applicable and further work is required to align these with validated goals and strategic priorities. But by way of example further metrics could include;

• Patient awareness indicator and time to adopt for specific technology adoptions.

• % increase in trials open.

• Products sold and jobs created.

Within this context the initial programme of work will be carefully constrained to match the emerging strength and capabilities of the AHSN. Our intention
would be to focus on the core high impact innovations, and also deploying EQ to focus on the local healthcare issues, which we know to exist, i.e.

- Ageing and dementia.
- Preventative activities such as obesity.
- Tele-health and tele-medicine.
- Sub-acute admissions.

These areas provide a useful environment for new AHSN based arrangements to start to take effect and gain traction with partners. In respect of this what the AHSN can offer is;

- Evaluation.
- An agenda for research to support service improvement.
- Support in moving to adoption of innovations.

An example of our thinking can be seen in respect of dementia, which should be viewed as an illustrative case study, but importantly stresses the roles of research, wealth creation, and people development in supporting service improvement.

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### Dementia – a case study

The Academic Health Science Network does not take over the responsibility of member organisations to deliver the best possible care, research or technological advance. However, the successful AHSN will add value to member organisations by drawing together service improvement, research, wealth creation and people development, creating relationships between these individual themes which enable each to be delivered better.

We understand that AHSNs are not necessarily about coming up with Nobel Prize winning ideas. They are not primarily about initiating research or creating innovation at all. What they can be are powerful instruments to implement the outcomes of proven research and creativity quickly, efficiently and with high quality. This is the focus we have adopted for the KSS AHSN.

The AHSN will respond to national priorities that are current and those that emerge. They will also seek to answer local priorities. All involved have identified dementia as a specific priority for the AHSN. Here we consider what we will do for dementia to illustrate the approach that we will take with prioritised areas.

Dementia has a claim to be the greatest health and social care challenge that we face this century. In terms of its personal, social and economic impacts it is in all ways exceptional. The term 'dementia' is used to describe a syndrome which may be caused by a number of illnesses in which there is progressive decline in multiple areas of function, including decline in memory, reasoning, communication skills and the ability to carry out daily activities. Alongside this decline, individuals may develop behavioural and psychological symptoms (BPSD) such as depression, psychosis, aggression and wandering, which cause problems in themselves, which complicate care, and which can occur at any stage of the illness.

The dementias all share the same devastating impact on those affected and their family carers. Dementias affect all in society irrespective of gender, ethnicity and class. They occur in adults of working age as well as older adults, though much less frequently. People with learning disabilities are a group at particular risk. Dementia is one of the most common and serious disorders in later life with a prevalence (the number of cases at any one time) of 5% and an incidence (the number of new cases per year) of 2% per year in the over 65s (1, 2). Its incidence and prevalence rise exponentially with age.
Demographics

Health care works. The world is getting older, people are living longer and old age carries a set of risks for illness. Dementia is an exemplar of such an illness and challenge. Taking the US, in 2000, 4.5% of the population was over 65, and there were 411,000 new cases of dementia; by 2010 the proportion had increased to 5.1% with an extra 50,000 cases a year (data from US Alzheimer Association website). In the UK and Europe the numbers with dementia are set to double in the next generation with no likelihood that the disability and costs inherent in dementia will do anything other than continue.

The same trend is happening worldwide. The best estimate is that dementia currently affects 35.6 million people, 0.5% of the global population, with the numbers set to double in the next 20 years (3, 4). The predictions are that the number of people with dementia will roughly double every 20 years, to 65.7 million in 2030 and 115.4 million in 2050 (3). Quoted in an article in Nature, one of the report’s authors, Anders Wimo, an epidemiologist with an interest in economics from the Karolinska Institute in Stockholm, stated: “we are seeing a linear increase in prevalence in rich countries...the need for solutions is urgent” (5).

Demographics into economics

In the 2010 report (4) Alzheimer’s Disease International (ADI) estimate, the global economic impact of dementias to be US$604 billion. The report illustrates this in terms of comparisons with the turnover of companies in that year. If this level of cost were income, this would make dementia the world’s largest company by turnover, bigger than Wal-Mart and Exxon Mobil. If dementia were a country, it would be the world’s 18th largest economy.

It is striking that these cost of illness figures dwarf those of the illnesses that are currently prioritised at a national and international level such as HIV, cancer, heart disease, stroke and diabetes (6). Echoing the concerns of Standard and Poor (7), based on simple demographics, the costs of dementia are set to increase by 85% by 2030. Dementia has macroeconomic consequences, the links between health and wealth are made explicit and real when seen through the prism of dementia. Equally the potential value in developing and evaluating interventions (psychological and social as well as pharmacological) that enable us to understand the causes of dementia, to care well for people with dementia and eventually to effect a cure.

Development of public policy

At a political level, the nature of the problem became clear in the UK via the Alzheimer’s Society’s Dementia UK Report (8) and subsequent enquiries by the National Audit Office (NAO, 9) and the Public Accounts Committee (PAC, 10) of the House of Commons. The UK government’s response was to generate a National Dementia Strategy which was published in 2009 (11). Similar processes have led to dementia being made a public health and social care priority in other developed countries including France, Denmark, Australia, Japan, South Korea and Ireland. In the US the National Alzheimer Planning Act was passed into law with bipartisan support in 2010. In the UK the primacy of dementia as a priority for society as a whole has been articulated forcefully by David Cameron with his personal prime-ministerial challenge that we should go further and faster with care and research in dementia (12). Action is then needed to make that policy happen. KSS AHSN aims to be an active and contributory part of this movement.

Dementia - a local priority

In KSS we have more people with dementia per head than any other region in the country. We are already leading in partnership working for dementia. All three counties have inclusive Dementia Partnerships that are re-engineering local services. Kent has demonstrated real strength in recruiting to adopted studies in dementia. NHS South of England is at the forefront of developing information systems and change in dementia services in the NHS and social care. BSMS has a long standing prioritisation of neuroscience and this has recently been made specific for dementia by the joint recruitment with Sussex Partnership NHS Foundation Trust, of Professor Sube Banerjee to lead the development of a Centre for Dementia Studies which will focus on excellence in dementia treatment and care. Professor Banerjee co-led the development of the National Dementia Strategy and has a record of innovation and delivery in dementia. He will lead this AHSN programme.
So KSS AHSN has identified dementia as a major priority. We have identified some specific areas in which the AHSN can add value across the three counties in relation to research, to service improvement, to people development and to wealth creation, and we can show how those areas interlink.

**Our Commitment:** To become the best place to recruit people into dementia research in the world. In three years we will be in the top decile in the UK in terms of recruitment to adopted studies in clinical populations with dementia.

We aim to become the world’s best place to do dementia research requiring clinical populations. Doing research into dementia at present is difficult and expensive for industry and for other funders. Finding cases, recruiting them and following them up over time is cumbersome and expensive. We will make it easier.

**Action to make this happen**

1. We will introduce a common minimum dementia phenotype dataset for all those diagnosed with dementia in memory services across Kent, Surrey and Sussex.
2. This will enable us to characterise our clinical population by age, gender, severity of cognitive impairment, activity limitation and Behavioural and Psychological Symptoms in Dementia (BPSD) and quality of life.
3. These will be entered into a KSS Dementia Registry
4. We will actively seek out companies within KSS, nationally and internationally who are planning work in dementia and we will work with them to make KSS the place, or one of the places that they recruit from.
5. We will do the same for investigator led research and actively seek to collaborate with research groups nationally and internationally who are planning work in dementia.
6. Working with DeNDRoN and the CLRs, we will deliver participants on time and on budget. We will make KSS an easy place to do complicated things.
7. For trials and other studies the AHSN will actively match-make, connecting frontline consultants who are in contact with the potential participants and turning them into local PIs who will turn potential cases into study participants. Our network will cover a population of over a million older people, over 60,000 people with dementia with at least 20,000 known to secondary care services. We will free our consultants to contribute to research and will allow our patients the benefits that come from participation in research.

**People Development**

**Our commitment** – All clinicians in all Trusts recruiting to dementia studies will have this activity specifically acknowledged and timetabled in their annual job plan. Activity data will form part of appraisal.

It is all too easy to make promises of this sort and this has been done in response to repeated initiatives which have had varied success. What will enable us to execute and deliver this time?

As we have discussed before, the process of developing this bid has led to an unprecedented coming together of organisations across boundaries. We truly have a top level consensus on the importance to the AHSN project to us all and a clear understanding that this will require real commitment from the top of all organisations in KSS to allow us to succeed. But in addition to this, we are realistic and we know that clinical behaviour change, be it for quality improvement or for research recruitment, is really, really difficult. Success with only happen by our AHSN actively managing its programmes, such as this. Our motor for achievement will be by driving a bottom-up personal commitment in the clinicians in our network as well as exploiting the unanimous board-level support that we have.
So what will enable us to deliver is ensuring there is value in working with the AHSN that accrues at that individual level as well as at the corporate one? We will ensure that in all Trusts those recruiting to dementia studies have this activity specifically acknowledged and timetabled in their annual job plan. Data will be available on the numbers referred and recruited for each consultant and the past years activity will influence the time made available for this activity and will form part of yearly appraisal.

Such research activity will contribute to local and national clinical excellence awards. We will deliver a KSS AHSN programme of dementia CPD that consultants wish to attend and which is again of value to them. We will celebrate achievement and will ensure that where there are funds for recruitment then these will be retained for local service development and delivery rather than syphoned off by parent organisations.

**Delivering innovation and quality improvement**

Notwithstanding the further research we wish to undertake, there are interventions which we already know can improve the outcomes and quality of life for people who have dementia, which are not consistently delivered across Kent, Surrey & Sussex. One of the key objectives of the AHSN is to support member organisations in reducing inappropriate variation in practice. The dementia pathway has already been identified as a priority for the Enhancing Quality programme which is to form a part of the AHSN. There are two areas in particular where the AHSN would want to support local commissioners and providers.

All three counties have recognised the need to generate a network of memory assessment services that will enable early diagnosis and intervention in dementia for all within KSS, so that all areas will have a specialist Memory Service serving their population. It is expected that all Memory Services will meet quality standards so that they achieve (i) high diagnostic accuracy; (ii) communicate the diagnosis to the person with dementia and their family in a measured, respectful and effect manner; (iii) provide or arranges the immediate information, treatment and care needed; and (iv) have the capacity to provide this for all incident cases in the community.

In addition, all three counties have recognised the need to reduce the rate of prescription of anti-psychotic drugs for people with dementia. Anti-psychotics are all too frequently used to control BPSD and they are associated with a substantial mortality amounting to 1,800 people with dementia dying from these drugs each year. We have a strong commitment across all of KSS to decrease the use of these drugs to safe levels and some positive early signs of change.

Finally, ensuring effective support to the carers of people with dementia is one of the six High Impact Innovations set out in Innovation, Health & Wealth.

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**Our commitment** – to adopt the EQ approach to the dementia pathway such that every individual across Kent, Surrey and Sussex who should be referred to a memory service is referred, and that every individual diagnosed with dementia and their carers receive services which are commissioned and delivered in line with NICE-SCIE guidance on supporting people with dementia. This is an example of how the AHSN dementia network can foster integrated working between secondary care, primary care, and social care. In addition, we will ensure that all Memory Services will enter their patients onto the KSS Dementia Registry.

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**Wealth Creation**

As noted above, the cost burden of dementia is significant. Finding more effective ways to prevent, diagnose, treat and support people with dementia will have a significant positive effect on the economy within Kent, Surrey and Sussex. The benefits may be described for a range of stakeholders:

With early diagnosis and appropriate support, people who have dementia and their carers will remain economically active for longer. This not only improves their personal position, it also enables them to continue to contribute to the ‘GDP’ of the local economy.
Improving the support to people who have dementia in their own homes, including through the use of telehealth and telecare, will reduce inappropriate admissions to acute hospitals, and will reduce the length of stay for appropriate admissions. This enables NHS and social care commissioners and providers to make better use of resources.

Although one of our stated aims is to reduce the inappropriate use of anti-psychotic medication, there will be other pharmacological interventions which are entirely appropriate, and which are not currently being prescribed for every patient who could benefit. In addition, support to research will enable the pharmaceutical industry in our area to continue the development of new medications which will have a quality and financial benefit to individuals and the NHS.

There are a wide range of SMEs within KSS willing and able to work with the NHS and academia to identify and develop technological solutions which will better support people with dementia. Again, investment in this area will benefit those SMEs directly, building upon the experience of the existing Dementia SBRI, and will enable them to contribute to the local ‘GDP’, facilitating the NHS and social care services to make better use of resource.

**Our commitment** – to identify a cohort of SMEs able to contribute to this agenda, and through implementation of the agreed dementia pathway, to increase the uptake of locally developed technology in supporting people with dementia.

**Conclusion**

The system that we will build here is one that is simultaneously plugged into each organisation’s leadership and mechanisms for action as well as a specific network of frontline staff working within these organisations. It also exists externally to each organisation both joining together and actively enabling all members and clients into a single whole functioning for delivery of agreed goals in dementia. Such a system will transform our research capabilities. It will provide a powerful vehicle for the delivery of service improvement through the adoption of known effective interventions and also those that emerge in the next years. And it will increase wealth in Kent, Surrey and Sussex. As such it acts to meet directly all major aims of the AHSNs as set out.

The AHSN dementia programme offers us a clear example of how we will tie the various elements of the AHSN together. Dementia is a clear priority nationally and for KSS in service terms across health and social care. We have an existing complementary strongly developing research focus on dementia across the organisations in the three counties. We have explored assistive technologies through the whole system demonstrator model in Kent and our successful approach to service improvement through the Enhancing Quality Programme, is now being turned to dementia. We are well advanced in the development and delivery of clinical information systems that can communicate with each other and where ethical issues of information sharing are resolved to enable research participation.

The current system needs help to deliver, that is the point of Innovation Health and Wealth. The agenda for dementia is well developed in KSS but, as in the rest of the UK implementation is patchy. The Prime Minister has urged the system as a whole to move “further and faster” to deliver quantum improvements in care and research. We will use the AHSN as a vehicle to embed system wide positive change and to do so rapidly and efficiently.

**References (see Appendix H)**
5.2 Delivery of the High Impact Innovations (HII) and ‘push technologies’ (PT)

The High Impact Innovations are not simply ‘must do’ priorities imposed from above. Implementation of the innovations will help commissioners, improve outcomes for patients as measured by the NHS Outcomes Framework, and will aid in the achievement of priorities set out in the three county ISOPs.

5.2.1 KSS AHSN Plans for the high impact innovations

HII-1: Assistive Technology – “Three Million Lives”
Health and Wealth has the goal of spreading telehealth and telecare technologies to benefit 3 million lives.

**AHSN Plan:** The Whole System Demonstrator site in Kent (described in Appendix B) is the exemplar in KSS from which the AHSN can rapidly spread learning and experience. Utilising the Industry Group within the AHSN structure to maximise opportunities for co-design and pipeline innovations. The lessons from structured evaluation and health economics in HEI will be deployed.

**Benefits:** Each county identified a reduction in inappropriate use of urgent care through better support available to people with long term conditions, including dementia, as a priority. Accelerating the use of assistive technologies will contribute to enabling health systems to meet this aim. It will also contribute to improved performance against the following Outcomes Framework indicators:

**Domain 2 – enhanced quality of life for people with long term conditions:**
- 2.1 Proportion of people feeling supported to manage their condition.
- 2.3i Unplanned hospitalisation for people with chronic ambulatory care sensitive conditions.
- 2.3ii Unplanned hospitalisation for asthma, diabetes and epilepsy in under 19s.
- 2.4 Health related quality of life for carers.
- 2.6 Enhancing quality of life for people with dementia.

**Domain 3 – helping people to recover from episodes of ill health or following injury**
- 3.6 Helping older people to recover their independence after illness or injury.

**Ambition:** Number of people supported by assistive technologies (telehealth and telecare) in their usual place of residence with an ambition of 5,500 people per 100,000 population by 2016

HII-2 and PT1: Intra operative fluid management (IOFM)
The focus of this technology is using fluid management during surgery effectively to reduce length of stay. This will not be appropriate in all circumstances and there will be other aspects of care which can be improved simultaneously to reduce length of stay and unplanned admissions to Intensive Care.
AHSN Plan: The EQ Programme had incorporated IOFM within the Enhanced Recovery pathways, collecting IOFM activity data in colorectal, gynaecology urology and orthopaedics. Using the EQ processes and shared collaborative working the IOFM agenda is wide but the intention in KSS is to use the core pathways and the current processes around EQ/R to embed and disseminate the wider use of IOFM technologies. This process will allow all the acute providers and commissioners to work in unison to develop this. The AHSN opportunities in collaborative procurement may bring additional benefits to the local system.

Benefits: Full implementation of ODM will contribute to the delivery of domain 5 of the Outcomes Framework – treating and caring for people in a safe environment and protecting them from avoidable harm.

Ambition: Number of people undergoing surgical procedures supported by Intra-operative fluid management in theatre: an expectation of initially 150 people per 100,000 population per annum, with a 25% growth in 2013/14.

HII-3: Child in a chair in a day
Health and Wealth says that Whizz-Kidz goal is that 70% of children have a chair on day of assessment and they are achieving 65% at present

AHSN Plan: Providers are mapping the current pathways and waiting times along the route: Referral to first contact: First contact to order of chair: Order to receipt of chair in working order by the patient. Commissioners and providers will then agree a trajectory for improvement for each step on the pathway for the remainder of the year including the actions to be taken to deliver this.

Benefits: Transforming the delivery of wheelchair services – for adults as well as for children – will contribute to the delivery of the following Outcomes Framework indicators:

Domain 2 – enhanced quality of life for people with long term conditions:

2.1 Proportion of people feeling supported to manage their condition.

2.4 Health related quality of life for carers.

Domain 4 – ensuring people have a positive experience of care:

4.8 Improving children and young people’s experience of healthcare.

Ambition: Waiting time for provision of a wheelchair from time need identified with an expectation of all local services delivering 90% of requests within 6 weeks by 2014.

HII-4: Digital First
Health and Wealth says that 1% reduction in face-to-face contacts saves up to £200m.

AHSN Plan: The replacement digital contact to face to face contact offers multitude opportunities for working innovatively using technology and new ways of communicating. Understanding what is effective, what patients and the public will find acceptable and understandable is something the AHSN can work with HEI and Industry. The ‘people’ factors in terms of changing ways of working will need to be considered with the LETB.

Benefits: All healthcare systems across Kent, Surrey and Sussex interaction, and, perhaps even more critically, to improve the level of information sharing between professionals and between professionals and patients. A transformational approach to the use of information technology will help
systems achieve this aim, and will also contribute to the following outcomes framework measures:

**Domain 2 – enhanced quality of life for people with long term conditions:**

2.1 – proportion of people feeling supported to manage their condition.

2.4 – Health related quality of life for carers.

**Domain 4 – ensuring people have a positive experience of care:**

4.1 – patient experience of outpatient services.

4.7 – patient experience of community mental health services.

**Ambition:** Develop a measure of services that have shifted to a predominantly digital provision with milestones for March 2013, 2014 and 2015.

**HII-5: Support for carers of people with Dementia**

Health and Wealth says that the NHS should follow NICE-SCIE guidelines. These say “Health and social care managers should ensure that carers of people with dementia have access to a range of respite or short-break services. Services should meet the needs of both the carer (in terms of location, flexibility, and timeliness) and the person with dementia. Services should include, for example, day care, day- and night-sitting, adult placement and short-term and/or overnight residential care. Transport to these services should be offered. Respite/short-break care should include therapeutic activities tailored to the person with dementia provided in an environment that meets their needs (the person’s own home wherever possible).”

**AHSN Plan:** A baseline activity level is being developed in 2012. Sharing learning across the AHSN and Local Authorities, considering various service models and delivery methods with Industry, third sector and learning from research what is most effective acceptable and cost effective.

**Benefits:** Ensuring the proper support is in place for carers – and not only carers of people with dementia – will reduce unplanned admissions into hospital. It will also contribute to the following outcomes framework measures:

**Domain 2 – enhanced quality of life for people with long term conditions:**

2.1 Proportion of people feeling supported to manage their condition.

2.4 Health related quality of life for carers.

2.6 Enhancing quality of life for people with dementia.

**Domain 3 – helping people to recover from episodes of ill health or following injury:**

3.6 Helping older people to recover their independence after illness or injury.

**Ambition:** Proportion of carers who have received respite care and the length of the care provided.

**HII-6: International and Commercial development**

**AHSN Plan:** Working with the Innovation Hub and the AHSN Industry Group to identify potential projects at each stage of the innovation pipeline, prioritise and adopt 3 projects per annum to take forward. Exemplar site in KSS: East Kent Hospitals University NHS Foundation Trust; Cannula Fixing.

**Benefit:** Reduces the likelihood of movement or detachment of a cannula. There are no significant cost implications for users in switching to the new
design. The only alternative solution is almost 10 times more expensive. Use of the new cannula-fixing could save the NHS up to £50 million per year. The innovation was developed by East Kent Hospitals University NHS Foundation Trust with NHS Innovation South East and is now licensed to a British company with established overseas markets. East Kent Hospitals University NHS Foundation Trust will receive royalties.

Ambition: Each locality to identify at least one innovation that the AHSN will seek to ensure is brought to market in the UK and overseas.

PT 2: Bladder Scanners

**AHSN Plan:** Initial analysis is underway. No detailed approach has yet been agreed.

PT 3: NT-pro BNP (N-Terminal prohormone brain type natriuretic peptide)

**AHSN Plan (implemented):** Use and adoption of BNP was a core element of the EQ Heart Failure Pathway approved in 2011. To support spread and adoption, a commissioning toolkit was written with the EQ Clinical Lead - Dr Blakey. This was published on the NICE website:

http://www.nice.org.uk/usingguidance/sharedlearningimplementingniceguidance/examplesofimplementation/eximpresults.jsp?o=447

Benefit: Dr Blakey has researched the implementation of BNP in East Sussex and designed the pathway and education package for GPs. His continued audit of implementation is regularly reported at EQ Collaborative Learning events, the Toolkit has been used by all KSS Heart Networks and contact been made from across the UK in support of local implementation. Dr Blakey has also supported NTAC with their work on BNP.

5.2.2 Commissioning for Quality and Innovation (CQUIN) incentives

For 2012-13, NHS South of England asked PCTs in KSS to put in place CQUIN agreements intended to stimulate rapid progress with the delivery of the benefits to be derived from the High Impact Innovations. As a gateway that is required to access any CQUIN, each provider and PCT would have a named innovation lead at a senior level. Up to 0.5% of the CQUIN for the provider would be allocated towards early implementation of five of the six high impact changes (not the international and commercial development).

The stocktake of current position reported in September 2012 shows that PCT Clusters have taken varying approaches in the three counties, building on their strengths. For example, Kent and Medway are utilising their experience from Whole System Demonstrator Site to focus on the assistive technology and digital first innovations.

5.3 Service Improvement Programme

5.3.1 Building on the EQ Programme

The EQ Programme has an existing business plan and development programme which will be adapted and changed as the AHSN member priorities are considered in more detail during the establishing and shadow running stage of the process.

The care of about 65,000 patients has been audited across KSS since July 2010 covering aspects of clinical care that is not available anywhere else. In
Heart Failure for example, the database for community care now incorporates 2500 patients and gives a detailed record of their drugs and doses on a monthly basis. The opportunities for research are enormous to learn from this data and take that back into clinical practice.

The existing pathways are outlined as follows and a summary of outcomes is articulated in Appendix D.

Heart Failure

Crossing acute and community, setting gold standard expectations and measurement against them. Patient experience of integrated care across both sectors is in pilot stage. Much work is still required on improving the transfer of care between sectors, and especially with primary care as providers. Key focus areas are appropriate prescribing and up-titr ation, enhanced levels of care planning and end of life care.

The Programme was awarded the National HSJ/Nursing times Integrated Care Award 2012 for the work done to date.

There are plans to streamline information by linking up with national heart failure audit to optimise joint work and reduce duplication.

Hips and Knees

The pathway is due for review at end of this improvement period as the organisations will have reached the threshold high achievement levels for elective procedures in the quality measures. Enhanced recovery measures will continue.

Acute Myocardial Infarction (AMI)

Transition to Acute Myocardial Infarction (AMI) National Audit Project (MINAP) has taken place, using MINAP to report monthly on the existing and stretch measures requested by clinicians.

Pneumonia

New measures for CURB65 assessment have been incorporated and need to become embedded. Fundamental review to take place with British Thoracic Society and Department of Health National Respiratory Board who are considering the use of Care Bundles as per the EQ approach.

Colorectal

Enhanced Recovery measures to continue, range of procedures for Intra operative fluid management to be monitored.

Gynaecology.

Enhanced Recovery measures to continue, range of procedures for Intra operative fluid management to be monitored.

New pathways for Enhanced recovery

In conjunction with national improvement activities, the range and scope for enhanced recovery principles to be incorporated within other specialties and procedures is being explored.

Dementia (in development)

The EQ Dementia pathway measures were developed to align with the National Dementia Strategy and NICE Quality Standards. The development
process engaged with clinicians from all sectors, local authority, social care, third sector and commissioners. The five approved measures cover:

- Assessment & Diagnosis.
- Antipsychotic Prescribing.
- Advice to Patients & Carers.
- Personalised Care Planning.
- End of Life.

Two of the original five measures were implemented in September 2011 with data collection commencing with patients receiving care from July 2011.

There is significant synergy with this and the Dementia plan described in the boxed Case Study in section 5.1 above – most notably, through the Assessment and Diagnosis measure, the creation of a network of Memory Assessment Services and the ability to develop the register of people with dementia as they are diagnosed.

**Acute Kidney Injury (in development)**

In line with the national drive, KSS has incorporated an initiative within EQ to reduce the incidence of Acute Kidney Injury while patients are in hospital by improving the basic management and early recognition of impaired renal function, reducing the risks of further deterioration and improving outcomes for patients, providers and commissioners. This builds on a Regional Innovation funded project at East Kent University Hospitals to identify patients early and create links across to Primary Care again with a view to early identification and management. There is a beacon of research excellence in KSS with Professor Simon de Lusignan’s at Surrey University whose work could add significantly to this pathway. Work with industry is also required to identify improvements in pathology reporting, ways of linking education into new technology or APPs to guide junior staff on appropriate care. The anticipated outcomes include reduced bed days used, reduced morbidity and mortality, reduced use of critical care and reduced renal replacement therapy.

KPIs that could be relevant to our Service Improvement programme include:

- Year on year improvement in composite quality score for all pathways.
- Year on year improvement in delivery of full care bundle for patients.
- % increase in GP providers engaging with the pathways.
- Reductions in mortality.
- Reductions in length of stay.
- Reductions in admissions.
- Reductions in readmissions.
- Improved compliance with pathways.

### 5.4 Research Programme

Our initial steps to deliver a step change in access for patients to clinical trials will revolve around the establishment of a KSS wide research group. This group will take forward the detailed development of plans to deliver the step
change. We aim to establish the research group with a first meeting in November 2012.

The primary areas for development by this group are:

- Training packages to support the increase in both Chief Investigators (CI) and Principal Investigators (PI). These programmes will target the development of CIs and Pls in KSS priority in areas including research into age and ageing, (including research relating to dementia, stroke and long term conditions) and research into health and social problems including research relating to alcohol and substance misuse, obesity and research into migrant and resource limited communities.

- Developing a cadre of CIs within KSS will increase capacity for high quality research led from within the region (e.g. with NHS and HEIs bidding together for research grants in a very competitive environment). Developing Pls will increase the capacity of NHS organisations across KSS to recruit to relevant studies led both within KSS and externally.

- Urgent discussions will take place with CEOs on the issue of research staff in particular research nurses and administration staff who are not being offered permanent contracts due to ‘risk’ to host organisations. The nature of the current employment process has impacted on recruitment to these vital posts.

- Better use of the Research Design Service to improve the proportion of successful research applications. The RDS Director will be a member of the KSS AHSN Research Group.

- The need to both encourage and empower patients to participate in clinical trials. We need to develop a promotional programme that shows patients experience of trial participation. Also we need to ensure that patients are aware of what trials are open to them and where they are recruiting. A developing programme ‘Voice Choice Insight and Leaders’ will be supported through the AHSN. This will build on local initiatives to raise awareness. The Research Group will develop and implement plans to ensure that all Trusts adopt best practice of including reference to clinical trials in Outpatient appointment letters, use video screens in all OP settings to promote participation in trials and promote participation in trials directly to each and every patient as part of their initial assessment. This will take place in both the acute setting and primary care.

The combined effect of these endeavours is expected to deliver an additional 20% patients in trials above the current trajectory of both CLRN’s performance. By the end of 2013/14, 80% of all patients will be told about participation in trials. By the end of 2013/14, 90% of all trusts and GP practices will have video information on trial participation being shown in 90% of their waiting areas.

We will be confirming sound objectives for these early actions, within the next transitional phase of the AHSN.

### 5.5 Wealth Creation Programme

In pursuit of the opportunities outlined in Section 4 (improving relationships with industry, commercialising IP, catalysing regional cluster development and
creating wealth through population benefits) the KSS AHSN will begin to mobilise its wealth creation activities whilst still in the transitional phase.

The process will be based on the following core steps, seen as key to success by industry partners:

a) The identification of key priorities for health and healthcare in KSS.
b) The identification of clinicians and organisations as lead customers for individual organisations/companies, to assist in the development and validation of innovations in service or product.
c) Rigorous evaluation of pilot programmes
d) Commitment to early adoption by systematic roll out using service improvement methodologies. By this means, the NHS will support industry by providing a test bed and demonstrator site for sales of innovation nationally and globally.

These will be the mobilisation and early stage activities in 2013:

- Promote and publicise AHSN to industry members extensively through effective PR and communications programme including a major event to describe how industry can benefit from the KSS AHSN.
- Establish Wealth Creation Task Force; remit, wealth creation part of Business Plan and targets negotiated with Board of AHSN.
- Sub-contract to organisation to assist Wealth Creation Task Force to deliver targets including; establish base-line metrics relating to KPIs, establish industry/NHS marketplace, manage industry interface and communications, events and relationships.
- Achieve year 1 targets for Wealth Creation as part of Business plan.

Subsequent years

- Continue to refine and deliver wealth creation element of KSS AHSN business plan.

We will explore a number of potential metrics, described below, and where agreed establish baselines upon which to build:

- Increase in number and reduction in time for adoption of new innovative products, services or practices by NHS.
- Increase in number of companies engaged with NHS/Academia in joint projects.
- Increase in number and turnover of companies engaged in selling products or services to NHS.
- Increase in number of employees in companies selling products/services to NHS.
- Increase in number of companies engaged in clinical trials in NHS.
- Increase in number of patients involved in clinical trials with companies.
- Increase in exports of products and services in companies engaged with NHS.
- Increase in number and value of licence deals and patents in AHSN partnerships though working with NHS.
- Increase in quantity and scale of regional foreign direct investment through activities of AHSN.
• Increase in jobs in regionally-based multinational companies through association with AHSN.

5.6 Education and Training Programme

This programme will pursue various strategic themes to support the people as they engage in AHSN activities. Although our thinking is clear specific actions are less well defined, and will be addressed during the subsequent periods, particularly as the other programmes mature, which people and development activity will have to support.

In this context though, we believe, that our core focus will be on;

• Developing the competencies, skills and attributes that support the development of a culture of innovation across KSS.
• Developing the competencies, skills and attributes that support workforce delivery of an innovative culture.
• Facilitating the deployment of academia in the innovative use of evaluation techniques and service improvement activities.

Consequently our initial thinking results in the following opportunities, recognising that further definition work needs to be done and that we will need to work closely with the LETB and local Leadership Academy.

5.6.1 Comparative evaluation & collaborative learning

There has been a strong focus on inter-professional learning between professions working in the NHS during the last few years. This topic is embedded in curricula and courses are specifically promoted to emphasise their inter-professional content. However whilst this has been successful in bringing disparate professions together to enhance understanding between groups this has not resulted in significant change in promoting new roles and innovative ways of working. There are some notable examples in particular the development of consultant AHP and nursing roles and new specialist practitioners. More needs to be done to evaluate the impact of inter-professional working on patient outcomes and this is likely to enhance support for EQ initiatives in reducing variation for patients.

5.6.2 Identification and adoption of evidence based best practice

Working with the LETB there is scope to evaluate current programmes of preparation of clinical staff and continuing professional development in order to develop robust education quality assurance mechanisms which go beyond narrow outcome measures (such as attrition). Measuring the impact of course graduates in embracing new developments and the methodology to achieve this would be one topic for the AHSN to explore – looking particularly at where these approaches have proved useful in other industries or other subject areas. This exemplifies the benefit of the KSS AHSN as a network leading to wider university/industry partnership.

5.6.3 Adoption of ‘invention’

The AHSN in drawing together partners who have different understanding and approaches to risk whilst innovating, may be able to develop and enhance the ways that staff are prepared to evaluate and manage risk in the NHS.
5.6.4 Increase engagement with and uptake of research
All organisations are required to engage in research; however the mechanisms whereby this is promoted and disseminated can be patchy leading to research staff who may appear marginalised. The preparation for a research career has changed considerably over the last few years with the inclusion of reflective and portfolio methods as a formal part of the PhD experience for emerging researchers. However these methods are not embedded or promoted to research active staff to prepare them to engage with the wider world of NHS management, decision making and prioritisation. The AHSN is ideally positioned to accelerate the additional “real world” skills required by researchers in disseminating and promoting their findings to both the clinical world and to industry.

5.6.5 Increase critical mass of people who create innovation, and increase competency and skills to deliver innovation
There have been many initiatives from central government to support knowledge transfer in particular to develop university staff to engage with the communities and industries who can take their research into usage as a method or a product. The AHSN is again ideally placed to capture what has already been achieved in supporting staff to do this and to bring together best practice from existing programmes for the wider health community in the South East.

5.6.6 Increase effective engagement with industry
Understanding markets, customers, culture, systems and entrepreneurship are core abilities for those who work in industry and these topics are often poorly understood by professional staff who can be inclined to be suspicious of links with industry and the private sector. Developing confidence in industry and competence in how to approach the NHS for partnership opportunities as well as offering structured exchange programmes and sabbaticals would assist in developing more robust and effective partnerships between partners in the AHSN.
6. **Financial Principles**

This section outlines the key financial principles underlying the financial case for the KSS AHSN. The overarching driver is that the organisation aims at being neutral from a financial point of view, which means that a stream of revenue will be generated over time and reinvested to fund delivery of programmes. Core to this will be to understand the costs related to the AHSN and the expected sources of income, together with adhering to a set of guiding financial principles.

6.1 **Guiding Principles**

- **Cost Management** – The KSS AHSN will continually look to source appropriate skills through its employee base and partner network, focusing on diminishing cost through efficient use of resources wherever possible, rather than becoming unnecessarily reliant upon external sources of funding.

- **Benefits Management** – The KSS AHSN will ensure that its strategy and policies remain focused on supporting the delivery of strategic goals and operational priorities. As part of this process, we will develop a benefits management strategy and ensure each project and programme, which the AHSN is supporting, has clearly defined benefits.

- **Funding** – Although it is recognised that central/SHA funding will be available during the initial transition period and also may be available to support programmes of activity, it is anticipated that the AHSN will need to proactively secure funds from a variety of sources. It is assumed that following transition and set-up, that the AHSN will focus its resources fully on the projects that it will sponsor, together with ongoing administration and establishment costs.

Further work needs to be undertaken on this issue, but initially assumed sources of funding could include:

- Central grants and direct funding of initiatives. This could be from both NHS and non-NHS organisations, in private, public and third sectors, and with a national or supra-national bias. We understand that this will include management of SBRI funding on behalf of NHS Commissioning Board.

- Matched funding from other organisations where there is a joint interest in a specific programme or activity.

- Annual fees, partner memberships and other funding sources such as attendance at meetings, events and knowledge sharing activities.

- Leveraging of external funding – whether public, charitable or commercial funding etc. This could, for example, underpin the cost of Project Managers as allocation for their time would be specifically written into any proposal.

- In-kind contribution – partner willingness to commit resources by for example releasing staff time or providing facilities. We are already aware that industry currently invests between £500k and £1m per annum and a key objective will be to ensure that this is aligned to AHSN-led priorities in order to maximise mutual benefit.
6.2 Outline Financial Model

Although further work is required on the detail, the financial model for the AHSN will be intuitively simple.

- Revenue will be a function of the sources identified above. Our working assumption is that this will be £10m per annum.
- Costs will be incurred in three main areas;
  - **Transition and Set-up costs** – the initial people and infrastructure arrangements required to get the AHSN up and running - recruiting staff, organising facilities, establishing a supply chain for key support services, designing a portal etc.
  - **Operational costs** – the people and infrastructure required to run the AHSN itself, together with services procured from their party organisations, set out by the strategy and plans agreed disseminated by the organisation.
  - **Programme and Project costs** – cost related to the running of the specific initiatives, which the KSS AHSN will support. Intuitively these costs should be largely people related, but undoubtedly could be wider, and we would anticipate each initiative being justified by its own business case.

As plans are refined it will be possible to publish a detailed financial plan. That is not possible at the current time. However the financial plan will include;

- Transition costs assumed to be largely funded from central funds.
- Ongoing operational costs being funded from a combination of ongoing revenue sources such as membership fees and allocation of NHS funding.
- Individual programme and projects being justified on a case by case basis including the anticipated resulting benefit and source(s) of funding.

6.3 Organisational Benefits

The proposed financial structure will support the KSS AHSN in delivering its strategic priorities and goals by helping to facilitate;

- The delivery of measurable improvements in delivering service improvements, through engaging with industry and academia.
- As a consequence supporting wealth creation, not just be enhancing the profitability of industry but also increasing the healthiness of the population.
- Strengthened accountability through robust governance and financial arrangements.
- Focusing on remaining an operationally effective body, with low administrative costs but high value.
Appendices
Appendix A – Actions from the Plan for Growth

The Plan for Growth (Department for Business Innovation and Skills, 2012) sets out specific actions for Healthcare and Life Sciences sector. These are presented below.

<table>
<thead>
<tr>
<th>Summary of Healthcare and Life Sciences Review actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Government will set up a new health research regulatory agency to streamline regulation and improve the cost effectiveness of clinical trials. It will make future National Institute for Health Research (NIHR) funding to providers of NHS services conditional on meeting benchmarks, including a 70 day benchmark to recruit first patients for trials.</td>
</tr>
<tr>
<td>2. The Government will reduce perceived gold-plating and increase the proportionality of EU Clinical Trials Directive (CTD) and its application.</td>
</tr>
<tr>
<td>3. The Government will open up information about clinical trials to enable the public to get involved.</td>
</tr>
<tr>
<td>4. The Government will build a consensus on using e-health record data to create a unique position for the UK in health research.</td>
</tr>
<tr>
<td>5. The Government will open up information on clinical research to promote collaboration and innovation.</td>
</tr>
<tr>
<td>6. The Government will consider opening up prescribing data.</td>
</tr>
<tr>
<td>7. The Government will form new Translational Research Partnerships from its £775 million investment in NIHR Biomedical Research Centres and Units.</td>
</tr>
<tr>
<td>8. The Government will remove any barriers that limit the further development of geographical clusters, working with industry, local government, universities, NHS and funders.</td>
</tr>
<tr>
<td>9. The Government will launch a competition to form a Cell Therapy Technology and Innovation Centre.</td>
</tr>
<tr>
<td>10. To ensure educators provide the skilled individuals the sector needs to grow, the Government will, through Cogent, improve market signalling by bringing companies and educators together.</td>
</tr>
<tr>
<td>11. The Government will ensure that the Intellectual Property (IP) system supports life sciences businesses.</td>
</tr>
<tr>
<td>12. The Government will take forward a range of measures to encourage innovation in NHS procurement.</td>
</tr>
<tr>
<td>13. The NHS Chief Executive will provide a report by November 2011, in consultation with industry, academia and other interested parties, on how the adoption and diffusion of innovations can be accelerated across the NHS. This report will inform the strategic approach to innovation in the reformed NHS.</td>
</tr>
<tr>
<td>14. The Government will take forward a package of measures to improve the take up of assisted living technology.</td>
</tr>
<tr>
<td>15. The Government will strip out regulations that were never meant for the social care market and are preventing market entry and flexible services.</td>
</tr>
<tr>
<td>16. The Government will establish a proactive, entrepreneurial NHS Global to make the most of the NHS brand internationally and to offer support and advice to NHS trusts.</td>
</tr>
</tbody>
</table>
Appendix B - Case Studies

The case studies show a number of examples of innovative practice in Kent, Surrey, and Sussex. To date, the system has not achieved the success that it ought to have done in taking best practice and ensuring its adoption for the benefit of patients across the area. The AHSN will adopt this as one of its core challenges, working with partners to further validate and prove concepts, gaining commitment to the systematic adoption of best and most effective techniques and technologies.

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Subject Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Small Business Research Initiative</td>
<td>Wealth Creation</td>
</tr>
<tr>
<td>2. Improving early treatment of pneumonia</td>
<td>Enhancing Quality</td>
</tr>
<tr>
<td>3. Improving treatment of heart failure</td>
<td>Enhancing Quality</td>
</tr>
<tr>
<td>4. Whole System Demonstrator</td>
<td>Research and High Impact Innovations</td>
</tr>
<tr>
<td>5. Childhood Asthma</td>
<td>Research</td>
</tr>
<tr>
<td>6. SHREWD</td>
<td>Service Improvement</td>
</tr>
<tr>
<td>7. Audit Plus</td>
<td>Service Improvement</td>
</tr>
</tbody>
</table>
Case Study 1: Small Business Research Initiative

An SBRI programme to select small business partners in Kent, Surrey and Sussex to develop solutions to a health challenge in the areas of Dementia.

Background

The Small Business Research Initiative (SBRI) is a programme that brings innovative solutions to public sector needs, by engaging a broad range of companies in competitions for ideas that result in development contracts.

It is a fast track, simplified process that is particularly suitable for SME and early stage businesses and gives vital funding for the critical stage of product development. NHS South pioneered the SBRI process in 2011 and 2012 in Kent Surrey and Sussex by running 2 successful SBRI programmes.

Objectives

The desired outcomes may cover one or more of the following:-

- Ensuring people with dementia are able to maintain independence (Objective 6 of national strategy)
- Supporting carers by reducing the burden of care placed upon them (Objective 7 of national strategy)
- Ensuring equality of healthcare and access to healthcare for people with dementia.

Solutions

1. EASE

- Combines different assistive technologies to support people with dementia
- Includes internal location, GPS location, activity monitoring and environmental control
- Provides an open interface to third party applications such as Telehealth solutions
2. Fraser Nash Consulting

To quote Fraser Nash Consulting: “By involving a stakeholder group – comprised of dementia sufferers, carers and clinicians – we evolved a set of requirements for a hydration aid specifically for early stage dementia sufferers. This allowed us to define the problem and direct the nature of the solution with the stakeholder group we down-selected a number of concepts to result in two final designs which we developed to prototype.”

- Alert individuals to drink to encourage regular two-litres of fluid per day intake.
- Measure, record and monitor person’s fluid intake.
- Send usage data to carer or clinician remotely.

3. Just Checking

The SBRI ‘Smart at Home’ project develops the capability of the Just Checking system so that it is used in a wider range of quality care services for people with dementia in their own home. Using the latest in mobile phone technology, data processing and the addition of simple-to-install water and electricity sensors, the system will confirm:

- Whether a person makes a drink or prepares food when they visit the kitchen
- If they are keeping up their personal care, or when in the day they need a little more help
- If there are significant changes to a person’s own ‘normal’ routine

These features lead to more agile and personalised homecare services such as:

**Back up if needed** – Visit in the morning only if the person has not got themselves up and prepared breakfast.

**A little more TLC** – Scheduling a longer care visit to provide more attention after a poor night’s sleep.

**Local response** – Local service which can respond to ‘social alerts’ on behalf of families who live at a distance.

**Your bit/my bit** – Enabling families and care providers to manage different parts of the day, working together.
Reminders – If a person has forgotten that it is time to eat, or it is much later than their usual bedtime.

Benefits

- KSS pioneers in running some of first SBRI projects; experience and skills developed in SBRI process
- New products/services developed as a result of clinician needs being met by industry innovation
- People with dementia maintaining independence longer
- Health resources more efficiently utilised.
Case Study 2: Improving early treatment of pneumonia

Enhancing Quality (EQ) programme example – the Pneumonia pathway in Kent Surrey and Sussex.

“When we started, a lot of our colleagues were sceptical that collecting this data would improve outcomes for patients, many believed that care was already delivered to this standard but when they saw the reality as measured in every patient every time, they were quite shocked.

The beauty of EQ is the simple nature of the clinical measures, the basics that should happen for every patient every time.”

Dr Lisa Vincent Smith Consultant respiratory physician

Background

Across all the hospitals in Kent Surrey and Sussex there was significant variation in patient outcomes, we had not realised these differences existed and did not know what was causing them for example more patients were dying from Pneumonia in some hospitals than others.

Some clinicians were convinced that care could be improved for people with Pneumonia and were keen to get involved.

Objectives

• Agreeing the clinical interventions that would improve patient outcomes and find out if patients were actually receiving them.
• Give clinical teams the validated data about the care that patients were actually receiving.
• To give clinicians and teams the tools to make the changes they wanted to make
• Achieve greater consistency in the early treatment of pneumonia.
• Improve outcomes for patients

Solutions

• We deployed the proven Enhancing Quality (EQ) approach.
• We engaged clinical teams and helped them to understand the care patients were receiving in their hospitals.
• We showed clinical teams where they were different from others and the difference in patient outcomes.
• We worked with clinical teams using the EQ tools to help them learn from other areas and make the improvements in their own organisation that improved the care every patient received.

Benefits

• Fewer people died. A reduction from 28.7% to 25.36%
• Patients are getting quicker diagnosis and early treatment
• Senior clinicians are motivated to make greater improvements.
Case Study 3: Improving treatment of heart failure

How KSS applied EQ to the integrated heart failure pathway in Kent Surrey and Sussex.

“Being part of an AHSN will offer huge opportunities to expand the current work of EQ, especially into primary care, enable QOF to be taken to the next level, improve diagnosis, coding of care planning and cost effectiveness.”

Dr Hugh McIntyre, Consultant Physician
Dr Richard Blakey, GP and GPi

Background

Across most of Kent Surrey and Sussex there was significant variation in patient outcomes and admission rates for heart failure. We suspected that services were patchy and we knew they were not joined up. We thought that clinical care was variable but we really didn’t know for sure.

Some clinicians saw EQ as an opportunity to make a difference for their service and patients. NICE had told us what good looked like – but we didn’t know if that was what patients received.

Objectives

• To work with NICE and find out if patients were receiving the identified best practice across whole pathways.
• Give back to clinical teams the validated data about the care that patients were actually receiving.
• To give clinicians and teams the tools to make the changes they wanted to make
• Achieve greater consistency and integration in the care of heart failure patients
• Improve outcomes for patients

Solutions

• We deployed the proven Enhancing Quality (EQ) approach.
• We engaged clinical teams and helped them to understand the care patients were receiving in their hospitals and communities.
• We showed clinical teams where they were different from others and the difference in patient outcomes.
• We worked with clinical teams using the EQ tools to help them learn from other areas and make the improvements in their own organisation that improved the care every patient received.

Benefits

• More patients receiving information about their condition and seeing a specialist. From 11% to 52%.
• More patients receiving the correct drugs and at optimised doses.
• Reductions in length of stay, admissions and readmissions
Case Study 4: The Whole System Demonstrator

A joint research-led innovation programme involving KSS institutions in NHS, Local Government, Industry and HEI and populations across the footprint of KSS AHSN.

Background

In the current context of economic pressures there is significant interest in the potential for innovative high impact technologies to reduce utilisation of health services in older people with long term conditions and social care needs, while improving the quality and cost-effectiveness of care.

The Whole Systems Demonstrator (WSD) program was set up by the UK Department of Health in 2007 to provide the most robust evidence possible on which to base policy and investment decisions about future implementation of telecare and telehealth.

Objectives

- To evaluate the efficacy of telehealth and telecare services
- To explore the implications for scaling up, focusing on organisational and service delivery implications.
- To draw general lessons on the role of large scale trials and the use of robust evidence in strategic and policy decision-making.

Solutions

KSS AHSN partners across NHS, Local Government, Higher Education and Industry collaborated to deliver one of the three strands of this massive research programme:

- Kent County Council coordinated the recruitment and participation of members of the public to the trial across Kent
- Kent Local Authority and NHS Institutions deployed telecare and telehealth within an integrated redesign of health and social care services
- Staff at the University of Surrey were part of the consortia of universities undertaking quantitative and qualitative evaluation of research data
- Companies in KSS participated in a demonstration of the new supply chain and a proving of industry-readiness for scaling-up.

The evaluation included what is believed to be world’s largest randomised controlled trial of these technologies.

Benefits

The findings of the Whole System Demonstrator programme are now published by Department of Health. The benefits are significant and clear:

- "If delivered properly, telehealth can substantially reduce mortality, reduce the need for admissions to hospital, lower the number of bed days spent in hospital and reduce the time spent in A&E.
- At least three million people with Long Term Conditions and/or social care needs could benefit from using telehealth and telecare."
Case Study 5: Research into Childhood Asthma

A research programme with far reaching consequences, led by Professor Mukhopadhyay and his team at the Brighton and Sussex Medical School

“A key example of how decoding the human genome can lead to widespread practical benefit in a common childhood disease” (Lord Winston)

Background

Asthma in childhood is a common disease that can sometimes have serious consequences. Treatments are available but with a variable response in patients.

The problem has been a lack of understanding of causation in individual cases. If such an understanding of the aetiology were available then more ‘personalised’ and hence more effective treatments might be developed.

Objectives

To understand the genetic basis of the variable response to treatment so that personalised treatment for individual patients may be developed.

Solutions

Through systematic investigation led by Professor Mukhopadhyay at the Brighton and Sussex Medical School, and published in journals of high impact over several years, this research is generating new insights into the aetiology and management of children’s asthma, leading to the promise of more ‘personalised’ treatment.

Benefits

The beneficiaries of our research include children with asthma, parents, health care providers such as the NHS and BUPA, doctors and other health professionals with an interest in allergy-related diseases in childhood.

- These research findings received immediate and widespread public interest both within the UK and worldwide, as these medicines (inhaled beta2-agonists) are commonly used in children in all parts of the world.
- Specifically related to our publication, NHS Direct provided substantial guidance to health professionals and the public.
- Other community information websites (e.g. pharmacy websites in England, Northern Ireland) present similar guidance to the public. Many other organisations (e.g. BUPA International) have up-dated their advice to clients on similar lines.
- There is evidence of a progressively increasing awareness of this problem among parents of children with asthma and allergy. For example, a Sussex-based charity is funding the development of a website to explore this problem with parents and offer support.
- Asthma Magazine (an Asthma UK publication), and advice on the Asthma UK website that specifically references our work, has also helped increase this awareness.
Case Study 6: SHREWD

An innovative on-line health system management tool, developed and trialled for widespread deployment by Kent and Medway NHS and University of Greenwich.

Background

SHREWD was developed after initial work between Kent and Medway NHS and Transforming Systems, a human-systems focused software company, following a review of pandemic flu and winter plans, and the need to find an efficient way of sharing the status of key trigger indicators between partners. A concept emerged that would allow the NHS to move away from separate plans such as winter plans, flu plans and major incident plans, to a single contingency plan that could cover all eventualities, including arrangements for the 2012 Olympics.

The South East Coast Strategic Health Authority was approached in August 2010 to financially support an element of system development. This was agreed following discussions between the Chief Executive Officer of Medway Primary Care Trust and Strategic Health Authority leads for Planned Care, Performance Improvement and Innovation. The development was also supported financially by all partners within the Medway system, and by the University of Greenwich.

Objectives

To develop and trial a system for system-wide deployment support decision making in relation to system pressures, such as winter pressures or major incidents, such as terrorist attack, by sharing critical information, such as bed capacity and staff availability, across the local health system.

Solutions

The Single Health Resilience Early Warning Database (SHREWD) is an on-line health system management tool. SHREWD addresses a key criticism of current practice made in the Coroner report on the 7-7 bombings.

Benefits

SHREWD is currently being rolled out across Kent & Medway following initial development in Medway. The system’s features provide the following important benefits:

- An audit trail of critical data
- A simple solution that builds on existing working practice
- Displaying information in real-time
- Providing an early warning of pressures building
- Pre-determined actions for trigger levels to produce a robust plan
- Support learning by consistent presentation of required actions
- Supportive of health service, social service and emergency services
Case Study 7: AuditPlus

Technology that prompts doctors during consultations also delivers a wealth of data to help commissioners (Source: British Medical Journal, 20-Sep-2012)

"It is a win-win-win system. It helps patients get better care. It helps practices because it makes it easier for them to do the job better. And it helps the CCG."

Dr Peter Green, accountable officer designate of the Medway CCG

Background

The role of a General Practitioner offering primary care has always been a challenging one, especially when treating patients with multiple co-morbidities.

This is an area where innovative use of technology may offer solutions.

Objectives

• To trial a new decision support software tool in GP Surgeries.
• To trial innovative ways of using data out of GP Surgery consultations to improve understanding of patient health and thereby to improve the quality of guidance offered to GPs.

Solutions

The Audit+ system from BMJ Informatica. This provides decision support information for General Practitioners and at the same time creates a repository of information that Clinical Commissioning Groups may use to improve population health and primary healthcare.

Benefits

• Offers General Practitioners ready access to relevant and current guidance, even in the most complex consultations with multiple co-morbidities.
• Provides a clinical audit facility in a way that encourages good practice so that CCGs can have confidence in the care given and GPs are appreciative of support for their good practice.
• Gives visibility to patients who should be on disease registers and hence, through the QOF, helps CCGs to attract more money.
• Supports a primary prevention model of healthcare where asymptomatic long-term conditions (hypertension, diabetes) are not just treated – they are prevented through targeted proactive intervention.
• An evolution of healthcare from reactive
Appendix C – Management Team – Job Specs

Section 3.3.3 outlines the proposed composition of the executive team, with the key roles being:

- Chief Executive Officer
- Head of Finance
- Head of Clinical
- Head of Wealth
- Head of Research
- Head of Programmes

An early activity during the transition phase will be to appoint individuals to role (initially in a shadow capacity) and potentially on an interim and designate process.

The precise timetable has yet to be established, but is likely to reflect the following process:

- Agreement to job descriptions. Although for many of the roles existing templates will exist, it will be important to ensure that precise job specifications reflect the needs and aspirations of the AHSN.
- Confirmation of proposed terms of employment, including such issues as:
  - Alignment with existing grading arrangements and nature of role (part or full time)
  - Employing organization – the AHSN or secondment from elsewhere
  - Compensation arrangements and proposed term of role.
- Establishment of selection process leading to appointment

It is recognised that this process will need to be commenced in the near future as it will be necessary to establish the leadership team as quickly as possible.
Appendix D. The Enhancing Quality Methodology

The unique feature of Kent, Surrey and Sussex is the experience and clinical leadership in the application of Enhancing Quality and Recovery (EQ) approach to service improvement. EQ applies a 6-stage approach (see figure 1, below) to systematically achieve realisable benefits.

Figure 1: Enhancing Quality and Recovery

Stages One to Six.

Currently the process uses NICE Quality Standards, Guidance or Appraisals where they exist or separately commissions evidence reviews where information and the membership identify current unwarranted variation or outcomes.

The KSS AHSN will provide an opportunity to strengthen collaborative relationships with NICE across KSS to maximise the impact of that support to identify and evaluate innovative technologies at the initial stage in the process. Additionally, the ability to Horizon scan; looking to see what technology is out there, in particular new to the market or in late stages of development (i.e. before coming onto the market), that may have an impact in the medium / long term for healthcare delivery and should be kept under review. Alternatively the AHSN may want to be an early adopter or run pilots to enable validation of very new technology.

The links with academia and research will streamline the evidence review, offering structured, planned evidence reviews rather than these being commissioned independently.

Using the evidence available, a clinical consensus is achieved to identify a small number of process interventions or measures that will bring the evidence into clinical practice for every patient every time. The clinicians go through a structured process where a long set of measures are created taking all views into account, these are refined by voting against two parameters a) the biggest impact on improving quality and outcomes and b) the ease of data retrieval.

Using the refined measure set, a comprehensive data dictionary is clinically agreed, the denominator population defined and algorithms written into software to process the audit data. Once data is flowing it is constructed into detailed reports ensuring comparability and clinical validation at a granular level. Benchmarking 'apples to apples' is essential to effect clinical change. At
this point when the care deficits are identified and the opportunities to make improvements known but the solution is not clear, is where the AHSN has the opportunity to make its biggest impact in service improvement.

The KSS AHSN will offer opportunities to co design technology solutions, or seek technology review; looking for technology that is already on the market, or more generally where the EQ process has identified a problem or challenge with healthcare delivery and wants to find a solution, or the AHSN is undertaking service redesign or improvement and wants an awareness of technology that may be able to assist in improving the service. The technology review can then help the AHSN understand where the technology fits and validate the claims from the supplier. If the review outcome is that no solution is found, the AHSN can facilitate clear articulation of the need in a manner that industry can engage with, either by improvement of existing technology or development of new technology.

The clinical teams working in the EQ process are also an ideal audience for working with education and awareness raising for innovation. Also engagement with research through embedding and measuring implementation of accepted and validated research findings rapidly through the EQ Collaborative learning process. The ability of the AHSN to agree which research findings should be targeted for implementation will focus clinical teams. Similarly through summarising and disseminating research findings relevant to KSS, the AHSN can help to ‘shape’ the research agenda, identifying research priorities of its members.

The success of EQ has been through the clear use of measurement and linking the clinical practice improvement to changes in outcomes for patients and organizations. The partnership with the South East Coast Quality Observatory who provide EQ with skills and capability in the provision of clinical dashboards and outcome reports has been instrumental on the impact made and there will be a continued requirement for those skills within the AHSN.

Figure 2 shows the early outcomes from EQ.

### Figure 2 Outcomes in EQ populations

<table>
<thead>
<tr>
<th>Condition</th>
<th>2010 Data</th>
<th>2011 Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in Re-admissions</td>
<td>15.89%</td>
<td>15.00%</td>
</tr>
<tr>
<td>Reduction in Mortality</td>
<td>28.70%</td>
<td>25.36%</td>
</tr>
<tr>
<td>Reduction in length of Stay</td>
<td>10.24</td>
<td>9.75</td>
</tr>
<tr>
<td>Heart Failure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in Re-admissions</td>
<td>21.10%</td>
<td>21.07%</td>
</tr>
<tr>
<td>Reduction in Hospital Admissions (per 1000 admits)</td>
<td>5.74</td>
<td>5.47</td>
</tr>
<tr>
<td>Reduction in Mortality</td>
<td>17.07%</td>
<td>17.20%</td>
</tr>
<tr>
<td>Reduction in length of Stay</td>
<td>10.47</td>
<td>10.27</td>
</tr>
<tr>
<td>Hip &amp; Knees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in Re-admissions</td>
<td>8.00%</td>
<td>7.28%</td>
</tr>
<tr>
<td>Reduction in Mortality</td>
<td>2.30%</td>
<td>2.07%</td>
</tr>
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<td>Reduction in length of Stay</td>
<td>9.07</td>
<td>8.44</td>
</tr>
<tr>
<td>AMI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in Re-admissions</td>
<td>17.33%</td>
<td>16.11%</td>
</tr>
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<td>Reduction in Mortality</td>
<td>11.62%</td>
<td>10.67%</td>
</tr>
<tr>
<td>Reduction in length of Stay</td>
<td>7.14</td>
<td>7.16</td>
</tr>
</tbody>
</table>
Appendix E – CLRN Plans for AHSN Collaboration

The CLRNs in Kent, Surrey and Sussex have developed detailed plans for creating synergy between our organisations. We have reviewed these plans and present them as an attachment to this document, believing that they represent a solid foundation for effective collaborative working.
Appendix F – Research Aspirations

In the course of planning for the KSS AHSN (Phase One of the AHSN Implementation Programme) our research design group explored a variety of future scenarios. This appendix presents a vision for a KSS AHSN research programme that represents one such scenario. As our AHSN enters the Shadow Running (Phase 3 of our programme) this will be tested and developed to produce firm and costed plans to underpin our commitments.

We base this presentation of our research aspirations on the five key research requirements for AHSNs.

1. An AHSN-wide system to manage research participation and performance effectively and efficiently, consistent with national systems and approaches, delivering a step-change improvement in the initiation and delivery of clinical research on time and on target by constituent NHS providers;

Our commitment – We will build a highly effective AHSN by forging a new covenant between research and clinical practice across KSS developing effective communication, mutual respect and a commitment to shared endeavour across the network.

In preparing this bid we have invested time and energy in scoping the existing services and links that we have, in analysing where they deliver and where they do not, and in subsequently developing a plan that would enable the KSS AHSN to deliver for research. The challenge is to enable high quality, high volume activity across the breadth of health care. We have pockets of excellence, either in disorders across the region or in wider clinical areas in specific areas. We need a system that responds to local and regional priorities but that can also deliver national priorities. To deliver the ability to scale up interventions and to disseminate these we also need the system as a whole to work for all areas of need.

To achieve this, we propose nothing less that forging a new covenant between research and clinical practice across KSS. Our analysis is that too often clinicians feel side-tracked, ignored or exploited by researchers and find their outputs irrelevant and un-implementable. Equally we have heard that academics are often frustrated by a perceived lack of enthusiasm on the part of clinicians and Trusts for their studies and that this leads to poor recruitment. The pockets of excellent collaboration that we have point to the solution.

The solution we have developed is one that is specifically crafted for the KSS landscape. We have very many more clinicians than researchers, and our Trusts are very largely not providers of atypical academic-led super specialities. Instead we are a group that echoes what really happens in the real NHS and as such we can deliver models, solutions and data that can directly inform care in the rest of the system. Our fundamental investment will be in developing effective communication, mutual respect and a commitment to shared endeavour on the part of patients, carers, clinicians, researchers, Trusts, universities, our medical school and industry. We will do this by a process that listens to all and that takes care to ensure an understanding of the real, demonstrable value for each group that can and will come from working in an efficient and effective network. These will include: the better outcomes that accrue to patients by being in research; cutting the time needed to recruit for researchers; enabling Trusts to demonstrate their success in meeting the innovation agenda; and the
universities increasing their likelihood of research funding and high quality outputs.

We do not underestimate the breadth and depth of the task involved. It will be the work of the leaders of the AHSN to forge this new covenant and make real the collaboration needed for success in delivery. However, we are also clear that this is achievable due to the unprecedented level of commitment and “buy-in” that we have from all the organisations involved. This bid covers all the NHS and academic bodies across KSS. This is unprecedented and the executives of each of these organisations knows that they will be judged by how well they succeed in delivering Innovation Health and Wealth. They all see the AHSN as one of the main instruments that they have to achieve this success, since this success is almost universally dependant on the actions of others, especially in the field of research. They have committed to ensure that time will be made available for the AHSN to work with their employees to build the understanding, trust, relationships and skills needed for delivery. They have committed to working to remove barriers to collaboration and to create lines of communications. They have acknowledged that support for research, rapid adoption and rapid diffusion are now part of their core business and an executive governance issue. They are committed to making the KSS AHSN the way that this is delivered.

But this high level support is not enough. The AHSN needs to be seen as part of its constituent organisations and owned and valued by the front line. We will therefore commit in the first year of the AHSN to developing and delivering a programme in all our organisations for all researchers and senior clinical staff (of all disciplines, not just doctors) that listens, explains and that then crafts solutions for each part of the network. Thereafter we will work just as hard to maintain the system. We will align interests and needs. The universities will work creatively to ensure that there is proper recognition of the roles of local clinicians and Trusts and local clinicians will make time for research and researchers in partnership, for the benefit of all. The AHSN will allow the CLRNs to succeed in their roles since their goals will be in synergy with those of the AHSN. This will be an enabling system and one that will necessarily evolve. We will ensure that there is positive growth in delivery by ensuring that good quality, understandable data are available on the state of the enterprise and change over time and that these data are fed back to all in the network. We will deliver by having clear and effective leadership of the AHSC, simultaneously plugged into the boards of the constituent organisations and the frontline of patient care.

It is our analysis that it is not enough to connect people or NHS bodies and educational establishments to deliver an effective AHSN. Instead we also need to commit to the much more complex task of aligning the knowledge, attitudes and behaviour of the constituents. By doing this we believe that we can meet the first element of the specification with respect to research and deliver an AHSN-wide system to manage research participation and performance effectively and efficiently, consistent with national systems and approaches, delivering a step-change improvement in the initiation and delivery of clinical research on time and on target by constituent NHS providers.

(2) Increased opportunities for patients to participate in clinical research

(3) Increased recruitment of patients to non-commercial and commercially-funded clinical research by constituent NHS providers

Our commitment – We will increase the numbers of people recruited into adopted studies in KSS by 25% [tbc] year on year, each year for the life of the AHSN.
The primary measure of the success or not of the AHSN must be the proportion of the population who might benefit taking part in good quality research studies including trials and industry development.

We wish to set ourselves an explicit, unequivocal and highly challenging single target in this area. We will increase the numbers of people recruited into adopted studies in KSS by 50% year on year, each year for the life of the AHSC.

The absolute numbers and how these vary by constituent organisation will be made available to all on a quarterly basis. A breakdown by the internal organisation of each constituent organisation will be provided to that organisation. We have agreement for this. This will enable action to be taken at a network and local level to celebrate success and to understand and then manage under-performance.

By linking with industry and innovators as well as Trusts and universities, we will ensure that this recruitment is to commercial and non-commercial studies. We are an area that values and understands the contribution of industry to health and we will actively seek out opportunities to participate in studies, particularly in areas identified by industry as a priority and those areas where there are particular local strengths and priorities.

(4) Timely payment of treatment costs for patients who are taking part in research funded by Government, NIHR and Research Charity partner organisations through the NHS commissioning system;

Our commitment – We will remove any barriers which inhibit or delay the payment of treatment costs or the movement of necessary research-based resource

Where we find difficulties in this area if we have the ability to solve them between AHSN partners then we will do so, with rapid escalation to the chief executives of AHSN organisations for intervention if needed.

5. Proactive support for life sciences industry research and development, including clear plans between University and NHS partners to support recruitment to all phases of clinical research as part of the national effort.

Our commitment – The senior leadership of the AHSN will directly contact all companies working in the life sciences industry in our three counties and work with them to see how the KSS AHSN can help them in recruiting to their clinical research. movement of necessary research-based resource
Appendix G – Members of KSS Partnership

Providers of NHS services
Ashford & St Peter’s Hospitals NHS Foundation Trust
Brighton & Sussex University Hospitals NHS Trust
Central Surrey Health
Dartford & Gravesham NHS Trust
East Kent Hospitals University Foundation Trust
East Sussex Healthcare NHS Trust
First Community Healthcare (East Surrey Community)
Frimley Park Hospital NHS Foundation Trust
Kent & Medway NHS & Social Care Partnership Trust
Kent Community Health NHS Trust
Maidstone & Tunbridge Wells NHS Trust
Medway Community NHS Trust
Medway NHS Foundation Trust
Queen Victoria Hospital NHS Foundation Trust
Royal Surrey County Hospital NHS Foundation Trust
South East Coast Ambulance Service NHS Foundation Trust
Surrey & Borders Partnership NHS Foundation Trust
Surrey and Sussex Healthcare NHS Trust
Surrey Community NHS Trust
Sussex Community NHS Trust
Sussex Partnership NHS Foundation Trust
Virgin Care (Surrey Community Health Services)
Western Sussex Hospitals NHS Trust

Clinical Commissioning Groups
Ashford
Dartford, Gravesham & Swanley
South Kent Coast
C4 Canterbury
Medway
Thanet
West Kent
Swale
Guildford & Waverly
Surrey Health
North West Surrey
Esy Doc
Surrey Downs
Coastal West Sussex
Horsham & Mid Sussex
Crawley
Eastbourne, Hailsham and Seaford
Hastings & Rother
High Weald Lewes Havens
Brighton & Hove

**Industry, industry facing and economic growth support organisations**
- South East Health Technologies Alliance
- Ethical Medicines Industry Group
- Association of British Pharmaceutical Industries
- Association of British Health Industries
- Surrey Local Enterprise Partnership*
- South East Local Enterprise Partnership*
- UKTI South East*
- Locate in Kent*
- Health Technologies Knowledge Transfer Network*
- BIS Local*
- NHS Innovations South East*Health and Europe Centre*

**Local Authorities**
- Kent
- Medway
- East Sussex
- West Sussex
- Brighton & Hove
- Surrey

**Higher Educational Institutes**
- University of Brighton
- University of Sussex
- Brighton and Sussex Medical School
- University of Surrey
- University of Kent
- Canterbury Christchurch University
- Greenwich University*
- Royal Holloway University of London*
Appendix H – Bibliography

Documents referenced in Section 2

- Improving health and work: changing lives (DWP and DH, November 2008)
- Equity and Excellence: Liberating the NHS (DH July 2010)
- The Plan for Growth (DBIS March 2011)
- Strength and opportunity (DBIS, UKTI and DH December 2011)
- BIS Economics Paper No 15. Innovation and Research Strategy for Growth (DBIS December 2011)
- Innovation and Research Strategy for Growth (DBIS 2011)
- Investing in UK Health and Life Sciences (DBIS December 2011)
- Innovation Health and Wealth: Accelerating Adoption and Diffusion in the NHS (DH December 2011) and
- Academic Health Science Networks (DH June 2012)
- Public Health Observatory Briefing Paper

Case Study references in Section 5


