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Improving NHS productivity

More with the same not more of the same



Executive summary

Funding prospects for the NHS

- Last year, The King's Fund, with the Institute for Fiscal Studies (IFS), examined the implications of the economic crisis for the funding prospects for the NHS. We compared likely funding with the original funding estimates produced by Sir Derek Wanless in his 2002 report in order to quantify the difference between required and actual funding.
- Using this framework, £126 billion would be required in 2013/14 to meet Wanless's aspirations for the 'solid progress' scenario. While exact spending commitments from 2011/12 onwards will be published in the autumn spending review, the government has pledged a real-terms rise in total NHS funding each year for the rest of this Parliament.
- We concluded that, with no productivity improvement and no real rise in spending, the funding shortfall could still be around £21 billion by 2013/14. The inescapable conclusion from The King's Fund/IFS analysis was that closing the gap would inevitably involve major improvements in NHS productivity, with year-on-year gains of up to 6 per cent for six years.

The scale and composition of the productivity gap

- In this paper, we have 'decomposed' the gap between required and actual funding to understand whether the assumptions about the drivers of increased expenditure still hold – whether they have already been met, or are still appropriate, given the state of public finances. Our analysis reveals the key decisions facing health care leaders at national and local levels over the next two to three years as they try to contain and manage demand and cost pressures.

- Although these are broad estimates, we believe that a total of £6.5 billion of cost pressures, including pay and prices, may either not be required or could be reduced in the light of national and local priorities. These pressures could be managed by constraining the growth in costs and limiting further improvements to the quality of care and waiting times.
- The coalition government's commitment to a real terms increase in NHS spending each year will further reduce the productivity gap: each 1 per cent real terms increase reduces the gap by around £1 billion per year, around £3 billion by 2014.

Strategies for improving productivity: 'doing things right and doing the right thing'

- As the NHS grapples with significantly smaller increases in funding from 2011, there is a danger that the necessary focus on improving productivity becomes, at best, an end in itself and, at worst, a misunderstanding that the NHS needs to dramatically cut budgets, reduce services for patients and sack staff. The NHS will need to carefully select the strategies which, together, produce *more value* from the same or similar resource – *not* the same for less.
- There are real opportunities to tackle inefficiencies in support services and back-office functions. NHS organisations should also be developing and incentivising the workforce. This includes increasing productivity through the use of staff contracts, tackling sickness absence, and being more innovative in making skill-mix changes.
- Many of the most significant opportunities to improve productivity will come from focusing on clinical decision-making and reducing variations in clinical practice across the NHS. Reducing variations in clinical service delivery (as highlighted by the Better Care, Better Value Indicators) and improving safety and quality should be key priorities for providers. There is also an opportunity to improve the prescribing and management of drugs, which account for 12 per cent of the overall NHS budget.
- For commissioners, there are critical decisions about the allocation of resources that have to be addressed in order to increase the added value for patients – improved health outcomes – from existing budgets. The key areas of focus should be reducing spending on low-value interventions, and redesigning pathways (especially for people with long-term conditions) to avoid unnecessary hospital admissions. Integrating care across health and social care boundaries is an important element of pathway redesign.

Making it happen: action at all levels of the system

- The biggest challenge facing the NHS is to act on the knowledge of what needs to be done and to make it happen. Numerous analyses have shown the opportunities to improve productivity in the NHS, but the focus now has to shift to execution and implementation. Put simply, analysis has to be translated into action through excellent leadership and the spread of best practice.
- The scale of the quality and productivity challenges facing the NHS, and the wide range of strategies it will need to deploy in response, call for a comprehensive approach. This will require action by organisations and actors at all levels, from government to clinical microsystems – that is, the frontline teams, whether in hospitals or the community, that deliver care to patients. Given the emphasis on reducing variations in clinical practice, the clinical microsystem is the most important area to focus on, engaging doctors, nurses, allied health professionals and others in delivering improvements in care.

- Providers and commissioners also have a major part to play, and there is a particular need for organisations to work together in local systems of care to rise to the quality and productivity challenge. As this happens, it will be essential to ensure that there is a continuing investment in developing leadership and change management capabilities at all levels of the NHS. This includes the development of both clinical and managerial leaders, together with the analytical and data management skills they will need to reduce waste and increase efficiency.
- The coalition government's plans for the NHS will result in fundamental changes to the structure of the NHS, involving the setting up of an independent board and the abolition of SHAs and PCTs. There is a major risk that NHS leaders will be distracted by organisational changes that will inevitably take place over the next two years, at the very time when there needs to be a single-minded focus on the issues set out in this paper. This risk must be managed to ensure that the work on quality and productivity already under way in many parts of the NHS is not sidetracked.

1 Introduction

This paper analyses how the NHS can meet the challenges it faces as it enters a much more constrained financial environment. We begin by revisiting assumptions about the cost and demand pressures facing the NHS, and by decomposing the funding gap (Appleby *et al* 2009). We then identify the contribution of different cost and demand drivers to the projected growth in expenditure required, and illuminate the choices faced, nationally and locally, to manage these pressures.

In Section 2, we map out some of the strategies that might be used to release resources, and assess their likely potential to deliver productivity improvements. We highlight the need to focus on variations in clinical practice and to find ways of managing demand for hospital care through a renewed emphasis on the needs of people with long-term conditions. The Quality, Innovation, Productivity and Prevention (QIPP) programme must give particular attention to these issues in the future.

In Section 3, we highlight the role that different parts of the health system need to play – from clinical microsystems to actions by government at the national level. This includes the opportunities for different agencies to work together in local systems of care and to explore ways in which closer integration between primary and secondary care and health and social care could contribute to meeting the productivity challenge.

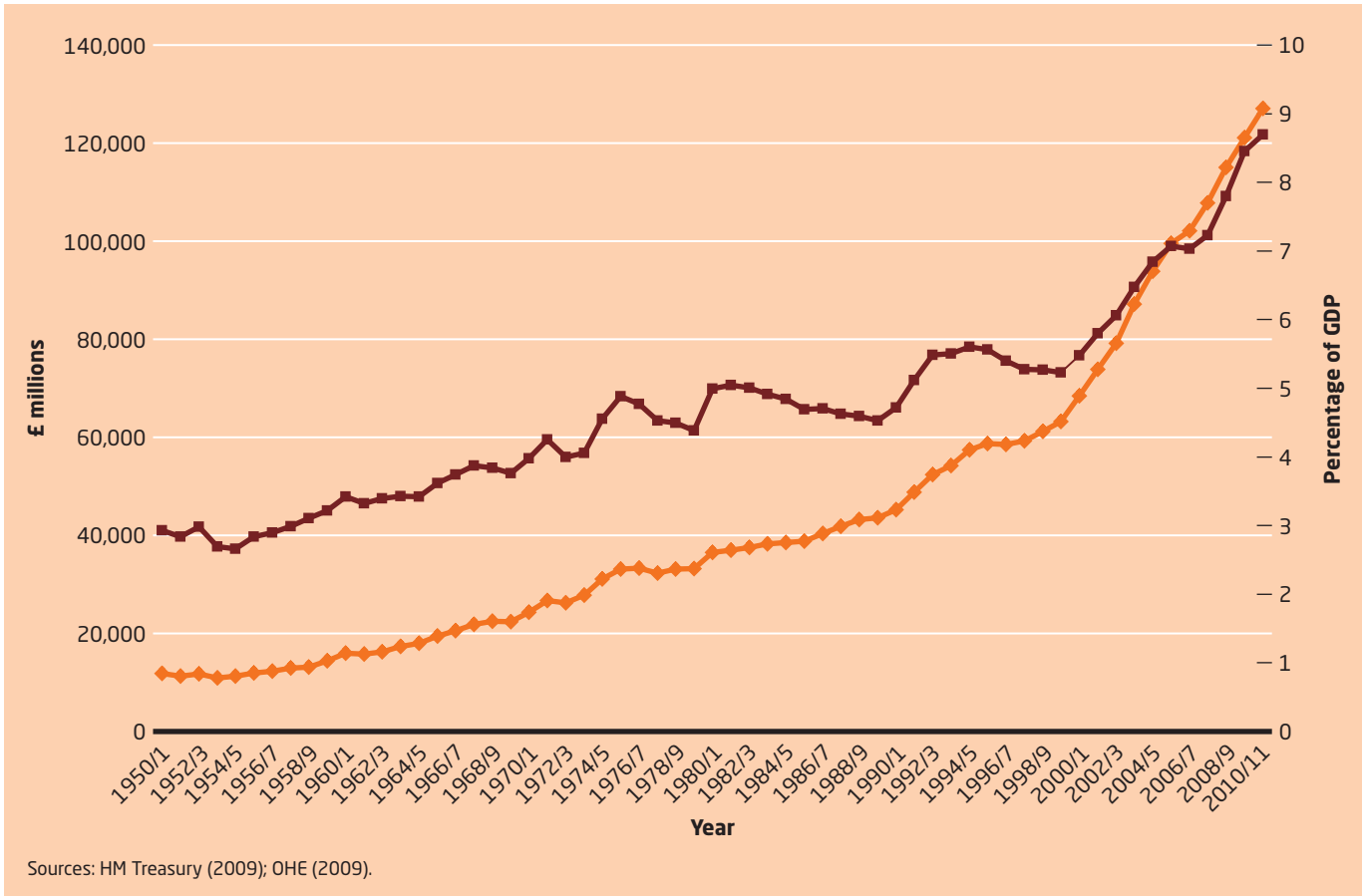
Funding prospects for the NHS

Real spending on the NHS in England has almost doubled since 1999/2000 (*see* Figure 1 opposite). This increased funding has enabled the NHS to expand the workforce, to raise salaries, to improve and update its equipment and infrastructure, and to deliver more care to more people more quickly.

The prospects for the future, however, are challenging. The current structural deficit (the gap between government revenues and spending) has required government borrowing at a rate of up to £20 billion a month during 2009/10. The deficit, and an estimated doubling in the size of public sector net borrowing (approaching 80 per cent of gross domestic product (GDP) by 2013/14), are unsustainable, and will require concerted action on taxation and public spending. There is likely to be a continuing deterioration of public finances and rapid growth in the forecast scale of the structural deficit that will require fiscal tightening (Chote *et al* 2009).

Exact spending commitments from 2011/12 onwards will be set out by the coalition government in its comprehensive autumn spending review. Although the NHS will fare better than other public services, it will face a major challenge in adjusting to this situation. If the focus until recently has been to do ‘more of the same’ with extra spending, then in future, NHS leaders will be expected to do ‘more *with* the same’, as they focus on further improving performance.

Figure 1 Real net spending on the UK NHS at 2010/11 prices and as a percentage of GDP



Real spending (left axis) —◆—
 Per cent GDP (right axis) —■—

The scale of the funding gap

In his 2008/9 Annual Report, Sir David Nicholson prepared the NHS to plan ‘on the assumption that we will need to release unprecedented levels of efficiency savings between 2011 and 2014 – between £15 billion and £20 billion across the service over the three years’ (Nicholson 2009b). These figures were based on analysis by the Department of Health, which assumed zero real growth from 2011/12 to 2013/14 in actual funding for the NHS in England. It set this against spending that would be required to meet – as Sir David Nicholson reported (Health Select Committee 2010) – demographic changes, upward trends in historic demand for care, additional costs of guidance from the National Institute for Health and Clinical Excellence (NICE), changes in workforce and pay, and the costs of implementing government policy. Hence, the resultant ‘gap’ between actual and required funding of between £15 billion and £20 billion by 2013/14.

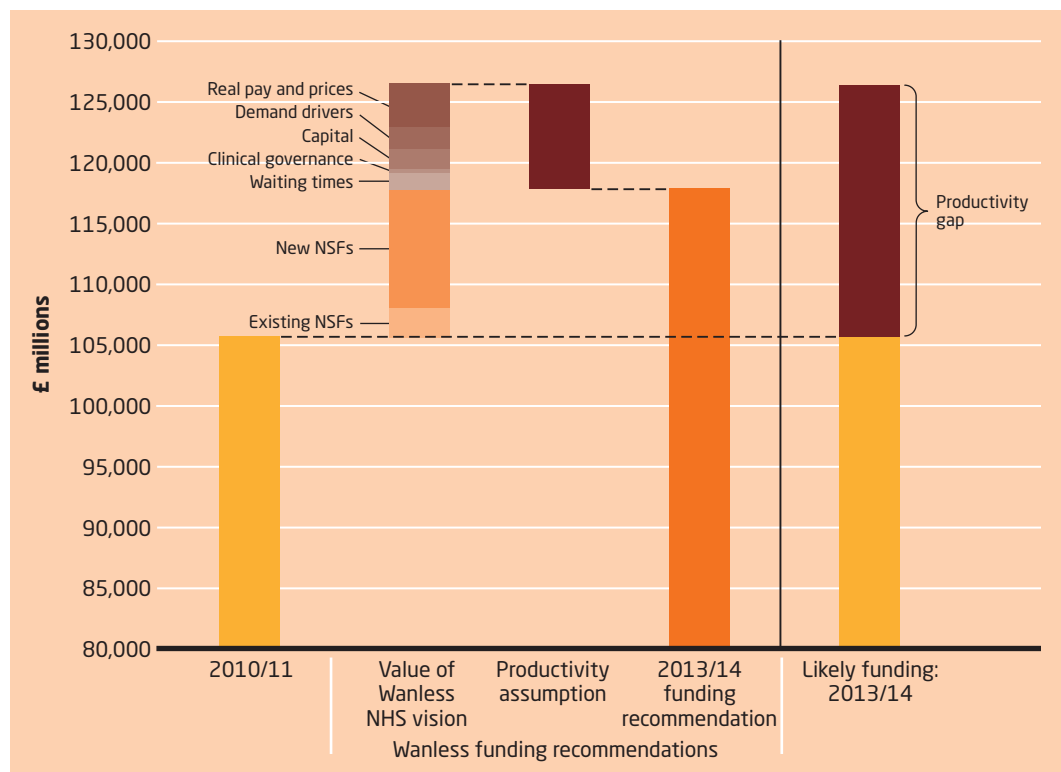
An alternative assessment of the productivity challenge was produced in a joint analysis by The King’s Fund and the Institute for Fiscal Studies (IFS) (Appleby *et al* 2009). While this reached similar conclusions in terms of the potential shortfall in NHS funding, a key difference from the Department’s analysis was the use of projections produced by Sir Derek Wanless’s 2002 review of future NHS funding as a benchmark level of funding need (Wanless 2002). These projections of NHS expenditure still stand as the most sophisticated attempt to date to estimate future health care funding needs.

Wanless set out a range of potential funding scenarios for the NHS based on a large number of assumptions about the future demand, supply and costs of health care. These ranged from, on the demand side, changes in population and population structure to trends in smoking and obesity, to, on the supply side, improvements in NHS productivity and service quality (including reduced waiting times, better use of information and communication technology (ICT), improved infrastructure, and so on). Wanless set out three funding scenarios, depending on the amount of progress made: ‘fully engaged’, ‘solid progress’ and ‘slow uptake’.

Analysis carried out by The King’s Fund in 2007 suggested that the NHS was progressing in line with the middle scenario – ‘solid progress’ (Wanless *et al* 2007). This analysis assumed no real rise in English NHS funding for three years (2011/12 to 2013/14) and no change in productivity. It found that the funding shortfall, compared with the funding required to meet Wanless’s scenario of solid progress, amounted to just under £21 billion by 2013/14. This figure broadly equates to the scale of the challenge described by Sir David Nicholson (Nicholson 2009b).

To appreciate the nature of the productivity challenge facing the NHS, Figure 2 below shows – in proportion – the funding the NHS needs in 2013/14 (£126 billion), the cumulative shortfall if there were no real increase in funding or productivity for three years from 2011/12 (£21 billion), and what this gap comprises. The coalition government’s subsequent commitment to annual real-terms funding increases will reduce the size of this gap: every 1 per cent increase per year above inflation will cut the gap by just over £1 billion.

Figure 2 The productivity gap 2013/14



Closing the 'gap'

Appleby *et al*'s analysis (2009) suggested that, either singly or in combination, there were three ways of making up the shortfall in actual funding compared with Wanless's recommendations: reductions in real spending across all other departments; increases in taxation; or improvements in NHS productivity. The conclusion was that the size of the real reductions in other spending departments and the scale of the necessary tax increases – on top of anything needed to deal with the structural deficit – were so large as to be unlikely options. This left improving productivity as a way of squeezing extra value out of each health care pound, value equivalent to the probable funding gap. A £21 billion gap would require an annual productivity target of around 6 per cent.

But is a 6 per cent annual productivity improvement realistic? As Sir David Nicholson has noted, such a target is 'extraordinarily challenging' (Health Select Committee 2010) – particularly, he might have noted, given the fact that over the decade from 1997, NHS productivity has been static or slightly negative (*see* box below).

What has happened to productivity?

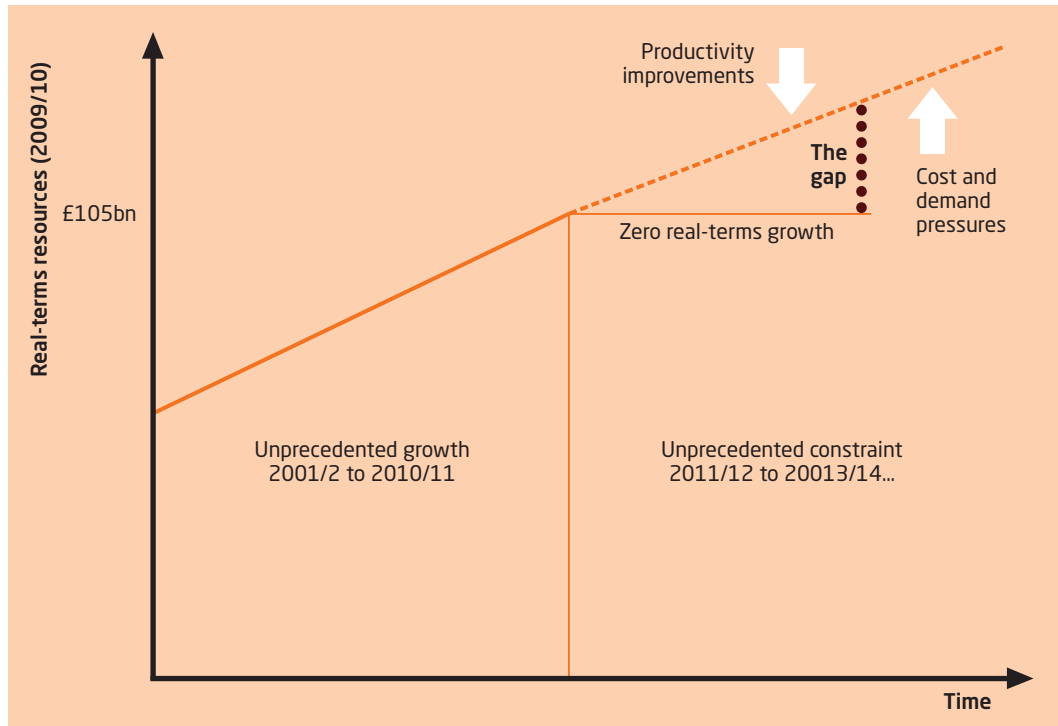
Independent estimates suggest that productivity (the ratio of outputs to inputs, adjusted for quality) has been broadly static or slightly negative over the last decade, with reductions in the years of most rapid input growth. For example:

- The Office for National Statistics (ONS) estimates that between 1995 and 2008, for health care, 'productivity fell by 3.3 per cent, an annual average decline of 0.3 per cent' (ONS 2010, p 1). The ONS reports that productivity was static in 2004, and grew by 0.1 per cent in 2005 and 1.6 per cent in 2006. However, it declined by 0.3 per cent in 2007 and fell by a further 0.7 per cent in 2008.
- The Centre for Health Economics (Street and Ward 2009, p iii) reported that: 'Between 2003/4 and 2004/5 input growth was matched by output growth. Since 2004/5 [up to 2007/8] there have been productivity gains with output growth exceeding input growth.' The recent growth was attributed to more patients being treated with improved quality care, alongside a slowdown in staff recruitment and use of agency staff.

At a local level, the anticipated scenario for NHS organisations – of small real-terms growth – can appear overwhelming, especially in the context of a service struggling in some areas to cope with current demand, despite the NHS still receiving continued real-terms growth for 2009/10 and 2010/11.

However, the response to future financial challenges needs to be more sophisticated than simply saving £21 billion over three years. As shown in Figure 3, it is a dynamic situation, with a 'gap' that is subject to demand and cost pressures which force it to widen, and productivity improvements that can counter this movement. This means there are choices to be made about what measures to adopt nationally (and, to a lesser extent, locally) to counter cost and demand pressures, and what approaches to take to productivity improvements.

Figure 3 The dynamics of the productivity gap



We now look in more detail at the high-level cost and demand drivers and some of the options for managing them.

What are the key cost and demand drivers?

An analysis carried out by The King’s Fund (Wanless *et al* 2007) summarised the factors and assumptions underlying the 2002 review’s NHS funding projections. Table 1 below takes the cost estimates for each factor and applies them to the growth in the NHS budget between 2010/11 and 2013/14 that Wanless suggested was needed if the NHS was to make ‘solid progress’.

What the decomposition reveals is that a key goal of Wanless’s funding recommendations was to secure improvements in the quality of health services. Wanless made assumptions that the efforts to reduce variability in service quality and raise standards across the country in a range of disease areas, primarily through the application of National Service

Table 1 Cost and demand drivers as indicated by Wanless’s ‘solid progress’ scenario: 2010/11 prices

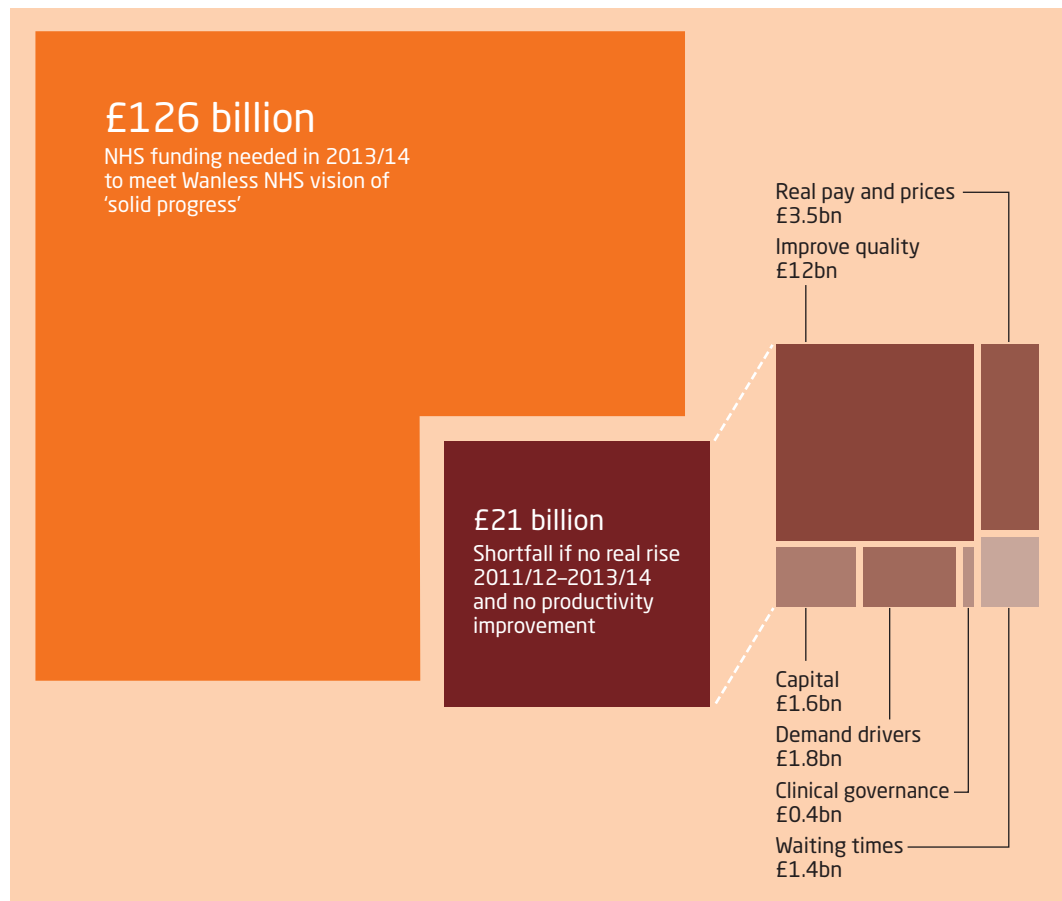
Cost and demand drivers	Explanation	Value (£bn) 2011/12-2013/14
Existing NSFs	Best practice in five NSF disease areas and extension to other areas	2.4
New NSFs	Costs of new NSFs, improvements to existing NSFs and medical technology	9.6
Waiting times	Costs of ongoing reduction in maximum inpatient and outpatient waiting times	1.4
Clinical governance	Reducing hospital-acquired infections, adverse incidents and avoidable admissions	0.4
Capital	Replacement of NHS estates, equipment and improved facilities, including ICT	1.6
Demand drivers	Including health-seeking behaviour, demographic changes and ill health in old age	1.8
Real pay and prices	Growth in pay and prices over and above general inflation	3.5
Total increase	Cost and demand drivers	20.7

Frameworks (NSFs), would continue. These quality improvements account for around half of the total increase in spending (around £12 billion).

Wanless also made assumptions about increases in pay (a 2.5 per cent real pay increase over and above inflation) and the prices paid for products such as medicines. These pay and price increases account for £3.5 billion, or 17 per cent of the total growth over the three-year period to 2013/14. The remaining 25 per cent is accounted for by the estimated costs of making improvements in waiting times, clinical governance and capital, together with meeting higher demand for health care services arising from drivers such as demographic change and the population’s anticipated health-seeking behaviours.

This breakdown is shown graphically in Figure 4 below. As noted above, the coalition government’s pledge to increase the NHS budget each year in real terms will reduce the size of the shortfall; a 1 per cent annual increase up to 2013/14 would cut just over £3 billion from the value of the productivity challenge.

Figure 4 The English NHS funding gap by 2013/14



Strategies for managing national cost and demand pressures

A closer look at the potential funding shortfall raises two major questions. First, have some of the original Wanless aspirations and assumptions either already been met or are they no longer considered appropriate – with the implication that further increases in funding for some areas are no longer needed? And second, given the exceptional circumstances of the current recession and financial consequences of the global banking crisis, is there a case for reviewing some of the assumptions underlying the increased funding suggested by Wanless?

■ Quality

The very significant proportion of the increases in funding needed to roll out national standards of care highlights the importance of setting clear priorities about where improvement has to happen and how that can be done at lower costs. It also raises the question of how much variation in care is tolerable, recognising that decisions to reduce commitments to improve quality of care would be difficult for any government to contemplate.

■ Waiting times

Wanless set out a required investment of around £1.4 billion over the three years to 2013/14 as part of an effort to reduce waiting times to a maximum of two weeks by 2022/23. The NHS has already achieved a maximum 18-week referral-to-treatment waiting time and four-hour A&E waits, and patients with suspected cancer are seen within two weeks. Given that the most recent operating framework has indicated a reduction in the number of waiting-time targets, as well as changes to the thresholds for some targets (for example, four-hour A&E has to be delivered for 95 per cent of patients rather than 98 per cent) and a lessening in the performance management behind the targets, further reductions in waiting times are not a likely prospect for the medium term.

■ Capital

Part of the £1.6 billion cost growth assumed by Wanless was based on the target that 75 per cent of beds would be in single en-suite rooms. While there is ongoing investment in reducing the level of mixed-sex accommodation, it is debatable whether a move to single rooms on this scale should remain a priority. Indeed, it might be argued that many of the capital and clinical investment objectives set out by Wanless have already been substantially met, with the unprecedented increases in new buildings over the last decade, including in primary care.

■ Real pay and prices

Wanless assumed a 2.5 per cent real annual pay increase for NHS staff over and above inflation. This assumption formed the bulk of the real pay and price effect cost of £3.5 billion. The coalition government's decision to freeze public sector pay for two years in June 2010's emergency budget means that this cost pressure has been removed. However, current contractual deals, such as Agenda for Change, imply increases to the total pay bill as staff move up scales from one year to the next. Restraining prices paid for pharmaceuticals under national-level agreements also has a contribution to make.

Taking decisions in three key areas – pay and price constraint, not pursuing further reductions in waiting times and reducing assumed growth in capital investment – could reduce the estimated shortfall for the NHS by around £6.5 billion, to a total of around £14 billion by 2013/14. Depending on the size of the real increase in funding proposed by the government, this figure could be even lower – down to around £11 billion, with a 1 per cent real increase each year to 2013/14. This equates to a need to find 3–4 per cent of productivity improvements each year, rather than 6 per cent. While this remains extremely challenging in the light of recent productivity trends and the pressures on social care spending, it is a more realistic objective to pursue if government is willing to play its part in the process.

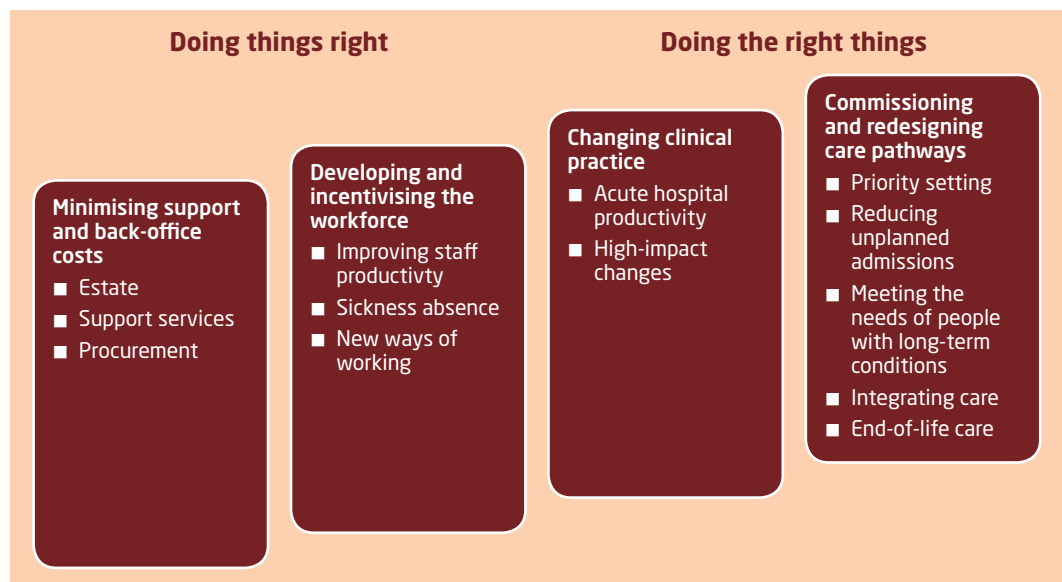
How then might the NHS find such productivity improvements each year? Section 2 discusses some possible strategies.

2 Strategies for improving productivity: 'doing things right and doing the right thing'

In this section, we discuss the strategies available to the NHS for improving productivity. Some strategies will reduce production costs and improve care outcomes for patients, while others will free up resources – staff time, equipment, etc – for use in more productive ways. Yet others may lead to actual cash savings that can be used to boost volumes and/or the quality of care the NHS provides. Ultimately, however, 'doing things right and doing the right thing' involves getting better value for patients from the resources available to the NHS.

As the evidence brought together here shows, there is huge scope for using existing expenditure more efficiently, in relation to both support and back-office costs, and particularly variations in clinical practice and redesigning care pathways. It should be noted that the actual sums identified as potential savings may have already been partly achieved by the programmes listed, and so the figures should be interpreted as an indication of the scale of potential savings rather than an absolute figure.

Figure 5 Key productivity approaches



Minimising support and back-office costs

To date, much of the debate about using NHS resources more efficiently has focused on the need to make cuts in management and other support service costs. Steps have already been taken to cut management costs at all levels, and the need for action in this area has been underlined by the *Revision to the Operating Framework for the NHS in England 2010/11*, published in June 2010 (Department of Health 2010b). There are also opportunities to make better use of the estate, share back-office functions, and strengthen the procurement of goods and services.

Estate

The NHS has one of the largest estates in Europe (National Audit Office (NAO) 2002) and many NHS facilities remain unutilised for large proportions of the week. For example, recent research (May and Price 2009) showed wide variations between NHS acute trusts and estimated that 20 per cent more space was being used than needed, at

a total cost of £500 million a year. Further evidence from reviews such as *Healthcare for London* (NHS London 2007) also suggests poor utilisation of current estate. The implication is that NHS organisations need to look critically at their space utilisation as well as estate condition, which is the traditional focus of attention. However, given the long timescales for reconfiguring such assets, it is unlikely that initiatives in this area, if not already under way, will contribute significantly to the immediate financial challenge.

Support services

Evidence for savings in this area has been produced by the Department of Health through the NHS Shared Business Services (SBS) (Department of Health 2010a). SBS includes functions such as finance, payroll and e-procurement, and can reduce costs by 20 to 30 per cent for similar levels of service. It is reported that savings of around £40 million have already been achieved, with more than 100 NHS organisations participating, and this figure is forecast to rise to up to £250 million over 10 years.

A new opportunity for the NHS to reduce back-office costs in all the above areas is the Total Place initiative. Through a number of pilot schemes, this initiative has brought local public services together to explore how collaboration across traditional sector boundaries can generate savings and deliver better services. The pilots suggest that significant savings can be achieved through sharing back-office functions across public services, including procurement and sharing capital and other assets. One estimate is that savings of up to 20 per cent are possible (HM Treasury 2010).

Procurement

A recent joint report by the NAO and Audit Commission has highlighted opportunities for further improvements in procurement (NAO and Audit Commission 2010). Examples include more than 100 per cent variation between the lowest and highest prices paid for common items such as paper and computer monitors. It found, in particular, that public sector organisations are not exploiting the potential benefits of volume, even though most suppliers confirmed that they are willing to provide lower prices for contracts involving a greater volume of goods or services.

While the review concentrated on commodities common across the public sector, the findings are more generally applicable. The NHS Institute's Better Care, Better Value programme identified the use of national framework agreements for procurement as a key indicator of efficiency. The National Contracts Procurement project from the NHS Purchasing and Supply Agency (which has now been decommissioned and is under Buying Solutions) identified that £240 million a year could be released through the use of national framework agreements covering a wide range of items, from sutures to recruitment advertising.

Developing and incentivising the workforce

The NHS pay bill, which accounts for around 70 per cent of provider costs, is an important focus for productivity improvement – for example, in relation to the work undertaken by clinical staff.

Improving staff productivity

The NHS Institute has shown that the number of episodes of care produced by each medical consultant per year ranged from 450 to more than 1,000 for non-teaching hospitals, and from 150 to 750 for teaching hospitals (NHS Institute for Innovation and Improvement 2004). While some of this variation may be due to factors such as

differences between specialties, the severity of patients and local patterns of care and infrastructure, it links to previous research that identified considerable variation in activity rates for consultant surgeons in England, with and without adjustment for case-mix (Bloor *et al* 2004).

The NAO reviews of the consultant contract and Agenda for Change recommended ways to generate greater value from these frameworks – for example, by linking consultants' job plans to local service ambitions and patient feedback. There are similar opportunities for non-medical staff in relation to Agenda for Change (NAO 2007, 2009b).

The GP contract was also intended to improve productivity, with gains of 1.5 per cent per year. However, an NAO report in 2008 found that productivity had, in fact, fallen by around 2.5 per cent per year in 2004 and 2005 (NAO 2008). An analysis by McKinsey for the Department of Health in 2009 found that low-performing GPs could spend less than 30 per cent of contracted hours seeing patients, and they estimated that if weak performers achieved standard performance – for example, in relation to numbers of appointments provided – then savings of £0.2–0.4 billion could be realised (McKinsey & Company 2009).

Community health services account for £11 billion of NHS expenditure and a quarter of the clinical workforce. Recent work by the NHS Institute shows wide levels of variation, with the number of patients seen per day by district nurses varying from 17 to 54 between primary care trusts (PCTs) (Crump H 2009). Also, research suggests that frontline community-based teams may spend only 20 to 30 per cent of their time in face-to-face patient contact. These findings echo earlier research, which found that the rate of contact per member of community staff can vary widely, even up to fourfold (Jones and Russell 2007). The NHS Institute has estimated that implementing quality improvement techniques in community services would increase patient-facing time by 25 per cent (NHS Institute 2010a).

Sickness absence

Another area of attention is sickness absence. The Chartered Institute of Personnel and Development (CIPD) found that NHS staff take, on average, 11 days off sick per year, which is 1.3 days above the public sector average and 4.6 days more than the private sector average (CIPD 2010). Examples of initiatives to reduce sickness absence include a joint programme between NHS Plus (a project funded by the Department of Health, which aims to improve access to occupational health services) and York Hospitals NHS Foundation Trust, which realised £200,000 of savings. Outcomes included a reduction in the number of staff on long-term sick leave by 42 per cent, and a 46 per cent reduction in the number of staff absent for three months or more (NHS Plus 2010). In its response to the March 2010 budget, the Department of Health announced £555 million of savings to be gained by reducing sickness absence in the NHS. Reducing sickness absence is one way of cutting the large sums of money spent on bank and agency staff in the NHS.

New ways of working

One of the features of the health care workforce is the tendency towards rigid role demarcation between different professional groups and grades, which can inhibit patient-focused care and be inefficient. A more flexible approach can prove more productive. Sibbald *et al* (2004) have outlined some of the opportunities that changes in skill-mix provide for staff to work more flexibly and productively.

- Enhancement – increasing the depth of a job by extending the role or skills. An example would be nurse prescribing.

- Substitution – expanding the breadth of a job working across professional divides. An example would be pharmacists taking on some elements of a GP role for chronic disease management.
- Delegation – moving a task up or down a uni-disciplinary ladder.
- Innovation – creating new jobs by creating a new type of worker. An example would be the ‘hospitalist’ – a role designed around the needs of hospital inpatients, with its own training pathway.

Changing clinical practice

Acute hospital productivity

While there are undoubtedly real opportunities to tackle inefficiencies in support and back-office costs, and through staff productivity and skill-mix, there is much greater potential to improve performance by focusing on clinical decision-making and reducing variations in clinical practice across the NHS. This is illustrated in an analysis carried out by the NHS Institute that has estimated the scale of the productivity opportunity in acute hospitals alone as more than £4.5 billion (*see* Table 2 below). These estimates are based on the resources that could be released if all NHS organisations improved their performance to the level currently achieved by the top quartile. They exemplify the potential productivity opportunity in hospitals alone if the NHS is able to focus more effectively on ‘doing things right’.

Table 2 NHS Institute estimate of potential acute trust productivity opportunity (2009)

Potential productivity opportunity – indicators	Value (£m)
Productive nursing through the Productive Ward	1,300
Reducing lengths of stay	1,230
Reducing pre-operative bed days	869
The Productive Theatre programme bundle	474
Reducing the new to follow-up ratio for outpatients	249
Reducing ‘did not attend’ rates	207
Reducing readmission rates	108
Improving the management of people with diabetes when admitted to hospital	105
Increasing day-case rates	18
Total productivity opportunity	4,560

Source: Crump B (2009).

Equally important as ‘doing things right’, if not more so, is ‘doing the right things’ (*see* Table 3 opposite) and especially not having to repeat work to correct errors. The examples listed in Table 3 show that improving the quality of care and releasing resources often go hand in hand. By providing the right care the first time, and eliminating waste, the patient experience can be improved and unnecessary expenditure can be avoided. This has been vividly illustrated by recent experience of tackling health care-acquired infections (HCAIs) such as MRSA and *Clostridium difficile*. Recent reductions in HCAIs within the NHS have saved £75 million in 2008/9 (Department of Health 2009b).

Table 3 Potential savings through improving quality of care

Area of improvement	Value (£m)
Better management of leg ulcers, preventing hospital admission (NHS Institute 2009a)	1,050
Reducing HCAI (National HCAI Research Network 2010)	1,000
Reducing drug errors (Patient Safety Observatory 2009)	750
Implementing NICE evidence-based guidelines (NICE 2010)	600
Improved nutritional care (NHS Institute 2010e)	130
Enhanced recovery for elective surgery (NHS Evidence 2010)	52
Quality improvement to stroke pathway (NHS Evidence 2010)	36
Reducing falls in hospital (immediate treatment costs) (NPSA 2010)	15

Sources: NHS Institute for Innovation and Improvement (2010c); NHS Institute for Innovation and Improvement (2009a); National Patient Safety Agency (2009); National HCAI Research Network (2010); NHS Evidence (2010).

High-impact changes

Doing the right things also entails the NHS narrowing the gap between current clinical practices and best practice, as identified in evidence-based guidelines. For example, NICE estimates that £446,627 can be saved for every 100,000 patients that are treated in line with its hypertension guidance, and £214,681 can be saved per 100,000 patients if recommendations on improving uptake of long-acting reversible methods of contraception are implemented. Overall, NICE estimates that savings of hundreds of millions of pounds could be made from consistent implementation of its evidence-based guidelines (NICE 2010).

Similar arguments apply to the use of drugs. Around 12 per cent of total NHS expenditure is on drugs – £11 billion for 2007/8 – and there is evidence of significant failings in the way that medicines are used, such as misprescribing, overprescribing and poor patient compliance (National Patient Safety Agency (NPSA) 2010; General Medical Council (GMC) 2009; NPSA 2008; Medical Defence Union (MDU) 2009). Medicines may also cause harm – for example, through adverse drug reactions leading to hospitalisation and premature death (Pirmohamed *et al* 2004; Patel *et al* 2007). According to the Patient Safety Observatory of the National Patient Safety Agency (2009), preventable harm from medicines may be costing £750 million a year. Also, the NAO estimates that the NHS could save more than £200 million a year by GPs prescribing generic drugs (NAO 2009a).

A note of caution

While the figures discussed here are large, we have two notes of caution. First, the value of these productivity improvement opportunities is calculated on a theoretical basis, and the challenge is to either release resources for redeployment or make real savings. Variable costs such as clinical supplies can easily be realised, but semi-fixed costs such as staffing, and fixed costs such as buildings, are more difficult to release without taking out capacity such as hospital wards.

Second, most of the opportunities have been identified through comparative analysis and extrapolation from small-scale tests. The challenge will be to replicate these improvements at scale across the whole system. This means learning from the experience of using quality improvement approaches like lean thinking and breakthrough collaboratives. We return to discuss this further in Section 3.

Commissioning and redesigning care pathways

Priority setting

While many of the foregoing productivity strategies and actions fall to providers to grapple with, there are important allocative or priority setting decisions that commissioners must take responsibility for in order to extract greater value for patients – that is, improved health outcomes – from existing budgets. These include the following.

- The NHS Institute estimates that the resources wasted by PCTs due to variable commissioning thresholds for just five types of procedure (including tonsillectomy, lower back surgery and grommets), with limited or no clinical benefit, amount to more than £110 million (NHS Institute 2010b).
- In a similar vein, a recent report from within the QIPP programme (McKinnell and Gray 2010) highlights the very low thresholds for some clinical interventions performed in the NHS. It suggests that interventions such as cataract surgery and hip replacements could have higher thresholds, allowing PCTs to commission fewer procedures without detriment to patient care or quality of life. Potential savings are estimated to be between £230 million and £670 million.
- Between £350,000 and £3.5 million per organisation could be saved by improving the ratio of new patient appointments to follow-up appointments, and this is an issue that commissioners are increasingly addressing by questioning the clinical necessity of routine follow-ups (NHS Institute 2009b).

Reducing unplanned admissions

Beyond these examples, we believe that commissioners should be focusing on redesigning care pathways in order to reduce unplanned hospital admissions and make care closer to home a reality. This is because a large proportion of the NHS budget is spent in acute hospitals, and around two-thirds of occupied bed days are accounted for by patients admitted as emergencies. A proportion of unplanned admissions and the associated cost of these admissions could be avoided if more attention was paid to the needs of these patients, and especially if different services and organisations worked together more effectively. As Sir David Nicholson has said: 'It is already clear that many of the most significant quality and productivity opportunities lie in the interfaces between organisations' (Nicholson 2009a).

Meeting the needs of people with long-term conditions

This has been a priority for the NHS since The NHS Improvement Plan in 2004, and some progress has been made in reducing emergency bed day use. Despite this, A&E attendances and emergency admissions continue to rise, and progress in implementing the long-term conditions policy has been slow and uneven (Ham 2009). The evidence shows that NHS organisations need to work on several fronts simultaneously to reduce unplanned admissions and provide care closer to home. These include the following.

- *Self-care* – helping patients to better manage their own condition – can be effective in reducing emergency admissions, including the use of care planning. For example, patients with chronic obstructive pulmonary disease (COPD) who received self-management training saw their risk of being admitted to hospital drop significantly (Effing *et al* 2007). A Cochrane Review, published in 2010, found a 50 per cent drop in the number of blood clots and a 36 per cent reduction in deaths among those patients who were able to monitor their own anti-clotting therapy (Garcia-Alamino *et al* 2010). And educating adult patients with asthma has been demonstrated to halve their risk of admission (Tapp *et al* 2007).

- *Disease management* in primary care, building on the Quality and Outcomes Framework in the new General Medical Services (GMS) contract, and strengthening the role of nurses in providing support to patients also has a major part to play. This includes using data on emergency admissions from ambulatory care sensitive conditions such as asthma, and identifying opportunities to enable practices with high rates of admissions to bring these down.
- *Case management* for people with more complex needs should be given priority through the use of community matrons linked to risk stratification of the population, and innovative approaches such as virtual wards (Department of Health 2009a) and telehealth monitoring where there is evidence that these approaches can contribute to reduced admissions.

An example of what can be achieved is the Partnerships for Older People Projects (POPP), which have piloted a number of schemes based on proactive case management and flexible use of health and social care budgets. The evaluation of the POPP pilots (PSSRU 2009) showed improved quality of life for participants as well as overall savings. While the savings estimates have a margin of error, they indicate that for every £1 spent on the POPP services, there was a £1.20 saving in emergency bed days.

The example of older people draws attention to the importance of looking across services and institutions at the whole pathway of care. People with multiple long-term conditions are likely to need support from the primary care team, community health services, social care and hospitals at different times, with mental health services also having a role. There are major challenges in ensuring that these services work in a co-ordinated way and that resources are not wasted in the many hand-offs and transitions of care that take place along the pathway. Urgent care is a good example, and underlines the need for different providers to operate as part of a network in which information about patients with complex needs is shared and professionals work collaboratively to avoid inappropriate use of services, such as a hospital admission that could be avoided.

Integrating care

A practical example of the benefits of integration along the pathway of care can be seen in Torbay, where health and social care integration has had a measurable impact on the use of hospitals. The focus in Torbay is on meeting the needs of older people and helping them to remain independent. Torbay has established five integrated health and social care teams for older people, organised in localities aligned with general practices.

Each team has been co-located and has a single manager, a single point of contact and uses a single assessment process. Health and social care co-ordinators liaise with users and families and with other members of the team in arranging the care and support that is needed. Budgets are pooled and can be used by team members to commission whatever care is needed. This includes investment in intermediate care services to help avoid inappropriate hospital admissions, and the development of a team that reviews patients in hospital and works with hospital staff to discharge patients when there is pressure on beds.

Recent analysis of Torbay's Integrated Care Project (Ham 2010) has reported the following results:

- after adjusting for deprivation, the standardised admission ratio for emergency admissions for the population aged 65 and over is 87.7, the third lowest in the south west
- use of emergency bed days for the population aged 65 and over is 2,025 per 1,000 in Torbay compared with an average of 2,778 per 1,000 in the south west as a whole

- for those aged 85 and over, Torbay uses only 47 per cent of bed days for people experiencing two or more emergency hospital admissions compared with similar areas
- Torbay has the lowest rate of emergency bed day use in the south west for older people with two or more admissions and the second lowest rate of emergency admissions for older people with two or more admissions
- Torbay has the second lowest proportion in the south west of people aged 65 and over discharged to residential homes.

As a consequence of work to achieve closer integration, there has been a reduction in the average number of daily occupied hospital beds, from 750 in 1998/9 to 528 in 2008/9.

This example is important in the current context, not least because funding for social care is under much greater pressure than funding for health care. If NHS organisations do not work in partnership with local authorities to examine ways of improving the use of resources in the round, then it will be increasingly difficult to give priority to new models of care that rely less on hospitals and more on caring for people at home and in community settings. Taking a pessimistic view, cuts in social care budgets could make it harder to avoid inappropriate admissions by providing rapid response services, and to discharge patients from hospital in a timely and appropriate manner. This, in turn, will prevent providers from realising the productivity opportunities discussed earlier.

End-of-life care

A good example of another area of productivity opportunity is end-of-life care, a major driver of overall health and social care spend. Research suggests that around two-thirds of people would prefer to die at home, but only 18 per cent do so, with 58 per cent dying in hospital, 17 per cent in care homes and 4 per cent in hospices; the proportion of people who die at home has fallen from 31 per cent in 1974 (Gomes and Higginson 2008). A RAND report for the National Audit Office review of the potential cost savings of greater use of home- and hospice-based end-of-life care concluded that: 'Overall, the study results consistently point in the same direction as the literature: there is real potential for palliative care services to reduce expenditures associated with hospitalisation while at the same time accommodating the expressed preferences of patients' (Hatziandreu *et al* 2008, p xiv).

3 Making it happen

The biggest challenge facing the NHS is to act on the knowledge of what needs to be done and to make it happen. Numerous analyses have shown the opportunities to improve productivity in the NHS, but the focus now has to shift to execution and implementation. Put simply, analysis has to be translated into action through excellent leadership and the spread of best practice.

The scale of the quality and productivity challenge facing the NHS and the wide range of opportunities identified in this paper point to the need for a comprehensive approach that will require action by organisations and individuals at all levels, as shown in Figure 6. In this section, we identify the main priorities, deliberately starting with clinical microsystems, because tackling variations in clinical practice is one of the most important areas to focus on.

Figure 6 Action required at all levels of the system



Before considering the actions needed at different levels, it is important to note that there are a number of risks involved in selecting improvement strategies and estimating their impact, including the following.

- Double counting, with both primary and secondary care anticipating the financial benefits of reduced emergency admissions.
- Not distinguishing between changes that increase productivity by adding value and others that reduce costs. For example, a change in the urgent care pathway may increase quality by reducing inappropriate admissions, but only release cash if costs and/or capacity are removed.
- Simply equating the productivity challenge as equivalent to a '4 per cent cut' on baseline budgets each year from 2011 to 2014.
- Taking financially led, incremental approaches such as crude, across-the-board efficiency savings ('salami slicing') or indiscriminate cuts in resources and services ('slash and burn').

The local environment will influence the nature of risks and the appropriate response.

What can clinical microsystems do?

The term ‘clinical microsystems’ (borrowed from Mohr and Batalden (2002)) is used here to describe the teams that deliver frontline care within the NHS. Examples include GP practices, community nursing teams, and departments and directorates within hospitals that staff identify with in their daily work, such as the A&E department and the intensive care unit. Clinical microsystems are important because they are the point at which patients experience care, and because it is within these microsystems that decisions are taken on the use of resources.

These decisions – on the prescribing of drugs, the ordering of diagnostic tests, and the referral of patients for a specialist appointment – account for the bulk of spending of NHS resources. Action to release resources, therefore, has to start with clinical microsystems, and especially with engaging doctors, nurses, allied health professionals and others in the quality and productivity challenges ahead. This action includes tackling the variations in clinical practice highlighted earlier. These variations can also be tackled by involving patients in decisions about treatment options.

Since the 2010 general election, it has become clear that *GP commissioning* will be the principal means through which the government will seek to engage primary care teams in active resource management. Although the details of how commissioning will work have not yet been announced, it seems likely that groupings of practices will take control of a hard budget with which to commission services for the populations they serve. The hope is that this will motivate primary care teams to review the way in which they provide care – for example, by increasing generic prescribing, reducing unplanned admissions, and offering alternatives to hospital referral where appropriate.

Evidence from previous attempts to involve GPs and primary care teams in commissioning services lends support to the argument that this approach has the potential to make a positive contribution to improving quality and productivity. However, the degree to which GPs will be motivated to take part in commissioning is unclear, beyond the small minority of entrepreneurial GPs who have been at the heart of primary care-led commissioning in the past. What is apparent is that GP commissioners will need access to management expertise and real-time information about their use of services if they are to bring about the improvements identified in Section 1 of this paper. Also, there will need to be real incentives to reward GPs for the work involved.

Within hospitals, *service-line management* (SLM) is being used by a growing number of NHS trusts, particularly foundation trusts, as a way of engaging secondary care clinicians to control budgets and improve performance. SLM devolves management and measures a trust’s performance at service-line level rather than just at trust level. The information generated at service-line level can improve clinical decision-making as well as performance. With the appropriate delegation of authority, this can then enable clinicians to become true leaders of the service. SLM has a role to play in a number of areas, but especially in tackling variations in clinical practice.

At University College London Hospitals (UCLH) NHS Foundation Trust, SLM has enabled clinicians to expand and develop successful services such as neurosciences and maternity, backed by robust business cases that they developed themselves. SLM has also driven more challenging scrutiny of less successful services. According to the medical director at UCLH: ‘This enables clinicians and professional managers to engage in conversations that have meaning to both sides, to overcome issues rather than ignore them’ (Shepherd 2009). Another example is County Durham and Darlington NHS Foundation Trust, whose chief executive has argued that SLM has had ‘a dramatic effect on the development of clinical leadership and business systems’, and, in one directorate,

‘successfully delivered an impressive programme of change which achieves the Holy Grail of improving quality and reducing costs’ (Eames 2009, cited in Ham 2009, p 8).

A further option is to extend GP commissioning and service line management to encompass both primary and secondary care clinicians. This is particularly relevant to the redesign of care pathways and opportunities to strengthen clinical and service integration. Clinical resource management that spans primary and secondary care and that enables multi-speciality groups to both commission and, where appropriate, provide services has huge potential to drive out inefficiencies and to enable more priority to be given to prevention and care closer to home (Ham 2008).

Both SLM and GP commissioning are dependent on some common ingredients:

- excellent clinical leadership
- high standards of management support
- partnership between clinical and managerial leaders
- the use of timely and accurate information about performance
- incentives to reward improved performance.

The NHS will need to continue to give priority to leadership and skills development to ensure that these ingredients are present in clinical microsystems, and that frontline staff are fully engaged in making improvement happen.

High-performing organisations in other systems exemplify the levels of performance that can be achieved through clinical engagement. An example is Kaiser Permanente in the United States, whose philosophy is that quality and productivity improvements are best achieved by fostering a culture of commitment among clinical staff to improve performance rather than expecting them to comply with externally imposed targets and standards (Ham 2008). The approach taken by the coalition government, of placing less reliance on targets and more emphasis on professionalism, is moving the NHS in a similar direction.

The unanswered question is whether the NHS can adapt the culture of Kaiser Permanente and similar high-performing organisations given the quite different position of doctors within the NHS (*see below*).

What can providers do?

NHS trusts responsible for providing health care services in hospitals and the community have a major role to play in enabling staff working in clinical microsystems to tackle variations in clinical practice. It will be particularly important to set a clear direction for the future and then put in place the means for initiatives like SLM to function effectively. As discussed, these include programmes of leadership development and ensuring that service-line leaders have access to the information they need to improve performance.

NHS trust boards and organisations providing community services can also exercise leadership by making use of the Better Care, Better Value Indicators to compare their performance with what is being achieved elsewhere. This includes identifying aspects of performance where there is most room for improvement, and ensuring that these aspects are given priority. While this will often involve ensuring action at the service-line level and its equivalent in services provided in the community, in some cases there may need to be trust-wide action – for example, in tackling higher than average levels of sickness absence.

With around 70 per cent of spending in acute and mental health trusts going on pay, NHS trust boards will want to give particular attention to workforce strategy in seeking to improve performance. This includes reviewing the number and mix of staff employed, and working in partnership with trade unions to implement changes. Tighter vacancy controls and better use of temporary and agency staff – an area of high expenditure in many NHS organisations – have a contribution to make, alongside reviews of working patterns and rota design. It will also be important to maximise the potential of the consultant contract and Agenda for Change – for example, by strengthening appraisal and job planning processes.

Staff reward and incentive structures provide an important way of aligning individual and organisational priorities. This has been illustrated by a review of the evidence on employee-owned organisations, which shows the benefits that occur when staff can see the relationship between their own performance and the success of their organisation (Ellins and Ham 2009). These benefits arise when employee ownership is linked to human resource management practices that foster staff participation and a culture of ownership that is associated with staff having a collective voice in the organisation. Kaiser Permanente, cited above, where doctors are shareholders within the medical group and have an exclusive relationship with the health plan, is a good example.

The annual staff surveys have shown that relatively few staff in the NHS feel that they are involved in important decisions, consulted about changes that affect them, encouraged to suggest ideas for improving services, or feel that their organisation values their work. Initiatives like the Listening into Action programme in the Sandwell and West Birmingham NHS Trust are seeking to address these issues by turning staff feedback into positive action to deliver better outcomes. More ambitiously, some NHS organisations are actively exploring the idea of becoming employee-owned in order to realise the benefits seen in high-performing organisations like Kaiser Permanente. Circle, a private health care company set up in 2004, has already done this and is based on a partnership with consultants and GPs. Its achievements in improving the performance of an independent sector treatment centre in Nottingham underline the role of a participative management style in delivering results.

Many NHS providers have made use of quality improvement approaches like lean thinking and breakthrough collaborative in seeking to improve quality and productivity. These approaches are likely to receive even greater attention in future. A recent review concluded that no one approach was demonstrably superior to others in terms of its impact on performance, and what was more important was the skill used in implementation (Powell *et al* 2009). This confirms evidence from other sources about the critical importance of implementation in delivering improvements in health care.

The other main priority for providers will be exploring the scope for minimising support and back-office costs. Examples cited earlier, such as sharing functions with other NHS and public sector organisations, reviewing the use of the estate, and strengthening procurement illustrate the possibilities.

What can commissioners do?

Just as NHS trusts have a role in creating the conditions for SLM to play a part in improving quality and productivity, primary care trusts (PCTs) will need to work with GPs to realise the potential of commissioning. This includes working with GP leaders to establish commissioning in practice, ensuring that management and information support is available, developing proposals for the allocation of budgets, and agreeing arrangements for commissioners to be accountable for the use of resources. Previous NHS experience

suggests that GP commissioners may wish PCTs to continue to lead on the commissioning of some services. It is therefore likely that primary care-led commissioning by GPs will co-exist with population-based commissioning by PCTs (at least until 2013) and arrangements for commissioning specialised services at regional and national levels.

Like providers, commissioners can exercise leadership by making use of the Better Care, Better Value Indicators to compare their performance with what is being achieved elsewhere and to identify priority areas for action. Examples include variations in prescribing by GPs and in admissions from ambulatory care sensitive conditions. Commissioners also have a role in tackling variations in community health services and encouraging new providers to enter the market where this offers benefits.

In relation to core primary medical care services, PCTs are responsible for ensuring good value for money in the use of contracts with practices. An example would be reviewing funding levels under Personal Medical Services (PMS) contracts (which often vary widely), and delivery against these contracts. The same applies to the performance of practices working under General Medical Services (GMS) contracts, and the value being delivered by new providers commissioned to establish GP-led health centres to improve access under the national quality improvement programme set out by Lord Darzi (Department of Health 2008).

A key task for commissioners will be to tackle allocative inefficiencies in the NHS, such as variations in access to planned care that result from the use of low thresholds for some interventions, and the inappropriate use of follow-up appointments in outpatient clinics. Equally important is the challenge of redesigning care pathways to reduce unplanned admissions and better meet the needs of people with long-term conditions. Federations of practices taking on commissioning budgets will need to strengthen self-management, disease management and case management, and assess the contribution of innovative approaches like virtual wards and telehealth in this process. They may also wish to explore the role of independent sector companies in helping to provide more care closer to home through the use of gain-sharing contracts, under which companies are rewarded to the extent that they achieve reductions in expenditure on hospital services.

One option would be to include funds for social care in the budgets allocated to GPs. This would enable GP commissioners to use their resources flexibly to meet the needs of service users, although it would also create challenges in view of the cuts to social care spending that are being implemented and planned. An alternative would be to require PCTs to work with local authorities more closely and to make greater use of flexibilities under the Health Act 1999 to pool budgets and deliver services in a more integrated way. The experience of Torbay (summarised on page 17) makes a compelling case for prioritising integrated care, as does the evidence from the Partnerships for Older People (POPP) pilots, albeit on a more modest scale.

In the immediate future, it is likely that in many parts of the country PCTs will increasingly work together in consortia and clusters to make change happen. Reductions in management costs currently being implemented make it difficult for smaller PCTs to continue to function effectively, adding to the urgency for PCTs to collaborate. In the longer term, the abolition of PCTs means that alternative arrangements will need to be made for commissioning primary medical care services and ensuring value for money. This will be difficult to do at a national or regional level because of the importance of local knowledge in commissioning primary medical services.

Equally important, the uncertainty facing PCTs is likely to create considerable instability, especially if more experienced managers decide to move to other roles or, indeed, to leave the NHS. A further source of instability arises from the government's decision

to abolish strategic health authorities (SHAs) from April 2012. The prospect of organisational change and the loss of senior leaders pose a major threat to the delivery of the QIPP programme.

What can strategic health authorities do?

Much of the work on the QIPP programme to date has been led by SHAs, with the support of the Department of Health. This work has focused on identifying opportunities for productivity improvement of the kind reviewed earlier in this paper, and providing information and resources to support providers and commissioners in taking this forward. With the benefit of a regional perspective on the performance of the NHS in their areas and an ability to intervene in areas facing particular challenges, SHAs have provided leadership that has enabled the NHS to start planning for the future well ahead of the tightening of budgets that will come into effect in April 2011.

This is important because some of the most significant productivity opportunities require organisations to look across pathways and services to reduce waste and eliminate inefficiencies – for example, in relation to urgent care. The broader point to emphasise here is the need for the QIPP programme to be taken forward in local ‘systems of care’ that provide a natural focus for commissioners and providers to collaborate in making more strategic changes than are possible in individual organisations. Rationalising support and back-office costs is one example; reconfiguring clinical services is another.

The government’s decision to halt the work taking place in London following the Darzi review of services in the capital seems to indicate that, in future, SHAs will not be expected to lead clinical service reconfigurations. The implication is that strategic changes will be led locally and that they will need to go forward with the support of GP commissioners and other stakeholders such as local authorities. If this is a correct interpretation, it underlines the need for such changes to be debated and agreed within systems of care and for commissioners and providers to put in place the arrangements to enable this to happen.

A systems approach is likely to be especially important in taking forward work to strengthen quality and outcomes – for example, in relation to stroke care, trauma services and cancer, where services need to be planned and managed through networks of providers to deliver the best results. In some areas, the academic health sciences centres set up following the NHS Next Stage Review are already working in this way. At the time of writing, it is unclear where responsibility for leadership of local systems will rest when the government’s changes to the structure of the NHS are implemented and SHAs are abolished. This creates a significant risk in relation to the execution and implementation of the strategies set out in this paper.

What should national decision-makers do?

As we described earlier (*see* page 10), choices made at a national level can reduce the quality and productivity improvements required at a local level. Decisions around pay and prices, the stance on national standards and capital investment could reduce the estimated shortfall by around £6 billion and change the annual productivity improvement target from 6 per cent to between 3 and 4 per cent.

The two-year freeze on public sector pay and continuing downward pressure on prices will help contain costs. However, the Agenda for Change and consultant contracts still include automatic annual increments for staff. The current contracts also reinforce divisions between primary and secondary care, and medical and non-medical staffing.

None of the contracts link pay to productivity or promote more integrated working across organisations. Negotiating national contracts can be lengthy but may ultimately be worth it, though it is unlikely to contribute to the medium-term need for improved productivity. Foundation trusts may provide good practice examples if they exploit their contractual freedoms and negotiate local settlements.

Linked to pay are national decisions about training numbers. In 2008/9, the Department of Health invested more than £4 billion (Imison *et al* 2009) in professional training. Clinical workforce supply does not match future demand – with prospects of both over- and under-supply in different professional groups. It is also clear that the skills of the current clinical workforce do not match patient need, with a lack of generalist skills in hospitals and a lack of specialist expertise in the community. There are, therefore, questions about the overall investment in training and the balance of investment between the current and future workforce.

A key lever for policy-makers is the national tariff. Evidence from the national evaluation of Payment by Results (PbR) has shown tariff to be effective in reducing length of stay, particularly in those trusts with the highest costs at the outset (Farrar *et al* 2007). The recent decision to change the rules governing payment for emergency readmissions suggests it will be a lever that the government will be keen to deploy. Ministers have already signalled a desire to move towards normative (best practice) pricing, and this could contribute to efficiency improvements. However, it is important to remember that reducing price does not automatically reduce cost, and perverse outcomes are possible – for example, some trusts may decide to stop loss-making services, though current regulations for foundation trusts make this difficult. Reducing tariff also provides an incentive for trusts to inflate and grow hospital-based activity at a time when activity needs to shift into the community.

As well as the tariff, policy-makers need to ensure that the right levers are in place to support the actions set out in this paper. This requires a balance to be struck between stimulating competition in some areas of care and incentivising collaboration and integration in others. In relation to people with long-term conditions, frail older people and urgent care, there is a strong argument for providers to work together to improve outcomes and efficiency. As noted above, the same applies to trauma, stroke and cancer services, where the emphasis needs to be on developing networks between providers and the concentration of specialist services in those hospitals able to deliver the best results. The coalition government's plans to stimulate patient choice and open up the NHS to any willing provider need to be taken forward with this in mind, and with the aim of using competition where it has the greatest potential to contribute to productivity improvements. Examples include primary care, some community health services and planned hospital care.

There is an important role for the Department of Health in providing the evidence base for commissioning and health improvement activities. NICE, the NHS Institute for Innovation and Improvement and NHS Evidence can all play a part in this. As we have made clear, there is no shortage of evidence about what works – yet the variation in performance across the country is still considerable. This suggests that much more effort needs to be put into strengthening leadership and change management capabilities at all levels to ensure that the evidence is acted on in practice. Cuts in management costs mean that the NHS will make less use of management consultants and outside expertise in future, and it will therefore be important to invest in its own staff to make improvements on the scale described in this paper. The worst of all worlds would be for staff training and development budgets to be reduced at the very time when the need for investment in this area has never been greater.

Making it happen: key recommendations

- At all levels in the system the NHS must see addressing the productivity gap as the single greatest challenge in the short to medium term. This will require sustained focus and action.
- There has to be a shift from analysing the existing evidence on productivity opportunities to taking action to implement change.

For clinical microsystems

- Those in frontline teams, who have the greatest potential to unlock productivity, must reduce variations in quality and productivity at individual and team level.
- Emphasis must be given to current initiatives to devolve budgets and manage performance at team level through service line management and GP commissioning. Key ingredients for a clinical team's success will include:
 - strong clinical leadership and management support
 - timely and accurate information about performance and use of resources including benchmarks.

For provider organisations

- Providers must demonstrate strong organisational leadership alongside active personal and organisational support for leaders of clinical teams and directorates to reduce variation in operational service delivery and reduce waste. This will need to include providing robust management and benchmarking information.
- Organisations will need to engage and motivate staff at all levels and provide reward and incentive structures for staff that align individual and organisational priorities. Addressing high levels of sickness absence and excessive use of bank and agency staff needs to be part of this strategy.

For commissioners

- Leaders within commissioning organisations will need to work hard to sustain focus on quality and productivity and not be unduly distracted by organisational change.
- Commissioners need to make full use of the available intelligence and evidence to ensure that they target resources to maximum effect and avoid service duplication. Services need to proactively help people manage their own long-term conditions and avoid unnecessary hospital admissions and interventions.
- Integration across health and social care boundaries will be necessary to improve quality and productivity and to deal with the potential impact on health care of significant reductions in social services expenditure.

For government and national bodies

- Government, the independent commissioning board, and regulators should provide clarity on 'the rules of the game' and ensure that the levers such as employment contracts, tariff, and quality standards are aligned with the productivity agenda.
- A careful balance will need to be struck between stimulating competition in some areas of care while incentivising integration and collaboration in others.

4 Conclusion

The financial and management challenge ahead for the NHS is considerable. While policy-makers can facilitate improvement through national support and incentives, ultimately, to make change happen, there needs to be effective engagement of clinicians at the microsystem level, strong leadership by providers and commissioners, and a focus on systems of care. Investment in leadership and skills development and the spread of best practice will be of critical importance, at a time when funding will be under greater pressure than ever and the inclination will be to target resources at frontline clinical services.

The forthcoming changes to the way the NHS is organised, involving the abolition of PCTs and SHAs, the establishment of an independent commissioning board and the introduction of GP commissioning, mean that there will be considerable instability at the very time when there needs to be a single-minded focus on the issues discussed in this paper. This risk must be managed to ensure that the work on quality and productivity already under way in many parts of the NHS is not sidetracked. Leadership time and capability need to be dedicated to furthering the QIPP agenda and ensuring effective implementation, while also taking forward the radical changes to the organisation of the NHS that are in the pipeline. This will not be easy at a time when substantial cuts are being made to management costs. It is vital that the contribution of managers and leaders of local systems is recognised alongside the drive to empower frontline clinical teams.

The point we would emphasise in conclusion is the need for the government and the NHS to adopt an approach that recognises the importance of working across a series of dualities, learning from the experience of transformational change in high-performing companies (Pettigrew 1999). These dualities include:

- managing the present (the QIPP agenda) and planning for the future (the government's plans to reorganise the NHS)
- empowering frontline staff in clinical microsystems and providing leadership in national and local systems
- continuing to emphasise the importance of clinical engagement and leadership and valuing the role of managers at all levels of the NHS
- promoting competition in areas of health care where it offers the greatest potential benefits and supporting co-operation where organisations need to work together to improve performance.

Balancing these dualities lies at the heart of the execution and implementation challenges facing the NHS.

References

- Appleby J, Crawford R, Emmerson C (2009). *How Cold Will It Be? Prospects for NHS funding: 2011–2017*. London: The King's Fund/Institute for Fiscal Studies. Available at: www.kingsfund.org.uk/publications/how_cold_will_it_be.html (accessed on 31 May 2010).
- Bloor K, Marnard A, Freemantle N (2004). 'Variation in activity rates of consultant surgeons and the influence of reward structures in the English NHS'. *Journal of Health Services Research & Policy*, vol 9, no 2, pp 76–84.
- Chartered Institute of Personnel and Development (2010). 'NHS sickness absence can be reduced – but thorough review of sickness absence practice and wider public sector people management is needed'. Press release, 25 March. CIPD website. Available at: www.cipd.co.uk/pressoffice/_articles/NHSSicknessabsence250310.htm (accessed on 17 June 2010).
- Chote R, Crawford R, Emmerson C, Tetlow G (2009). *Britain's Fiscal Squeeze: The choices ahead*. IFS Briefing Note BN87. London: Institute for Fiscal Studies. Available at: www.ifs.org.uk/bns/bn87.pdf (accessed on 31 May 2010).
- Crump B (2009). Speech at the NHS Institute for Innovation and Improvement Faculty Conference, 30 September 2009.
- Crump H (2009). 'Variation shows NHS community services ripe for efficiencies'. *Health Service Journal*, 13 August. Available at: www.hsj.co.uk/news/primary-care/variation-shows-nhs-community-services-ripe-for-efficiencies/5005035.article (accessed on 25 June 2010).
- Department of Health (2010a). *NHS Shared Business Services: Quality and productivity*. Available at: www.evidence.nhs.uk/qualityandproductivity (accessed on 25 June 2010).
- Department of Health (2010b). *Revision to the Operating Framework for the NHS in England 2010/11*. London: Department of Health. Available at: www.dh.gov.uk/en/publicationsandstatistics/publications/publicationspolicyandguidance/dh_110107 (accessed on 24 June 2010).
- Department of Health (2009a). 'Case study: virtual wards at Croydon Primary Care Trust' [online]. Available at: www.dhcarenetworks.org.uk/_library/croydon_virtual_wards_case_study.pdf (accessed on 25 June 2010).
- Department of Health (2009b). *Departmental Report 2009*. London: Department of Health. Available at: www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_100667 (accessed on 31 May 2010).
- Department of Health (2008). *High Quality Care For All: NHS next stage review final report*. Cm 7432. London: Department of Health. Available at: www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_085825 (accessed on 25 June 2010).
- Effing T, Monninkhof EEM, van der Valk PP, Zielhuis GGA, Walters EH, van der Palen JJ, Zwerink M (2007). 'Self-management education for patients with chronic obstructive pulmonary disease (Cochrane Review)'. *Cochrane Database of Systematic Reviews*, issue 4, article CD002990.
- Ellins J, Ham C (2009). *NHS Mutual: Engaging staff and aligning incentives to achieve higher levels of performance*. London: Nuffield Trust.
- Farrar S, Sussex J, Yi D, Sutton M, Chalkley M, Scott T, Ma A (2007). *National Evaluation of Payment by Results: Report to the Department of Health*. Office of Health Economics (OHE)/Health Economics Research Unit (HERU). Available at: www.abdn.ac.uk/heru/documents/pbr_report_dec07.pdf (accessed on 25 June 2010).

- Garcia-Alamino JM, Ward AM, Alonso-Coello P, Perera R, Bankhead C, Fitzmaurice D, Heneghan CJ (2010). 'Self-monitoring and self-management of oral anticoagulation (Cochrane Review)'. *Cochrane Database of Systematic Reviews*, issue 4, article CD003839.
- General Medical Council (2009). 'GMC calls for a national prescription chart to reduce errors'. Press release, 3 December. GMC website. Available at: www.gmc-uk.org/news/5156.asp (accessed on 31 May 2010).
- Gomes B, Higginson I (2008). 'Where people die (1974–2030): past trends, future projections and implications for care'. *Palliative Medicine*, vol 22, no 1, pp 33–41.
- Ham C (2010). *Working Together for Health: Achievements and challenges in the Kaiser NHS Beacon Sites Programme*. HSMC Policy Paper 6. Birmingham: Health Services Management Centre, University of Birmingham.
- Ham C (2009). *Health in a Cold Climate*. London: The Nuffield Trust.
- Ham C (2008). 'Competition and integration in the English National Health Services'. *British Medical Journal*, vol 336, pp 805–7.
- Hatziandreu E, Archontakis F, Daly A (2008). *The potential cost savings of greater use of home and hospice-based end of life care in England*. Available at www.rand.org/pubs/technical_reports/TR642 (accessed on 28 June 2010).
- Health Select Committee (2010). *Minutes of Evidence HC269-ii (2010–11)*.
- HM Treasury (2010). *Total Place: A whole area approach to public services*. Available at: www.hm-treasury.gov.uk/psr_total_place.htm (accessed on 25 June 2010).
- HM Treasury (2009). Public Expenditure Statistical Analyses (various). Available at: www.hm-treasury.gov.uk/pespub_index.htm (accessed on 9 July 2009).
- Imison C, Buchan J, Xavier S (2009). *NHS Workforce Planning: Limitations and possibilities*. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/nhs_workforce.html (accessed on 25 June 2010).
- Jones A, Russell S (2007). 'Equitable distribution of district nursing staff and ideal team size'. *Journal of Community Nursing*, vol 21, no 6, pp 4–9.
- May D, Price I (2009). 'A revised approach to performance measurement for healthcare estates'. *Health Services Management Research*, vol 22, no 4, pp 151–7.
- McKinnell I, Gray M (2010). QIPP programme: Right Care. 'Value improvement: identifying procedures of low value'. Public Health Commissioning Network. Available at: www.phcn.nhs.uk/rightcare.htm (accessed on 27 May 2010).
- McKinsey & Company (2009). *Achieving World Class Productivity in the NHS 2009/10–2013/14: Detailing the size of the opportunity* [online]. Available at: www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_116521.pdf (accessed on 25 June 2010).
- Medical Defence Union (2009). 'Long-term prescribing tops list of medication error claims'. Press release, 8 May.
- Mohr, J, Batalden P (2002). 'Improving safety on the front lines: the role of clinical microsystems'. *Quality and Safety in Health Care*, vol 11, no 1, pp 45–50.
- National Audit Office (2009a). *Health Focus: Synopsis of National Audit Office findings on the Department of Health and NHS*. Available at: www.nao.org.uk/publications/focus/health_focus_spring_2009.aspx (accessed on 25 June 2010).
- National Audit Office (2009b). *NHS Pay Modernisation in England: Agenda for Change*. Available at: www.nao.org.uk/publications/0809/nhs_pay_modernisation.aspx (accessed on 25 June 2010).

National Audit Office (2008). *NHS Pay Modernisation: New contracts for general practice services in England*. Available at: http://www.nao.org.uk/publications/0708/new_contracts_for_general_prac.aspx (accessed on 28 June 2010).

National Audit Office (2007). *Pay Modernisation: A new contract for NHS consultants in England*. Available at: www.nao.org.uk/publications/0607/pay_modernisation_a_new_contr.aspx (accessed on 25 June 2010).

National Audit Office (2002). *The Management of Surplus Property by Trusts in the NHS in England. Report by the Comptroller and Auditor General HC 687 (2001–2002)*. London: The Stationery Office. Available at: www.nao.org.uk/publications/0102/the_management_of_surplus_prop.aspx (accessed on 25 June 2010).

National Audit Office and Audit Commission (2010). *A Review of Collaborative Procurement Across the Public Sector*. London: HMSO. Available at: www.nao.org.uk/publications/0910/collaborative_procurement.aspx (accessed on 25 June 2010).

National Healthcare-Associated Infection Research Network (2010) *About Healthcare-Associated Infection*. Available at www.hcainetwork.org/about%20hcai.htm (accessed on 28 June 2010).

National Patient Safety Agency (2010). *Rapid Response Report: Reducing harm from omitted and delayed medicines in hospital*. London: NPSA, National Reporting and Learning Service. Available at: www.nrls.npsa.nhs.uk/alerts/?entryid45=66720 (accessed on 1 June 2010).

National Patient Safety Agency (2009). *Safety in Doses: Improving the use of medicines in the NHS*. Available at: www.nrls.npsa.nhs.uk/resources/?entryid45=61625 (accessed on 24 June 2010).

National Patient Safety Agency (2008). *Rapid Response Report: Reducing dosing errors with opioid medicines*. London: NPSA, National Reporting and Learning Service. Available at: www.nrls.npsa.nhs.uk/resources/?entryid45=59888 (accessed on 1 June 2010).

NHS Evidence (2010). *Enhanced recovery for elective surgery*. Available at www.library.nhs.uk/SpecialistLibrarySearch/Download.aspx?resID=330552 (accessed on 28 June 2010).

NHS Institute for Innovation and Improvement (2010a). *Productive Community Services: Releasing time to care*. Available at: www.institute.nhs.uk/quality_and_value/productivity_series/productive_community_services.html (accessed on 1 June 2010).

NHS Institute for Innovation and Improvement (2010b). *Better Care, Better Value Indicators – Q1 2009/10*. London: HMSO.

NHS Institute for Innovation and Improvement (2010c). *Keeping Nourished, Getting Better – One of the High Impact Actions*. Available at: www.institute.nhs.uk/building_capability/hia_supporting_info/keeping_nourished_getting_better.html (accessed on 6 June 2010).

NHS Institute for Innovation and Improvement (2009a). *High Impact Actions for Nursing and Midwifery*. London: HMSO.

NHS Institute for Innovation and Improvement (2009b). *Converting the Potential into Reality: 10 steps a provider can take to realise the benefits of Better Care, Better Value Indicators*. Available at: www.institute.nhs.uk/world_class_commissioning/world_class_commissioning/commissioning_for_quality.html (accessed on 24 June 2010).

NHS Institute for Innovation and Improvement (2004). *Delivering Quality and Value – Focus on: productivity and efficiency*. Available at: www.institute.nhs.uk/quality_and_value/high_volume_care/focus_on%3A_productivity_and_efficiency.html (accessed on 25 June 2010).

- NHS London (2007). *Healthcare for London: A framework for action* [online]. Available at: www.healthcareforlondon.nhs.uk/assets/Publications/A-Framework-for-Action/aFrameworkForAction.pdf
- NHS Plus (2010). 'The Centre for Occupational Health and Wellbeing @ York Hospitals NHS Foundation Trust', case study. NHS Plus website. Available at www.nhsplus.nhs.uk/business/benefits-casestudy-yorksicknessabsence.asp (accessed on 25 June 2010).
- NICE (2010). *Cost Saving Guidance*. Available at <http://www.nice.org.uk/usingguidance/benefitsofimplementation/costsavingguidance.jsp> (accessed on 28 June 2010).
- Nicholson D (2009a). *Implementing the Next Stage Review Visions: The quality and productivity challenge*. Letter, 10 August, Gateway ref: 12396.
- Nicholson D (2009b). *The Year: NHS Chief Executive's Annual Report 2008/09*. London: Department of Health. Available at: www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_099689 (accessed on 31 May 2010).
- OHE (2009). *The Compendium of Health Statistics*. Office of Health Economics, London. Available at: www.ohe.org/page/compendium.cfm (accessed on 9 July 2009).
- ONS (2010). *Public Service Output, Inputs and Productivity: Healthcare* [online]. Newport, Wales: Office for National Statistics, UK Centre for the Measurement of Government Activity. Available at: www.statistics.gov.uk/articles/nojournal/healthcare-productivity-2010.pdf (accessed on 26 June 2010).
- Patel H, Bell D, Molokia M, Srishanmuganathan L, Patel M, Car J, Majeed A (2007). 'Trends in hospital admissions for adverse drug reactions in England: analysis of national hospital episode statistics 1998–2005'. *BMC Clinical Pharmacology*, vol 7, no 9.
- Pettigrew A (1999). *Organising to Improve Company Performance*. Warwick Business School Hot Topics, Vol 1, No 5. Available at: www.wbs.ac.uk/downloads/hot_topics/hot_topics_06.pdf
- Personal Social Services Research Unit (2009). *National Evaluation of Partnerships for Older People Projects: Final report*. Available at: www.pssru.ac.uk/pdf/dp2700.pdf (accessed on 24 June 2010).
- Pirmohamed M, James S, Meakin S, Green C, Scott AK, Walley TJ, Farrar K, Park BK, Breckenridge AM (2004). 'Adverse drug reactions as cause of admission to hospital: prospective analysis of 18,829 patients'. *British Medical Journal*, vol 329, pp 15–19.
- Powell AE, Rushmer RK, Davies HTO (2009). *A systematic narrative review of quality improvement models in health care*. Edinburgh: NHS Quality Improvement Scotland.
- Shepherd S (2009). 'Service Line Reporting: A frontline perspective'. *Health Service Journal*, 25 February.
- Sibbald B, Shen J, McBride A (2004). 'Changing the skill-mix of the NHS workforce'. *Journal of Health Services Research & Policy*, vol 9, pp 28–38.
- Street A, Ward P (2009). *NHS Input and Productivity Growth 2003/4–2007/8*. Centre for Health Economics Research Paper 47. University of York. Available at: www.york.ac.uk/inst/che/pdf/rp47.pdf (accessed on 26 June 2010).
- Tapp S, Lasserson TJ, Rowe BH (2007). 'Education interventions for adults who attend the emergency room for acute asthma (Cochrane Review)'. *Cochrane Database of Systematic Reviews*, issue 3, article CD003000.
- Wanless D (2002). *Securing our Future Health: Taking a long-term view. A final report*. London: HM Treasury.
- Wanless D, Appleby J, Harrison A, Patel D (2007). *Our Future Health Secured? A review of NHS funding and performance*. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/our_future.html (accessed on 1 June 2010).

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