Oxford Academic
Health Science Network

Introducing the Oxford AHSN

Professor Gary Ford, CBE
Chief Executive Officer
Consultant Physician

Recent NHS Focus on Innovation

- An **Invention** is a unique or novel device, method, composition or process. Some inventions can be patented.
- **Innovation** is the application of new solutions that meet new requirements, inarticulate needs, or existing market needs.
  Something original, new and important that breaks in to (or obtains a foothold in) a market or society.
- **Improvement** is doing the same think better.

Barriers to Uptake and Development of Innovation in the NHS

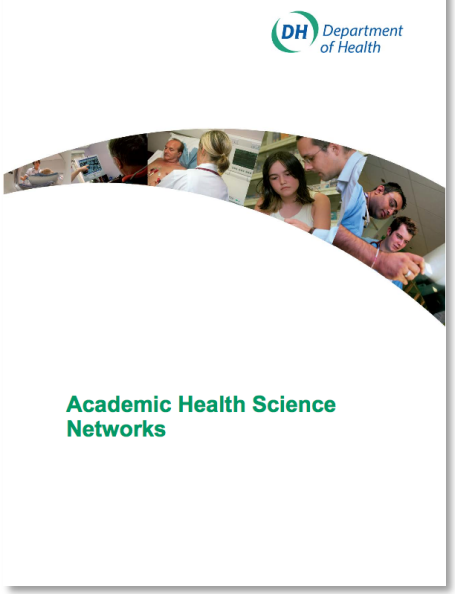
- Cost
- National strategies and plans – absent in many
- Financial incentives - lacking
- Training
- Procurement
- Culture of healthcare professionals and organisations
- Clinical engagement
- NICE ‘blight’
- Failure to evaluate impact of new innovations when implemented
- Failure of the NHS to stop doing things that do not deliver promised benefits

NHS Slow to adopt Innovation

- CT and MR imaging invented in the UK
- Poor access and utilisation in UK stroke services
- Australian Professor Stroke Medicine 2005

  "You guys invented CT but your use of it in acute stroke is pathetic"

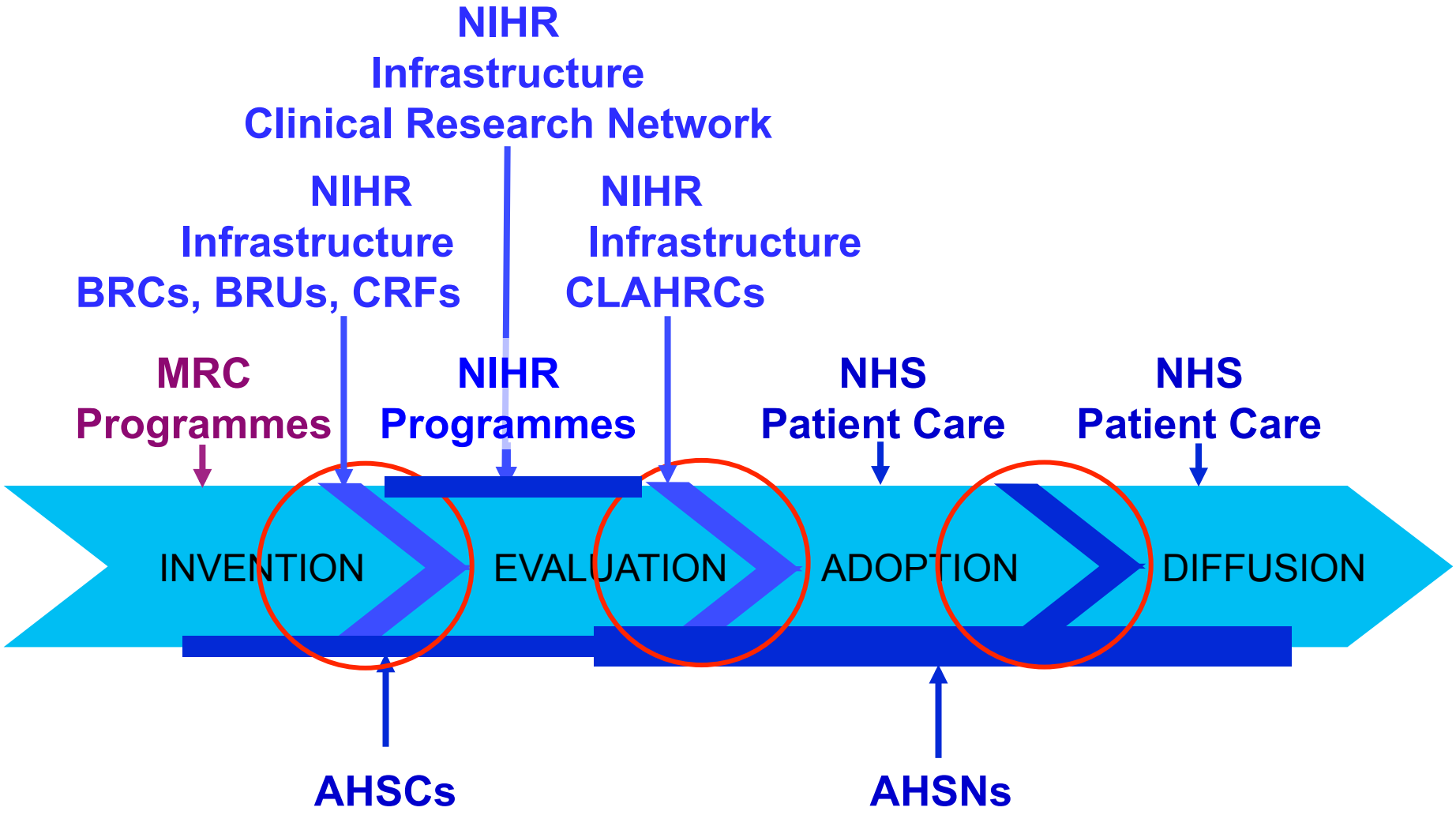
NHS Response: Academic Health Science Networks and Academic Health Science Centres



- 15 AHSNs licensed by NHS England for 5 years to:
- focus on the needs of patients and local populations.
- speed up adoption of innovation into
- build a culture of partnership and collaboration
- create wealth

- 6 AHSCs represent partnerships between “world-class” universities and leading NHS organisations:
- research new treatments
- improve health education and patient care
- bring scientific discoveries "from the lab to the ward“
- drive economic growth through partnerships with industry.

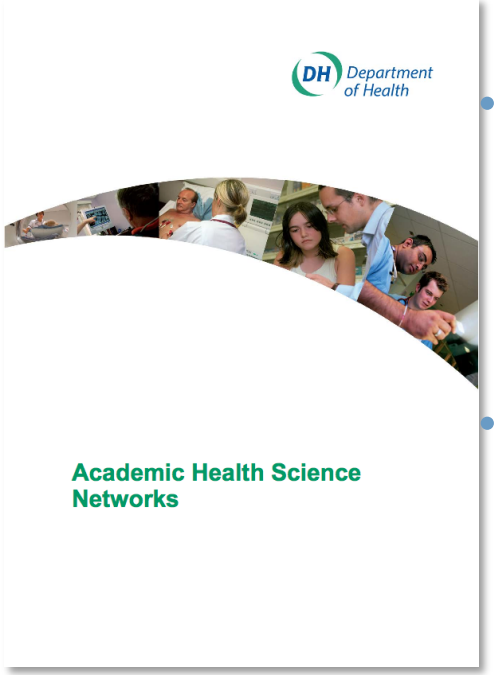
AHSNs, AHSCs and the Research and Innovation Landscape



The Oxford AHSC

- Designated from 1 April 2014 – one of six in England
- Partnership to build on world class basic medical research, translational research, education and patient care
- Partners are Oxford Brookes University, Oxford Health NHS Foundation Trust, Oxford University Hospitals NHS Trust, University of Oxford
- Nested within the Oxford Academic Health Science Network
- Six themes:
  - Big Data: delivering the digital medicine revolution
  - Building novel NHS, university and industry relationships
  - Modulating the immune response for patient benefit
  - Managing the epidemic of chronic disease
  - Emerging infections and antimicrobial resistance
  - Cognitive health: maintaining cognitive function in health and disease

AHSN core purpose – health and wealth



- Licensed by NHS England for 5 years to deliver four objectives:
- **Focus on the needs of patients and local populations:** support and work in partnership with commissioners and public health bodies to identify and address unmet health and social care needs, whilst promoting health equality and best practice.
- **Speed up adoption of innovation into practice** to improve clinical outcomes and patient experience - support the identification and more rapid uptake and spread of research evidence and innovation at pace and scale to improve patient care and local population health.
- **Build a culture of partnership and collaboration**: promote inclusivity, partnership and collaboration to consider and address local, regional and national priorities.
- **Create wealth** through co-development, testing, evaluation and early adoption and spread of new products and services.

The Oxford AHSN

- **Our Vision.** Best health for our population and prosperity for our region
- **Our Mission.** We will support collaboration, research and innovation across the NHS, universities and business, building on our strengths to deliver exemplary care and create the strongest life science cluster

What and where

Oxford AHSN – 1 of 15 in England
3.3M population
Annual NHS spend circa £5bn
NHS employees 65,000
12 Clinical Commissioning Groups
4 Local Enterprise Partnerships
12 Councils
Major international companies
300 Life Sciences businesses

Complex landscape with many providers and agencies

Our Healthcare, Academic and LEP partners

NHS in the Network

1 Berkshire Healthcare NHS Foundation Trust
2 Buckinghamshire Healthcare NHS Trust
3 Central and North West London NHS Foundation Trust (community and mental health services)
4 Heatherwood and Wexham Park NHS Foundation Trust
5 Milton Keynes NHS Foundation Trust
6 Oxford Health NHS Foundation Trust
7 Oxford University Hospitals NHS Trust
8 Royal Berkshire NHS Foundation Trust
9 South Central Ambulance Service NHS Foundation Trust
10 Southern Health NHS Foundation Trust (Learning Disabilities)

(Locations of HQs except for 3 and 10)

Aylesbury Vale CCG
Bedfordshire CCGs
East Berkshire CCGs
West Berkshire CCGs
Chiltern CCG
Milton Keynes CCG
Oxfordshire CCG

Universities in the Network

1 Buckingham University
2 Buckinghamshire New University
3 Cranfield University
4 Oxford Brookes University
5 The Open University
6 University of Bedfordshire
7 University of Oxford
8 University of Reading
9 University of West London (Reading Hub)

Local Enterprise Partnerships

Buckinghamshire LEP
Oxfordshire LEP
South East Midlands LEP
Thames Valley Berkshire LEP

Thames Valley Berkshire LOCAL ENTERPRISE PARTNERSHIP

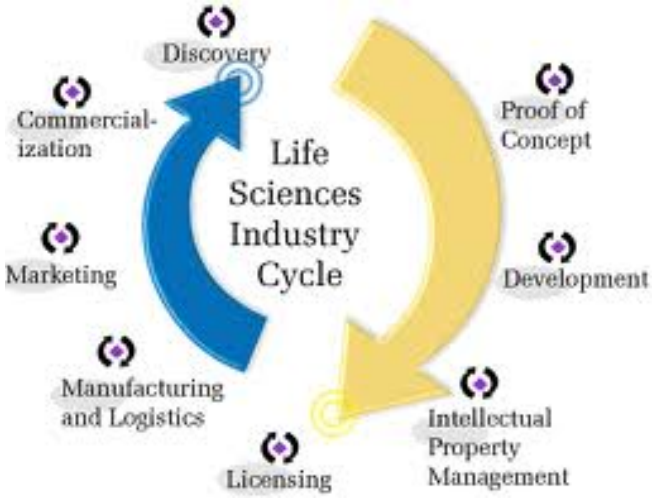
Oxfordshire Local Enterprise Partnership

SEMLEP
South East Midlands
Local Enterprise Partnership

Buckinghamshire Thames Valley | LOCAL ENTERPRISE PARTNERSHIP
THE ENTREPRENEURIAL HEART OF BRITAIN

The Oxford AHSN – facilitating partnerships

NHS



Cranfield UNIVERSITY

UNIVERSITY OF OXFORD

The Open University

bucks new university

UNIVERSITY OF WEST LONDON

THE UNIVERSITY OF BUCKINGHAM

OXFORD BROOKES UNIVERSITY

University of Reading

University of Bedfordshire

The Oxford AHSN
5 Programmes and 2 Themes

- **Best Care programme** 10 AHSN funded clinical networks
- **Continuous learning** Patient Safety and 8 Evidenced Based Medicine MScs
- **Innovation Adoption** Clinically led, working with the NHS providers and industry to accelerate adoption of medical innovations
- **Research and Development programme** work with Local CRN NIHR, CLAHRC, life science industry and other research infrastructure
- **Wealth creation programme** help the region become the favoured location for inward life science investment, life science business creation and growth
- **Informatics** provide strategic leadership to the Oxford AHSN and Oxford AHSC partners' strategies
- **PPIEE** embed partnership with patients and the public across programmes

Oxford AHSN – Best Care Programme

- **Ten Clinical networks**
  - Diabetes – Prof Stephen Gough
  - Dementia – Dr Rupert McShane
  - Depression and anxiety – Prof David Clark
  - Mental and physical co-morbidity – Prof Mike Sharpe
  - Early intervention in mental health – Dr Belinda Lennox
  - Imaging - Prof Fergus Gleeson
  - Medicines optimisation – Boo Vadher
  - Maternity – Prof Stephen Kennedy / Mr Lawrence Impey
  - Children – Prof Andrew Pollard
  - Out of Hospital – Dr Dan Lasserson
- **Continuous Learning** in collaboration with Health Education Thames Valley
  - 8 Fellowships (MScs) in Evidence Based Medicine
  - Patient Safety Academy
- **Innovation Adoption** – clinically lead adoption of 10 innovations at scale per annum; 5 NICE TAs and 5 other innovations in 2014/15

What is Innovation Adoption?

Oxford AHSN has defined innovation as:

"..... an idea, service or product, new to the NHS or applied in a way that is new to the NHS, which significantly improves the quality of health and care, and delivers value for money, wherever it is applied."

NHS Innovation Adoption in tertiary care, secondary care, community care, mental health care, primary care and **self-care**

Facilitating rapid adoption of innovation with demonstrated value

- **Identify the innovations**

  NICE technology appraisals previous year

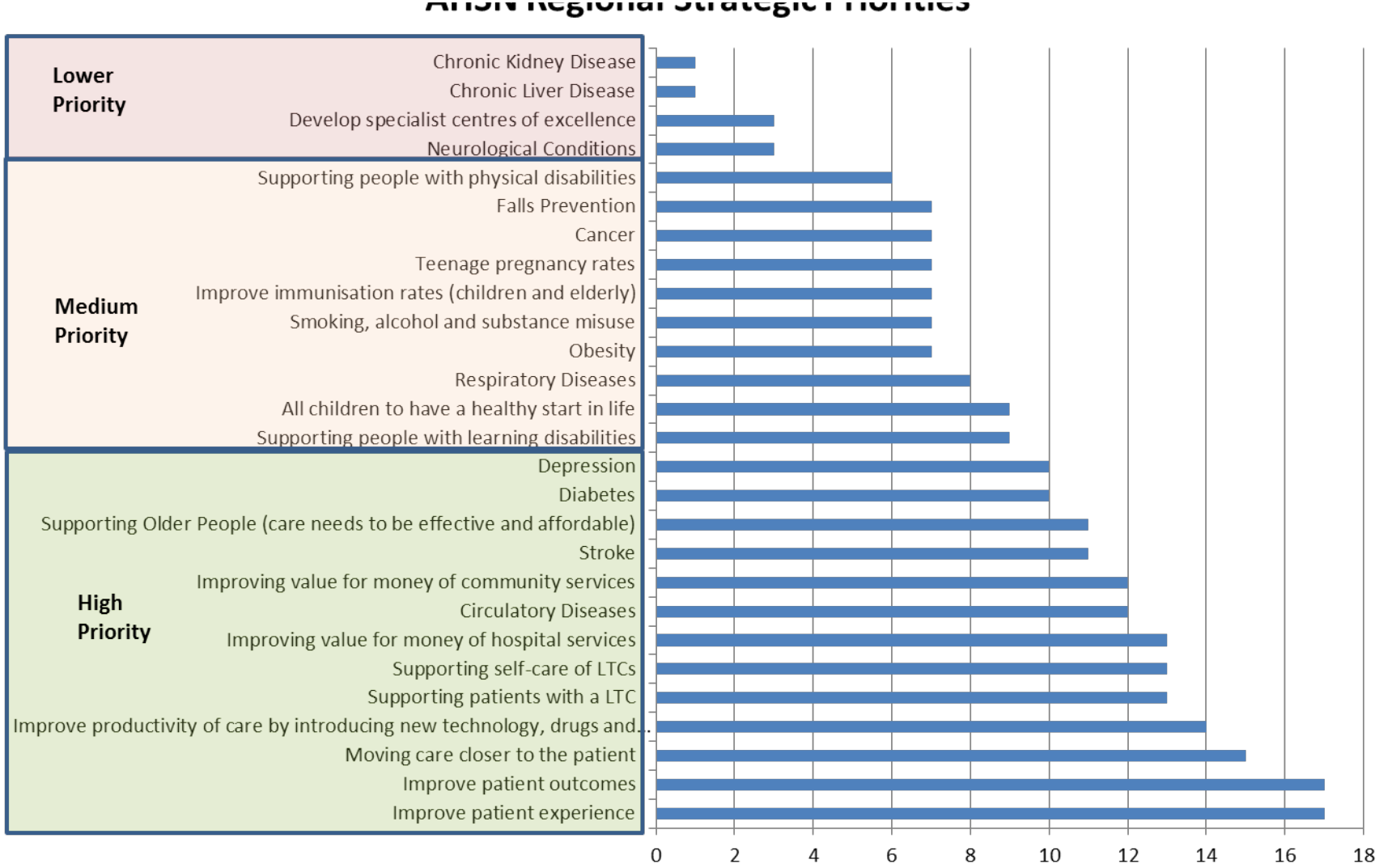
  Other interventions proposed by clinical networks where value is clear
- **Prioritisation by NHS providers, clinical networks, commissioners and patients**
- **Develop an implementation plan for top 10 innovations across AHSN partners**

  Identify potential barriers, appoint clinical champion, finance and procurement plan, training issues, process to record utilisation
- **Review impact at 12 months**

  If failure of adoption identify reasons

  Compare uptake of interventions not supported by an implementation plan

Oxford AHSN Strategic Priorities of Providers and Commissioners

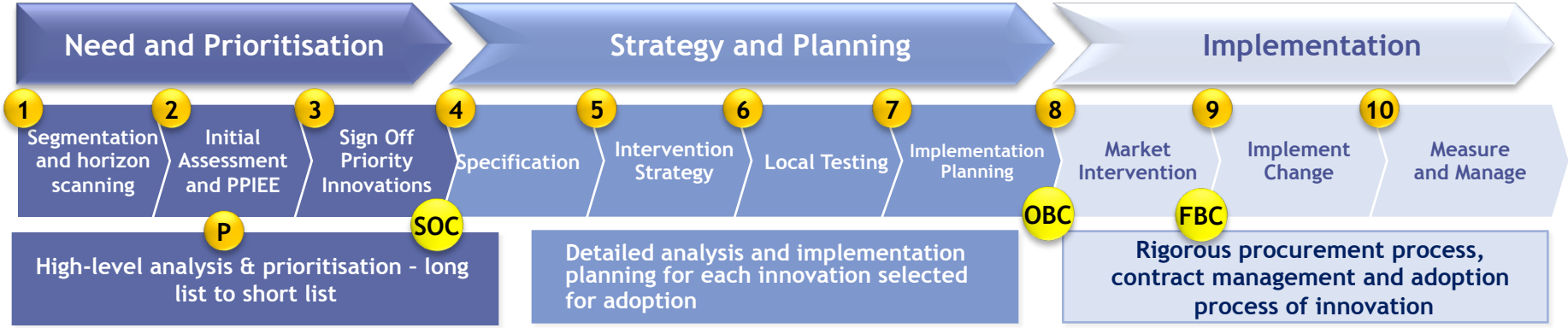


Source: NHS Providers Strategic Plans, NHS CCGs Strategic Plans, Joint Strategic Needs Assessments for Oxfordshire, Buckinghamshire, Berkshire and Bedfordshire

'Top 10' Innovation Candidates

- NICE Technology Appraisals
  - Alzheimer Drugs - Acetylcholinesterase inhibitors
  - New Oral Anticoagulants
  - Monoclonal antibodies for rheumatoid arthritis
  - Renal cancer drugs
- Others
  - Intermittent pneumatic compression stockings for stroke
  - Electronic blood transfusion
  - Ambulatory ECG monitoring
  - Bladder scanner to reduce catheter UTIs
  - Intra-operative fluid management
  - SHaRON social network support for eating disorders
  - Gestation diabetes

Clinical Innovation Adoption process steps 1–10



1. Segmentation and horizon scanning of innovations by clinical specialism- establish long list of available innovations through horizon scanning by clinical networks supported by Innovation Adoption Managers (IAMs). Clinical Innovation Adoption Oversight Group (CIA) agree long list

2. Initial assessment and PPIEE. Engagement with patients establish the need and the case for change, High level benefits analysis of the long list. Common approach to prioritisation balancing clinical impact, value for money and ease of implementation with a realistic view of barriers to change - eg change costs, training needs. IAM coordinate - identify 5-10 innovations per annum.

3. Sign off priority innovations. Early engagement of procurement and finance; process and budget. Coordinated by IAM who prepares Strategic Outline Case (SOC) for the priority innovations. CIA Oversight Group sign off priority 5-10 innovations). OJEU to parallel track PQQ processed (if necessary for new supplier not on framework or existing contract

P. For new technologies an initial pilot will be required - this needs to be planned and monitored by the clinical networks with agreed measures of success - results would be built into the case for change

4. Specification. IAM working with procurement and Clinical Networks and Trusts to gather detailed information about the supply market and draft specification including potential demand (volume) required, maintenance if applicable, local requirements, timescales to implementation. Clinical Champion to draft specification with Procurement and IAM. Clinical Networks or Medical Directors identify Clinical Champion to take innovation forward

5. Intervention strategy - (1) understanding of procurement options. (2) understanding detail of implementation, change costs, training needs, identify clinical champions, project management requirements, information sources. (3) Clarification with commissioners if contract changes required. Consensus on the strategic approach to implementation lead by the Clinical Networks. For Best Practice, obtain agreement with Innovators that they will support implementation Actionable implementation plan

6. Local testing of the intervention plan with local Clinical Champions- end users, patients, suppliers if applicable and finalise procurement route with procurement specialists

7. CIA B (IAM) finalise implementation plans and get implementers/buyers (ie Trusts) to sign off clinical and financial business cases Outline Business Case or OBC including costs/benefits and delivery timescales) prepared by IAM. OBCs required to secure funds for implementation at local level

8. Market intervention - if applicable commercially robust procurement process to source innovation OR secure services of the innovators to support implementation of best practice. IAM update OBC with final numbers (eg prices) to create FBC

9. Implement change - install equipment, train end users (clinicians and/or patients). Or disseminate best practice. IAM to project manage and Best Care Programme Board to oversee.

10. Measure and manage - IAM monitor uptake and report on quality and value impact with feedback loop of benefits from adopters to potential adopters

Clinical leadership, effective PPIEE and data analysis results in systematic approach to innovation adoption and procurement strategy

Facilitating evaluation of innovation with promising potential

- **Identify the innovations**

  Clinical networks, industry proposals, University/NHS partners

- **Prioritisation by NHS providers, clinical networks, commissioners and patients**

- **Develop an implementation plan for provisional adoption of 5-10 innovations – some / all AHSN**

  Identify potential patient population, appoint clinical champion, finance and procurement plan, training issues, process to record utilisation, costs and patient outcomes

- **Review impact**

  Effectiveness, cost and cost effectiveness
  Potential barriers to adoption in clinical practice

What will success look like?