Kickstarting Value in the NHS

Purpose

Decisions with Value looks specifically at how considerations of value can be practically incorporated into organisational and individual decision-making processes, in the interests of delivering improved clinical and financial outcomes for the NHS. The aim of this project is to support colleagues facing challenges by introducing incremental change to improve the long-term value of the decisions they take.

Accompanying this report, we have worked with those in the NHS and experts in value-based healthcare to produce a series of guides. These have been developed to give individuals and organisations confidence and practical support to ensure that the processes they oversee, and the decisions they take, make the most of the resources the NHS has in order to truly maximise value. Although disrupting the status quo through change programmes is often difficult to accomplish, this project firmly believes that in making incremental changes that look to maximise value at the local level, the way will be paved for longer-term cultural and structural change to follow.

Executive Summary

The NHS faces complex challenges every day. To tackle these head-on, the *Decisions with Value* Steering Committee believes that the primary goal of the NHS should be to achieve the best value it can from the resources it has, whilst remaining free at the point of delivery. The premise is not revolutionary; what we all want are the best possible health outcomes for patients and populations, for every health pound spent.

It is a reality that the NHS has finite resources at its disposal. It is therefore crucial that value is placed at the heart of what the NHS does every day, ensuring that the decisions made remain practical and sustainable. Above all, it is important to emphasise that value-based change is currently starting to happen in areas all over the UK, but maximising value has yet to become the standard practice across the breadth of the system as it needs to be.

"We are committed to supporting NHS staff to gain the most value from their day-to-day decision-making, and to this end, it has been a great pleasure to be a part of this important project."

Decisions with Value
Steering Committee

This programme was supported and funded by AbbVie Ltd.

DECISIONS WITH VALUE
A WHOLE SYSTEM APPROACH TO HEALTHCARE

Kickstarting Value in the NHS

Acknowledgements

We would like to acknowledge the valuable support and contributions made by the following individuals and organisations to this report and its accompanying guides, without which this work would not have been possible.

The independent research contained within this report and secretariat services provided to the *Decisions with Value* Steering Committee was supported with funding from AbbVie Ltd.

The Decisions with Value Steering Committee

Anna Anderson
Former Trust Financial Director; Director, Akebia Consulting Ltd

Professor Gwyn Bevan
Professor of Policy Analysis, LSE

Dr Anant Jani
Executive Director, Better Value Healthcare Ltd

Patrick McGinley
Head of Costing and SLR, Maidstone & Tunbridge Wells NHS Trust

Professor Stephen Chapman
Professor of Prescribing Studies, Keele University

Dr Nick Hicks
Chief Executive, COBIC Solutions Ltd

Dr Sally Lewis
Assistant Medical Director (Value-based care), ABUHB, NHS Wales

Professor David Taylor
Professor Emeritus of Pharmaceutical and Public Health Policy, UCL

Contents

DECISIONS WITH VALUE
A WHOLE SYSTEM APPROACH TO HEALTHCARE

Realising Value in the NHS

Defining Value

We believe that in healthcare:

Value represents the achievement of the best possible improvement in health and wellbeing outcomes relative to the amount of resource consumed (cost).

In other words, *value is the securing of the greatest improvement in positive outcomes possible within the fixed budget given to the NHS*. This stands in contrast to a cost minimisation approach that delivers value simply by cutting costs at the expense of health outcomes. Though any decision may inevitably require cuts, a value-based approach could lead to different decisions about what and how much is cut.

We believe that in healthcare, a cost minimisation approach can be defined as:

Value inappropriately understood or implemented is the consumption of the lowest possible cost relative to the minimum required health outcome sought, often at the expense of the health outcomes and without consideration of the social and wellbeing outcomes.

It is important to highlight, that in order to deliver value and to avoid a cost minimisation approach, a minimum level of funding must be available to the NHS to ensure that this is deliverable.

The seminal work of Michael Porter, from the Harvard Business School, offers a skeleton definition of value as ***"health outcomes achieved per dollar spent"***.[1]

However, value may be further broken down into three constituent parts (known as the 'triple value definition'),[2] These aspects of value are known as ***Personal Value***, ***Technical Value*** and ***Allocative Value*** (Figure 1).[3] They can be applied to all types of healthcare decisions, at all levels of the NHS hierarchy, ranging from individual patients to whole populations, from designing new care pathways to funding decisions on new technologies and medicines. These values can be difficult to achieve, particularly allocative value, given the existing budgetary silos and fragmentation of the NHS via disease programme delivery.

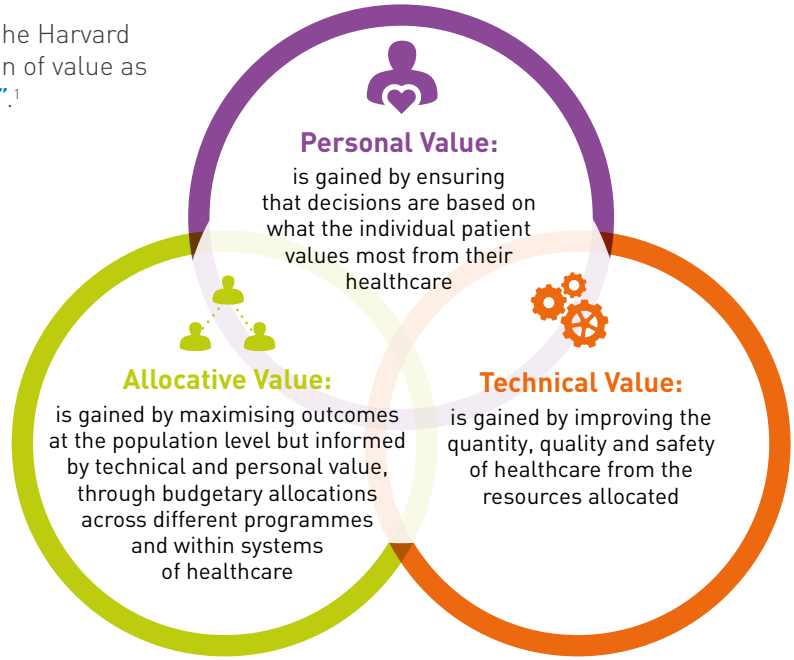

Figure 1: Triple Value Definition

Box 1 shows some examples of how these types of value may be considered.

(See next page)

Realising Value in the NHS

Box 1

Value in Practice

Personal Value

An observational study conducted by **Wagner *et al.* (1995)** showed that when patients with benign prostate disease were well informed about the fact that many people who have surgery suffer from some form of post-surgical sexual dysfunction, **40% fewer preferred surgery**.

Personal value was delivered to the patients because they were fully informed of the risks and benefits of surgery, and their choices subsequently respected.

Source: Wagner *et al. Med Care*. (1995)[4]

Technical Value

In **Ealing Hospital NHS Trust**, the radiology team identified a number of ways in which similar work could be pooled together for CT scans. Rather than setting aside slots for different types of patients, they filled sessions with the next patients to be referred. **This helped to reduce waiting time from six to three weeks.**

Technical value was delivered by improving efficiency within the existing resources.

Source: NHS Institute for Innovation and Improvement and NHS Networks[5]

Allocative Value

Researchers at the **London School of Economics and the Health Foundation** analysed the benefit of interventions in COPD services at the population level. The analysis found that clinical interventions to help people with COPD stop smoking improved their outcomes at a relatively low cost. In contrast the study found that there is **"substantial overtreatment" of inhaled medicines** for patients with mild to moderate disease and that in some cases this could create health problems.

The report concluded that commissioners could **improve the value extracted from the respiratory programme budget by rebalancing investment** in stop smoking services and pulmonary rehabilitation programmes, and reducing overuse of some inhaled medicines.

Allocative value was delivered by improving health outcomes at the population level through reinvesting budget in stop smoking services away from inhaled medicines programmes.

Source: British Thoracic Society[6]

Value in Today's NHS

Box 2

A High Level Mandate across the Whole UK

Value already forms a key part of overarching policies covering the NHS.

The NHS Constitution commits the **English** NHS to *"providing best value for taxpayers' money"*, which is echoed in the Five Year Forward View alongside achieving *"the best experience for patients"* and guidance on the Sustainability and Transformation Plans (STPs) which calls for improved outcomes and 'value for money'.[7]

In **Northern Ireland**, the Health and Wellbeing 2026 Strategy encourages the *"commissioning [of] services based on social value rather than simply on the basis of lowest cost"*.[8]

In **Scotland**, the 2016 National Clinical Strategy for NHS Scotland states that *"we need to ensure that any new developments in Scotland deliver proportionate improvement in value in relation to their costs. That value should always be related to patient experiences and outcomes"*.[9]

In Catherine Calderwood's first annual report as Chief Medical Officer for Scotland entitled *Realistic Medicine*, she articulated a number of key goals:

- change the style of shared decision-making in Scotland
- develop a more personalised approach to care
- reduce waste and harm levels
- reduce unexplained variation in practice and health outcomes
- control risk more effectively
- become innovators and improvers

(see Figure 2 on the next page).

In **Wales**, the Prudent Healthcare initiative led by the Bevan Commission aims to secure 'health and well-being for future generations', with the public, patients and professionals seen as equal partners through co-production. Not only does the initiative seek to improve health and social care services in general, it also looks to tackle 'imprudent' healthcare interventions which either do not affect health outcomes, or actually cause harm, so that *"the people of Wales receive the best possible care from the available resources"*.[10]

Value in Today's NHS

Figure 2: Realistic Medicine Infographic[11]

Despite its pervasiveness across public policy, value is rarely framed in such a way that gives it meaning and makes it an objective that is realistic for frontline NHS staff. **The NHS Right Care programme**, the **Model Hospital portal** and **Getting It Right First Time** are some of the few initiatives in England that seek to directly support NHS staff to deliver value. **Getting It Right First Time** presents a particularly interesting case study, as it focuses on reducing the need for surgical interventions by improving integration between primary and secondary care and referral practices.[12]

As services have had to deal with a growing and ageing demographic of patients alongside tightening financial controls, the NHS has come under greater pressure. This has led to **value commonly being approached in terms of cutting the level of resources designated to a particular geography, service or intervention**.

Committee Opinion

By contrast, we believe that **value is best understood as the best possible improvement in health and wellbeing outcomes relative to the resource consumed (cost)**. This approach is focused more on the outcomes achieved. Whilst the UK can be said to deliver excellent quality of care **(Box 3)**, a close examination of outcomes measures reveals a serious disconnect with the achievement of outcomes **(Box 4)**.[13,14]

Value in Today's NHS

Box 3 Overall Quality, Access & Efficiency

In the Commonwealth Fund's *'Mirror, Mirror on the Wall'* report (2014):[13]

The **UK's health system ranked overall highest** in a comparison of 11 developed countries on **metrics of quality, access and efficiency**

By contrast, the UK had the **second lowest spend** on health at **$3,405** per capita

Box 4 Comparative Outcomes

Despite being ranked highest overall, the 2014 *'Mirror, Mirror on the Wall'* report highlighted that the UK performed second worst across 11 developed countries examined in terms of 'healthy lives' measures.

These include **infant mortality** and **healthy life expectancy** at age 60.

In addition, the UK continues to lag behind comparative countries when it comes to **survival rates for certain cancers**, **survival after heart attack or stroke** and preventing admissions for **respiratory diseases**.

This was further substantiated by the UK2020 report, which found in 2016 that the UK had one of the **highest numbers of avoidable deaths** in Western Europe.

UK2020 also highlighted that patients in the UK face **longer waiting times** than in most other high-income countries.[14]

Box 3 and **Box 4** demonstrate the conflicting picture that the NHS presents, though in some respect it can be said to deliver high quality care there are still serious concerns about patient outcomes and the value delivered by services.

Committee Recommendation

In order to meet the challenges of increasing healthcare demands and constrained budgets, whilst improving the overall state of the nation's health, the NHS needs to fully embrace the concept of value, and embed it widely and deeply into its objectives and decision-making processes. The NHS will also need to find inventive ways to overcome the tension between short-term savings, dictated by in-year financial management, and long-term financial planning.

Alongside national-level interventions, there is a need for local initiatives to implement value. Examples of such approaches being used can be found in areas across the country, some of which show early signs of positive results (Case Study 1).[15,16,17]

Value in Today's NHS

Case Study 1

Ipswich Hospital Trust Frailty Assessment Base

The Challenge: Tackling the problem of overused beds

The Solution: Implementing a Frailty Assessment Base (FAB)

The Outcome: Admissions and cost savings achieved

The 2014 National Audit Office report, *'Discharging older patients from hospital'*, reported that between 2010-15 the overall number of bed days, following emergency admissions, increased by

9% from **17.8 million** to **19.4 million**[18]

It highlighted that overall; an estimated **£303 of NHS money** is spent per day on older patients in hospital beds who are no longer in need of acute treatment, which equates to **£820m each year**. This has been demonstrated to have a shocking impact on patients, with evidence showing that 10 days of bed rest can lead to a reduction in muscle strength and aerobic capacity equivalent to 10 years of ageing.

In order to tackle this problem, Ipswich Hospital set up the Frailty Assessment Base (FAB) initiative to help frail, elderly populations avoid hospital stays over winter. The aim was to prevent those at high-risk from avoidable admissions and to maximise patient independence.

FAB consists of a multi-disciplinary team of:

The team receives referrals of frail patients from GPs or hospital emergency departments, where they **carry out a full assessment before developing a care plan** to help patients maintain their independence and remain at home whenever possible.

Such care plans may include:

- lifestyle advice
- changes in medication
- linkage to community teams and social support

This project re-defined the value of Ipswich Hospitals interventions by focusing on best patient outcomes. Rather than attempting to reduce length-of-stay through earlier discharge, FAB instead invested resources in preventing the initial admission.

In the initiative's trial period between October 2015 and January 2016, FAB prevented 115 unnecessary hospital admissions,

saving an estimated £312k.[16]

Importantly, the project, which received an award at the 2016 HSJ Value Awards,[15]

received positive feedback from patients

who confirmed that they felt more empowered and able to manage their own wellbeing.[17]

Source: Ipswich Hospital

Measuring Value

We believe that, ideally, a health system with the goal of improving value ought to have, at its core, the following key characteristics.

Characteristics of a value-based healthcare system

Patient Centricity

Placing **Personal value** at the heart of the decision-making process, with patients and carers seen as equal partners in healthcare decisions that affect them. This will incentivise the outcomes focus discussed below.

Outcomes

In order to assess whether a service delivers value, outcomes must be measured. It is crucial that the outcomes utilised are appropriate. These must not simply measure the number of interventions, but capture the impact on patients health and wellbeing whilst looking towards the best possible outcomes for the populations that services are designed. The **International Consortium for Healthcare Outcomes Measurement (ICHOM)** recognises the importance of focusing on health outcomes and is currently developing a new paradigm that should allow doctors to provide answers to patients' questions with data-driven information on the end results of their treatments.[19]

Education

All NHS employees have a responsibility to act as 'value-maximisers'. Professional training programmes should direct NHS staff to consider the value of an intervention to patients and encourage them to ensure that value is maximised from their decisions regardless as to their profession or seniority. Though this is not addressed throughout this report, we believe value should be embedded into the medical school syllabus to future-proof these concepts by embedding them in tomorrow's NHS workforce.

Culture

A health service that looks to improve value through collaborative systems and networks rather than operating silos, where each person sees their role clearly as part of a larger system that is positioned to deliver value, as opposed to a solitary organisation.[20] Frontline NHS staff should feel empowered to be influential and accountable for the resources they use and for the services they deliver with these.

Incentives

Incentives and reimbursement mechanisms should be aligned with the balance of outcomes and costs. Regulatory bodies such as the Care Quality Commission (CQC), as well as external bodies such as National Institute for Health and Care Excellence (NICE), Scottish Medicines Consortium (SMC) and All Wales Medicines Strategy Group (AWMSG), already incorporate the achievement of value into their policies.[21] However, there is an on-going need to re-align their processes to ensure that organisations are encouraged to collaborate and strive towards maximising NHS value.

Costs

Identifying the full cost related to a particular care pathway or intervention, beyond acquisition cost alone, including time consumption, staffing, workforce improvement, opportunity costs, impacts on other aspects of the local health economy, and wider societal effects. A useful approach is time-based activity costing, which assigns resource costs to patients based on the amount of time clinical and staff resources are used in patient encounters.[22]

How to know when you are getting value

The *Decisions with Value* Guides, which accompany this report, have been designed to help NHS stakeholders deliver the core characteristics of a value-based system outlined on the previous page. Each guide provides in-depth information on the practical barriers to value-based decision making and on applicable tools.

Box 5

Decisions with Value Guides

Each guide will:

- Highlight how a decision-maker fits into a 'value-based NHS'
- Outline particular barriers to the adoption of value as a goal of decision-making processes
- Provide examples and case studies of good practice where value has been integrated into decisions and the outcomes that have been achieved
- Flag tools and support materials to assist the reader to maximise value from their decisions

To be able to support the maximisation of value in every decision taken in the NHS, it is important to define practically what value means at the start of any programme of change. Case Study 2 provides an example of how to measure outcomes and capture value.[23,24]

How to know when you are getting value

Case Study 2

Measuring Outcomes in Asthma Services

The Challenge: Wessex outcomes for asthma compared badly to national averages

The Solution: Modern Innovative Solutions to Improve Outcomes in Severe Asthma (MISSION)

The Outcome: Increased patients' confidence in managing their asthma and reduced non-routine GP appointments[23,24]

Launched by the Wessex **Academic Health Science Network (AHSN)**, MISSION (Modern Innovative Solutions to Improve Outcomes in Severe Asthma) is a quality improvement, patient safety and innovation project that aims to **reduce the length of time before uncontrolled asthma is recognised and treated**, thus improving patient experience and reducing costs.[23]

This project was devised in response to a situation in Wessex where clinical outcomes for asthma compared badly to national averages.

MISSION is comprised of two clinics:

Rapid access asthma clinic (RAAC)

Severe asthma assessment clinic (SAAC)

RAAC is a patient assessment site where comprehensive asthma reviews are undertaken, after which patients receive **individual self-management plans, peak flow diaries and an interactive presentation**.

From the first round of RAAC assessments,

22 patients were identified

and sent to a SAAC held at Queen Alexandra Hospital, Portsmouth.

At the SAAC clinic, **patients underwent a medical review, physiotherapy and lung function tests**, all performed by a multidisciplinary team. Patients were then followed up after 3 months and then 6 months, to assess sustained health outcomes, disease control and quality of life.

At the beginning of the sessions,

64% of people who responded to a patient survey said that they **felt confident or very confident in managing their asthma**;

at the end of the sessions this **increased to** 93%

In addition, across three participating surgeries, a

24% **reduction in oral steroid courses**

and a

25% **reduction in non-routine GP appointments** was observed.

The MISSION project won an HSJ 'value in healthcare award' in 2015, in recognition of its work.[24]

Source: Wessex AHSN

How to know when you are getting value

Whilst we acknowledge the need to be cautious with a strict definition of value and the innate difficulties in measuring value, Figure 3 demonstrates some examples of how the triple value definition may be understood and assessed in practice.[25,26,27]

NHS Right Care Patient Decision Aids

The Patient Decision Aids (PDAs) are an information resource that is designed to help patients consider the benefits and risks of different treatment options, as part of **shared decision making (SDM)** with health professionals. A PDA was employed in Leicester Partnership NHS Trust for the delivery of a long-term management service for **chronic obstructive pulmonary disease (COPD)**. The tool was used with high-risk patients, many with co-morbidities, and within 8 weeks, 23 acute admissions had been avoided through improved self-management and a telehealth scheme which promoted health and wellbeing, with a **projected saving of £90,000.**[27]

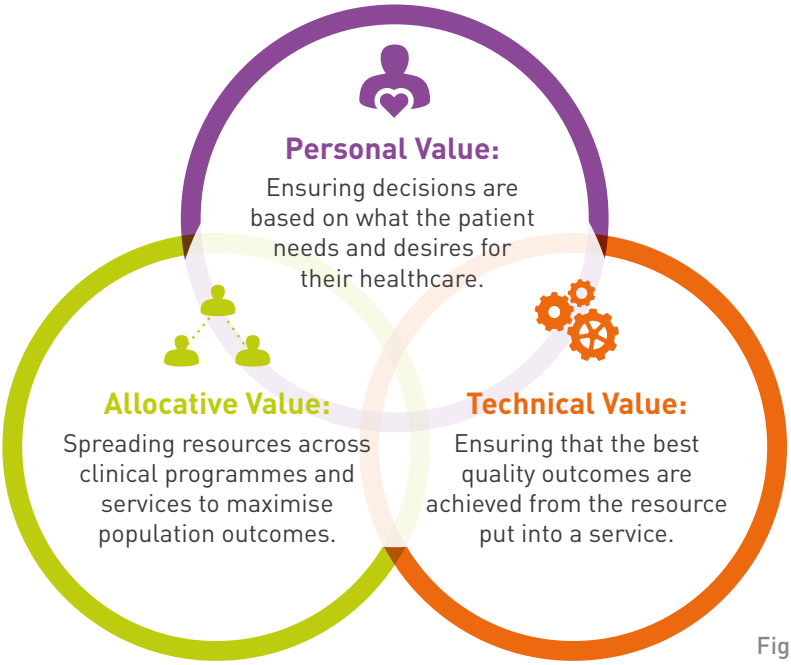

Figure 3: Triple Value in Practice

CCG Spend and Outcomes Tool

The **Spend and Outcomes Tool (SPOT)** allows CCGs to view how service-level spending relates to the health outcomes achieved, allowing performance to be compared and aiding the identification of areas for improvement.

North East Lincolnshire Care Trust Plus used SPOT to identify that they spent more than the England-level average on Respiratory Disease, but achieved poorer outcomes. The Care Trust Board then used **Programme Budgeting and Marginal Analysis (PBMA)** to support the development of pathways and improve efficiency. *"Disinvestment opportunities were identified in some areas along the pathway, based on evidence of effectiveness of treatment and cost-effectiveness."* Areas of investment were also identified with a focus on prevention, such as including patient education in pulmonary rehabilitation.[25]

Socio-Technical Allocation of Resources

The **Socio-Technical Allocation of Resources (STAR)** method allows a range of stakeholders to work together to design services based on interventions that gain the most value.[26]

North East Commissioning Support (NECS) have used the approach to support a number of local CCGs in areas such as COPD and diabetes. NECS worked alongside commissioners, patients, healthcare professionals, public health representatives, community services and expert stakeholders throughout the process.[28]

A Value-based NHS is Achievable

Delivering value through NHS decision-making is an ongoing process. Several programmes are already underway where value is being achieved in the NHS.

One such example, **Future-Focused Finance (FFF)**, is a programme set up to support NHS finance staff and which demonstrates the value that local movements can deliver. It has an ambition for the ***"NHS finance function... to be leaders in delivering the maximum value to patients and the public"***, in which value is perceived to be the relationship between resource inputs and clinical outcomes (i.e. what we categorise as technical value).[29] The main conduit to influence change overseen by the Best Possible Value workstream of Future-Focused Finance is through a bottom-up movement of 'value makers'; a network of finance staff who collaborate to share best practice, so that they can influence other colleagues in the NHS to adopt value-based thinking.

Case Study 3 explains some of the work that Future-Focused Finance has been doing.[30]

Case Study 3

Liverpool CCG's Decision Framework

The Challenge: Delays in decision-making about investments in lung cancer services due to consensus-building

The Solution: FFF's Decision Effectiveness Framework

The Outcome: Insights were gathered from clinicians, allowing a successful business case to be made and accepted

Liverpool CCG has used FFF's Decision Effectiveness Framework to **inform a decision on investment in lung cancer services**, which focused on an engagement programme and the setting up of a primary and secondary **care partnership**.

Decisions on this investment had previously encountered delays using traditional consensus-building methods. With **input from public health doctors, GPs and consultants**, key outcomes (e.g. clinical results and patient experience) and costs were identified. A business case was then compiled using this data and consequently accepted.

The exercise was viewed as a success by the CCG, and the tool is being applied to other areas.

The most common initiatives seen at a local level are Cost Improvement Programmes (CIP), which all NHS trusts have undertaken for many years. These plans involve the identification of schemes to increase efficiency or reduce expenditure and have received increasing attention from national policy makers of late. Though these present an interesting opportunity, CIPs often end up functioning as a vehicle for the cost minimisation approach defined earlier in this report.

Clearly, the importance of value-based healthcare has begun to be recognised by some within the NHS, but widespread transformation across the health service is what is required for long-term change. Our decision-making guides are part of this endeavour by showing not only how to make achievable, incremental changes that help to embed value within their local health systems but across the NHS overall.

How to Kickstart Value

As described in reports by the Kings Fund and NHS Confederation that look at value in the NHS,[31] it is apparent that a 'cultural revolution' is needed throughout the health system. However, change does not need to be achieved drastically in one reshuffle. Instead progress should be made through incremental changes that do not damage the NHS. One key goal of this project is to highlight that these changes are already happening in some parts of the NHS in small therapy areas and geographic localities.

The table below provides information on the support provided by the guides accompanying this document.

Guide	Support Provided	Link
Commissioners	Allocative Value; Technical Value	
Providers	Personal Value; Allocative Value; Technical Value	
Clinicians & Patients	Personal Value; Technical Value	

In 2017, the Steering Committee are looking to launch an implementation programme to support the uptake of value-based decision making across the health service.

If you are interested in becoming one of our early implementers or would like to work with the Steering Committee on any aspect of our research, please do not hesitate to reach out to us at alex.ledger@decideum.com.

DECISIONS WITH VALUE
A WHOLE SYSTEM APPROACH TO HEALTHCARE

References

1. Porter, M. E. (2010) What is Value in Health Care? N. Engl. J. Med., 363(26): 2477-81.
2. Gray, M. Jani A (2016) Promoting Triple Value Healthcare in Countries with Universal Healthcare. Healthc Pap. 15(3) 42-8.
3. NHS Confederation (2015) The 'triple value agenda' must be our focus this century. Available at http://www.nhsconfed.org/blog/2015/05/the-triple-value-agenda-should-be-our-focus-for-this-century. [Accessed 23 March 2017].
4. Wagner et al. Med Care. 1995 Aug;33(8):765-70. Available at www.ncbi.nlm.nih.gov/pubmed/7543638 [Accessed 23 March 2017].
5. NHS Institute for Innovation and Improvement (2012) Quality and Service Improvement Tools. Available at http://webarchive.nationalarchives.gov.uk/20121108100449/http://www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/pool_similar_work_together_and_share_staff_resources.html [Accessed 30 Nov 2016].
6. Williams, S. et al. (2012) IMPRESS Guide to the relative value of COPD interventions, British Thoracic Society Reports, 4(2). Available at http://www.academia.edu/26043328/ISSN_2040-2023_British_Thoracic_Society_Reports_Vol_4_Issue_2_2012_IMPRESS_Guide_to_the_relative_value_of_COPD_interventions [Accessed 2 October 2016].
7. (a) NHS England (2015) NHS Constitution. Available at https://www.gov.uk/government/publications/the-nhs-constitution-for-england [Accessed 12.04.2017].
(b) NHS England (2015) The Five Year Forward View. Available at https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf. [Accessed 13.04.2017].
8. Department of Health and Wellbeing (2016) 2026: Delivering Together. Available at https://www.health-ni.gov.uk/publications/health-and-wellbeing-2026-delivering-together [Accessed 12 April 2017].
9. Scottish Government (2016) A National Clinical Strategy. Available at http://www.gov.scot/Publications/2016/02/8699 [Accessed 12 April 2017].
10. Public Health Wales (2014) Achieving Prudent Healthcare in NHS Wales. Available at http://www.1000livesplus.wales.nhs.uk/prudent-healthcare [Accessed 12 April 2017].
11. Scottish Government (2016) Realistic Medicine: My first CMO Annual Report. Available at https://blogs.gov.scot/cmo/2016/01/20/realistic-medicine-my-first-cmo-annual-report/ [Accessed 23 March 2017].
12. Briggs, T. W. R. (2012) Getting It Right First Time: Improving the Quality of Orthopaedic Care within the National Health Service in England. Available at http://www.gettingitrightfirsttime.com/downloads/briggsreporta4_fin.pdf [Accessed 2 October 2016].
13. Commonwealth Fund (2014) Mirror, Mirror on the Wall, 2014 Update: How the U.S. Healthcare System Compares Internationally. Available at http:// www.commonwealthfund.org/publications/fund-reports/2014/jun/mirror-mirror [Accessed 23 March 2017].
14. Niemietz, K. and Bullivant, C. (2016) The UK Health System – An International Comparison of Health Outcomes, UK 2020 Health Paper, UK 2020 Limited. Available at http://www.uk2020.org.uk/wpcontent/uploads/2016/10/UK2020-Final-eBook-RGB.pdf [Accessed 3 October 2016].
15. The Ipswich Hospital NHS Trust (2016) Double award winners [online], Available at http://www.ipswichhospital.nhs.uk/news/Double-award-winners.htm [Accessed 3 October 2016].
16. Ipswich and East Suffolk Clinical Commissioning Group (2016) Meeting of the CCG Governing Body, Agenda. Available at http://www.ipswichandeastsuffolkccg.nhs.uk/Portals/1/Content/About%20us/Meet%20the%20Governing%20Body/Governing%20Body%20Papers/March%202016/Agenda%2022%20March%202016%20IESCCG%20GB%20(Complete%20Set).pdf [Accessed 3 October 2016].
17. The Ipswich Hospital NHS Trust (2016) Helping old people avoid hospital stays, Available at http://www.ipswichhospital.nhs.uk/foundationtrust/Documents/Discover%20Magazines/Online%20Discover%20Magazine%20Issue%2033.pdf [Accessed 3 October 2016].
18. National Audit Office (2014) Discharging Older People from Hospital. Available at https://www.nao.org.uk/report/discharging-older-patients-from-hospital/ [Accessed 12 April 2017.
19. The International Consortium on Health Outcomes (2017) Our Mission. Available at http://www.ichom.org/why-we-do-it/ [Accessed 20.04.2017].
20. Recent projects that discuss cultural change in the health service include: (a) NHS Confederation & The Academy of Medical Royal Colleges (no date) Decisions of Value, Available at http://www.nhsconfed.org/value [Accessed 2 October 2016]
(b) The Health Foundation (2016) Time for action: how NHS England is embedding the learning from Realising the Value. Available at http://www.health.org.uk/newsletter/time-action-how-nhs-england-embeddinglearning-realising-value/?utm_source=charityemail&utm_medium=email&utm_campaign=November-2016&pubid=healthfoundation&description=November2016&dm_i=4Y2%2C4MV1O%2CKZZLRP%2CH9IJ1%2C1 [Accessed 3 October 2016].
21. For policy documents and information statements that highlight value include: (a) The Care Quality Commission (2015) Delivering Cost Effective Care in the NHS. Available at https://www.cqc.org.uk/sites/default/files/20151028_delivering_cost_effective_care_in_the_NHS.pdf [Accessed 20.04.2017]
(b) National Institute for Health and Care Excellence (2017) What We Do. Available at https://www.nice.org.uk/about/what-we-do [Accessed 20.04.2017]
(c) The Scottish Medicines Consortium (2017) FAQs. Available at https://www.scottishmedicines.org.uk/General/FAQs [Accessed 20.04.2017]
(d) The All Wales Medicines Strategy Group (2013) Five Year Strategy. Available at http://www.awmsg.org/docs/awmsg/awmsgdocs/AWMSG_Five-year_Strategy_2013-2018.pdf [Accessed 20.04.2017]
22. For information on time-driven activity-based costing, please see: Kaplan, R. S. (2014) Improving value with TDABC, HealthcFinancManage, 68(6): 76-83.
23. Wessex Academic Health Science Network (2016) MISSION Severe Asthma – Modern Innovative Solutions to Improve Outcomes In Severe Asthma, Available at http://wessexahsn.org.uk/projects/33/mission-severe-asthma-modern-innovative-solutions-to-improveoutcomes-in-severe-asthma [Accessed 3 October 2016].
24. Wessex Academic Health Science Network (2015) Wessex AHSN wins prestigious HSJ Value in Healthcare Award, Available at http://wessexahsn.org.uk/news/1600/wessex-ahsn-wins-prestigious-hsjvalue-in-healthcare-award [Accessed 3 October 2016].
25. Barnes, G. et al. (2011) Respiratory Disease: Equity Profile for North East Lincolnshire. Available at www.nelincsdata.net/resource/view?resourceId=165 [Accessed 2 October 2016].
26. The Health Foundation (no date) Star: socio-technical allocation of resources. Available at http://www.ipswichhospital.nhs.uk/foundationtrust/Documents/Discover%20Magazines/Online%20Discover%20Magazine%220Issue%2033.pdf [Accessed 2 October 2016].
27. Totally Health (2013) Shared Decision Making. Available at http://www.sdhl.nhs.uk/assets/docs/sdm/Totally_Health_Shared_Decision_Making_Booklet.pdf [Accessed 23 March 2017].
28. North of England Commissioning Support Unit (2016) Annual Report. Available at http://www.necsu.nhs.uk/wp-content/uploads/2016/09/NECSXAnnualXReportX2015-16XDigitalXFinal.pdf [Accessed 20.04.2017].
29. Best Possible Value (2016) Welcome to the Best Possible Value Website, Available at http://bpv.futurefocusedfinance.nhs.uk [Accessed 2 October 2016].
30. Best Possible Value (2017) The Right Tool - Healthcare Finance. Available at http://bpv.futurefocusedfinance.nhs.uk/articles/the-right-tool [Accessed 23 March 2017].
31. (a) Alderwick, H. et al. (2015) Better value in the NHS: The role of changes in clinical practice, The King's Fund, Available at http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/bettervalue-nhs-Kings-Fund-July%202015.pdf
(b) Academy of Medical Royal Colleges and NHS Confederation [Accessed 25 September 2016]. (2014) Decisions of Value: summary of findings, Available at http://www.nhsconfed.org/~/media/Confederation/Files/Publications/Documents/DoV%20Summary%20of%20findings_WEB.pdf [Accessed 26 September 2016].

A WHOLE SYSTEM APPROACH TO HEALTHCARE

Date of Preparation: April 2017 AXGOV170393