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NHS and social care funding: the outlook to 2021/22

Research report

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About this work programme

This work, undertaken by the Institute for Fiscal Studies (IFS), was funded by the Nuffield Trust as part of a broader research programme called *Buying Time: What is the scale of the financial challenge facing the NHS and how can it be met?* This report by the IFS is the first output from this programme.

The Nuffield Trust programme is examining how the NHS and social care system in England can meet the key challenge of improving patient care within a severely constrained budget. It brings together research and evidence on the efficiency and effectiveness of health and social care to answer these key questions:

- What is the scale of the financial challenge facing the NHS and social care system over the next ten years?
- Can the NHS in England meet the challenge by delivering more efficient and effective health and social care systems?

The programme is empirically based and consists of two phases:

Phase 1 (2011 to 2012): Assessing the scale of the financial challenge

Phase 2 (2012 to 2013): Rising to the challenge: the scope for productivity gains.

The first phase consists of examining future trends in both health and social care funding scenarios and demand for care. The findings will be summarised in further publications, due to be released in Autumn 2012.

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Executive summary

- Public spending on the UK NHS has increased faster than economy-wide inflation since the 1950s, with an average real growth rate of 4.0 per cent a year between 1949/50 and 2010/11 (when spending reached £137.4 billion). This is significantly greater than growth in the economy over this period and as a result spending on the UK NHS as a share of national income has increased from 3.5 per cent in 1949/50 to 7.9 per cent in 2007/08 (before the financial crisis and associated recession struck). Spending increased particularly rapidly under the last Labour Government, with an average real growth rate of 6.4 per cent a year between 1996/97 and 2009/10.
- Despite the substantial cuts to public spending being implemented in the wake of the financial crisis, the Coalition Government chose to give relative protection to the NHS in the 2010 Spending Review. However, the real freeze in NHS spending planned for 2011/12 to 2014/15 will, if delivered, make this the tightest four-year period of funding for the NHS in the last 50 years.
- After the end of this period of deficit reduction the future is still far from bright. The government is planning to cut total public spending in real terms by an average of 0.9 per cent a year over the two years 2015/16 and 2016/17. Within this, spending on welfare benefits and debt interest payments are forecast to continue increasing which, if unchecked, would leave public services facing deeper cuts. Even if the government were to implement welfare cuts of £8.5 billion (in today's terms) in 2016/17, as mooted by the Chancellor, George Osborne, in his March 2012 Budget speech, spending on public services in the UK would still need to be cut in real terms by an average of 1.7 per cent a year over 2015/16 and 2016/17 to keep to the current spending plans.
- If total public spending were increased in line with national income beyond 2016/17, it would grow by an average of just 1.2 per cent a year over the seven-year period 2014/15 to 2021/22 with spending on public services growing by an average of 1.1 per cent a year in real terms over this period. However, the outlook for economic growth is uncertain. Should average economic growth fall short of the official forecasts then the amount available to be spent on public services would be even lower.

“If total public spending were increased in line with national income beyond 2016/17, it would grow by an average of just 1.2 per cent a year over the seven-year period 2014/15 to 2021/22

- The budget for the NHS is thus likely to continue to be tight. If spending on the English NHS were held constant as a share of national income from 2015/16 to 2021/22 (requiring an average 2.4 per cent a year real growth under current forecasts for economic growth), other public services could only grow by 0.6 per cent a year in real terms over that seven-year period, while a 4.0 per cent a year real increase in English NHS spending would imply a further seven-year real freeze in spending on public services.
- Increases in taxes or government borrowing, or further cuts to welfare spending, could be used to ease the constraints on public service spending. Increasing English NHS spending in line with national income and increasing other public service spending by 1.0 per cent a year in real terms up to 2021/22, would require an increase in taxation or borrowing of around £10 billion in that year – equivalent to an increase in the main rate of VAT from 20 per cent to just over 22 per cent.
- An increase in NHS spending by more than that required to maintain spending as a share of national income is unlikely without significant new tax increases. However, the Office for Budget Responsibility has forecast that, even if NHS productivity growth keeps pace with that seen across the economy, an increase in health spending in line with national income would not be sufficient to keep up with demographic pressures.
- Demographic pressures are also increasing demand for social care. In addition, the recent Commission on Funding of Care and Support (Dilnot Commission) proposed a reform of the system for funding social care in England that would increase the cost to the taxpayer. Projections in the Commission's final report suggest that, under their proposed system, public spending on social care (which was projected to be £15.3 billion in 2010/11) would increase by 5.4 per cent a year in real terms between 2014/15 and 2021/22, reaching 1.2 per cent of national income (compared to 3.3 per cent a year in real terms and 1.1 per cent of national income forecast under the current system).
- Combining the Dilnot Commission recommendations with keeping English NHS spending constant as a share of national income, public spending on the NHS and social care would increase by 2.8 per cent a year in real terms. All other areas of public service spending, however, would grow at just 0.3 per cent a year over the seven years from April 2015, in the absence of any tax increases, borrowing increases or further cuts to welfare spending.
- Public funding for health is set to be tight until at least the end of the decade. If NHS productivity does not increase sufficiently fast to bridge the gap between funding and demand pressures, then access to and quality of care is likely to deteriorate. Serious thought must then be given to options for the NHS. These include reconsidering the range of services available free of charge to the whole population or the level of taxation needed to finance those services in the future.

1. Introduction

The majority of health care in the UK is funded by the taxpayer. Therefore the quantity and quality of health care provided are the result of rationing a fixed budget set by government funding constraints rather than the result of an interaction between demand and supply. The likely path of government funding for health care over the next decade is therefore a key concern for the health market especially given the current climate of austerity. After the unprecedented four-year period of broadly flat real-terms NHS spending ends in 2014/15, what can be expected? And what is the likely outlook for social care spending, for which the Commission on Funding of Care and Support (2011) recently proposed reforms to make more generous, and consequently more expensive? This report considers some scenarios for spending on the NHS and social care in England. It sets out what they might imply for other public service spending and taxation, and discusses how they could leave health spending relative to the current level seen in other countries.

This report is part of a larger programme of work being directed by the Nuffield Trust, which will also include a careful assessment of potential demands on the health care system over the same period (Nuffield Trust, 2012).

2. NHS funding

Past NHS spending

Figure 1 shows how spending on the UK NHS changed between 1949/50 and 2010/11. Spending is shown using two different measures. The first, measured on the left-hand axis, is spending in real terms. This is the amount (in £ billion) adjusted for the economy-wide rise in the level of prices over time, so that if costs in the health service rose with prices more generally, each pound would buy the same quantity of goods and services in each year. To the extent that cost pressures in the NHS are greater than the rise in prices in the economy as a whole, not least because the NHS is labour-intensive and wages tend to rise faster than prices, the real growth rate figures presented will overstate the growth (understate the decline) in the purchasing power of the NHS. Indeed evidence from the period from 1975/76 to 2009/10 suggests that this was the case, with the price of NHS inputs rising approximately ten-fold compared to an approximate five-fold economy-wide price rise over this period, or, alternatively, average annual NHS price inflation of 7.4 per cent a year compared to economy-wide inflation averaging 5.4 per cent a year over the same period.[1]

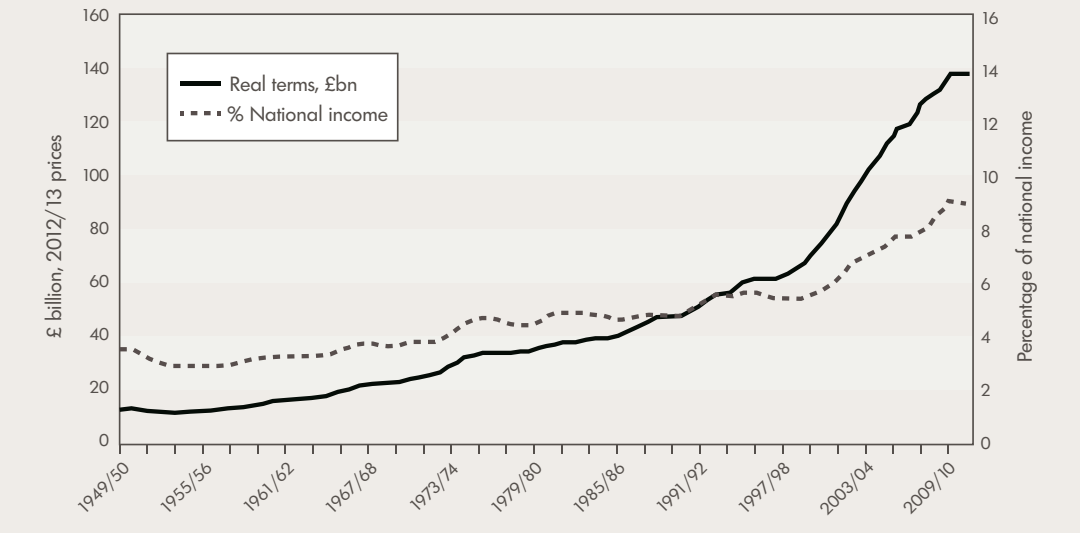
Unfortunately, to our knowledge, a consistent series for the inflation rate faced by the NHS, along with projections going forward, does not exist. In any case, calculating real-terms figures by adjusting for a rise in the general level of prices in the economy does give a helpful representation of the real resources given up in order to finance the NHS. The second measure of NHS spending, measured against the right-hand axis, is as a share of national income. This measure is particularly interesting for comparisons of the proportion of income that is spent on certain items, particularly if that proportion might be expected to change with the level of income.

In real terms, spending on the NHS has increased since 1949/50, and more rapidly since 1999/2000. Table 1 shows the growth rate of NHS spending in the UK over various periods. The average annual real growth rate between 1949/50 and 1978/79 was 3.5 per cent, and under the Conservative Government between 1978/79 and 1996/97 was 3.3 per cent. This is in marked contrast to the period of the last Labour Government, between 1996/97 and 2009/10, when UK NHS spending increased by an average 6.4 per cent a year in real terms. By 2010/11, spending on the UK NHS reached £137.4 billion (at 2012/13 prices). The tightest four-year period of NHS funding was during its infancy in the early 1950s (specifically the four-year period from 1950/51 to 1954/55 that saw an average annual real cut of 2.4 per cent a year), which coincided with charges for prescriptions, dental services and spectacles being introduced in 1952. In the last 50 years, the tightest four-year period of NHS funding was the period from 1975/76 to 1979/80, when the then Labour Government was squeezing public service spending as it tried to comply with the terms of an International Monetary Fund austerity plan, but even during this period the NHS budget still grew by an average of 1.3 per cent a year in real terms.

1. Based on the authors' calculations, using data from Office of Health Economics (2012a).

NHS spending as a share of national income increased gradually from 3.5 per cent in 1949/50 to 5.4 per cent in 1997/98. Since then it has increased rapidly, reaching 7.9 per cent of national income by 2007/08, prior to the financial crisis and associated recession. NHS spending as a share of national income increased rapidly in 2008/09 and 2009/10, but this was the result of nominal national income falling in those years, rather than an active decision to increase the share of national income devoted to the NHS. The fact that over the longer term NHS spending has increased as a share of national income can be explained by a number of reasons: demographic changes have increased the proportion of elderly people in the population; there is a general propensity for societies to spend a higher share of their income on health care as their income rises; and over time there has been a general increase in the range of health problems that can be managed by the health care system. History suggests these factors are likely to outweigh the countervailing pressures, for example, from technological improvements that would reduce the cost of existing treatments over time. However, the increase in NHS spending as a share of national income since 1997/98 has been notably rapid by historical standards.

Figure 1: History of UK NHS spending



Source: Office of Health Economics (2012a)

Table 1: Growth in UK NHS spending over different periods

Period	Years	Average annual real growth in NHS spending
Entire NHS history	1949/50 to 2010/11	+4.0%
Last Labour government	1996/97 to 2009/10	+6.4%
Last Conservative government	1978/79 to 1996/97	+3.3%
Previous governments	1949/50 to 1978/79	+3.5%
Tightest four-year period	1950/51 to 1954/55	–2.4%
Tightest four-year period in the last 50 years	1975/76 to 1979/80	+1.3%

Source: Office of Health Economics (2012b)

NHS spending 2011/12 to 2014/15

The cash spending plans for the English NHS over the four years 2011/12 to 2014/15 were set out in the October 2010 Spending Review. These cash amounts were just sufficient, under the official projections for inflation available at the time, to imply an average real increase in NHS spending of 0.1 per cent a year. The plans were intended to be consistent with the pledge made by the Government in the post-election coalition agreement that: "We will guarantee that health spending increases in real terms in each year of the Parliament" (HM Government, 2010).

Whether or not this pledge will actually be met remains uncertain for a number of reasons. First, cash spending on the NHS could turn out to be lower than currently planned. This could happen as a result of active cuts to the planned budget by the government. While this would not be unprecedented – Labour did this in the March 2009 Budget – the Government might fear that doing so would lead to a severe political backlash. Perhaps more likely is that the NHS might continue to underspend its allocated budget, as it did in 2010/11 and 2011/12 (although the chance of this could diminish through the period covered by the 2010 Spending Review, as the spending settlements become more constraining). Second, inflation could turn out to be higher than currently anticipated. If this looked likely to happen, the Government would have to decide whether to top up the existing plans or risk the NHS budget increase falling short of inflation.

> A four-year real freeze in English NHS spending would be likely to be the tightest four-year period in the last 50 years

In this report we assume that cash spending on the English NHS for the three remaining years of the current Spending Review period (2012/13 to 2014/15) will turn out to be as forecast in the March 2012 Budget. These are the latest official forecasts of spending by government departments, and the allocation for the NHS was essentially unchanged from the Spending Review.

A four-year real freeze in English NHS spending between 2011/12 and 2014/15, if delivered, would be likely to be the tightest four-year period in the last 50 years – Table 1 indicates that this would be the case if it applied to the UK NHS. These spending plans are not, however, as tight as those delivered during the early 1950s. It should also be recalled that English NHS health spending has actually been protected relative to other areas of public service spending over the Spending Review period. Overall, public service spending is forecast to fall by an average 2.1 per cent a year between 2011/12 and 2014/15, and the decision to freeze real English NHS spending over this period has resulted in other areas of public service spending facing a 2.9 per cent a year average real cut rather than the 2.1 per cent a year average real cut they would have faced if all areas of public service spending, including the English NHS, had faced the same cuts.

While the 2010 Spending Review determined the allocation of spending to the NHS in England, it did not determine what would be spent on the NHS in Scotland, Wales and Northern Ireland, where spending allocations are determined by the devolved administrations (the Scottish Parliament, the Welsh Assembly and the Northern Ireland Assembly, respectively). This report focuses on English NHS spending, and does not attempt to make a judgement on the spending priorities of the devolved administrations, which may be different to those of the UK Government. The Welsh Assembly, for example, chose to cut real NHS spending over the 2010 Spending Review period in order to be relatively more generous elsewhere (see Crawford and others, 2011). However, it is useful to bear in mind that decisions on English NHS spending (unless offset by spending changes elsewhere in England) do influence the total amount of money allocated to Scotland, Wales and Northern Ireland through the Barnett formula.[2] If a greater proportion of spending is allocated to the NHS in England rather than to something that is deemed to benefit the whole of the UK, such as defence spending, the Barnett formula would allocate more spending to devolved administrations and the proportion of spending available for other public services in England would be smaller.

English NHS spending 2015/16 to 2021/22: three funding scenarios

The future outlook for spending on the English NHS beyond 2014/15 is particularly uncertain. While the 2010 Spending Review planned a period of austerity for the NHS unparalleled in the last fifty years, it is far from clear that future NHS funding increases can echo the largesse of recent decades. The government is planning two further years of cuts to total public spending in 2015/16 and 2016/17 in order to continue bringing the deficit down – increases in total spending of more than economy-wide inflation are not currently planned until at least 2017/18. In addition, other areas of government spending are to be cut back far more by 2014/15 than health spending, and these other areas might therefore make strong cases for more generous budget settlements in the next Spending Review.

We examine three possible future funding paths for the English NHS in order to assess the trade-offs involved in future spending settlements. We analyse each of these in terms of their consequences for the NHS, other public service spending and for taxation. Throughout we assume that from 2017/18 to 2021/22 national income grows in line with Office for Budget Responsibility (OBR) forecasts from the *Fiscal Sustainability Report* (2011).

The three funding scenarios for English NHS spending between 2015/16 and 2021/22 are:

- spending is frozen in real terms
- spending grows in line with national income
- spending grows in line with its long-run average for the UK (since 1950/51).

2. The Barnett formula is the mechanism used to calculate the budgets allocated to the devolved administrations. It is designed in such a way that the same pounds-per-head change in 'comparable' English spending (spending in England on functions that are devolved to Scotland, Wales and Northern Ireland) will automatically be applied to Scotland, Wales and Northern Ireland.

Freezing spending in real terms would be a continuation of the growth rate planned for the four years of the 2010 Spending Review period. Relative to past trends in spending over the last 50 years, this is an extremely negative scenario for the NHS. Four years of a real freeze in spending was unprecedented in 2010/11, a further seven years would be even more exceptional. However, it perhaps serves as a useful lower bound for NHS spending, from which the implications for other areas of spending can be drawn. Under this scenario, spending on the NHS as a share of national income would fall back to the level seen in 1999/2000. This was not long before the Treasury-commissioned Wanless Review (Wanless, 2002) recommended that NHS spending should be increased sharply as a share of national income in order to help create a world-class publicly funded health care system.

Increasing spending in line with national income implies that spending on the English NHS as a share of national income would remain at the 2014/15 level (and in real terms would be expected to increase by 2.4 per cent a year between 2015/16 and 2021/22, given OBR forecasts for economic growth over this period). This would contrast with the period from 2000 to 2010, when NHS spending increased markedly as a share of national income, but would not be unprecedented. Spending on the NHS as a share of national income declined slightly during the mid-1980s (when the economy was growing quickly). A sharp increase in the early 1990s (when the economy was in recession) was followed by a period of stability and then a further decline over the mid- to late 1990s.

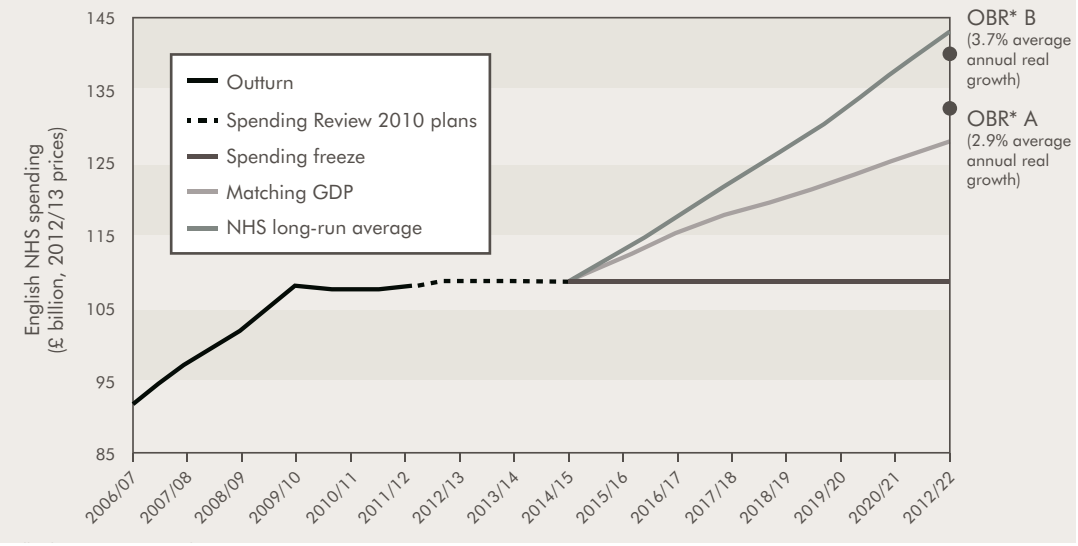
Spending growth in line with the long-run average increase in NHS spending between 1950/51 and 2010/11 would imply an annual real growth rate of 4.0 per cent a year. This is likely to be an unrealistically positive scenario for the NHS given the likely fiscal climate over the next decade. With national income forecast to grow by an average 2.4 per cent a year in real terms between 2014/15 and 2021/22, this scenario would see spending on the NHS growing considerably faster than the economy. However, this perhaps serves as a useful upper bound when considering the trade-offs involved – although, as shown in Figure 1, increases in NHS spending as a share of national income have historically been more common than periods in which NHS spending has not increased as a share of national income.

Figures 2a and 2b show historic spending on the English NHS from 2006/07 to 2011/12, planned spending for 2012/13 to 2014/15 from the 2010 Spending Review, and the three funding scenarios from 2015/16 to 2021/22. Figure 2a shows spending in real terms while Figure 2b shows spending as a share of national income.

Throughout, we assume that national income grows in line with OBR forecasts from the 2011 *Fiscal Sustainability Report* – an average of 2.4 per cent a year in real terms between 2015/16 and 2021/22. The outlook for economic growth is uncertain, with the official forecasts assuming that the financial sector returns to a stable position by 2014, and therefore trend growth in the economy climbs to 2.3 per cent in that year. However, it could be that the impact of the financial crisis on the economy persists for longer (or for less time) than the official forecast assumes, or that other shocks affect the UK economy over this period. Given the number of other variables that we are modelling, we do not explicitly illustrate the effects of changing long-run assumptions about trends in national income. If national income grows less quickly than forecast, a real-terms freeze or an increase in spending in line with the long-run average would result in a larger increase in health spending as a share of national income than we

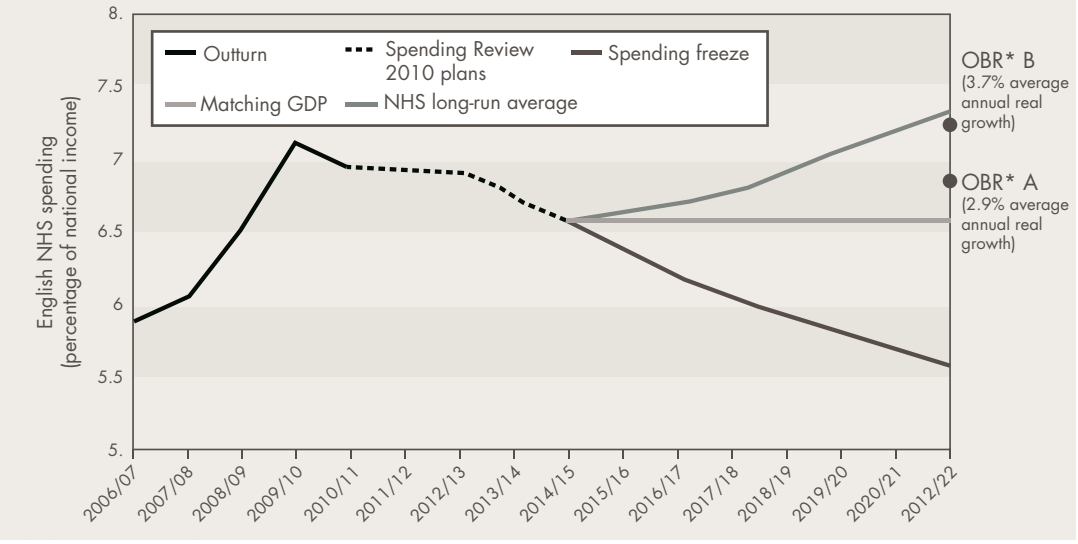
illustrate. Similarly, an increase in NHS spending in line with national income would imply a lower real spending increase.[3]

Figure 2a: Three NHS funding scenarios (real terms)



Source: NHS (Health) Total Departmental Expenditure Limit, Outturn data are from HM Treasury (2011), Table 1.8; forecasts are from HM Treasury (2012)

Figure 2b: Three NHS funding scenarios (percentage of national income)



Source: As Figure 2a. Additionally, forecasts for real national income growth 2012/13 to 2016/17 are from HM Treasury (2012); for 2017/18 onwards these are from Office for Budget Responsibility (2011).

3. In practice, national income will not grow at 2.4 per cent in every year over this period. But for the purposes of these scenarios it is the average annual growth rate, rather than the timing of growth, that is important. This may turn out to be lower – or higher – than the OBR's forecast of 2.4 per cent a year.

The rapid increase in English NHS spending as a share of national income in 2008/09 and 2009/10 shown in Figure 2b (and for the UK NHS in Figure 1) was the result of the decline in national income associated with the financial crisis that occurred in these years – it was not the result of an unusually large real increase in NHS spending, or an active decision on the part of the then government to increase NHS spending as a share of national income. It is therefore worth noting that even the planned freeze in English NHS spending up to 2014/15 will, if delivered, still leave spending as a share of national income well above its 2007/08 (pre-crisis) level. Indeed, the projected hit to national income from the financial crisis is such that even a continued real freeze would not see English NHS spending fall to represent the same share of national income as it did in 2007/08 until 2017/18.

Keeping pace with the demographic challenge?

To give these scenarios for NHS spending some further context, it is useful to consider how the English population is forecast to change over this period. The most recent population projections from the Office for National Statistics (ONS) suggest that the population of England will increase by an average 0.8 per cent a year between 2014 and 2021. This would be less than the real increase in spending under two of our scenarios. However, since some sections of the population impose greater costs on the NHS than others, changes in the composition of the population are just as important as the overall size. For example, elderly people cost the NHS relatively more than working-age people, and the ONS projects that the population aged 65 and over will increase by a much more rapid average of 1.8 per cent a year between 2014 and 2021 (ONS, 2012).

In its 2011 *Fiscal Sustainability Report* the OBR projected public spending on various functions, taking into account expected future demographic changes. One of the areas of spending considered explicitly was health, where the OBR projected in their baseline scenario that UK spending would have to increase by an average of 2.9 per cent a year in real terms if spending as a share of national income per capita was to be held constant. This is marked as point A on Figures 2a and 2b under the assumption that the OBR's growth rate for UK health spending also applied to English NHS spending.[4] This growth in spending is greater than expected growth in the economy over the period from 2015/16 to 2021/22 (2.4 per cent a year), but is less than the long-run average increase in NHS spending (4.0 per cent a year). Under our 'NHS spending constant as a share of national income' scenario, spending would be £4 billion (at 2012/13 prices), or 3.3 per cent, short of the amount implied by the OBR's central scenario, while under our scenario of a continued freeze in NHS spending the shortfall relative to the OBR's central scenario would be of the order of £24 billion, or 18.1 per cent. Conversely, under the 'NHS spending grows in line with long-run average' scenario, spending in 2021/22 would be approximately £10 billion, or 7.8 per cent, above that implied by the OBR's baseline scenario.

4. Since the OBR's forecast growth rate for UK health spending is assumed to relate to English NHS spending, differences between the growth rate of the two – for example, due to differences in the impact of changing demographics – would affect this comparison and therefore the figures are approximate.

The key assumption under the OBR's baseline scenario was that growth in NHS productivity kept pace with that of the wider economy. The OBR also recognised in its report that productivity growth in the NHS is difficult, not least because of the labour-intensive nature of the health service. It therefore also produced projections for health spending under an alternative scenario in which NHS productivity growth is one percentage point lower than in the rest of the economy. In this case it estimated that real spending on the NHS would need to increase by 3.7 per cent a year to maintain health output per capita. The projected increase in NHS spending in England under this scenario is shown by point B on Figures 2a and 2b. Under this OBR scenario NHS spending in England in 2021/22 would be £7 billion (in 2012/13 prices) higher than under its baseline scenario.

Under our 'NHS spending constant as a share of national income' scenario, spending would be £12 billion, or 8.5 per cent, short of the amount implied by the OBR's less optimistic scenario for NHS productivity growth, while under our scenario of a continued freeze in NHS spending the shortfall relative to this OBR scenario would be £32 billion, or 22.5 per cent. Conversely, under the 'NHS spending grows in line with long-run average' scenario, spending in 2021/22 would be £3 billion, or 2.0 per cent, above that implied by the OBR's less optimistic scenario.

Implications for other public service spending

Funding real increases in NHS spending from 2015/16 onwards will not be easy. 2014/15 no longer spells the end of the government's fiscal consolidation: real increases in NHS spending would therefore have particularly tough implications for other non-NHS public service spending.

A crucial policy decision for the next Parliament will be to decide what an appropriate level of public spending will be. The Government has already pencilled in two years of further real cuts to total public spending to come after the period covered by the 2010 Spending Review: an average 0.9 per cent a year in 2015/16 and 2016/17. However, in the absence of any policy changes, the outlook for public service spending over this period would be bleaker. Debt interest payments are still forecast by the OBR to be increasing – by an average 7.0 per cent a year in real terms over those two years. Spending on welfare benefits – which comprise about one third of total government spending – is also forecast to increase in real terms, albeit by only 0.9 per cent a year on average, in large part driven by increases in spending on support for pensioners. This would leave total spending other than that on debt interest and welfare, broadly public service spending, facing real-terms cuts of an average 2.9 per cent per year.

The Government has explicitly acknowledged the pressure that will be put on public service spending in 2015/16 and 2016/17. In his 2012 Budget statement the Chancellor, George Osborne, said: "if nothing is done to curb welfare bills further, then the full weight of the spending restraint will fall on departmental budgets. The next Spending Review will have to confront this." (Osborne, 2012).

The 2012 Budget also illustrated the cuts to non-departmental spending that would be required to ensure that the average annual real cuts to departmental spending[5] in 2015/16 and 2016/17 would be no greater than those seen over the 2010 Spending Review period [http://www.hm-treasury.gov.uk/budget2012_statement.htm]. In nominal terms these came to £10.5 billion in 2016/17 with, as the Chancellor noted in his Budget speech, the most likely source of cuts being the welfare budget (HM Treasury 2012, Annex A). Given the share of national income such cuts would represent in 2016/17, this would be equivalent to an £8.5 billion cut in 2012/13 terms. We assume that a permanent reduction in welfare spending of this magnitude is implemented by 2016/17, meaning that public service spending would only need to be cut by an average 1.7 per cent a year in real terms in 2015/16 and 2016/17, as opposed to 2.9 per cent.

The Government has, unsurprisingly, not made explicit plans for public spending after 2016/17. For the purposes of describing the effects of our NHS spending scenarios on other areas of public service spending, we assume that the total spending envelope remains constant as a share of national income between 2015/16 and 2021/22. This equates to an average annual real growth rate of 2.1 per cent for total public spending between 2016/17 and 2021/22, or 1.3 per cent over the whole period 2014/15 to 2021/22.

Such a path for total public spending would, in the absence of any changes to taxation, imply a level of borrowing that would result in debt interest payments growing by an average 1.4 per cent a year between 2016/17 and 2021/22 (or 2.9 per cent over the whole period of 2014/15 to 2021/22). OBR forecasts from the *Fiscal Sustainability Report* suggest that welfare spending is likely to grow by an average 2.1 per cent a year between 2016/17 and 2021/22, and we further assume that £8.5 billion of welfare cuts (in today's terms) are implemented in 2016/17 and that these continue to deliver the same spending reductions as a share of national income in future years. Taken together, these projections for debt interest and welfare spending imply that public service spending would grow at an average annual real rate of 2.2 per cent between 2016/17 and 2021/22, or 1.1 per cent over the whole period 2014/15 to 2021/22.

The average annual growth rates for total public spending, debt interest spending, welfare spending, and total public service spending are summarised in Table 2. What is clear is that, even after the end of the 2010 Spending Review period, there will be little money to go around and the government will still be facing extremely tough decisions about which public goods and services to allocate its scarce budget to.

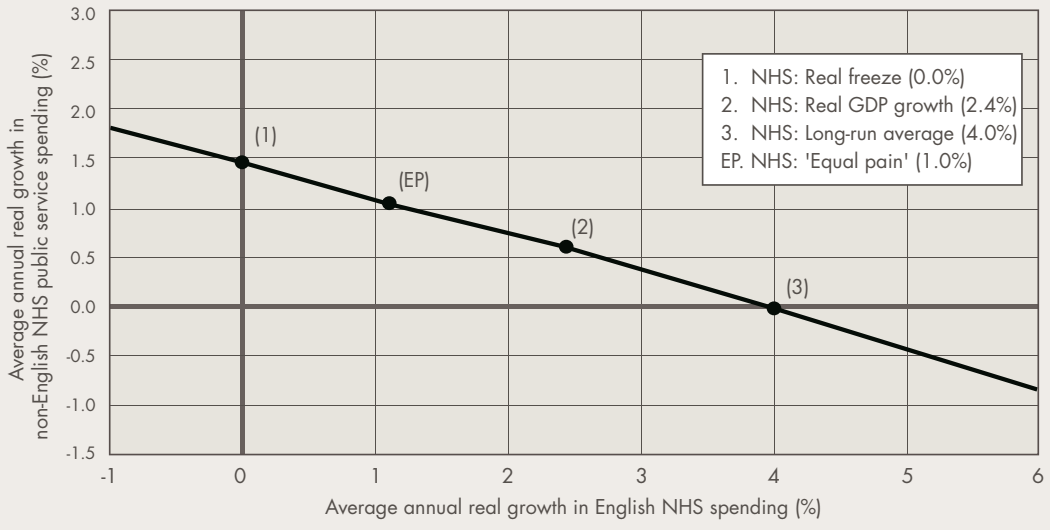
5. Broadly speaking, 'departmental spending' is spending by Whitehall departments on the administration and delivery of public services.

Table 2: Assumed average annual growth in total public spending and public service spending

Average annual real change (per cent)	2010/11 to 2014/15	2014/15 to 2016/17	2016/17 to 2021/22	2014/15 to 2021/22
Total public spending	–0.8	–0.9	+2.1	+1.3
Debt interest spending	+3.4	+7.0	+1.4	+2.9
Welfare spending	+1.0	+0.9	+2.1	+1.8
Public service spending	–2.1	–2.9	+2.2	+0.8
With £8.5bn welfare cut by 2016/17:				
Welfare spending	+1.0	–2.6	+2.1	+1.1
Public service spending	–2.1	–1.7	+2.2	+1.1
Memo: Forecast real GDP growth	1.7	3.0	2.1	2.4

Figure 3 shows the budget constraint potentially facing the government over the period 2014/15 to 2021/22 – in other words how that 1.1 per cent a year real growth could be shared out between the English NHS and other government spending on public services.[6] The greater the increase in the English NHS budget (moving to the right on the x-axis) the smaller the increase in spending on other public services (moving down the y-axis).

Figure 3: Trade-off between English NHS spending and other public service spending for the period 2014/15 to 2021/22, given total public spending



6. Note that spending on the NHS in the devolved nations is counted as 'other government spending on public services' here. Since English NHS spending is subject to the Barnett formula, increasing the spending on the English NHS will increase the proportion of 'other government spending on public services' that is automatically allocated to the devolved administrations.

Table 3: Example possible trade-offs between English NHS spending and other public service spending for the period 2014/15 to 2021/22, given total public spending

	Scenario			
Average annual real growth in:	(1) NHS: real freeze	(2) NHS: real GDP growth	(3) NHS: LR average	(EP) NHS: 'Equal pain'
2014/15 to 2021/22				
English NHS	0.0%	+2.4 %	+4.0 %	+1.1 %
Other public services	+1.4 %	+0.6 %	0.0%	+1.1 %
2014/15 to 2016/17				
English NHS	0.0%	+3.0%	+4.0%	–1.7%
Other public services	–2.3%	–3.4%	–3.8%	–1.7%
2016/17 to 2021/22				
English NHS	0.0%	+2.1 %	+4.0 %	+2.2 %
Other public services	+3.0 %	+2.3 %	+1.5 %	+2.2 %

Note: The average annual real growth in public service spending is 1.1 per cent between 2014/15 and 2021/22, based on the assumption that £8.5 billion (in today's terms) of welfare cuts will be introduced by 2016/17.

Our three funding scenarios for the English NHS are represented as points on this budget line, with these potential points of interest highlighted in the first two rows of Table 3. Even if spending on the NHS were frozen in real terms, spending on other public services could still only grow by 1.4 per cent a year – just over half of the real increase that would be required for these areas to be able to maintain their spending as a share of national income between 2014/15 and 2021/22. If, however, spending on the English NHS were to grow in line with national income, spending on these other areas could only grow by 0.6 per cent a year. Finally, increases in English NHS spending in line with the 4.0 per cent long-run average real growth rate while keeping within these overall spending totals seems unlikely – that would require a real freeze in all other areas of public service spending for seven years. While this is smaller than the average annual real cut of 2.9 per cent experienced over the four years of the 2010 Spending Review period, four years of consecutive real cuts is itself unprecedented, let alone increasing that to 11 (with an average annual real cut of 1.1 per cent). It is also far from clear that allowing the NHS to enjoy such large increases in funding, while on average cutting spending on other public services, would be desirable. To put this in context, at the UK level the last time spending on public services other than the NHS experienced a real freeze for seven years was the period from 1991/92 to 1997/98 (when average annual real growth was –0.1 per cent), while the last 11-year period of equivalent average annual real spending cuts was the period from 1976/77 to 1986/87 (when average annual real growth was –1.2 per cent).

Our two extreme scenarios therefore seem unlikely given this budget constraint. It is hard to imagine the NHS returning to the long-run growth rate of spending while other public services see seven further years of cuts. Equally, given the preferences exhibited by the previous Labour Government and the current Coalition Government, it is hard to imagine the NHS receiving a lower growth rate than other areas of public service spending. Of our three scenarios, NHS spending growing in line with national income is arguably the most plausible.

Another possibility is highlighted by the point 'EP'. This indicates an 'equal pain' allocation, where the English NHS and all other areas of public service spending enjoy the same real growth rate – an average of 1.1 per cent a year between 2014/15 and 2021/22. Of course it should be highlighted that this average growth would not be evenly distributed over time. If this is distributed equally each year then expenditure on the NHS and other public services would be cut in real terms by an average 1.7 per cent a year in 2015/16 and 2016/17 (when cuts to total public spending have been pencilled in), but grow in real terms by an average 2.2 per cent a year (in line with expected growth in national income) for the following five years.

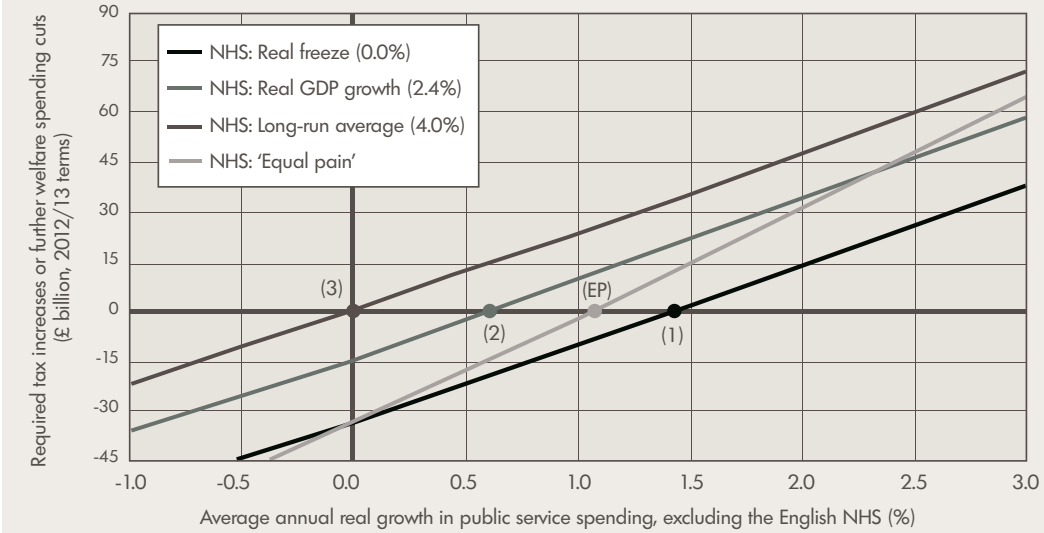
Implications for taxation, borrowing and other spending

It might be that the Government – or its successor – will decide to relax this budget constraint. This could be done either by increasing planned total public spending, which would require some combination of increased taxation or more borrowing, or by further reducing future welfare spending.

The baseline described above where public spending remains constant as a share of national income would, in the absence of any changes to taxation, imply borrowing being maintained at 1.0 per cent of national income between 2017/18 and 2021/22. This would represent a historically low level of borrowing, and would likely imply five years of 'current budget surpluses' – where borrowing is lower than investment spending – and a reduction in the national debt of nearly nine per cent of national income over five years. If this continued to be expected there might, therefore, seem to be some scope for increasing public spending as a share of national income without having to raise taxes, simply by accepting a slightly higher level of borrowing. However, it should be borne in mind that while under this scenario borrowing would be at historically low levels, by 2021/22 debt (loosely speaking, the stock of accumulated government borrowing) would still be above 60 per cent of national income. This is a relatively high level by recent UK historical standards and significantly above the previous Labour Government's pre-crisis ceiling of 40 per cent.

Figure 4 shows the choice the Government would face between raising taxation (or further cutting welfare spending) and having low real growth in other public service spending, given our three scenarios for spending on the English NHS and the 'equal pain' allocation described above. The tax rises on the y-axis assume that borrowing is maintained at 1.0 per cent of national income. (However, a £15 billion tax increase could also be thought of as equivalent to accepting 1.0 per cent of national income higher borrowing.)

Figure 4: Trade-off between public service spending and taxation increases/further welfare spending cuts for the period 2015/16 to 2021/22, given various levels of potential changes in NHS spending



Notes: Points 1, 2, 3, and EP correspond to the same points in Figure 3, where there is assumed to be no additional tax revenue raised by 2021/22 (but an additional £8.5 billion (in today's terms) of welfare cuts by 2016/17). For the 'equal pain' line, growth in NHS spending is equal to the growth in overall public service spending (as shown on the x-axis).

Suppose we take the scenario in which spending on the English NHS grows in line with national income. Without any changes to overall spending, this implies other public service spending would grow by just 0.6 per cent a year (point 2, as is also shown in Figure 3 and Table 3). If, however, we also wanted all these other areas of public service spending to be able to maintain their shares of national income (requiring an average real annual growth rate of 2.4 per cent, which is where the line through point 2 crosses the line that goes through point EP), an additional £44 billion of tax increases or extra borrowing would be required. To put this in some context, a permanent £44 billion tax increase would equate to an increase in the tax burden equivalent to around three per cent of national income – an increase in annual taxation of £1,400 for every family in the UK.

An alternative outcome involves some tax increases, and potentially some further cuts to welfare spending (on top of the £8.5 billion mooted to take place by 2016/17) in order to have slightly greater public service spending increases than an average 1.1 per cent a year in real terms between 2014/15 and 2021/22. For example, increasing English NHS spending in line with national income, and increasing spending on all other areas of public services by 1.0 per cent a year in real terms, could be achieved with an increase in taxation of around £9 billion (equivalent to an increase in the standard rate of VAT of around 2.1 per cent). The same increase in spending on the NHS and other public services could alternatively be financed without any further tax increases through implementing £9 billion of further welfare cuts on top of the mooted £8.5 billion. The resulting £17 billion of welfare cuts would be slightly more than that being implemented over the current Parliament.

3. Social care funding

Social care is another important area of public spending that is linked to health – many older people will have health and care needs at the same time and there is some evidence of substitution between health and social care (Bardsley and others, 2012). In addition to public funding for social care (outside the NHS, generally by local authorities), which is often means-tested, there is also considerable direct funding by individuals. The Commission on Funding of Care and Support (2011: p4) gives the following definition of social care:

> *Social care supports individuals of all ages with certain physical, cognitive or age-related conditions in carrying out personal care or domestic routines. It helps people to sustain employment in paid or unpaid work, education, learning, leisure and other social support systems. It supports people in building social relationships and participating fully in society.*

The increase in numbers of individuals at older ages in the UK is going to put increasing pressure on public social care spending. There are also increasing demands to change the way social care is funded in the UK. In 2010 the Commission on Funding of Care and Support (Dilnot Commission) was set up to review the funding system for care and support in England. They reported that the current system of funding was "not fit for purpose" and proposed an overhaul of the system to make it simple, fairer and sustainable. However, the proposal inevitably came with an increased price tag and this has led to concerns for many about the likelihood of the Commission's recommendations being implemented.

Funding scenarios

In a similar vein to the assessment of NHS spending outlined above, we consider two scenarios for spending on adult social care in England. For both we examine what they imply for other public service spending and for taxation. Unlike the scenarios for NHS spending, we use published projections for future social care spending, taken from the Report of the Commission on Funding of Care and Support. In reality, governments decide how much funding to make available for social care (as with NHS spending), but these projections model how spending on social care may evolve, given changes in demographics and costs.[7]

The two scenarios we consider for adult social care funding in England between 2014/15 and 2021/22 are:

- 'Current system'
- 'Dilnot recommendation'.

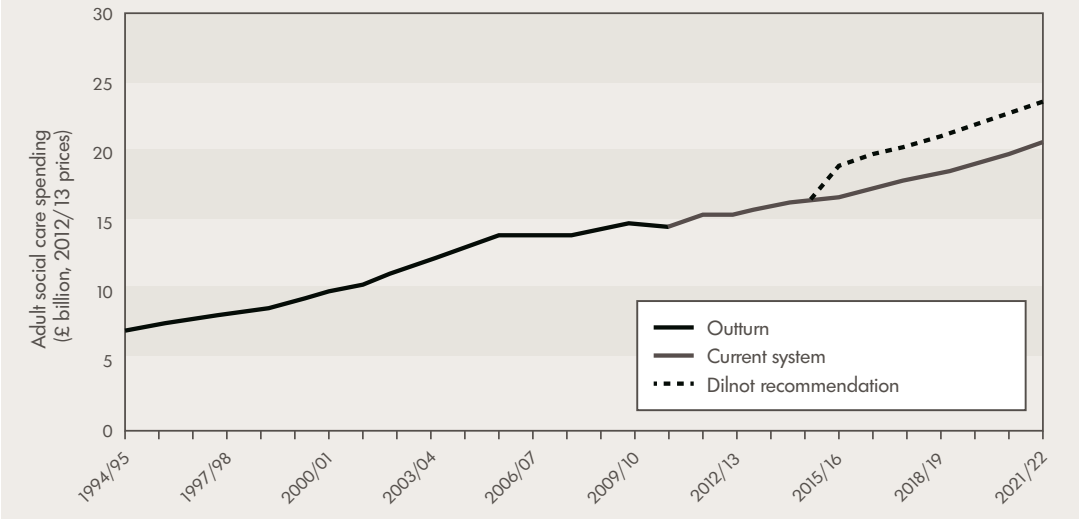
7. This assumes that growth in spending keeps pace with the growth in demand – in other words that the proportion of demand that is met is kept constant over time.

The 'current system' scenario assumes that the current means-tested system for funding social care is left unchanged. This is estimated, given the cost projections published in the Commission's report, to imply an average annual real growth in social care spending of 3.3 per cent between 2014/15 and 2021/22.

The 'Dilnot recommendation' scenario assumes that the recommendations of the Commission for changes to the way social care is funded are implemented in full prior to 2021/22.[8] This is estimated, again given the cost projections published in the Commission's report, to require an average real growth rate in social care spending of 5.4 per cent a year.[9]

Figures 5a and 5b, below, show historic spending on adult social care in England from 1994/95 to 2010/11 and the estimated path of adult social care spending from 2015/16 to 2021/22 under the two scenarios. Figure 5a shows spending in real terms, while Figure 5b shows spending as a share of national income. Under the 'Dilnot recommendation' scenario we assume that their recommendations are fully implemented in 2015/16. In practice, the growth in spending between 2014/15 and 2021/22 would be the same regardless of when during this period this reform was assumed to be fully implemented.

Figure 5a: Two social care funding scenarios (real terms)



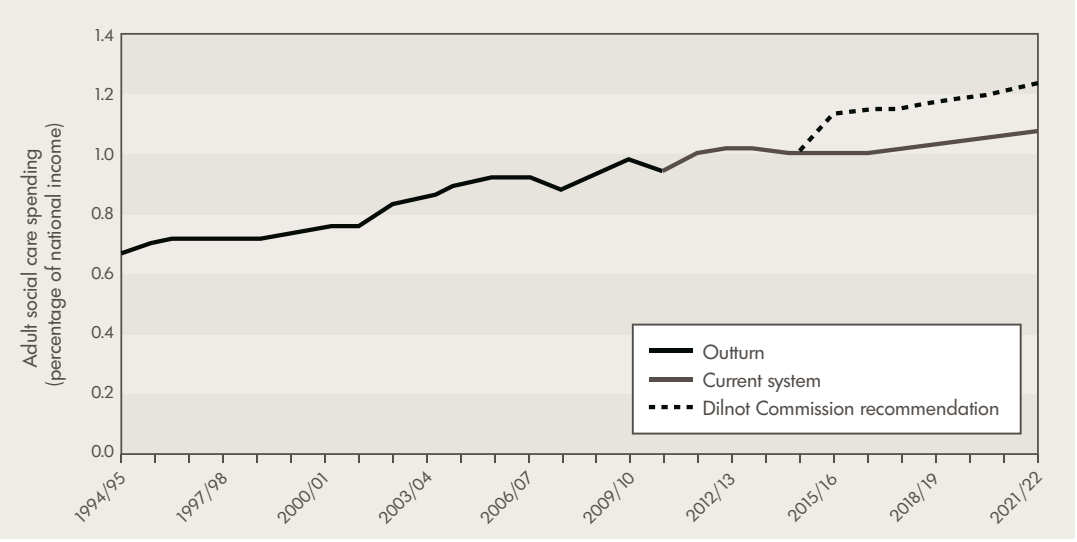
Note: For the purposes of this graph, under the 'Dilnot recommendation' scenario the recommendations of the Commission are assumed to be implemented from 2015/16 onwards.

Source: Outturn data are 'net current expenditure on adult personal social services in England' from the Information Centre (2012). Forecasts are authors' calculations based on Commission on Funding of Care and Support (2011), Figure 13.

8. Broadly speaking, under the existing system individuals are entitled to state support for social care if their income falls below a certain threshold. The main recommendations of the Commission were that this means-tested threshold should be substantially increased, and that an individual's lifetime contributions to their social care costs should be capped. For more information, see Commission on Funding of Care and Support (2011).

9. Implied average annual real growth rates are authors' calculations based on projections for the cost of the current system and the additional costs of the reform in 2010/11, 2015/16, 2020/21 and 2025/26. See Commission on Funding of Care and Support (2011), Figure 13 (p71).

Figure 5b: Two social care funding scenarios (percentage of national income)



Notes and sources: as Figure 5a. Forecasts for real national income growth: as Figure 2b.

The forecasts suggest that, if the Dilnot recommendations are implemented, spending on social care in 2021/22 would be about 15 per cent higher than under the current system. But, because spending on social care is relatively small as a share of national income, the difference between these scenarios is about 0.2 per cent of national income by 2021/22 (about £3 billion in today's terms) – with social care spending reaching around 1.1 per cent of national income under the current system and around 1.2 per cent of national income under the Dilnot recommendation. Since English social care funding is also relatively small as a share of total public spending, just over two per cent in 2010/11, the difference these alternative funding scenarios implies for non-social care public service spending is small.

It is, however, interesting to consider spending on the NHS and spending on adult social care together as a broader measure of health spending in England. The wider implications of plans for health spending as a whole on other areas of public service spending and taxation can then be considered.

4. NHS and social care funding

Funding scenarios 2015/16 to 2021/22

The three funding scenarios for the NHS and two for social care in combination give six scenarios for NHS and social care spending. The implied growth rates are shown in Table 4. The least generous scenario – a real freeze in English NHS spending and maintaining the current social care system – implies real growth in NHS and social care spending averaging 0.5 per cent a year. The most generous scenario – increasing spending on the English NHS in line with its long-term average and implementing the recommendations of the Commission on Funding of Care and Support – implies real growth in NHS and social care spending averaging 4.2 per cent a year.

Table 4: Six scenarios for NHS and social care spending

Average annual real growth rate 2014/15 to 2021/22 (%):	Social care funding	
	'Current system'	'Dilnot recommendation'
NHS spending		
Real freeze (0.0)	0.5	0.8
Real GDP growth (2.4)	2.5	2.8
Long-run average (4.0)	3.9	4.2

In practice it might be more likely for scenarios that imply less generous NHS spending to be associated with less generous allocations for spending on social care and for those scenarios with relatively more generous NHS spending settlements to be associated with more generous outcomes for spending on social care. This is because such combinations might be more likely to be consistent with a government's underlying spending policy. Also, potential substitution between the two services might suggest that substantial differences in the generosity of the spending settlements of the two services might be counterproductive (Bardsley and others, 2012; Forder, 2009).

Implications for other public service spending

Figure 6 shows the budget constraint potentially facing the Government in 2021/22. As in Chapter 2, we assume that total public spending grows by 1.3 per cent in real terms a year on average between 2014/15 and 2021/22 and total public service spending grows at just 1.1 per cent a year. The greater the increase in NHS and social care spending (moving to the right on the x-axis), the smaller the increase in spending on other public services (moving down the y-axis).

Figure 6: Trade-off between NHS and social care spending and other public service spending for the period 2015/16 to 2021/22 , given total public spending

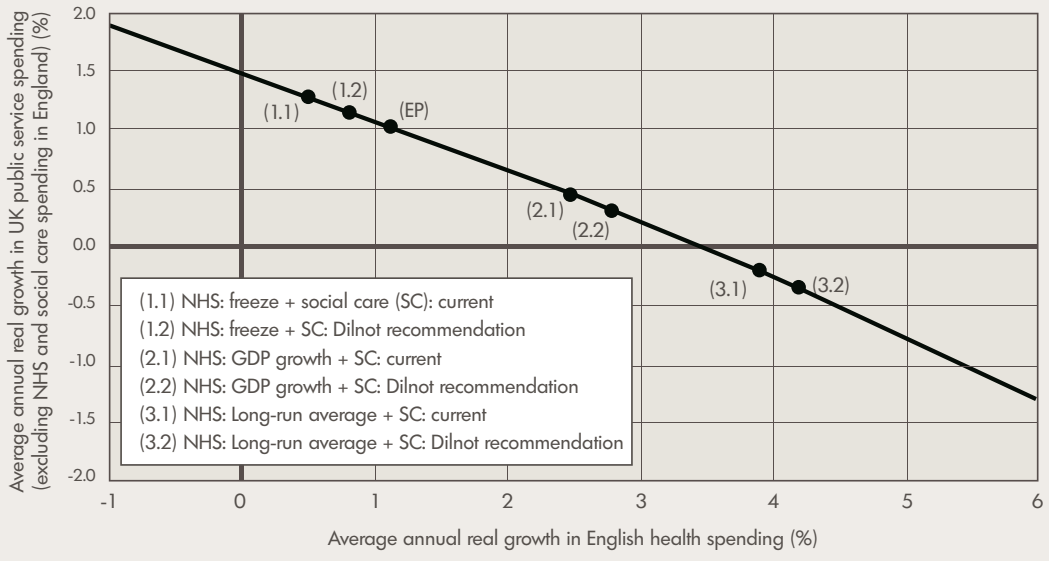


Table 5: Example possible trade-offs between NHS and social care spending and other public service spending for the period 2015/16 to 2021/22, given total public spending

	Average annual real growth in:	
Point:	English NHS and social care spending	Other public service spending
1.1 NHS: real freeze + SC: current	+0.5%	+1.3%
1.2 NHS: real freeze + SC: Dilnot	+0.8%	+1.2%
2.1 NHS: real GDP growth + SC: current	+2.5%	+0.5%
2.2 NHS: real GDP growth + SC: Dilnot	+2.8%	+0.3%
3.1 NHS: LR average + SC: current	+3.9%	−0.2%
3.2 NHS: LR average + SC: Dilnot	+4.2%	−0.4%
EP NHS: 'Equal Pain' + SC: 'Equal Pain'	+1.1%	+1.1%

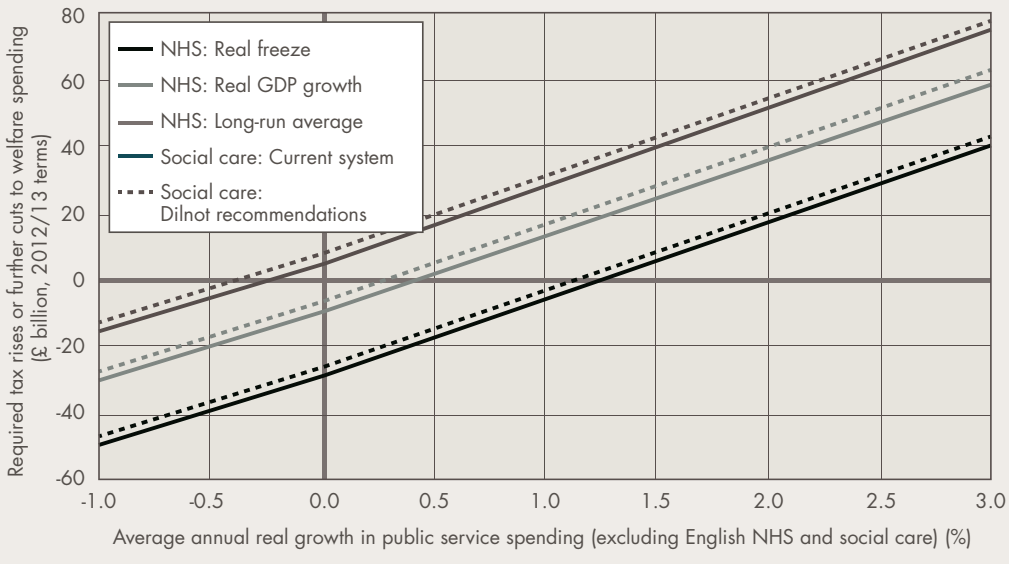
The six funding scenarios for English NHS and social care spending are represented as points on this budget line, with these potential points of interest highlighted in Table 5. As with Figure 3, there is also an 'equal pain' allocation (EP) where English NHS and social care spending and other public service spending have the same average annual growth rate of 1.1 per cent between 2014/15 and 2021/22.

Given this total envelope for public service spending (1.1 per cent a year real growth), the implications for other public service spending suggest that scenarios 1.1, 1.2, 3.1 and 3.2 seem less likely. As discussed in Chapter 2, it is hard to imagine health spending getting 4.0 per cent real annual increases while other public services face real cuts for seven consecutive years, and it is equally hard to imagine health spending seeing a lower real increase than other public services over this period given its relatively favoured status in the past. However, such high or low spending increases for NHS and social care might be plausible, were the Government to alter the budget constraint.

Implications for taxation, borrowing and other spending

The Government could choose to relax this budget constraint, either by increasing total public spending – which would require an increase in tax or borrowing relative to current plans – or by further reducing welfare spending. Figure 7 shows the choice the Government would face between raising taxation (or cutting welfare spending by more than the £8.5 billion mooted for 2016/17), or having relatively low real growth in other public service spending, given our six scenarios for spending on NHS and social care in England.

Figure 7: Trade-off between public service spending and taxation increases or further welfare spending cuts for the period 2015/16 to 2021/22, given NHS and social care spending



Given the flexibility of the budget constraint, an increase in NHS and social care spending does not have to come at the cost of other public service spending. Both English NHS spending and other public service spending could be increased in line with national income (an average annual real increase of 2.4 per cent), while the Dilnot recommendations for social care funding could be introduced, were the Government willing and able to raise tax by 3.2 per cent of national income over and above current plans – equivalent to an additional £48 billion per year in today's terms. (Alternatively,

this sum could be found through a combination of tax increases, borrowing increases and further welfare spending cuts on top of the £8.5 billion already mooted.)

Conversely, one could also picture a world in which all public service spending was frozen in real terms and the current system of funding social care retained. This would leave the Government able to implement a £30 billion tax giveaway or to reverse the £8.5 billion welfare cuts mooted for 2016/17 and reduce taxes by a further £21.4 billion.

5. International comparisons

A major factor driving the increases in UK NHS spending in the early part of the last decade was the perceived need to catch up with the standards of health care being provided in other developed economies, in particular those in Europe. It is therefore interesting to compare the potential levels of NHS and social care spending set out above with the levels of health spending that are likely to be seen in other countries by the end of the decade. Any perceived change in our international standing is likely to be of great importance to policy-makers.

Such a comparison is unfortunately impossible, for the simple reason that other countries' spending plans for health care over the next decade are not known. Coming up with plausible scenarios for health care spending in other countries is not feasible, and would in any case be likely to result in an unhelpfully broad range of possible outcomes. However, it is possible to compare the various possible outcomes for UK health spending in 2021/22 with what is currently spent on health by other countries. This provides a useful benchmark of how health spending in the UK may compare internationally if other countries were not to change their positions over the next decade.

A second problem with such international comparisons is the issue of definitional differences and data comparability across countries. One reference for internationally comparable data on health spending is the OECD publication *OECD Health Data*. The UK data in this publication are based on UK official data, but then adjusted to ensure that they are comparable with international data.[10] Whilst this means that the OECD data are internally comparable, it makes it hard to compare the OECD numbers with nationally constructed figures.[11]

Since the figures for public spending on English NHS and social care presented above are constructed from national figures and are therefore not comparable with the OECD international figures, the levels of spending implied by the scenarios discussed above need to be re-estimated on a more comparable basis. To do this, the percentage point increases in English NHS and social care spending as a share of national income implied by the 2010 Spending Review plans, together with the scenarios described above, are applied to a baseline level of UK public health spending taken from the OECD data.[12]

10. The OECD data are based on the joint OECD–Eurostat–WHO System of Health Accounts collection of data (OECD, 2012). The World Health Organization (WHO) also provides data on health spending for a larger selection of countries.

11. For example, to obtain a more internationally comparable figure for health spending, expenditure on education and training of health personnel by the NHS is subtracted from the national figure, while non-NHS spending on nursing care in nursing homes is added on to it.

12. Under the System of Health Accounts (SHA) that is used to create the internationally comparable measure of 'health' spending published by the OECD, social care is a recognised borderline case. Some social care spending (generally on 'body help' type services) is included as 'health' spending, while some is not (typically on 'assistance or home help' type services). For more detail see OECD (2011), Chapter 4 'Global Boundaries of Health Care'.

This involves two important implicit assumptions: first, that Scottish, Welsh and Northern Irish health spending stays constant as a share of national income; and second, that spending on any items that are included in (excluded from) the internationally comparable figures but that are excluded from (included in) the national figures remain constant as a share of national income. This calculation is shown in Table 6.

Table 6: Construction of 'internationally comparable' UK public health spending in 2021/22 under six scenarios and the 'equal pain' allocation

	Public health spending (% GDP)		
	OECD 2007/08*	Authors' estimated percentage point growth 2007/08 to 2021/22 (England)	Implied 'internationally comparable' 2021/22 (UK)
NHS and social care spending scenario:			
1.1 NHS: real freeze SC: current	6.9	–0.3	6.7
1.2 NHS: real freeze SC: Dilnot	6.9	–0.1	6.8
2.1 NHS: real GDP SC: current	6.9	+0.7	7.7
2.2 NHS: real GDP SC: Dilnot	6.9	+0.9	7.8
3.1 NHS: LR average SC: current	6.9	+1.5	8.4
3.2 NHS: LR average SC: Dilnot	6.9	+1.6	8.6
EP NHS: equal pain SC: equal pain	6.9	+0.0	6.9

Note: *OECD figure for UK public health spending in 2007/08 is estimated, based on the figures for the calendar years 2007 and 2008.

A final factor that needs to be considered when making international comparisons is that the systems for health provision differ markedly across different countries. In the UK over 80 per cent of health expenditure is financed by the public sector. While that may not be too dissimilar to the proportion in many other European countries, it is far from the norm across the developed world. Comparing public health expenditure across different countries in this context therefore makes little sense; instead the comparison should be of total spending. To do that, an assumption has to be made about how health spending by the private sector will change over the next decade.

We therefore assume that private spending on health in the UK remains constant at 1.5 per cent of national income (as it broadly has done over the past decade).[13] This results in estimates of total health spending as a share of national income in 2021/22 of

13. Between 2000 and 2010, private health spending in the UK fluctuated between 1.5 and 1.6 per cent of national income (and was actually at 1.6 per cent in 2007). See Jurd (2012). In reality, public and private health spending are likely to be substitutes to some extent. For example, if public health spending is increased and the speed and quality of the care provided by the NHS increased, fewer people may decide to pay for private health care. This means that private health spending might be expected to increase (decrease) if public health spending were decreased (increased).

8.2 per cent, 8.3 per cent, 9.2 per cent, 9.3 per cent, 9.9 per cent and 10.1 per cent under scenarios 1.1 to 3.2, respectively, and 8.4 per cent under the 'equal pain' allocation.

A comparison of total spending on health between the countries in the OECD in 2007 is shown in Figure 8. While data for more recent years are available, many countries were affected by the global economic downturn in 2008 and 2009, and therefore figures for spending as a share of national income from 2007 give a better picture of the usual spending shares of these countries.

The UK was just below mid-table in 2007, with 18 countries spending a greater share of their national income on health and 15 spending less. The US was by far the highest spender at 16 per cent of national income compared to 8.4 per cent for the UK, on this definition of spending. Most of the other major European countries also spent larger proportions of their national income on health than the UK did.

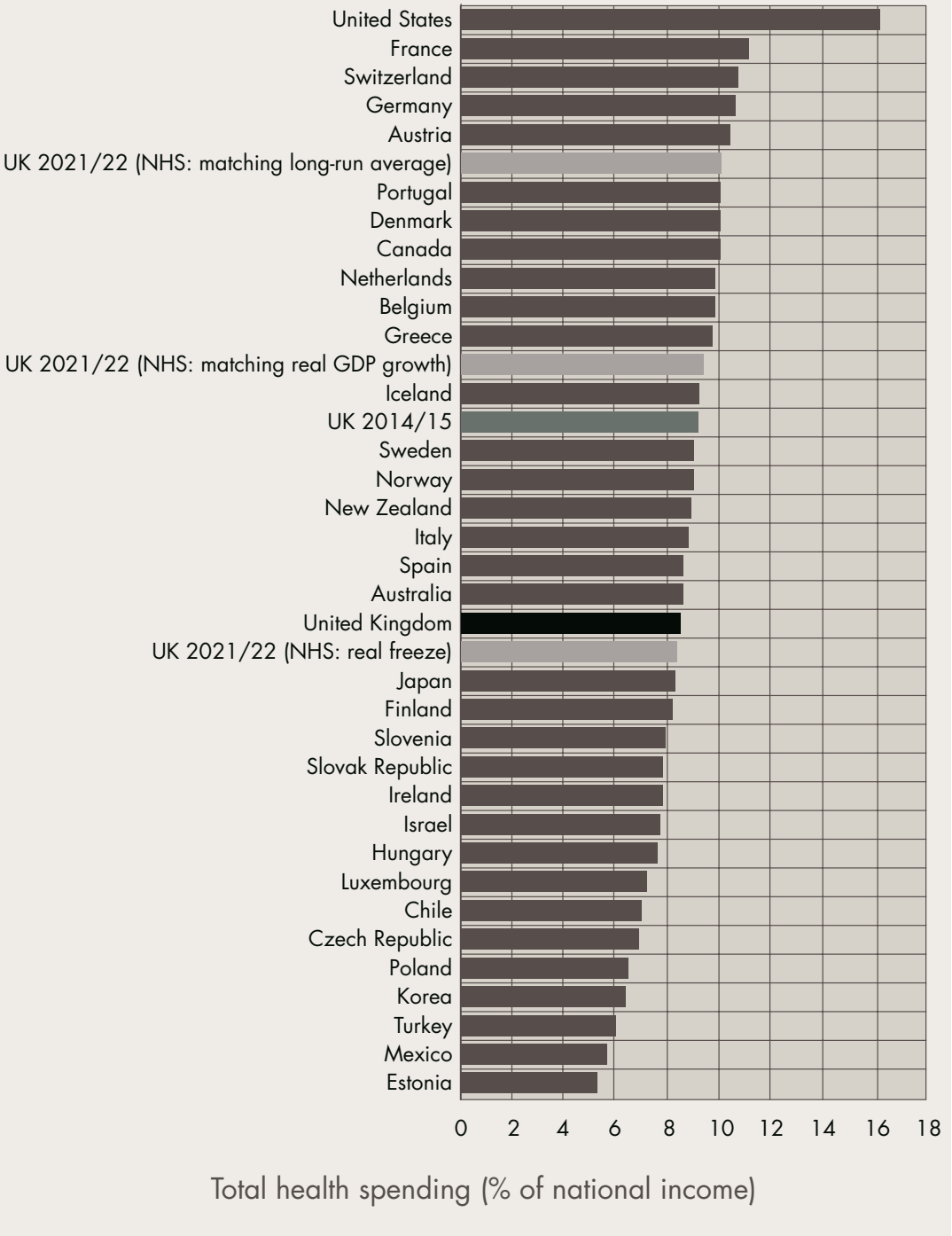
By 2014/15, UK spending as a share of national income will actually have risen somewhat, despite the period of broadly flat real-terms spending. This essentially reflects the fall in national income associated with the financial crisis, which is a phenomenon that will also be experienced in many other countries.

If the spending freeze is maintained through to 2021/22 this effect is only just unwound. Rather remarkably, UK health spending will be only just below its 2007 level as a percentage of national income. If, on the other hand, NHS spending increased in line with national income, increases in social care funding under both the 'current system' and 'Dilnot recommendation' scenarios would be sufficient to move the UK slightly further up the table. Finally, if NHS spending were increased at its long-run average real rate of 4.0 per cent a year, this would move the UK into the top third of the table. However, despite the generosity of this scenario, the UK would still be devoting a smaller proportion of national income to health than three of the other G7 countries (the US, France and Germany) were in 2007.

There are two important points to remember here. First, these are comparisons between where the UK might be in 2021/22 and where other countries were in 2007, not between where the UK is likely to be in 2021/22 relative to other countries at that time. As in the UK, other countries experienced declines in national income associated with the financial crisis, and this is likely to have significantly altered the share of national income that is spent on health since 2007.

Second, simply comparing the total amount of health spending is only one aspect of the quality and range of health care available to a country's population. How efficiently that spending is used is also very important. If the NHS is a more (or less) efficient provider of health care services than many of the other countries' systems, then the UK should compare significantly better (or worse) internationally, in terms of the observed health provision, than its mid-table appearance on the expenditure scale would suggest.

Figure 8: Comparison of UK health spending scenarios with health spending across OECD countries in 2007



Note: The 'equal pain allocation' for health spending from 2014/15 to 2021/22 would leave the UK spending the same as a share of national income as it did in 2007 (the black bar).

6. Conclusion

The outlook for public spending on health in the UK from 2015/16 to 2021/22 perhaps looks better than the four years of no real growth introduced by the 2010 Spending Review, but is far from rosy. Even if the government were to implement welfare cuts of £8.5 billion (in today's terms) in 2016/17, as mooted by the Chancellor in his March 2012 Budget speech, spending on public services would still need to be cut in real terms by an average of 1.7 per cent a year over 2015/16 and 2016/17 to keep to the current spending plans. If total public spending is held constant as a share of national income thereafter then, in the absence of further welfare cuts, spending on public services could only be expected to grow by an average of 1.1 per cent a year in real terms over the seven-year period from 2015/16 to 2021/22. This assumes that economic growth turns out as the OBR forecasts. Should this growth figure further disappoint, the amount available to spend on public services would, in the absence of further tax rises, be reduced. The Government will therefore face continuing difficult decisions about to which public services to allocate such scarce resources.

Given the relative protection afforded to health spending over the period of 2010/11 to 2014/15, a return to real growth in NHS spending might be expected between 2015/16 and 2021/22. However, such an increase would come at a cost to other public services, many of which saw significant real cuts in their budgets planned in the 2010 Spending Review. Holding NHS spending constant as a share of national income would imply that spending on other services could only increase by 0.6 per cent a year in real terms over this seven-year period. Allowing other public service spending to increase by one per cent a year in real terms up to 2021/22 would require increases in taxes and/or further cuts to welfare spending amounting to around £9 billion. This would be on top of the £8.5 billion of mooted welfare cuts and is, for example, equivalent to the sum that could be raised through a 2.1 per cent increase in the main rate of VAT.

Even an increase in NHS spending in line with national income would be a challenging settlement for the NHS, particularly following the four years of no real increases. Even assuming NHS productivity keeps pace with the rest of the economy it would not be enough to maintain health output per capita, due to pressure from changing demographics. Increases in NHS productivity are, therefore, desperately needed but notoriously hard to find and deliver.

If value-for-money improvements are not achieved at the rate required to bridge the gap between funding increases and demand pressures then access to and quality of care are likely to deteriorate. Serious thought would then need to be given to options for the NHS. These include reconsidering the range of services available free of charge to the whole population or the level of taxation needed to finance those services in the future.

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