NHS long term plan – references to Knowledge, Evidence, Innovation and Topol/ technology

Knowledge
“Starting with ovarian cancer, we will ensure greater access to specialist expertise and knowledge in the treatment of cancers where there are fewer or more risky treatment options.” p. 60 section 3.62 – safer and more precise treatments including advanced radiotherapy techniques and immunotherapies will continue to support improvements in survival rates

“the acceleration of work to ensure doctors are trained with the generalist skills needed to meet the needs of an ageing population, alongside the development of specialist knowledge and skills” p. 84 section 4.29

“developing the knowledge of improvement skills and how to apply them for all levels of leadership in the NHS.” P. 90 section 4.53 – we will do more to develop and embed cultures of compassion, inclusion, and collaboration across the NHS

Evidence
“Compared with many other countries, our health service is already well designed. We have high levels of patient satisfaction, generally improving outcomes, strong overall efficiency, and relatively high levels of care coordination. You’re far less likely to be unnecessarily hospitalised for a chronic health condition here than in most other European countries. Indeed, you’re more than twice as likely to have your leg amputated in Germany because your diabetes hasn’t been well managed than you are on the NHS. An NHS where funding is apportioned to population need; where most care is provided through list-based general practice; where we take a planned approach to local and specialist hospital provision; and with a strong scientific tradition of evidence-based decisions about care – these are all organising principles which have stood the test of time.” P. 11 section 1.1

“Evidence suggests that many people living in care homes are not having their needs assessed and addressed as well as they could be, often resulting in unnecessary, unplanned and avoidable admissions to hospital and sub-optimal medication regimes.” P. 15 section 1.13

“NHS England, working with PHE and our partners in the voluntary and community sector and local government, will develop and publish a ‘menu’ of evidence-based interventions that if adopted locally would contribute to this goal. We will expect CCGs to ensure that all screening and vaccination programmes are designed to support a narrowing of health inequalities.” P. 40 section 2.26

“But there is good evidence to suggest that over the next decade the NHS should be doing even better.” P. 44 section 3.1

“This Long Term Plan therefore sets out clear and costed improvement priorities for the biggest killers and disablers of our population. It largely does so using the latest epidemiological evidence from the Global Burden of Disease61 (GBD) study for England, supplemented by the views of patients and the public on their priorities for improvements.” P. 44 section 3.2
“Increasing access to evidence-based care for women with moderate to severe perinatal mental health difficulties and a personality disorder diagnosis, to benefit an additional 24,000 women per year by 2023/24, in addition to the extra 30,000 women getting specialist help by 2020/21.” P. 48 section 3.16

- “Expanding access to evidence-based psychological therapies within specialist perinatal mental health services so that they also include parent-infant, couple, co-parenting and family interventions
- Offering fathers/partners of women accessing specialist perinatal mental health services and maternity outreach clinics evidence-based assessment for their mental health and signposting to support as required. This will contribute to helping to care for the 5-10% of fathers who experience mental health difficulties during the perinatal period;
- Increasing access to evidence-based psychological support and therapy, including digital options, in a maternity setting. Maternity outreach clinics will integrate maternity, reproductive health and psychological therapy for women experiencing mental health difficulties directly arising from, or related to, the maternity experience.” p. 49 section 3.16

“3.18. All maternity services that do not deliver an accredited, evidence-based infant feeding programme, such as the UNICEF Baby Friendly Initiative, will begin the accreditation process in 2019/20.” P. 49

“The new model will deliver an integrated approach across health, social care, education and the voluntary sector, such as the evidenced-based ‘iThrive’ operating model which currently covers around 47% of the 0-18 population and can be expanded to 25 year olds.” P. 51 section 3.30 A new approach to young adult mental health services for people aged 18-25 will support the transition to adulthood

“We want to ensure that all GPs are using the latest evidence-based guidance from NICE to identify children, young people and adults at risk of cancer” p. 59 section 3.57

“There is strong evidence that hyper acute interventions such as brain scanning and thrombolysis are best delivered as part of a networked 24/7 service” p. 64 section 3.73 – stroke, a preventable disease, is the fourth single leading cause of death in the UK and the single largest cause of complex disability

“Test and learn demonstrators will be used to establish an evidence base for joint cardiac and pulmonary rehabilitation models, which will then be promulgated across the NHS.” P. 68 section 3.88 – enabling more people with heart and lung disease to complete a programme of education and exercise based rehabilitation will results in improved exercise capacity and quality of life in up to 90% of patients

“the terms of the levy may need to change if the NHS is to provide opportunities to more clinical staff in future. We will be providing evidence to the Government’s review of the operation of the levy in 2020.” P. 81 sections 4.18

“There is also evidence that such approaches will, for example, increase the number of GP registrars taking up substantive roles in primary care.” P. 83 section 4.27 – additionally, newly qualified doctors and nurses entering general practice will be offered a two-year fellowship

“Great quality care needs great leadership at all levels. Evidence shows that the quality of care and organisational performance are directly affected by the quality of leadership and the improvement cultures leaders create” p. 89 section 4.50
“The evidence for these approaches is strong – introducing Peer Support Workers to acute settings has been shown to reduce readmissions.” P. 90 examples of specific requirements in the Workforce Implementation Plan

“We will develop and expand the successful Diabetes Prevention Programme to offer digital access from 2019. People newly diagnosed with diabetes will be supported through expanded pilots for digital structured education as well as a roll-out of HeLP – an evidence-based, self-directed self-management programme.” P. 93 section 5.13 we will work with the wider NHS, the voluntary sector, developers and individuals in creating a range of apps to support particular conditions

“Technology will enable the NHS to redesign clinical pathways. Easy access to referral decision trees, referral templates and direct access to investigations that reflect evidence-based best practice and universal access to ‘one click away’ specialist advice and guidance for GPs, will avoid many patients from requiring referral for an appointment.” P. 97 section 5.24

“The commitments in this Plan are stretching but feasible. They flow from a coherent and robust set of costed propositions, grounded in evidence, and based on a comprehensive assessment of future demand, moderated where possible by practical and evidence-based action.” P. 100 section 6.4 The chapter sets out how the NHS is meeting these five ‘tests’

“By 2021, all clinical staff working in the NHS will be deployed using an electronic roster or e-job plan. By 2023, all providers will be able to use evidence-based approaches to determine how many staff they need on wards and in other care settings.” P. 104 section 6.17 - Improving the availability and deployment of the clinical workforce to ensure the right clinicians are available to patients at all times, further reducing bank and agency costs.

“Research evidence shows some interventions are not clinically effective or only effective when they are performed in specific circumstances.” P. 107 section viii

“We will work on falls and fracture prevention, where we know that a 50% improvement in the delivery of evidence-based care could deliver £100 million in savings.” P. 108 – section ix

“The NHS RightCare programmes take an evidence-based approach to assist in the design of optimum pathways of care. By investing in QI, we will ensure our staff have the skills and methodology to simultaneously improve care and reduce costs. Reducing unwarranted variation will be a core responsibility of ICSs. We expect all ICSs, supported by our national programmes, to bring together clinicians and managers to implement appropriately standardised evidence-based pathways.” P. 108 Test 4

“7.6. Delivering the Long Term Plan will rely on local health systems having the capability to implement change effectively. Systematic methods of Quality Improvement (QI) provide an evidence-based approach for improving every aspect of how the NHS operates. Through developing their improvement capabilities, including QI skills and data analytics, systems will move further and faster to adopt new innovations and service models and implement best practices that can improve quality and efficiency and reduce unwarranted variations in performance. A programme to build improvement capability is established in around 80% of the trusts rated ‘outstanding’ by the CQC. We will, in partnership with the Health Foundation, support an increase in the number of ICSs building improvement capability to implement new ideas and practices.” P. 111
work in partnership with the Patients Association and Healthwatch England to engage patients and the public, with Healthwatch England submitting evidence from over 85,000 people.” P. 115 engaging people

Topol, Technology and Innovation

“To enable these changes to the service model, to prevention, and to major clinical improvements, the Long Term Plan sets out how they will be backed by action on workforce, technology, innovation and efficiency, as well as the NHS’ overall ‘system architecture’.” P. 8

“Currently available technology can enable earlier discharge from hospital and transform people’s lives if it is connected to their Personal Health Record (PHRs) and integrated into the NHS’ services.” P. 17 section 1.18 The connecting of home-based and wearable monitoring equipment will increasingly enable the NHS to predict and prevent events that would otherwise have led to a hospital admission

“Technology means an outpatient appointment is often no longer the fastest or most accurate way of providing specialist advice on diagnosis or ongoing patient care. The Royal College of Physicians has rightly argued that outpatients needs a radical overhaul”18. P. 27 section 1.46

“It’s easy to be cynical about the achievability of these big technology-driven shifts in outpatient care. But there are now at least four reasons not to be. They are already happening in parts of the NHS, so this is clearly ‘the art of the possible’.” P. 28 section 1.49

“expanding frontiers of medical science and innovation, introducing new treatment possibilities that a modern health service should rightly be providing (for example, new cell and gene therapies).” P. 33 section 2.1

“This kind of innovation will need to be encouraged and supported by ICSs to address health inequalities in their populations.” P. 43 section 2.37 The NHS will continue to commission, partner with and champion local charities, social enterprises and community interest companies providing services and support to vulnerable and at-risk groups

“We will speed up the path from innovation to business-as-usual, spreading proven new techniques and technologies and reducing variation.” P. 60 section 3.61

“Other countries have made more progress on identification and diagnosis working towards people routinely knowing their ‘ABC’ (AF, Blood pressure and Cholesterol). Replicating this approach will be increasingly possible with digital technology, and major progress could be achieved working with the voluntary sector, employers, the public sector and NHS staff themselves.” P. 62 section 3.67

Case study on p. 63 “CPR and GoodSAM”

“3.78. National support for the scaling of technology will assist the expansion of life-changing treatments to more patients.” P. 65

Section on “Research and innovation to drove future outcomes improvement” p. 75

“The rapid development of technology is a key opportunity to free up staff time. Staff report technology often delays access to the information they need, and that the personal technology in their pockets is more useful and functional than the technology they are provided at work. Improving technology will
free up expensive staff time and provide safety prompts that will improve the quality of care. Professor Eric Topol is currently leading work to consider what education and training changes may be needed to maximise the opportunities of technology, artificial intelligence and genomics in the NHS. His conclusions will inform our workforce implementation plan.” P. 87 section 4.47 Ensuring staff are making the most of their skills and expertise will form a critical component of the NHS workforce implementation plan.

“support flexible working, including clarity on the proportion of roles to be advertised as flexible; and the ability to express preferences about shifts further in advance enabled by e-rostering technology introduced over the next year and associated applications;” p. 87 section 4.46

“4.48. By 2021, NHS Improvement will support NHS trusts and foundation trusts to deploy electronic rosters or e-job plans.” P. 88

Chapter 5: Digitally-enabled care will go mainstream across the NHS

See p. 99 for “milestones for digital technology”

“We will develop and expand the successful Diabetes Prevention Programme to offer digital access from 2019. People newly diagnosed with diabetes will be supported through expanded pilots for digital structured education as well as a roll-out of HeLP – an evidence-based, self-directed self-management programme.” P. 93 section 5.13 we will work with the wider NHS, the voluntary sector, developers and individuals in creating a range of apps to support particular conditions

Chapter 5 “Digitally-enabled care will go mainstream across the NHS” p. 91 – section 5.1

“5.1. Virtually every aspect of modern life has been, and will continue to be, radically reshaped by innovation and technology – and healthcare is no exception.”

“Digital innovation hubs are set to provide a world class environment for clinical research, reinforcing England’s position at the forefront of life sciences invention and innovation.” P. 91 section 5.5

“We will also create the Application Programming Interface (API) and appropriate governance models to underpin this work, so that technical barriers won’t stand in the way of innovation.” P. 92 section 5.13

“Technology will enable the NHS to redesign clinical pathways. Easy access to referral decision trees, referral templates and direct access to investigations that reflect evidence-based best practice and universal access to ‘one click away’ specialist advice and guidance for GPs, will avoid many patients from requiring referral for an appointment.” P. 97 section 5.24

“We will make frictionless APIs available to industry and the developer community to stimulate innovation and support integration with other products.” P. 97 – section 5.27

“By 2023, diagnostic imaging networks will enable the rapid transfer of clinical images from care settings close to the patient to the relevant specialist clinician to interpret. This open standards-based infrastructure will enable both the rapid adoption of new assistive technologies to support improved and timely image reporting, as well as the development of large clinical data banks to fuel research and innovation.” P. 98 section 5.28

“5.31. To achieve these digital advances, we need to create the right environment and infrastructure for innovation to thrive” p. 98
“This infrastructure will enable the rapid adoption of new assistive technologies to improve and speed up image reporting, as well as the development of large clinical data banks to fuel research and innovation.”

P. 105 section iii

“This will potentially avoid needless harm to patients, and free up scarce professional time for performing other interventions - including creating headroom for proven innovations. The time and resources saved will all be reinvested in patient care.”

P. 107 section viii - Research evidence shows some interventions are not clinically effective or only effective when they are performed in specific circumstances.

“Through developing their improvement capabilities, including QI skills and data analytics, systems will move further and faster to adopt new innovations and service models and implement best practices that can improve quality and efficiency and reduce unwarranted variations in performance.”

P. 111 section 7.6

“Additional progress in reducing waste, water and carbon will be delivered by ensuring all trusts adhere to best practice efficiency standards and adoption of new innovations. Key to this will be delivering improvements, including reductions in single use plastics, throughout the NHS supply chain.”

P. 120 section 17