

NHS ENGLAND – BOARD PAPER

Title: 12 Actions to Support and Apply Research in the NHS

Lead Director:

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Purpose of the paper:

This joint paper surfaces and brigades together activities within NHS England to support and apply health research, working hand-in-glove with our national partners most notably the National Institute for Health Research hosted by the Department of Health.

It crystallises a set of actions. These range in type: from tackling specific process inefficiencies, to our co-leadership with Government of medium-term strategic investments. The actions also range in their cycle of maturity, from being the culmination of significant prior work, to actions that are at the project initiation stage.

The 12 actions include specific new plans to simplify two different aspects of research bureaucracy: excess treatment costs, and trial set-up – on which we are launching a consultation, jointly with NIHR and the Health Research Authority.

The wider context for supporting research is the Board's keen interest in further stimulating the UK's vibrant life sciences sector – for the twin ends of stimulating economic growth, and to speed and shape an NHS pipeline of high value, affordable innovations. Wherever possible, we wish programmes and projects to combine to better achieve both ends, and to this effect we are working with Sir John Bell, the Office of Life Sciences, Innovate UK and wider partners.

The paper has been developed in collaboration with a wide range of research, NHS and industry stakeholders. In nearly every facet of our work, NHS England's success depends on joint enterprise with our partners. This is doubly true in the field of research and industry investment, where the functions, expertise and resources lie with our partner agencies. In turn the NHS can provide demand signals; design and participate in trials and demonstrations; and drive the spread of innovation that is proven as both high value and affordable.

The Board is invited to:

- to consider the importance of NHS England supporting and applying health research, as part of our own core business; and
- to offer formal endorsement to the attached joint plan of twelve actions.



Twelve actions to support and apply research in the NHS

November 2017

NHS England

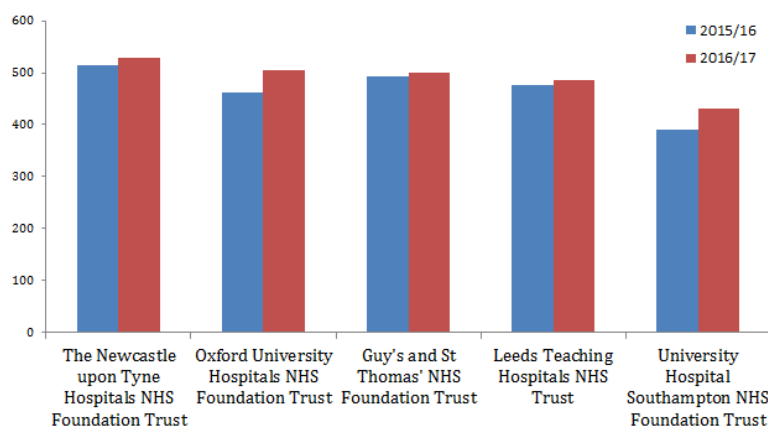
in partnership with

The National Institute for Health Research

Introduction and summary

1. Since its inception 70 years ago, the NHS has worked at the leading edge of scientific development. It has helped to confirm the link between smoking and cancer; achieve the first full hip replacement; develop the CT and MRI scanners, and gene therapy; and successfully trial an artificial pancreas. The UK's 34 Nobel Prize winners for medical research place us second only to the USA.
2. Our comparative global strength is derived from outstanding capabilities and partnerships. These include the National Institute for Health Research in England (NIHR), and the emerging UK Research and Innovation, which brings together the research councils and Innovate UK. We benefit from a large and diverse medical research charity sector, including major research charities such as the Wellcome Trust and Cancer Research UK, as well as world-leading university partners and our six designated Academic Health Science Centres. Industry is a huge contributor, investing over £5bn annually on UK health research. NICE provides internationally-respected health technology assessments and advice.
3. Supported by these organisations, the NHS in England is undertaking more research than ever before – despite wider pressures on clinical workforce supply. In 2016/17, we saw 65% of NHS trusts increase their research activity, up from 57% the previous year. This enabled more than 665,000 people to access novel treatments and care through the NIHR clinical research networks, up 10%. We saw 2,055 new studies on the NIHR clinical research network portfolio, up 15%. Research activity is increasingly core business for the NHS, rather than a peripheral 'add on'. And increased research participation leads to improved healthcare performance¹.

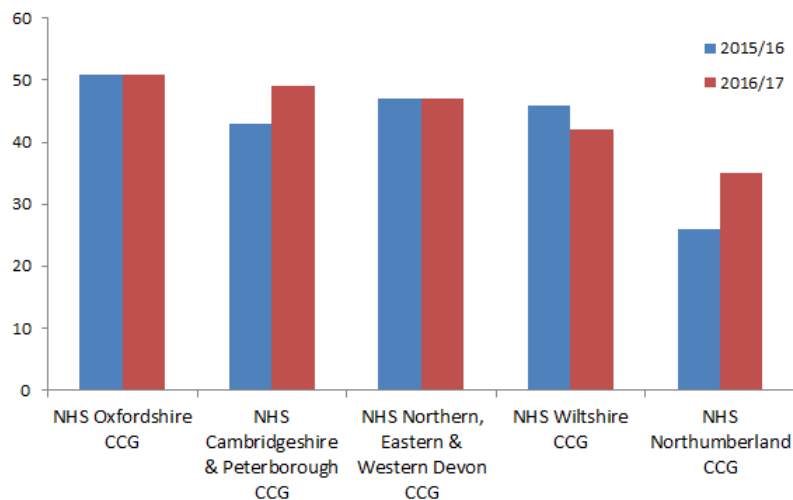
Chart 1: NHS Trusts with largest volume of research studies in 2016/17²



¹ <https://njl-admin.nihr.ac.uk/document/download/2001168>

² NIHR Research Activity League Table 2016/17

Chart 2: CCGs supporting the most research studies in 2016/17³



4. The influence of UK research far outstrips the scale of its inputs and outputs. In 2014, the UK represented 0.9% of the global population, 2.7% of R&D expenditure, and 4.1% of researchers, whilst accounting for 9.9% of downloads, 10.7% of citations and 15.2% of the world’s most highly-cited articles.

5. The UK is recognised as one of the most attractive places in the world to undertake research in the life sciences. We have most of the ‘ingredients’. These will be integral to, and supplemented by the Government’s response to Sir John Bell’s report on what more could be done to support the life science sector, and forthcoming arrangements to accelerate access to the most innovative medicines, devices, diagnostics and digital products. The opportunity is for a double win: both to grow the UK economy; and to do so in a way that helps ensure a sustainable NHS for taxpayers.

6. In April this year NHS England set initial goals to support research. Since then, NHS England has been working with the National Institute for Health Research, the Office for Life Sciences, the Health Research Authority and other partners to flesh out a set of practical steps. Together we now commit to the twelve specific actions below:

³ NIHR Research Activity League Table 2016/17

Simplify NHS research processes:

- 1. Manage excess treatment costs better.**
- 2. Eliminate delays in confirming multi-site trials.**

Articulate the NHS's own research priorities better:

- 3. Set out research priorities for national NHS programmes.**
- 4. Increase research focus and capability on value and cost.**
- 5. Set out local NHS research and innovation priorities of Academic Health Science Networks and Sustainability and Transformation Partnerships.**

Enhance our data infrastructure:

- 6. Increase GP practice participation in the Clinical Practice Research Datalink.**
- 7. Back 3-5 local NHS systems as they create interoperable local care records that are also research-ready.**

Support advanced research into leading edge technologies:

- 8. Develop the NHS genomic medicine service.**
- 9. Develop the application of artificial intelligence in pathology and radiology at scale.**

Improve and simplify our adoption ecosystem:

- 10. Use NHS England's specialised commissioning and commercial medicines clout, combined with NICE appraisals, to drive faster uptake of affordable, high impact innovation.**
- 11. Back AHSNs to become the main local NHS delivery vehicle for spreading innovations.**
- 12. Review and simplify the number of different national innovation projects and programmes.**

Manage excess treatment costs better

7. NHS England and NIHR have heard continued frustration about the complexity and variation in processes for commissioners and providers agreeing what are known as 'excess treatment costs'.
8. These costs arise as a result of the difference between the cost of standard treatment and the cost of treatment within the research study in non-commercial research projects. Excess treatment costs are already accounted for in payment by results tariff.
9. We propose six design principles for a revised system:
 - (i) Capability. It is unrealistic to expect 200 plus individual Clinical Commissioning Groups all to have the expertise to navigate the complexity of ETCs equally well. Instead we should better utilise existing regional expertise.
 - (ii) Consistency. The whole country should follow the same process.
 - (iii) Cost neutrality, compared with the current position. Any solution cannot afford to create an additional unfunded NHS cost pressure. Nor should it seek to reduce existing commissioner expenditure. In this we are hindered by poor existing data collection. Our best estimate of the total national cost to commissioners of ETCs is in excess of £7m, but not more than £30m, per annum.
 - (iv) Simplicity. We are moving towards creating accountable care systems in the NHS, with reduced transaction costs between commissioners and providers. In this context, the friction over what can sometimes be very small amounts looks increasingly anomalous.
 - (v) Single point of access. It should be clear who to approach for help or to manage applications.
 - (vi) Transparency. Researchers and providers tell us that decisions are made behind closed doors, with criteria for decision-making not made available. In future decisions should be open and transparent to all stakeholders.
10. With these principles in mind, we propose three inter-related changes. First, **we will develop a more rapid, standardised process for specialised commissioning ETCs**. NHS England will build on the NIHR cost attribution pilot for the Efficacy and Mechanism Evaluation programme (EME). We will ensure

that, once assurance is complete, a decision will be taken on most applications within six weeks. We will also ensure early engagement between NIHR and specialised commissioners in the funding process, allowing high cost/low value proposals to be challenged and potentially rejected earlier in the process.

11. Second, **we will set a minimum threshold**, under which excess treatment costs must be absorbed by providers. This is because we estimate that 25% of ETCs at NIHR grant application are below £5000 - and stakeholders indicate the administrative burden for low cost ETCs outweighs the actual cost for both researchers and providers. We are open to finding the best currency, based on stakeholder advice. So we are consulting on four different options for setting the threshold: either: (i) total ETCs per study per year, as a fixed threshold; (ii) total ETCs per provider per year, as a fixed threshold; (iii) ETCs per provider per year, variable in relation to Trust income; or (iv) ETCs per patient.
12. Third, and perhaps most importantly, **we will utilise the 15 NIHR Local Clinical Research Networks (LCRNs) to help manage the process for ETCs on behalf of their local CCGs**. The LCRNs have the skills and expertise to support study set up and delivery, including cost attribution for ETCs. They are already involved in successful local models in Wessex and Thames Valley. The LCRNs will bring a consistent approach across the country. Each LCRN will manage a pre-identified local annual funding pot provided by, and on behalf of, its contributing CCGs, supported as necessary in negotiations by NHS England. Given the high apparent variability of excess treatment costs, we will examine how best to coordinate across and pool risk, for example across the LCRNs.
13. What we propose will not immediately solve all the problems associated with excess treatment costs. It will require careful management and collaborative behaviours between LCRNs and CCGs. But taken together, these proposals should reduce the frictional costs of clunky process. Subject to consultation responses, NHS England and NIHR will seek to implement the revised arrangements from April 2018.

Eliminate delays in confirming multi-site trials

14. A second practical way we can cut the NHS bureaucracy of research set-up is to cut delays in establishing multi-site trials. The Health Research Authority has successfully established a single research ethics and regulatory approval process, and a standard process for site set-up. This has contributed to reducing the median time from trial application to first patient recruitment from 231 days (Q3 2015/16) to 142 days (Q3 2016/17).

15. However, sponsors of multi-site trials (including clinical investigations of medtech) still face uncertainties and delays. Each participating provider currently issues its own confirmation of participation, and can seek to vary contract terms and prices for exactly the same study. In some cases, we are seeing differences of up to nine months in confirmation of the fastest and slowest sites. It should be possible to eliminate these delays, making the NHS in England a more attractive base for research. This would serve to benefit patients, NHS providers and the wider UK economy.
16. Further standardisation could also introduce greater certainty and fairness; and cut transaction costs for NHS providers, and industry and charities alike. Provider R&D offices would be empowered to focus on patient recruitment, rather than having to haggle over terms that have already been agreed elsewhere in the NHS.
17. To unlock these benefits, NHS England, NIHR and the HRA have joined forces. We are proposing to mandate standard arrangements, to apply right across the NHS in England. These would be given effect through amendments to the NHS Standard Contract.
18. The simplest option would be to **establish a single process for assessing and determining contract values for commercial contract research**. This would be delivered through a new coordination and pricing function, hosted by the National Institute for Health Research. Expert assessors would apply a standard costing methodology, to make a fair and binding determination of prices. In spring 2018 NIHR would consult on its updated methodology. NHS England, NIHR and the HRA would work with industry, charity and NHS partners to ensure that the revised approach commands the confidence of all parties. **This would apply right across England, from 1st October 2018. Providers would also be required to use a standard research contract, and publish a common, simple set of performance data on research initiation and delivery.**
19. An alternative option would be to require trusts to operate a 'lead provider' model, whereby the approach taken for the first site becomes binding for all subsequent providers. This would be simple, but it risks gaming and inconsistent approaches across similar trials. We are also open to other ideas, should the consultation process reveal a smarter way of eliminating delays, reducing transaction costs, and ensuring fairness and consistency.
20. Simplifying research processes is not straightforward. We are **therefore consulting on our proposals for excess treatment costs and multi-site trials with responses invited by 1 February 2018**. We will host engagement events

on both excess treatment costs and multi-site trials in early January 2018. We will work with stakeholders to finalise our proposals, including NHS Providers, the Association of UK University Hospitals, the Shelford Group, NHS Clinical Commissioners, the Association of Medical Research Charities, contract research organisations, universities, the Association of British Pharmaceutical Industries, Bio-industry Association and other key trade associations

Articulate the NHS's own research priorities better

21. Engaging with patients and charities, we will articulate more clearly what are the NHS's national and local research priorities. There is a clear mutual benefit. The NHS wants answers to the most important researchable questions, both operational as well as strategic. The research community wants its findings to be as useful as possible to NHS clinicians, managers, and patients, thus boosting the likelihood of widespread adoption. Wherever possible, policy and practice should be informed by the timely production of sound and actionable evidence.
22. Good progress is already being made on articulating research needs, particularly through the work of NICE, whose guidance programmes identify research priorities and through the James Lind Alliance and its priority setting partnerships. But more can be done to help the national NHS priority programmes give voice to their latent research needs, working with patients, charities and other stakeholders. These include mental health, urgent and emergency care, diabetes, primary care and cancer. During October and November 2017, the SROs and national clinical leads of these programmes in NHS England have therefore been meeting with NIHR colleagues to discuss and tease out the questions that they would most like examined. Thus far we have had initial discussions on mental health, urgent and emergency care, specialised services, primary care and diabetes, with a meeting planned on cancer. By April 2018 we will have completed an initial look across our wider clinical portfolio, including underpinning areas such as diagnostics. We will engage widely before finalising our prioritised lists.
23. NHS England is particularly interested in system questions. How can we best organise care, and allocate resources, to achieve optimal impact against the triple aim of better health and wellbeing for citizens, better care for patients, and better value for taxpayers? In mental health for example, this might mean researching:
 - a. the effectiveness of different models for integrating the treatment of mental and physical health, taking age and system context into account;

- b. the cost-effectiveness of how we best provide follow-up care for people whose mental health problems are associated with physical long term conditions;
 - c. how recovery rates following early intervention in psychosis are influenced by illness type (affective versus non-affective) or context (type of community service); and
 - d. the long term durability of clinical gains in IAPT and whether or not this is affected by the use of medication.
24. **By April 2018, NHS England will have developed and agreed with NIHR our top researchable priority questions for national programmes.**
25. **Together we will also examine how best to “bake in” an assessment of value and real world cost as an integral and default part of future NHS research studies, rather than see this a separate ‘optional extra’.** An example of this is the Salford Lung Study, the first digitally enhanced Randomised Controlled Trial. It collected real world evidence, and through integrating healthcare and hospital data has been able to establish efficacy and effectiveness, cost and value. Armed with realistic, whole system, assessments of value and cost, the NHS will be far better placed to accelerate the adoption of those innovations that help make the NHS more efficient.
26. We are also committed to improving the articulation of local NHS research needs. **On behalf of their local Sustainability and Transformation Partnerships, the 15 AHSNs will all be charged with working up and setting out a statement of local NHS research and innovation needs, for publication by summer 2018.** In this task they will work hand in glove with their local NIHR infrastructure – including the Collaborations for Leadership in Applied Health Research and Care (CLAHRCs) and Local Clinical Research Networks (LCRNs). To ensure a consistent approach, the 15 AHSNs will work together under the leadership of Professor Gary Ford, CEO of Oxford AHSN, and Dr Louise Wood, Director of Science, Research & Evidence at the Department of Health.

Enhance our data infrastructure

27. Our third theme is to enhance the data infrastructure for research. **The first practical step is to support an increased uptake in GP practice participation levels in the Clinical Practice Research Datalink (CPRD).** The datalink is a governmental, not-for-profit research service, jointly funded by the National Institute for Health Research (NIHR) and the Medicines and Healthcare products Regulatory Agency (MHRA). The service has been providing anonymised primary care records for public health research since 1987. Research using CPRD

data has resulted in over 1,700 publications which have led to improvements in drug safety, best practice and clinical guidelines. Examples include confirming safety of MMR vaccine, informing NICE cancer guidance, safeguarding use of pertussis vaccine in pregnancy, and influencing the management of hypertension in diabetics. CPRD is now also using primary care data in clinical trials. Examples include a real world diabetes study comparing a new therapy to standard care, and randomised controlled trials on myocardial infarction and COPD patients.

28. The pace of practice participation is increasing and is at an all-time high with 25 new practices signing up every month. But at 761 practices in England engaged, it is still short of the ambition to secure an additional 1800-2000 practices. To support wider spread, NHS England, NIHR and MHRA will work with GP system suppliers to agree target dates by which all will in future support participation in CPRD, as part of the NHS's core requirements.
29. We will also work with the Royal College of General Practitioners and the British Medical Association's General Practitioners' Committee in England, to understand other barriers to participation, improve communications with practices and Local Medical Committees and improve the quality of data recorded by practices. Participation in CPRD enables General Practice to ensure that current practice is based on research findings. Moreover, signing up does not incur additional costs, and also offers opportunities to access additional income through survey participation.
30. Sir John Bell's Life Sciences Industrial Strategy identified the potential advantage that the UK could enjoy in research, through accessing information drawn from NHS datasets, subject to clear safeguards around patient consent and de-identification. Both this and our NHS IT strategy set out a vision for an integrated data architecture that will bring together comprehensive and secure data from across different care settings for the benefit of individual care, research and population health management. NHS England will be working together with NHS Digital to deliver this vision. Deployment of common standards and interoperability nationally will be vital. Data would only be used for research purposes within the strict parameters for sharing data and the security standards set out by the National Data Guardian, and within the legal framework. As previously announced, **NHS England will launch a process during December 2017 to select 3-5 local NHS systems that we develop into Local Care Record Exemplars.** These will focus on improving direct patient care, and creating the data resource to progressively support population health, service management and research across current and future platforms.

Support advanced research into leading-edge technologies

31. Healthcare research and delivery will be fundamentally changed by the convergence of population health data, gene sequencing, cell-based therapies, precision medicine, digital tools and artificial intelligence. Through deeper cross-sectoral collaboration, and the financial stimulus of the Government's industrial strategy, NHS England sees the clear potential to build and maintain a global lead in developing, deploying and then exporting these technologies. Across a number of facets, we have already articulated clear ambitions in the *NHS IT Strategy* and *Improving care through personalised medicine*.
32. The Life Sciences Industrial Strategy proposed establishing a major new programme of advanced research (Health Advanced Research Programme) to secure competitive advantage for the UK economy whilst simultaneously offering medium and long-term benefits for the NHS. **NHS England strongly welcomes this initiative and its proposed focus on ageing, mental health, early diagnosis and extending the genomics programme.**
33. NHS England will continue to invest in building the infrastructure for genomics. It has already invested £30m to establish 13 Genomic Medicines Centres. These centres are now collecting and processing over 3000 rare disease and cancer samples per month from routine clinical care. We are now developing the genomic medicine service infrastructure, including:
 - a. a national genomic laboratory network of up to seven hubs underpinned by a genomic testing directory, which will have a focus on facilitating and supporting academic and industry collaboration;
 - b. in partnership with Genomics England, we will secure Whole Genome Sequencing provision for the NHS and establish the supporting data and informatics infrastructure;
 - c. a genomics clinical service, built from the existing clinical genetics service and the Genomic Medicine Centres established through the project. Patients will be asked through a standard consent model to permit research on de-identified data to improve the diagnosis of rare diseases and cancer. NHS England will work to identify the most promising applications in the NHS, including those that generate the greatest early return on investment. This will include more precise targeting of patients who benefit most and least, including from more stratified and personalised interventions.
34. As part of this programme, NHS England will look to establish a delivery network for digital pathology, building upon existing provision. We will also seek to harness the potential of **early, at-scale application of AI to radiology and pathology**, in order to improve diagnostic accuracy, tackle workforce shortages,

and improve efficiency. Subject to discussions with Government, Innovate UK and industry partners, this could involve a large system demonstration, e.g. at a 3-5 million population level, complemented by a wider coordinated network of SME developers. Using the scale of data available from the NHS will enable development of diagnostics aimed at the earliest possible stage of disease, as well as supporting improved follow up post-diagnosis.

Improve and simplify our adoption ecosystem

35. Improving our health research base generates social and economic benefits outwith the NHS, in educational attainment, growth and jobs. But its primary end – hence its funding through the Department of Health – is to improve health and wellbeing outcomes, the quality and value of care. This requires the right research to be translated into readily actionable and affordable methods, backed by an effective adoption ecosystem.
36. In a resource-constrained environment, by far the most practical method for accelerating uptake of research findings is for all parties to focus in the first place on developing, evaluating and spreading innovations that deliver the greatest improvement to health and care, whilst subtracting rather than adding cost. Within this we must consider not only the cost of innovations, but also the implications of supporting service changes, and the associated costs or benefits across the health and care system. This will ensure that we are targeting innovations and new treatments where they will deliver the greatest benefit. The NHS's ability to implement innovations that are cost additive is necessarily a function of the overall NHS funding settlement, and difficult choices about national and local service priorities.
37. There is more that we can do to ensure that we are backing innovations that offer the greatest impact and value. NHS England's national programmes, e.g. on mental health and cancer, are driving service improvements based on clear research evidence. Our new ambulance response standards were tested in the largest ambulance clinical research trial conducted anywhere in the world, involving analysis of 14 million calls.
38. As the national commissioner of specialised services, we are already driving uptake of the most promising new interventions, such as stereosurgical or stereotactical radiology for brain tumours, and mechanical thrombectomy, a procedure which enables doctors to review blood clots on the brain. Its clear efficacy was demonstrated through NIHR supported clinical trials. NHS England will use its specialised commissioning function to accelerate the adoption so that 8,000 patients will benefit.

39. NHS England has been able to harness therapeutic competition between medicines to reduce price and thereby increase the number of patients able to benefit from Direct Acting Antiviral treatment for Hepatitis C. In 2016/17 NHS England invested around £200m in new oral treatments. By the end of August 2017, approximately 20,000 patients had been treated, which has cut expected deaths by over 10% and reduced liver transplants by 50%. We are using a rolling procurement model, an innovative pay for cure approach; commissioning incentives to use the best value treatments; and operational delivery networks.
40. The new look Cancer Drugs Fund also now provides patients with faster access to the most promising new cancer treatments, ensuring value for money to taxpayers and offering pharmaceutical companies a new fast-track route to NHS funding. This has resulted in over 15,000 patients benefitting from 55 different cancer treatments up to 6 months earlier than usual commissioning rules allow, giving 2,000 patients access to promising cancer treatments with uncertain long term benefits whilst further clinical data is collected and remained within its £340m budget.
41. In response to the recommendations in the Accelerated Access Review, NHS England is boosting its commercial capacity and capability through the transfer of the Commercial Medicines Unit from the Department of Health into NHS England. This will provide an opportunity to take a more proactive and consistent commercial approach across the NHS in England, on new drugs as well as existing drugs, working closely with NICE. Within an NHS budget fixed by Parliament, it is self-evident that a better price means you can more easily afford to treat a greater number of patients. As the Government's response to the AAR made clear, earlier access to the NHS for the small number of selected products will depend on evidence of impact, evidence of affordability and commercial negotiation – and therefore the flexibility of companies as well as the NHS.
42. As we look to supporting the spread of innovation beyond the Accelerated Access Review products, **NHS England and the Office for Life Sciences are backing the 15 Academic Health Science Networks to become the primary local NHS delivery partnership for spreading innovations.**
43. Since their establishment in 2013, AHSNs have proven their worth. They have supported the spread of over 200 innovations across the NHS, leveraged £330m to improve health and support care, awarded contracts to over 450 SMEs and helped create over 500 new jobs. Over 4 million people have benefitted from the Patient Safety Collaboratives work they host, and 235,000 benefitted from the

Atrial Fibrillation programme⁴. They are taking the lead in managing the NHS innovation pipeline, accelerating and spreading innovations. A good example is myCOPD, a digital self-management tool for pulmonary rehabilitation. Backed initially by Wessex AHSN, the tool was carefully designed, prototyped and evaluated. It was supported by NHS England's National Innovation Accelerator Programme; got onto our new NHS Apps Library; and is now funded through our new Innovation and Technology tariff introduced in April 2017. The AHSNs have then helped drive rapid distribution - by September 2017, to over 45,000 patients.

44. Supported by an additional £39m of Government investment via the Office for Life Sciences, the AHSNs will improve local adoption and uptake of proven medical technologies. They will act as connective tissue between research, industry and the NHS, hosting 'innovation exchanges'. They will forge stronger alliances with their leading university hospitals, including England's six world class Academic Health Science Centres. Academic Health Science Networks will serve as core innovation agents of NHS Sustainability and Transformation Partnerships. They will work alongside expert clinical collaboratives such as England's 19 cancer alliances which are driving the transformation of cancer care.
45. The NHS England board has agreed that AHSNs will be relicensed for a second five year period starting from 2018, subject to demonstration of their plans to achieve sufficient collective and individual value. During this period, the 15 AHSNs will become a joined-up national network of networks. They will promote sharing of innovation, curating the most promising innovations from across the country, and then taking the lead in distributing the 'best buys' nationwide. In order to enable spread, the AHSNs will seek to ensure that the innovation projects they support have a clear reproducible method for which there will be a sound evidence base demonstrating impact, value and cost.
46. NHS England will be taking plans for AHSN relicensing to its public Board in February 2018. This will need to include their quantified collective and individual plans for 2018-2020 against: (a) core common metrics, covering both economic growth and NHS benefits; (b) their plans to develop more consistent operating methods across the country, so that a start up in Truro receives the same type and quality of support and challenge as one in Newcastle; and (c) the spread levels they intend to achieve for the specific innovations they will be backing for nationwide rollout in 2018/19 and 2019/20. The level of investment NHS England makes in AHSNs will depend on the value they offer. The success of the AHSNs will be clear from how well they perform against these metrics.

⁴ The Academic Health Science Networks, Impact Report 2017, May 2017; http://www.ahsnnetwork.com/wp-content/uploads/2017/06/AHSN-Network-Impact-Report-2017_Web_spreads.pdf

47. The national innovation landscape in health is complex. It involves a number of organisations and initiatives, most of which focus on evaluation and testing but fewer on early ideation or late stage adoption and spread. Some initiatives need to be better grounded in tackling the practical realities of effective adoption and spread; and have faster, clear and streamlined application processes.
48. We have already started to simplify some of the digital routes, with NHS England coming together with Public Health England, NHS Digital, NICE, Care Quality Commission and MHRA to agree a single set of digital assessment questions known as the DAQ. Developers can now ensure their product meets technical and clinical safety, usability and effectiveness criteria set by the NHS and published on the new developer portal launched in April this year; developer.nhs.uk/apps. This provides the market with guidance and support and developers who meets the criteria for assessment can also register their product to be assessed via this portal and appear on the associated NHS Apps Library.
49. Our ambition aligns with the principles at the heart of the Accelerated Access Review: to get strategically-important, cost-effective products into the NHS as rapidly as possible within NHS constraints. **NHS England will therefore work with the Office for Life Sciences, Innovate UK, and wider system partners to better understand the value of the different schemes, with a view to simplifying the number of different national innovation projects and programmes, and build in stronger connections with NHS.**
50. We see scope to create a more effective, faster, joined-up NHS innovation pathway, with the investment better spread across the different stages. The pathway will probably vary for different product categories. Each stage of the pathway should be clearly delineated, with future national programmes defined to support each part, led by the organisation best placed to deliver. Duplication should be cut: there should not be more than one national mechanism in the NHS seeking to achieve the same purpose, for the same type of product, using the same criteria. NHS needs should explicitly inform investment priorities. We will also consider different commercial options to enable the NHS to benefit more clearly from public investments in life sciences, including for example intellectual property arrangements. In tandem with our partners in Government, NHS England will establish a clear process for progressing this work in early 2018.

Implementation

51. NHS England will work with NIHR, the Office for Life Sciences, the Health Research Authority and other partners to implement each of these actions, including agreeing further timescales and operational plans.

52. The consultation on excess treatment costs and improving the set-up of clinical research will launch on 30 November 2017, and will run until 1 February 2018. We will set out our response and next steps in March 2018.