KING'S HEALTH PARTNERS

VALUE BASED HEALTHCARE STRATEGY 2016

Foreword

"The NHS has always strived to improve quality and reduce costs. That issue is coming into even sharper focus, given the context of unprecedented financial constraint and the calls for efficiency savings of £22 billion from the NHS five year forward view. However, focusing on the monetary value of the challenge risks missing the real essence of the task facing the NHS, which is about getting better value from the NHS budget. This means maximising the outcomes produced by the activities the NHS carries out, while minimising their costs. Framing the debate in terms of efficiency and costs also risks losing the opportunity to engage clinical staff in the challenge of changing the way in which care is delivered."

The King's Fund, Better Value in the NHS, 2015

The primary purpose of King's Health Partners (KHP) is to improve health and wellbeing locally and globally. We must deliver this goal in a challenging economic environment. The health and social care system across England has never been under greater pressure with rising demand for, and costs of, healthcare.

At King's Health Partners we understand that improving the health of our population is important if the pressure on the NHS is to be reduced. To make our contribution to improving public health we have in place both Alcohol and Tobacco Strategies.

But we also know that that we will only achieve sustainable health improvement if we strive always to increase value. We are determined therefore to contribute to the sustainability, as well as the excellence of healthcare. To guide our actions in driving increased value we have developed this Value Based Healthcare Strategy.

We are committed to providing accurate and timely information about patient care and outcomes. We believe that identifying, measuring and publishing healthcare outcomes, building cohesive information systems, reducing variation and developing a culture of improvement will increase value. Our Value Based Healthcare Strategy will be a dynamic one and we will update it on a regular basis. We welcome feedback from all partners and stakeholders, including patients and carers, which could enhance our pursuit of value.

Professor John Moxham

Director of Clinical Strategy

King's Health Partners

March 2016

KING'S HEALTH PARTNERS
Value Based Healthcare Strategy

RECOMMENDATIONS

- All partners share data with Clinical Academic Groups (CAGs) to support them to produce **KHP Outcomes Books** that report clinical, educational and research activity and outcomes

- All partners share data with CAGs on **staff satisfaction and engagement** for inclusion in Outcomes Books

- All CAGs identify and discuss variation in outcomes over time, across KHP and relative to national and international comparators

- All CAGs publish in their Outcomes Books examples of **innovations that have improved outcomes and increased value.** Increased value can be achieved by improving outcomes for the same cost; improving outcomes for less cost; maintaining outcomes at reduced cost. Outcomes may also be improved at increased cost to the provider but increased value outwith KHP. Hence the importance of close collaboration between commissioners and providers and full understanding that value relates to the complete pathway of care

- All CAGs describe in their Outcomes Books the work done with **patients and carers to define outcomes that matter to patients**

- All CAGs describe in their Outcomes Books their **contribution to relevant public health goals**, particularly those in the KHP Tobacco and Alcohol Strategies

- All CAGs describe in their Outcomes Books the contribution they make to the delivery of **integrated care**, across **secondary and primary care**

- Addressing mental ill health in patients with long term physical conditions improves outcomes and all physical health CAGs will describe in their Outcomes Books the work they are doing to **identify and treat anxiety and depression** (including collaboration with other CAGs and providers along the care pathway)

- Patients with mental ill health often have poor physical health and all mental health CAGs will describe in their Outcomes Books the work they are doing to **improve the physical health of their patients** (including collaboration with other CAGs and providers along the care pathway)

- All CAGs describe in their Outcomes Books their plans for **service changes to increase value**

- All CAGs describe in their Outcomes Books how they **feedback to clinical teams** the outcomes achieved by those teams, and also the costs of producing those outcomes

- All CAGs describe in their Outcomes Books how they **feedback** outcomes data, including patient experience, **to patients and carers**

- Given the key goal of KHP to integrate the tripartite agenda of service delivery, education and training and research for the benefit of patient care, all CAGs describe in their Outcomes Books their **education, training and research activities and outcomes, and plans to improve these.**

1. Background

The purpose of King's Health Partners (KHP) is to improve the health and wellbeing of our patients and population. We seek to achieve this purpose against a background of rising costs of and demand for healthcare, as well as in the context of the UK spending less on healthcare as a percentage of GNP than comparable countries (**Figure 5**). Currently, our health and healthcare outcomes are not as good as we would wish. There are marked health inequalities and there is a lack of parity between physical and mental healthcare. In addition, the health of large sections of society is poor **(Figure 7)** and the huge demand this places on the National Health Service threatens its sustainability.

KHP believes that the way to improve clinical quality and health outcomes, reduce health inequalities and build a sustainable healthcare system is to deliver value based health and healthcare (VBHC). Our mission is to strive to increase value; ensuring that the 'value proposition' is built into the mind-set of all staff, informing our culture and decision making. We define value in terms of the outcomes that matter to patients and carers, over the full cycle or pathway of care, divided by the cost of producing these outcomes.

> "It's time for a fundamentally new strategy.
>
> At its core is maximising value for patients; that is, achieving the best outcomes at the lowest cost.
>
> Defining the goal. Narrow goals such as improving access to care, containing costs, and boosting profits, have been a distraction. Access to poor care is not the objective, nor is reducing costs at the expense of quality. Increasing profits … depends on increasing the volume of services, not delivering good results.
>
> The goal is to increase value.
>
> Failure to improve value, means failure.
>
> ***Michael Porter and Thomas Lee. Harvard Business Review October 2013***

A key theme of KHP is Mind and Body: treating the whole person. Many patients with physical illness, particularly those with severe long-term conditions, also experience mental ill health. These problems require recognition and treatment. Successful treatment of mental illness – for example, depression – also improves the outcomes of physical disorders. A large proportion of patients with mental ill health, particularly those with serious mental illness, have poor physical health substantially reducing their life expectancy. We are determined to address these twin problems. Improving outcomes for both patient populations would massively increase value. The partners of KHP and all CAGs are committed to treating the whole person.

VBHC resonates strongly with patients, carers and communities because it ensures they experience better health and care. Staff appreciate the benefit of VBHC because it ensures best possible health and healthcare is delivered. For those who have the responsibility of commissioning for health and healthcare, the value approach ensures maximum return for every pound spent. By embedding VBHC in KHP and in our collaborative working with our multiple stakeholders, we will help create a

sustainable and increasingly high-quality health and social care system for south London, with impact much further afield.

In the context of the extraordinarily challenging financial crisis currently affecting the NHS and local government, the value proposition can be legitimately rephrased such that increased value for our health and social care system can be achieved by:

- Improved outcomes for the same costs
- Improved outcomes for less cost
- Maintained outcomes at reduced costs.

In austere times, the maintaining of outcomes is highly valued by patients and carers.

2. Increasing Value across King's Health Partners

Although value is defined in terms of outcomes, in practice there are a whole series of outcomes that matter to patients and also to those providing care. Furthermore, as discussed later in this strategy, there are events upstream of the activities of clinicians that dramatically affect outcomes. If we consider the example of stroke, it is reasonable to presume that no-one would want to have a stroke, to die of a stroke or be profoundly disabled by a stroke. Yet the development of the factors leading to stroke is commonly over a life-course, starting with the wider determinants of health, early years' experiences and is greatly influenced by smoking, control of hypertension and hyperlipidaemia, obesity, diet and exercise. Following a stroke, the quality of acute care, rehabilitation and ongoing control of risk to avoid a repeat stroke are important. The major goal of KHP, as providers of care, is to increase the value of the care it provides for the parts of the stroke pathway to which it contributes.

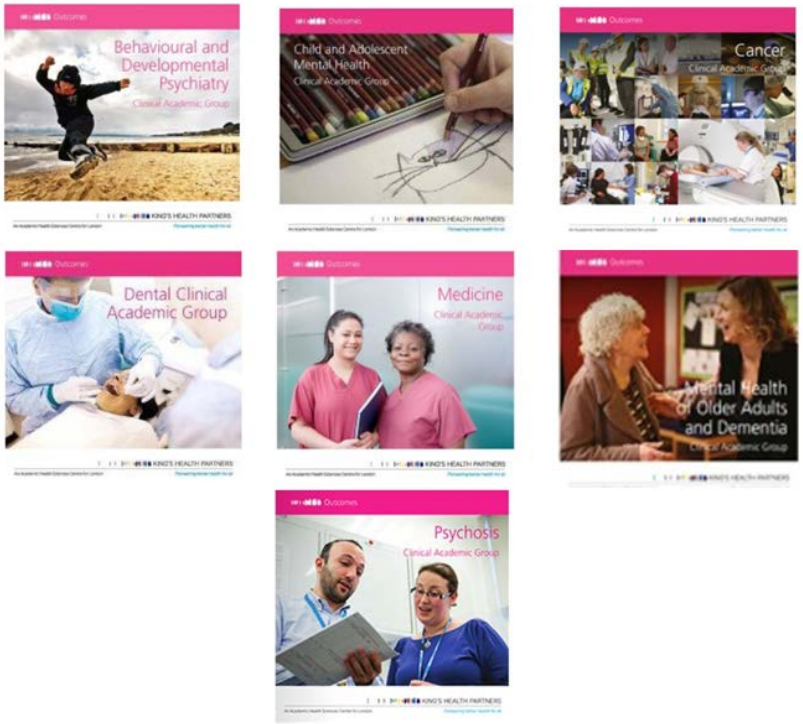
The NHS Foundation Trusts of KHP provide strong comprehensive clinical services, many of which are nationally-leading and internationally recognised. High-quality services make a huge contribution to VBHC.

The services of KHP are distributed across 21 clinical academic groups (CAGs), embracing all clinical staff. These CAGs seek to integrate clinical practice, education and research to further enhance clinical care. The performance of CAGs is reflected in their clinical, educational and research outcomes. **KHP strongly believes that identifying, measuring, feeding back on and publishing outcomes drives a culture of improvement and increased value. This is why we are publishing Outcomes Books for all 21 of our CAGs.**

> "The most powerful way to drive costs down is to improve outcomes (early and correct diagnosis and treatment , fewer complications, faster and sustained recovery)".
>
> "It is nice to compare yourself with others; the really important thing is to show how you are doing year on year".
>
> ***Michael Porter, Harvard***

To report meaningful outcomes, the CAGs require the supporting data from the relevant KHP partners. For the mental health CAGs this is relatively straightforward because those CAGs are the operational units of the Trust. For CAGs that cover services provided by both GSTT and KCH, this is not the case and for the CAG to report KHP-level data there is an absolute necessity for data to be openly shared. The shared data inevitably shows variation which can drive improvement. The aggregated CAG level data allows comparison of KHP with other leading AHSCs nationally and worldwide.

To date, KHP has published seven CAG Outcomes Books (please click here to view):



Encouraging progress has been made and we have demonstrated many examples of excellent outcomes, high-quality safe care and good long-term health gains. However, KHP acknowledges that the ambition has to be year-on-year improvement.

> "Although it is important to share outcomes with patients and the public, the main benefit is that it holds up a mirror to the organisation and tells the Clinic and the Institutes how well they are doing and whether or not they are improving".
>
> ***Toby Cosgrove, CEO Cleveland Clinic***

Psychosis CAG Outcomes Book Example: TREAT Service

The Treatment Review Assistance Team (TREAT) service is the first dedicated community service for people with schizophrenia and related disorders who have persistent symptoms despite treatment.

The team provides:

- A comprehensive assessment of physical and psychological factors preventing recovery

- The initiation of specialist treatments to address non-response to treatment
- Structured assessment of outcomes.

The Positive and Negative Syndrome Scale (PANSS; Kay, Fiszbein & Opfer, 1987) is used to provide a detailed, structured measure of outcomes. The PANSS is a widely used 30-item semi-structured clinical interview that measures positive, negative and general symptoms. This was given to service users with treatment refractory psychoses at their initial and discharge appointments **(Figure 1).**

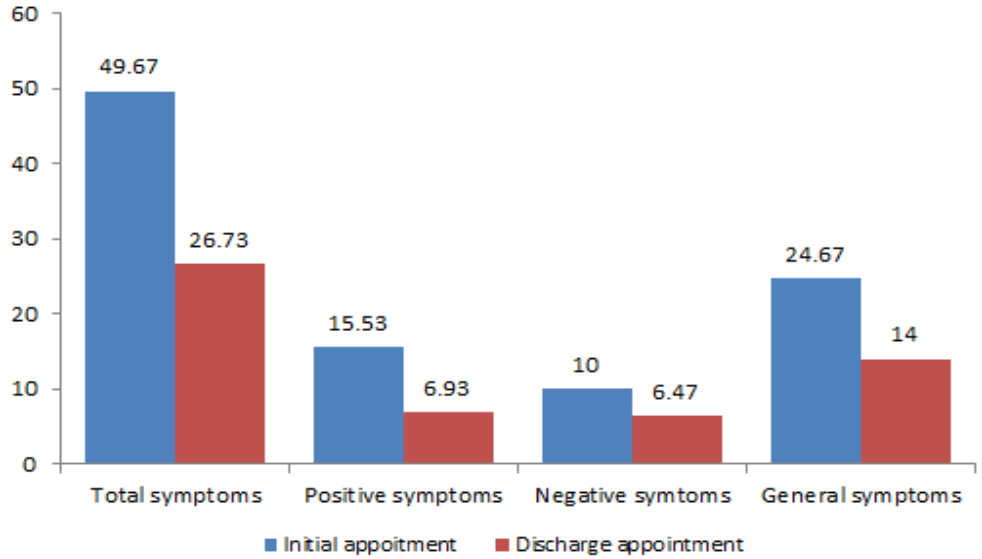


Figure 1: *Reductions in psychopathology measured by PANSS following intervention by TREAT*

Medicine CAG Outcomes Book Examples:

a. Readmissions

A readmission is defined as unplanned hospitalisation within 30 days following discharge. Although readmissions can be unrelated to the original problem for which the patient was admitted, they can be caused by deterioration in a patient's health after discharge which may be due to inadequate management of their condition (or lack of access to appropriate services in the community). Interventions to reduce readmissions target both inpatient care through efforts to improve the quality and safety of care and the transition to out of hospital care, which includes efforts to ensure continuity and coordination between out of hospital providers and timely access to follow-up services. **Figure 2** shows how we compared to other Trusts in London in 2012–13:

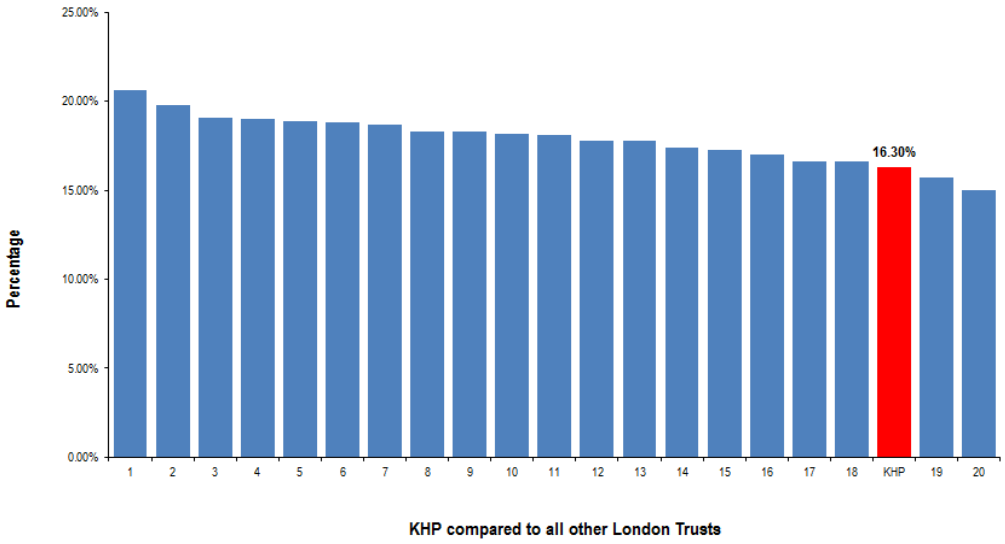


Figure 2: *Mean readmission rates for all London Trusts*

b. Older patients returning home following emergency admission

Following an emergency admission, not all patients recover sufficiently to return to their own home. In some cases, patients are discharged to community rehabilitation before going home. **Figure 3** shows that at KHP the chances of returning directly home is the highest in London, although the differences with other hospitals are partly explained by some hospitals having more community rehabilitation beds where patients are discharged to instead of going directly home.

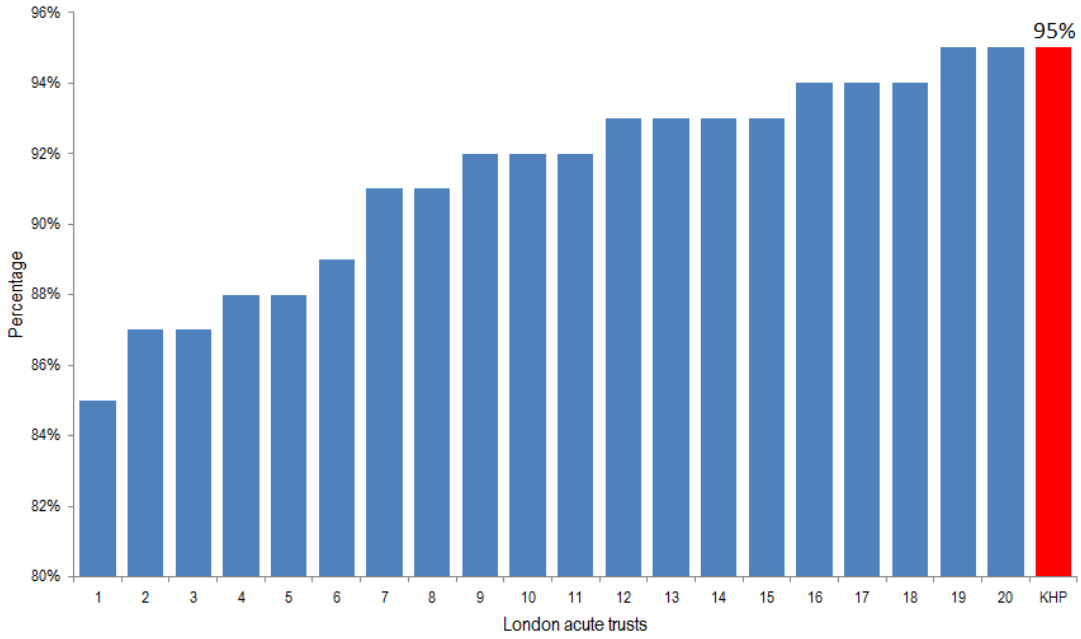


Figure 3: *Percentage of over 65s admitted who have been discharged to their usual place of residence 2012/13*

Our ambition for the next 2-3 years will be for all CAGs to have identified outcome measures for the most important conditions the partners care for. CAG leaders, working with service leaders, will

agree the outcomes to be measured, published and benchmarked and commit to year-on-year improvement in those outcomes; relentlessly driving improvement in outcomes will become 'business as usual'. Strong engagement with clinical teams will be essential.

When deciding the outcomes to be measured, the CAGs will work, as equal partners, with patients and carers. In this way, KHP will identify the outcomes that matter most - especially those that matter to patients – pinpointing variation and developing strategies to reduce it as part of an integrated organisation.

KHP is committed to achieving excellence in specialised services; in some we aim to be world class. These services will measure, publish and benchmark outcomes, nationally and internationally to both justify and build their international reputation. Best outcomes often require appropriate scale and specialist services are expensive. The duplication of specialist services can be a low-value strategy delivering suboptimal outcomes at higher cost. KHP's long-term strategy will include the appropriate configuration of specialist services to achieve best outcomes with best use of resources to optimise value. Achieving outstanding results for patient care and best value will drive growth of our specialist services and associated academic activity.

3. Feedback to and Performance of Staff

Feedback of outcomes data to staff is critically important to driving improvement. Without feedback, staffs are disengaged, merely providing information to analysts and not motivated to produce data of high quality. Without feeding back to staff, the big cultural change necessary for VBHC will not take place. KHP believes that staff have a right - even a duty – to see the outcomes of their work presented to them in the most comprehensive and engaging format feasible. It is also crucial to feedback outcomes data to patients and carers.

The quality, commitment and engagement of our staff are major determinants of the outcomes and value we are able to deliver. Staff need to feel engaged with their work and fully supported to do well. Staff wellbeing is an important measure that all CAGs should report in their Outcomes Books.

4. Costs

It is not possible to accurately measure value without a sound knowledge of the costs incurred in producing outcomes.

Hospital finance departments have a great deal of granular information on costs. Often this information is not widely shared with clinical teams. If our Trusts are to embrace a culture of increasing value, it is essential that staff understand the costs of delivering care as well as the outcomes achieved. The exact measurement of costs is complex and will reflect cost allocation processes but it is achievable. Furthermore, an approximate but useful understanding of costs can often be gained by taking a 'resources used' approach. Within a service, the greatest costs usually relate to staff (number of nurses, medical consultants and other staff), facilities (wards, beds, operating theatres, clinic rooms, catheter laboratories, CT scanners etc.) and expensive consumables (drugs, heart valves, joint prostheses etc.).

As with outcomes, staff have a right – even a duty – to see the costs of their work so they are able to improve their use of resources to increase value and support investment to improve outcomes. The variation of costs, outcomes and value across the partners of KHP represents a huge opportunity which must be seized if our ambitions are to be realised. Sharing of data will be essential to achieve this. When clinical teams have outcomes and costs data, they are in a position to strategically withdraw from low-value activities and invest in higher-value alternatives. The same strategy is relevant across the entire health and social care system but prerequisites for increasing value are sound comparative data on outcomes and costs and a deep knowledge of interventions that would increase value.

KHP example of increased value

Three Dimensions For Diabetes (3DFD)

3DFD is a patient-centred multidisciplinary service integrating psychological and social care with diabetes care. The service has demonstrated improved psychological, social and medical outcomes for patients with multi-morbidity and at risk of diabetes complications in two of the most ethnically and socioeconomically diverse boroughs in the UK: Lambeth and Southwark. 3DFD comprises clinical psychologists, third-sector support workers and a consultant liaison psychiatrist, integrated into the diabetes teams across primary, community and secondary care. Interventions are tailored to needs and include social support, brief psychological interventions, psychiatric assessment, psychotropic medications and the systemic management of complex patients, integrating mind and body care and addressing health inequalities. The service receives an average of 300 referrals per year: 1020 patients have been referred into the programme.

On referral patients had a mean HbA1c of 96 (SD 20.3)mmol/mol (10.9 (SD 1.9)%DCCT) and reported a reduction in HbA1c of 16mmol/mol, highly significant in reducing the risk of diabetes complications: UKPDS has shown that reducing HbA1c by 10mmol/mol reduces risks of complications by up to 40%. Sixty percent of patients received a new diagnosis of a psychiatric disorder (60% depression, a very treatable condition), indicating significant unmet health need. In the year following the intervention and compared with the previous year, 3DFD patients had reductions in A&E attendances of 45%, hospital admissions of 43% and beddays of 22%. The service cost £190K for two boroughs, but saved £225K in one year (£850 per patient per year): this is a cumulative saving mainly based on the reduction in hospital admissions. Over five years, we predict savings of £2,425K (£3,375K minus cost £950K).

3DFD provides evidence that a multidisciplinary approach is effective and adds value in the management of complex comorbidity in diabetes, with improvements in the domains of psychological functioning, social functioning, biomedical well-being and the appropriate utilisation of health services. 3DFD was awarded the BMJ Diabetes Team of the Year award, 2015.

Khalida Ismail, Carol Gayle, Anne Doherty

5. Integrated Care – improving outcomes for pathways of care

Applying a VBHC approach to the activities of our hospital trusts would substantially improve outcomes, reduce costs and increase value, but often greater and more sustainable value can be realised if whole pathways/cycles of care are included. Commissioners are increasingly focussed on funding more integrated models of service provision and achieving outcomes along the whole pathway of care. KHP works closely with our health and social care partners in Lambeth and Southwark (Southwark and Lambeth Integrated Care, SLIC) to promote integrated care across mental and physical healthcare needs for adults and also for children (including the Children and Young People's Health Partnership). Integrated care strongly supports VBHC, including preventative care.

Evolving new ways of commissioning and providing integrated care will promote value, delivering outcomes that matter to patients/carers over the full pathway of care whilst measuring the total costs of producing those outcomes. The near future will see our integrated care system supporting patients through a model whereby each care provider makes an agreed contribution towards the delivery of outcomes.

The CCGs are co-commissioning general practice, in addition to their responsibilities to commission secondary care. Indeed, CCGs will also play an increasing role in the commissioning of some specialist services. The Boroughs are commissioning public health. Thus, in the example of stroke, the local Borough may commission smoking cessation services, the CCGs may commission GPs to identify and control hypertension, as well as hospital-based stroke services from the Trusts. They may also commission rehabilitation and home adaptations from community services.

Integrated care, integrated commissioning and the monitoring of outcomes, with the associated costs, over the full pathways of care requires advanced informatics. In recent years, the KHP Trusts have collaborated closely to share patient information for the benefit of care. Many patients receive care at more than one of the partner Trusts. KHP Online allows clinicians to see relevant clinical information (correspondence, blood test results, x-rays etc.) from the other local Trusts that have seen their patients. This ensures that all providers have up-to-date information, avoid over-investigation, save time (for the patient and healthcare professionals), save money and increase value. Now the Local Care Record (LCR) project is connecting the IT systems in primary care to those in secondary care, further strengthening integration and driving value. The LCR will, in the near future, also be accessible to patients. The input from patients about their experiences of care and their progress – collected as patient-reported outcome measures (PROMs) - will transform the understanding of providers and their clinicians, commissioners and patients of the outcomes being achieved, in both the short and long term. It will also increasingly focus all partners in our integrated care system on the effectiveness of care and the outcomes that matter to patients, their families and carers. In the future, patients will use IT to interact with care providers and take even greater control over their health and care.

6. The importance of clinicians in increasing value

The necessity to increase value in healthcare is well-articulated and strongly endorsed by the King's Fund (Better Value in the NHS, 2015). The views of the King's Fund are closely aligned with the VBHC

programme of KHP. The following pages of this strategy draw heavily on the King's Fund document. Their excellent report points out that with the onset of austerity and the slowdown in funding, the NHS was given the 'Nicholson Challenge' of making productivity improvements of £20 billion by 2014-15. This was in large measure achieved by a national policy of freezing public sector pay and reducing the prices paid to hospitals for services. There are limits to this approach. In the Five Year Forward View (October 2014), the NHS has been given the 'Stevens Challenge' of delivering further productivity improvements of £22 billion by 2020-21. Pay freezes and reductions in prices cannot deliver this challenge – what is required is a relentless drive to increase value from the NHS budget. The goal is better outcomes for patients at less cost.

It is essential to engage clinicians - indeed all staff - in the task of increasing value. There is no possibility of delivering the Stevens Challenge without changes in clinical practice at all levels. The King's Fund report highlights opportunities to increase value by further reductions in hospital length of stay, increased generic prescribing of drugs and increased day surgery. In all three areas, there is great variation across the NHS and movement towards best practice would substantially increase value. Variations in care for a multitude of treatments, procedures and outcomes are well-documented, indicating that much care is sub-optimal.

For example:

- **Length of stay in hospital** - varies from 0.4 days to 4.3 days for elective breast surgery;
- **Emergency readmissions to hospital** - COPD readmissions at 30 days vary from 9% to 18%; overall, 30% of all 30-day readmissions are avoidable;
- **Implementation of best practice clinical guidelines** - hugely variable, including NICE guidance to tackle the problem of medicines not being taken properly. 33-50% of drugs prescribed for long term conditions are not taken at all or not taken as recommended by NICE, leading to waste, clinical deterioration and increased demand for services;
- **Preventable harm** - common, costly and highly variable. Errors are largely caused by working conditions that lead people to make mistakes or not prevent them from happening, rather than 'bad apples' working in the system.

The King's Fund points out that innovations that increase value are only happening in pockets in the NHS and the challenge is how to embed a culture of continuous quality improvement. They note that world-leading healthcare organisations moved from average to good and from good to great not by making a giant leap forward but by accumulating positive benefits of many small improvements, recognising that this takes time and requires engagement by many people. **The most promising possibilities to increase value now rest in the hands of clinical teams.** The King's Fund has developed an agenda for action at all levels of the NHS (**Figure 4**).

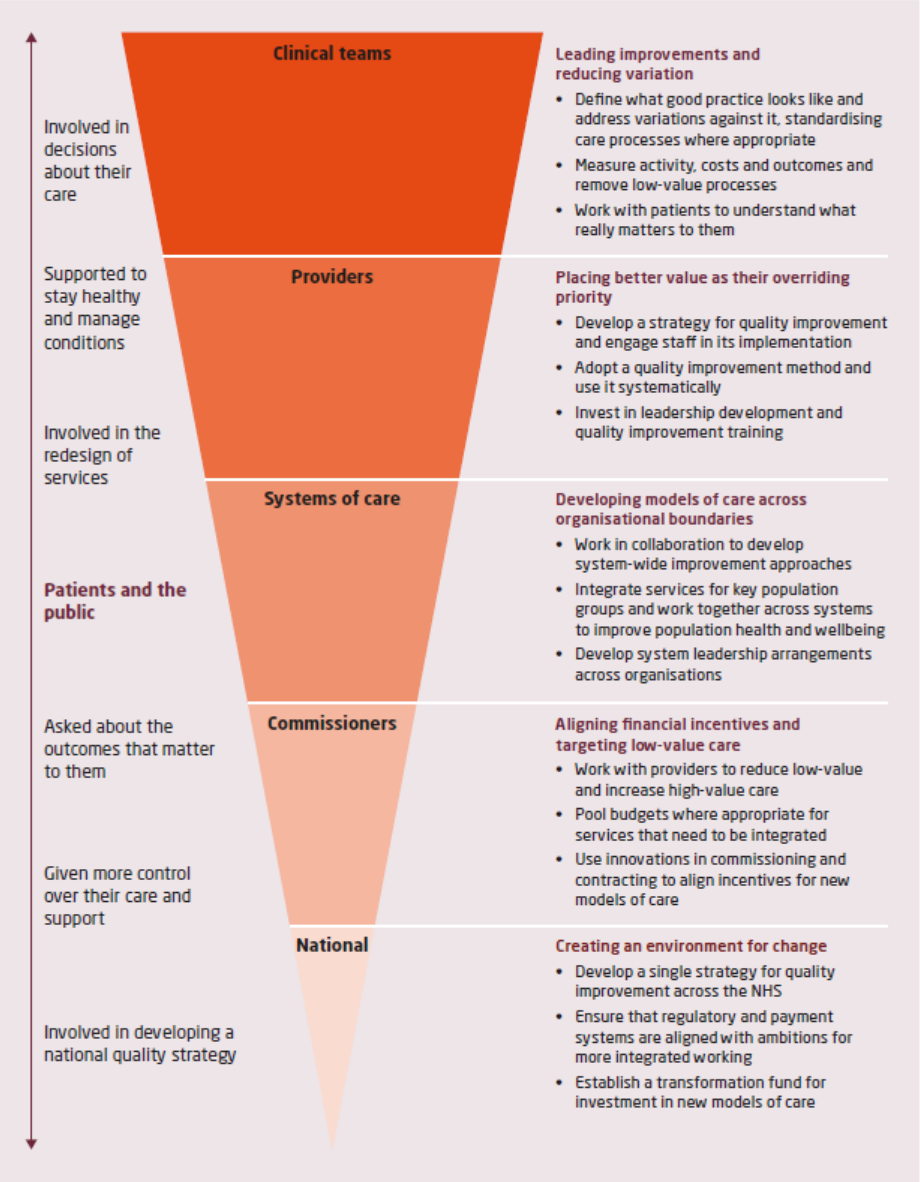


Figure 4: *The King's Fund Better Value in the NHS - an Agenda for Action, 2015*

7. Clinical teams

Teams need time and skills to review how they provide care and how it can be improved. Team members should have access to leadership development and quality improvement training, as well as data to compare their performance with others and over time.

Teams should measure their work, focusing on activity, costs and outcomes, as well as the relationship between them. They should define what good practice in their service looks like and address variations against this. Where appropriate, they should aim to standardise how care is delivered by reducing unwarranted variation within and across teams.

Teams should involve patients in work to improve care and should seek to 'walk in the shoes' of patients when they redesign services. They should also take time to understand the experience of

patients and how they can respond to patient feedback. As well as involving patients in quality improvement, teams and the professionals working within them should embed shared decision-making with patients as a core part of the way that they provide services. This means understanding what really matters to patients and giving them information that they can understand to help make decisions about their care.

KHP example of increased value

Health Foundation Shared Purpose VBHC Project – Endocarditis

The Shared Purpose Value Based Healthcare project explored the practicalities of operationalising Porter's VBHC framework within an NHS setting. The project set up new value-based reporting systems for three multidisciplinary teams (MDTs) at King's College Hospital (KCH) including the endocarditis team. Although KCH (Denmark Hill) typically has around 40 endocarditis patients a year, many of these patients had long lengths of stay (often over four weeks) and the typical admission costs of £35-40k were much higher than anyone had appreciated.

At the start of the project, the endocarditis team had little available data and few established ways of working together beyond informal professional relationships. The team hypothesised that better information about their patients and patients' perceptions of the care they received could help the team understand how to co-ordinate the treatment of these patients and achieve better value for them and for KCH. The project's work in framing value in endocarditis in terms of outcomes and cost led to prioritising key areas of service improvements:

a) **Shortening hospital stays** – Cost data revealed the extent to which extended patient stays drove high costs. Discussions with patients revealed how keen patients were to get home. This led the team to consider how they might safely reduce the length of hospital stay for endocarditis treatment. As a result, more effective communication between clinicians during the early phase of treatment, increasing the frequency of MDT discussions and extending the use of monitored IV antibiotic provision at the patient's home have all been implemented.

b) **Avoiding unnecessary treatment** – Patient input in the early stages of the project highlighted the ongoing anxiety endocarditis patients felt and the lack of continued support after treatment. The endocarditis team introduced consistent follow-up and a designated post-discharge point of contact for patients to help address this anxiety and to provide a clear alternative care path to A&E.

To the end of 2014, a sustained reduction in average length of stay of 7 days was seen in endocarditis which, based on the average daily cost of treating endocarditis at KCH and taking account of the cost of the endocarditis elements of the project (£58,681), yields annual savings of £179,399.

Rafal Dworakowski, Donal Whitaker, Amanda Fife, Margaret Gunning,Gavin Hardman, David Dawson

8. Providers

The King's Fund point out that every NHS provider should see improving outcomes and achieving better value as overriding priorities and develop a strategy for quality improvement. Trust Boards should devote time to this at their meetings and should review benchmarking data to compare their performance with others and over time. Staff engagement should be a key part of these efforts, so that all staff see quality improvement as part of their day-to-day job. Providers should invest time and resources in leadership and quality improvement training for their staff, recognising that this is usually most effective when done 'in place'.

Providers will need to work together and with other organisations across systems to realise many of the opportunities to increase value. The King's Fund observes that one way that this can be done is through Academic Health Science Centres and Networks, as well as through collaboration between clinicians to improve care in specific areas.

KHP example of increased value

Providing high value care for patients with neck of femur fractures - implementing a VBHC approach

Patients who have fractured neck of femur (NOF) represent a high-risk group. They have complex physiological and social care needs and their fragility often amplifies their acute vulnerability. HSCIC data indicates fractured NOF patients to have the second highest 30-day mortality rates following emergency admissions, just after stroke patients. It is a common injury. The UK annual incidence of patients with NOF fracture is projected to rise to 91,500 in 2016. This is matched by an increasing annual expenditure of £2.2 billion by 2020. Following the Princess Royal University Hospital joining King's College Hospital, the outcomes for patients with NOF were investigated. The national hip fracture database report indicated a higher than predicted mortality rate. Historically, patients with NOF fractures have had their entire pathway managed by orthopaedic surgeons.

The principles set out in the VBHC agenda suggest a re-orientation of service about the patient or condition with an aim to improve outcomes and reduce costs. The plan was therefore to create an integrated practice unit for patients with NOF fracture. The aim was to manage this cohort on a condition- rather than departmental-basis and wrap the complex multidisciplinary care that they require around them. A new standardized pathway was introduced to comply with national guidelines.

Internal review indicated that the average patient was an 84-year-old who was classified as ASA 3. A mortality review indicated that for 85% of patients with major concerns relating to quality of care these occurred in the first 24- to 48-hours of admission. This corresponded with their access, resuscitation, surgery or acute recovery. Two-thirds of patients with NOF fracture were not admitted initially to a specialist ward.

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New initiatives and team-based structures were implemented. At the point of access, an improved emergency department triage, review and referral system was introduced, the patients being referred to an orthopaedic surgeon, orthogeriatric physician and a NOF clinical nurse specialist. The patients were then admitted to a specialist ward with a dedicated acute NOF area. Pre-operative anaesthetic review identified any issues that could cause surgical delays. In this manner, the condition of the patients was optimized and an emphasis placed on early surgery (within 24 hours) using standardized techniques. Following surgery, the patients returned to the specialist ward and were stepped down when safe to provide capacity for incoming acute patients.

Key performance indicators improved. These included: time to admission to a specialist ward (reduced to 6 hours as compared to an average in 2014 of 66.5 hours), time to surgery, 30-day mortality (reduced to 5.2% as compared to the 2014 annual mortality rate of 10.4%) and reduced length of stay. Assuming the improved outcomes are sustained, the annual savings to the trust will be approximately £2 million.

Conclusions

Re-orientating the service towards the needs of patients with NOF fracture has a positive impact on outcomes. To achieve this, an understanding of the most critical points along the care pathway is important, as is an appreciation of how the backend of the pathway can impede the front. Improved outcomes have been realized through this VBHC approach with higher-value care being delivered. This condition-based, patient-centered approach demonstrates how better care can be more cost effective.

Toby Colegate-Stone and Joydeep Sinha
Trauma and Orthopaedics CAG

A critically important part of collaboration is working across health and care providers to co-ordinate services, particularly for older people and those with complex needs. Examples at KHP would include SLIC. Going beyond this, providers will also need to work with other organisations across their local systems, including Health and Wellbeing Boards to improve the broader health and wellbeing of the populations they serve. This means working with organisations outside the health and care system – such as local government services, the voluntary sector, housing providers and employers to pay attention to prevention and the wider determinants of health. It also means thinking about improving value in broader terms than simply within the NHS.

9. Commissioners

Commissioners should focus on making use of benchmarking data and evidence from NICE, NHS Right Care and other sources to illustrate the opportunities for improvement available to CCGs in different areas of England. This includes targeting low-value interventions and examining variations in performance as outlined in the NHS Atlas of Variation (www.rightcare.nhs.uk/index.php/nhs-atlas/).

NHS commissioners should work with local authority commissioners to support the development of integrated care for people with long-term conditions and for end-of-life care. They should pool their budgets for services that need to be integrated and seek to use their combined resources where these will deliver the most value.

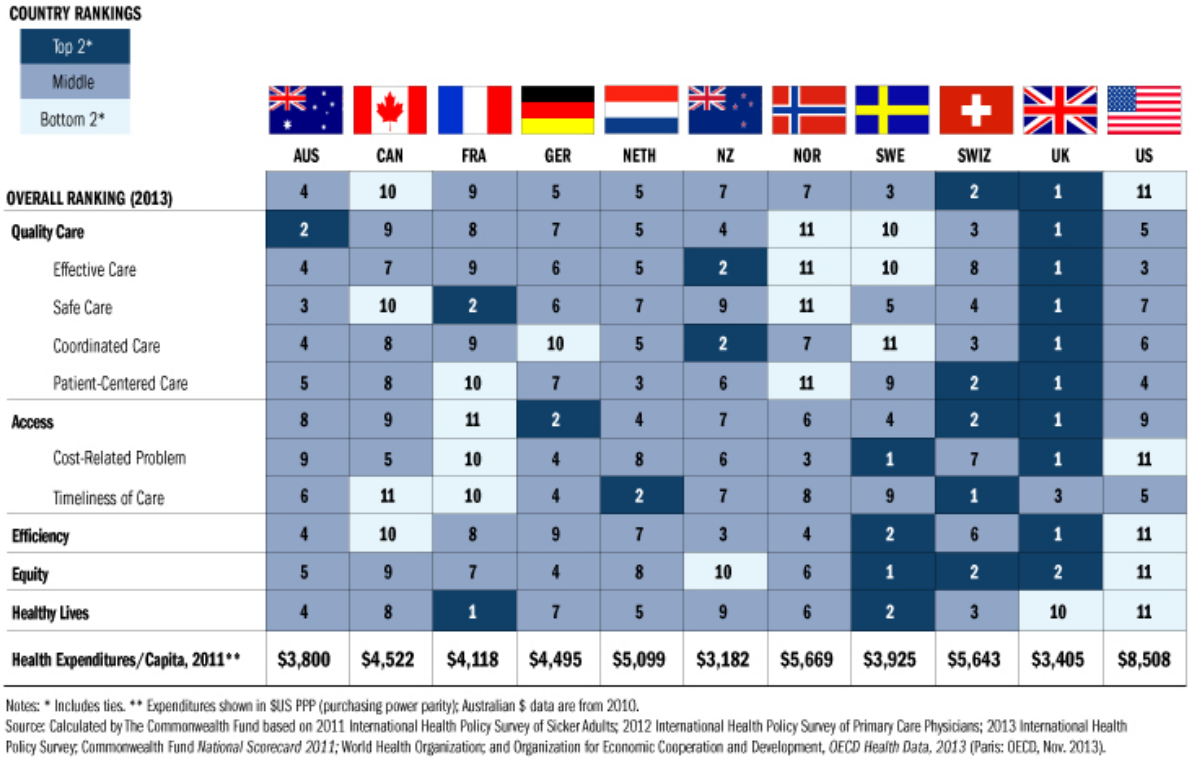
Commissioners should use these budgets to align incentives for providers to deliver new models of integrated care. For KHP, the integrated commissioning of mental and physical healthcare is particularly important. Commissioners could do this by setting capitated budgets for the care of defined population groups, with payments linked to outcomes for providers to collectively deliver. These outcomes should be developed with patients and the public to ensure that providers are being asked to deliver services which matter to the people using them.

10. Value Based Healthcare across the wider health and social care system – the central importance of Public Health

Currently much severe physical illness is caused by avoidable pathological processes. In our local boroughs of Lambeth and Southwark, the major causes of death are vascular disease (heart disease, stroke), chronic obstructive pulmonary disease (COPD) and preventable cancers (for example, lung and liver cancer). No-one wants to die early from preventable causes and no-one wants avoidable ill health prior to death.

Analysis of the UK healthcare system shows that the NHS has until relatively recently been rated very highly in terms of access to care, quality of care and efficiency (**Figure 5**). However, at the time of the analysis, the UK also scored poorly on healthy lives.

It could be argued that as a delivery of care system, the NHS was until recently offering relatively good value. However, the analysis by the Commonwealth Fund of the health of the public reveals that the population of the UK is less healthy than in 9 of the 10 other developed countries assessed, and only healthier than the USA. The poor health of our people puts a severe strain on the NHS, which has led the Chief Executive of the NHS to comment in the Five Year Forward View, “The first argument we make in this Forward View is that the future health of millions of children, the sustainability of the NHS, and the economic prosperity of Britain all now depend on a radical upgrade in prevention and public health”. The document goes on to say: “The NHS will back……national action on obesity, smoking, alcohol and other major health risks”.



	AUS	CAN	FRA	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
OVERALL RANKING (2013)	4	10	9	5	5	7	7	3	2	1	11
Quality Care	2	9	8	7	5	4	11	10	3	1	5
Effective Care	4	7	9	6	5	2	11	10	8	1	3
Safe Care	3	10	2	6	7	9	11	5	4	1	7
Coordinated Care	4	8	9	10	5	2	7	11	3	1	6
Patient-Centered Care	5	8	10	7	3	6	11	9	2	1	4
Access	8	9	11	2	4	7	6	4	2	1	9
Cost-Related Problem	9	5	10	4	8	6	3	1	7	1	11
Timeliness of Care	6	11	10	4	2	7	8	9	1	3	5
Efficiency	4	10	8	9	7	3	4	2	6	1	11
Equity	5	9	7	4	8	10	6	1	2	2	11
Healthy Lives	4	8	1	7	5	9	6	2	3	10	11
Health Expenditures/Capita, 2011**	$3,800	$4,522	$4,118	$4,495	$5,099	$3,182	$5,669	$3,925	$5,643	$3,405	$8,508

Notes: * Includes ties. ** Expenditures shown in $US PPP (purchasing power parity); Australian $ data are from 2010.
Source: Calculated by The Commonwealth Fund based on 2011 International Health Policy Survey of Sicker Adults; 2012 International Health Policy Survey of Primary Care Physicians; 2013 International Health Policy Survey; Commonwealth Fund *National Scorecard 2011*; World Health Organization; and Organization for Economic Cooperation and Development, *OECD Health Data, 2013* (Paris: OECD, Nov. 2013).

Figure 5: *Commonwealth Fund overall ranking*

The partners of KHP are leading Trusts within the NHS and want to make a strong contribution to this prevention agenda (see particularly the KHP Tobacco and Alcohol strategies):

http://www.kingshealthpartners.org/our-work/public-health

Patients who have strokes, myocardial infarction, lung cancer and many other diseases are much more likely to have been cigarette smokers. Patients with cirrhosis, liver cancer, trauma and pancreatitis are much more likely to be heavy drinkers of alcohol. Patients with type 2 diabetes and obstructive sleep apnoea are more likely to be obese. Thus, public health problems lead to medical conditions that require healthcare and they are best seen as the early phase of the pathway/cycle of disease/care. **Public health and prevention are therefore a hugely important part of the value proposition, every bit as important as clinical care.**

11. Measuring the relative value of different therapies and interventions

In the same way as service delivery interventions, public health interventions have a cost and produce outcomes that can be measured and value that can be assessed. Some public health interventions are known to be of high value; an example would be smoking cessation (£1-2k per Quality Adjusted Life Year (QALY) gained) and in the context of the management/treatment of COPD, it is a very high value intervention (**Figure 6**).

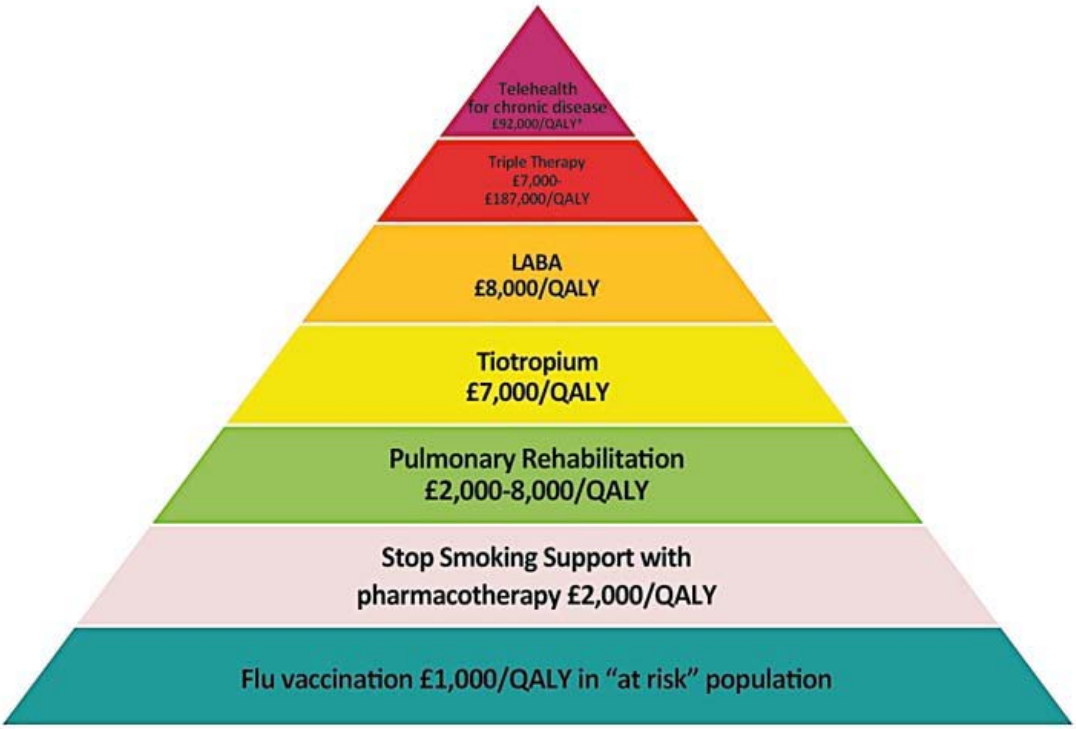


Figure 6: *COPD Value Pyramid. NHS London – London Respiratory Team*

In the common condition of COPD, some interventions (flu vaccinations, smoking cessation and pulmonary rehabilitation) are good value. The same outcome - the gain of a QALY (Quality Adjusted Life Year) - is achieved at low cost. In contrast, 'triple therapy' inhalers that include a high-dose steroid are low-value and cost 25-100 times as much to achieve the same outcome. Furthermore, triple inhalers are currently prescribed to many patients for whom they are not indicated, contributing to waste, and they have side effects . Reducing the prescribing of triple inhalers and using the money saved to increase expenditure on vaccination, smoking cessation and pulmonary rehabilitation is a high-value strategy in COPD. A similar approach would increase value in the treatment of many other diseases. Disinvestment from low-value interventions is a particularly important strategy to maximise value when finance is constrained.

KHP/Lambeth & Southwark example of increased value

KHP/Lambeth and Southwark Integrated Respiratory Team (IRT) – delivering better care to patients with Chronic Obstructive Pulmonary Disease (COPD) at reduced cost

Integrated working and respiratory virtual clinics as a means of delivering person-centred care for the individual and high-value care for a population of patients with COPD.

Historically, clinical outcomes for COPD have been poor in Lambeth and Southwark and emergency admissions have been three times the national average, with a high level of 90-day readmissions (40%). There has been considerable variation in accuracy of diagnosis and long term management of these patients, with poor coordination between primary/secondary care. High rates of inhaled corticosteroid (ICS) prescribing have also been reported, raising concerns about over-use of these drugs, with less focus on high-value interventions like stop smoking support/pulmonary rehabilitation.

The IRT is a seven-days-a-week multidisciplinary 'team without walls' led by two local GP respiratory leads and an integrated respiratory consultant. Central to the service are Respiratory Virtual Clinics (VCs). The VCs are consultant-led clinical sessions, supported by a respiratory pharmacist and are facilitated by the CCG medicines management team. Primary care case notes and clinical data for local respiratory patients are reviewed with the practice staff (minimum one GP) with the aim of increasing value (better outcomes for patients at reduced cost), strongly guided by the COPD Value pyramid (Figure 6).

A particular focus of the IRT has been reducing the use of high-dose inhaled steroids in line with best practice guidelines, optimising care and reducing side effects, particularly pneumonias (Figure i).

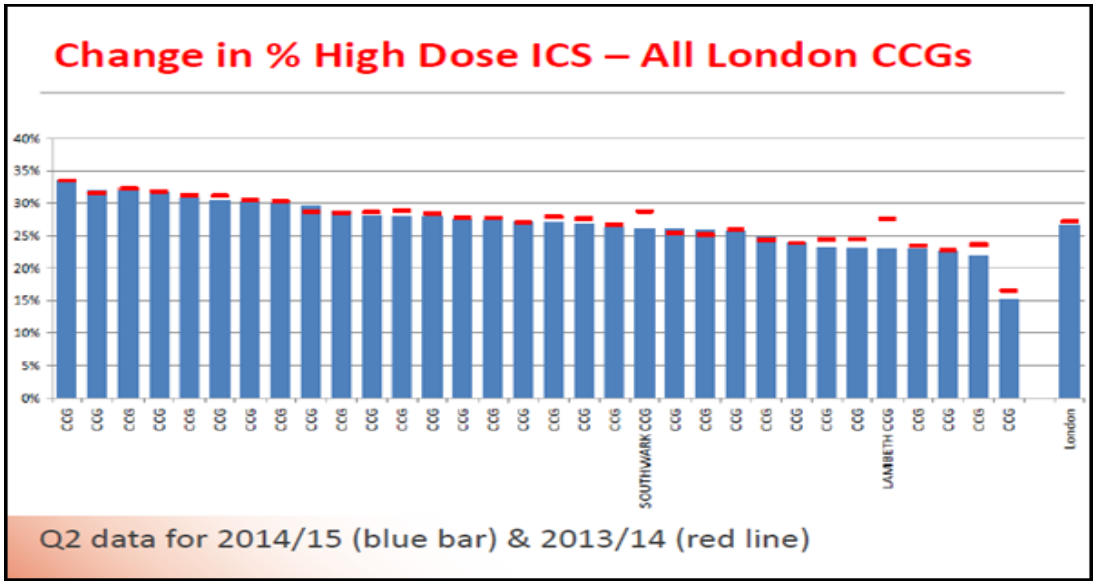


***Figure i**: Note the large reductions of the prescribing of high-dose inhaled steroids in Southwark & Lambeth and little change in most other Boroughs*

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Cumulative savings of £350,000 over 7 quarters have been made in Lambeth alone (Figure ii).

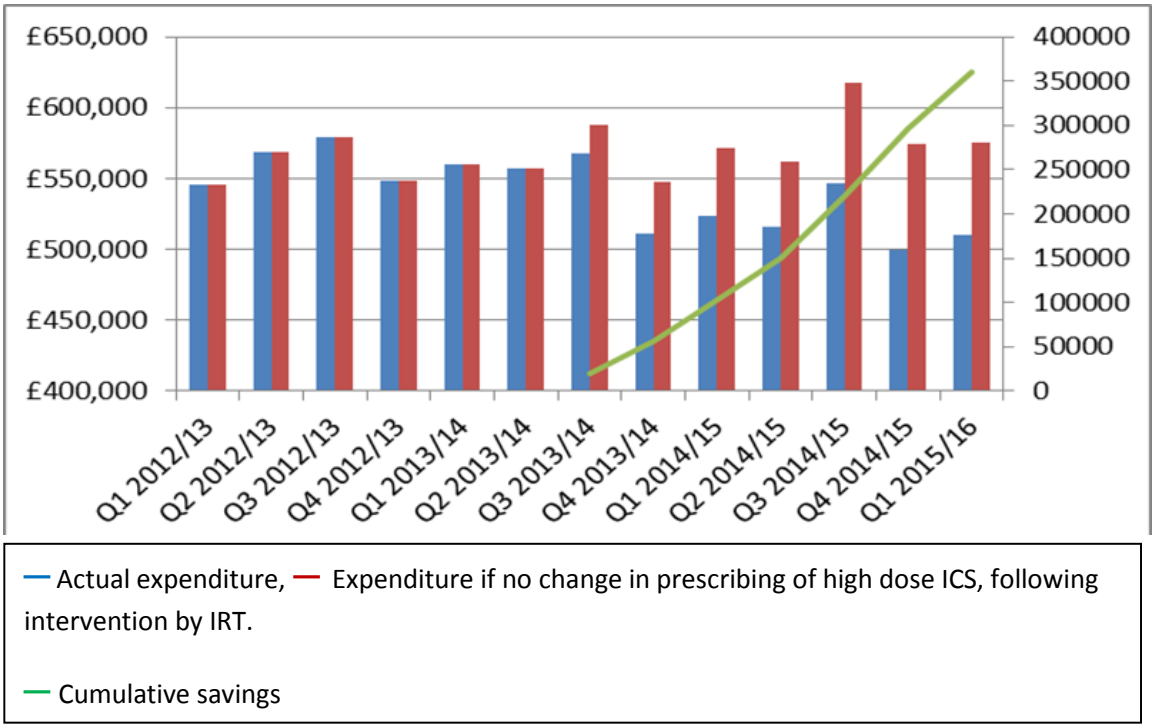

Figure (ii): *Medicines spend on high-dose inhaled steroids in Lambeth and cumulative savings seen over time*

In parallel, there has been an increase in referrals to pulmonary rehabilitation (PR). PR is known to be a high-value intervention (see Figure 6) that improves breathlessness, exercise capacity and reduced readmissions in COPD. KHP researchers have published papers that provide much of the evidence for these benefits. Referrals from primary care for PR have increased 50% since 2012 and the Lambeth and Southwark PR programme now receives the most referrals per year of any programme nationally.

COPD Admissions

Since the inception of the IRT, acute COPD admissions to King's College Hospital (within appropriate HRG codes) have reduced by 34% from 2012 to 2015. Length of stay has reduced by 17% from 4.45 to 3.7 days.

Patient Experience

Below is a poem written by a patient with COPD who was supported by the IRT in 2015:

"You do things, then disappear. You're so unassuming; it's as if you were never here.
But you were, you are, you're everywhere. You are the ones who <u>really</u> care".

The KHP/Lambeth and Southwark IRT achieved the highest score in London for King's College Hospital in the 2014 National COPD audit, and have been shortlisted for the Royal College of Physicians, Excellence in Patient Care Awards 2016.

Irem Patel, Noel Baxter and Azhar Saleem

It is not surprising that the Five Year Forward View emphasises the value proposition of improving public health and prevention and argues strongly that a sustainable high-quality health and social care system is not possible without it. **VBHC is frequently seen as mostly within the remit of hospitals but to increase value it is often essential to address the 'front end' of disease pathways and include control of the known causes of medical conditions.**

The strong value proposition of prevention and control of the antecedents of disease highlights the important roles of all levels of government, including local councils, and also of primary care in driving value-based health and healthcare. The crucial importance of primary care is reflected in the current plans to improve healthcare across south east London. Central to the new model of care is the development of Local Care Networks (LCNs) - embracing federations of general practices, strengthening all aspects of primary care (including mental health) and also building strong integration with social, community and secondary care. **Proactive primary care could drive prevention and therefore substantially increase delivery of value.**

Measuring outcomes, costs and value in primary care is difficult. The Harvard view (Porter et al, Health Affairs 2013, 22: 516-525) is that for primary and preventative care, value (outcomes and costs) should be measured for defined patient populations with similar needs. For example: healthy individuals, pregnant women, children, adults at risk, healthy individuals with complex acute illness, those with one or more chronic conditions (including mental health), very complex patients with multiple conditions and frequent admissions. Each group would be looked after by a team, integrated with community and secondary care, with measurement of outcomes and costs. This model could be well-led and supported by mature LCNs. As with hospital-based teams, it is essential that primary care and LCN teams know their outcomes, costs and contribution to increasing value.

The segmentation of care provision to better meet the needs of our local population and increase value reflects the health status of the people (**Figure 7**).

At the apex of the 'Christmas tree', 10% of the population have three or more long term conditions (LTCs) or are at the end of life (EoL). This 10% accounts for the bulk of expenditure. LTCs and EoL care account for 70-80% of total health spend. **The huge number of people who have or will inevitably develop LTCs will make the health and social care system unsustainable without major corrective action.**

Analysis of the population of south east London shows that only a minority of the population (16%) are completely healthy and have no identifiable risk of developing an avoidable illness. A huge proportion (50%) are at risk of developing illnesses because of their behaviours (eg. smoking, lack of exercise, excessive calorie intake, excessive alcohol consumption) and the severe inequalities they face (eg. poverty, poor housing, domestic violence).

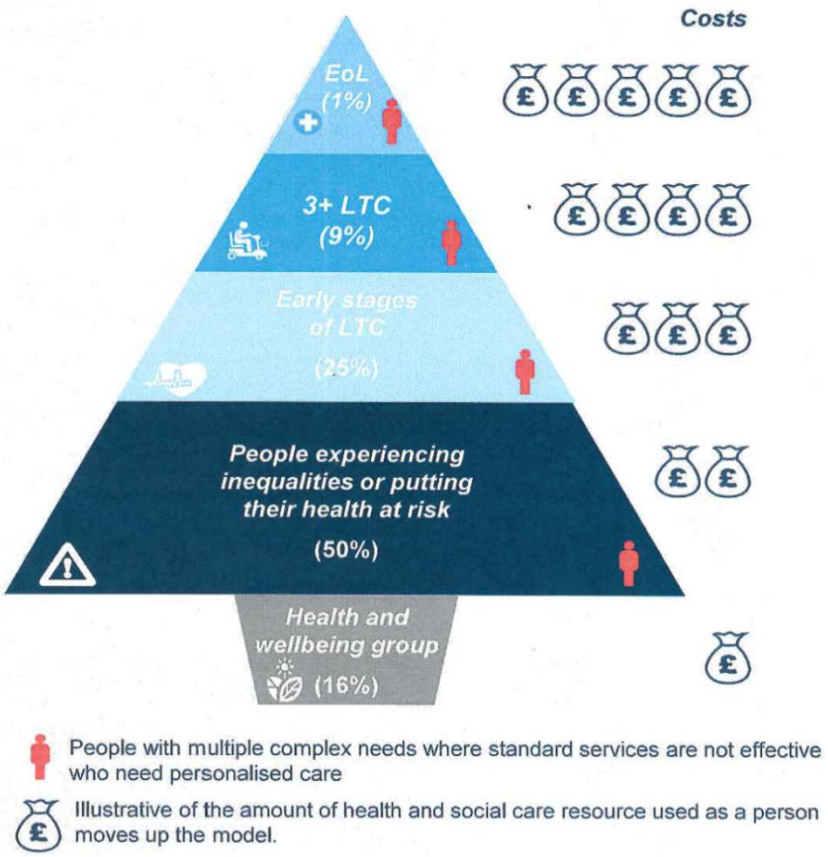

Figure 7: *Our Healthier South East London, 2014*

It is clear that a relentless focus on maintaining health and addressing deleterious lifestyles will be as important as dealing effectively with overt illness if we are to improve value. It is essential that we change the shape of the 'Christmas tree'. Reaching and supporting individuals of all ages and enabling them to live more rewarding and healthier lives is a huge challenge. KHP can play a part through its commitment to public health and the development of the Institute of Urban Population Health and Care. KHP can also contribute through its Mind and Body Programme. For example, the Integrating Mental & Physical Healthcare: Research, Training and Services (IMPARTS) programme is identifying mental health needs in patients with physical disorders seen by the partners (eg. arthritis, heart failure, pain) and responding to them. Similarly, KHP is identifying and responding to the physical health needs of patients with mental ill health. The partner Trusts of KHP have millions of patient contacts each year and this represents a huge opportunity to identify and support patients with obvious risk factors for disease: particularly, smoking, excessive alcohol consumption, obesity and poor mental health.

Finally, in this strategy we return to **the great challenge of treating the whole person: mind and body. We argue that this is the greatest value proposition of all.** KHP pioneering studies (Three Dimensions for Diabetes [3DFD] and Integrating Mental and Physical Healthcare: Research Training and Services [IMPARTS]) convincingly demonstrate that depression and anxiety are common in patients with long term conditions and, when present, are associated with worse outcomes and higher treatment costs. Treating mental ill health in, for example, poorly-controlled diabetes increases value (better mental and physical outcomes at reduced cost). The startling finding of our studies, in many thousands of patients, is that the identification of mental ill health is a new finding

previously not noted by primary or secondary care teams. **KHP is committed to identifying, documenting, treating wherever possible, monitoring and improving mental health in all our patients.**