

Executive summary

The NHS is expected to deliver efficiencies of 2-3% per year, effectively setting a 10-15% real terms cost reduction target for achievement by April 2021. Whilst the NHS ranks as the best value healthcare system in the world¹, we know more could be done to improve quality and efficiency in our hospitals so they can meet this expectation.

This review looked at productivity and efficiency in English non-specialist acute hospitals, which account for half of the total health budget, using a series of metrics and benchmarks to enable comparison. We conclude that there is significant unwarranted variation across all of the main resource areas, and although we found many examples of good practice, no one hospital is good at everything.

We estimate this unwarranted variation is worth £5bn in terms of efficiency opportunity – a potential contribution of at least 9% on the £55.6bn spent by our acute hospitals. The report makes 15 recommendations designed to tackle this variation and help trusts improve their performance to match the best.

Unwarranted variation

We looked at the key resource areas of clinical staff, pharmacy and medicines, diagnostics and imaging, procurement, back-office functions, and estates and facilities. We also looked at quality and efficiency through the lens of clinical specialties. Examples of the variation we found include:

Overall non-specialist acute hospital costs	Average cost of an inpatient treatment is £3,500 but there is 20% variation between the most expensive trusts (£3,850) and the least expensive (£3,150)
On the ward	Average 9.1 hours of care provided by registered nurses and health care support workers per patient day but variation from 6.33 to 15.48 hours, although we should be mindful of comparing different types of wards and trusts
In the operating theatre (Orthopaedics)	Deep wound infection rates for primary hip and knee replacements currently range from 0.5% to 4%. If all hospitals achieved 1% this would transform the lives of 6,000 patients and save the NHS £300m per year
Procurement	Average price paid for hip prosthesis varies from £788 to £1590, and trusts buying the most are not paying the lowest price
In the pathology lab	Pathology providers are considered productive if the cost of pathology to the trust is less than 1.6% of operating expenditure. Data gathered suggests a two-fold variation in the current cost – from 1.1% to 2.4%
In the medicine cabinet	Stockholding varies from 11 to 36 days, and if everyone achieved 15 days this would save £50m
HR Department	Sickness and absence rates vary from 2.7% to 5.8%. This is a variation of 116%
On the hospital estate	Total estates and facilities running costs per area (£/m ²) – trusts are considered good if their metric is lower than £320, the current variation is between £105 and £970; If everyone achieved the median this would save £1bn per year. Non-clinical space (% of floor area) – trusts are considered good if their metric is lower than 35%, the current variation is between 12% and 69%

¹ Commonwealth Fund report, *Mirror Mirror on the Wall*, 2014

Optimising resources

Professionals with backgrounds in areas such as nursing, pharmacy, diagnostics, procurement and estates management, engaged with their counterparts in a cohort of 32 trusts to discuss performance data, and to identify and codify what good looks like. This led to a set of benchmarks and indicators to enable comparison, and in some cases creation of new metrics such as Care Hours per Patient Day (CHPPD), all of which form the basis of a model hospital.

For clinical staff we observed variation in a range of indicators such as sickness rates and turnover, and in policies and practices such as rostering and specialising. We also became aware of variances in the use of medical staff job planning and the deployment of Allied Health Professionals. We also found variation in the use of modern digital systems such as e-Rostering, a theme that is constant throughout the areas we looked at. Even where trusts have invested in such technology we found trusts were not getting full meaningful use of it.

Optimising our staff resource is not just about policies and practices. It is apparent that some NHS staff have not been fully engaged in the productivity and efficiency agenda and we know that the link between staff engagement and quality outcomes is well understood and evidenced across high-performing organisations. We need to do more to improve staff engagement which is why we are recommending NHS Improvement develop a national people strategy.

In hospital pharmacy we know that the more time pharmacists spend on clinical services rather than infrastructure or back-office services, the more likely medicines use is optimised, however, we found significant variation of (2.5-71%) in the rates of prescribing pharmacists as a proportion of total hospital pharmacists. Similarly in pathology services we found the mix of qualified to unqualified staff varied from trust to trust and was inconsistent with trust activity.

In procurement we found astonishing variety in the numbers of products and suppliers used across and within trusts. A sample of 22 trusts use 30,000 suppliers, 20,000 different product brands, over 400,000 manufacturer products codes and more than 7,000 people are able to place orders. Analysis of the NHS estate identified variation in the use of space, with clinical space occupation ranging from 11% to 65%; and, significant variation in facilities management costs. Corporate and administration costs varied between trusts at 6%-11% of income with trusts failing to capture the benefits of scale.

Quality, efficiency and performance

There is strong international evidence that good hospital management practices can deliver both improved clinical outcomes and productivity. During our work we came across a number of trusts that had a strong grip on the management of their resources, while also doing well in their CQC ratings, however, we also found that hospitals and commissioners were often looking at different datasets and from different perspectives with inevitable disagreements.

To optimise quality and efficiency across the entire care pathway, a single version of the truth and an integrated performance framework is critical. We are therefore recommending that organisations should adopt a single integrated performance framework for performance, centred around customers, workforce and finances. This should incorporate the established CQC regulatory framework of five areas with development of the well-led questions and a new sixth area.

Such a framework also requires hospitals to improve their use of modern digital technology. The best performing hospital systems around the world have real-time monitoring and reporting at their fingertips enabling them to make decisions on a daily, weekly, monthly basis

to improve quality and efficiency performance. We were struck by the immaturity of trusts' use of such technology from e-Rostering systems, e-Prescribing and basic electronic catalogues for procurement, so we recommend NHS Improvement needs to incentivise trusts to fully utilise their existing digital systems, and where necessary, enable them to access some of the Spending Review commitment to invest in digital technologies.

We are also recommending that national clinical programmes designed to improve quality and efficiency across care pathways are coordinated under a single governance framework led by NHS Improvement to ensure they align with the performance framework.

In our discussions with trusts we repeatedly heard the challenges they face with two wider system issues; delayed transfers of care and barriers to greater collaboration, cooperation and economies of scale. These challenges inhibit trusts' ability to improve performance and result in sub-optimal clinical quality and efficiency across the local health economy. Whilst we found good examples of where trusts have taken matters into their own hands to address them, there is no doubt they need help and support at a national level, so recommend DH, NHS England and NHS Improvement develop a strategy for addressing these issues.

The model hospital

Highlighting variation requires the right metrics with detailed guidance on what good looks like. The adjusted treatment cost (ATC) is one way for trusts to see how they vary in their costs for a given output. The weighted activity unit (WAU) can also be used to compare performance and productivity across trusts. These metrics should be used to create a model hospital, which with associated best practice guidance will give trusts a single version of the truth on what good looks like from board to ward, to help trusts understand what good looks like. NHS Improvement should continue to develop the model hospital and its underlying metrics, so that there is one source of data, benchmarks and good practice.

Engagement with trusts and implementation

Realising the full productivity and efficiency opportunities set out in this review will be challenging. We have learnt from our conversations with trusts that close engagement and collaboration are essential and that this supportive approach needs to be maintained.

There is a need for national capability and capacity to help trusts identify and seize the opportunities to achieve productivity and efficiency gains using the analysis, professional insight, and engagement approach we adopted throughout the course of this review. We have therefore placed a heavy responsibility on NHS Improvement to manage the delivery of these savings, but it is imperative that all of the national organisations work together and we want to make it absolutely clear that trust boards should be held to account.

In our discussions with trusts we found that typically they recognised a third of the savings opportunities we put in front of them and already had plans in place for delivering them, a further third they were aware of but had no plans in place, and the final third were completely new to them. Nearly all trusts recognised the urgency for delivering the opportunities and were grateful for the help and support they received from the review team.