

Institute for Public Policy Research



MIND THE GAP

**THE CASE FOR MORE
FUNDING FOR
HEALTH AND CARE**

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SUMMARY

FINDINGS

Since the creation of the NHS in 1948, spending on health in the UK has grown, on average, by 3.7 per cent per annum, with similar pressures on social care spend, as a result of demographics, rising expectations, and new treatments and technologies coming on stream.

In the wake of the financial crisis in 2010/11 however, while pressures on the system remained, the funding settlement for health and care changed. **The NHS is now well into its most austere decade ever and, with the exception of 2015/16, social care funding has declined year on year since 2010.**

The system has tried, with some success, to manage this mismatch between resources and demand by increasing productivity, with some studies putting NHS productivity above trend at 1.5 per cent per annum.

However, the evidence is now clear that we are reaching the limits of productivity growth alone. Deficits in the acute sector have ballooned, the quality and safety of care is being put at risk, waiting times are at an all-time high, and outright rationing of services has begun to bite.

There is an urgent need for more investment in the service. **Even assuming the most positive scenario on productivity growth in the NHS, the combined funding gap in the health and care system will hit £8.4 billion a year by 2020/21 and £28.6 billion a year by 2030/31.**

As such, we conclude that politicians will have to increase tax to ensure that our health and care system is sustainable in the future. Some may argue that this is politically unfeasible but this is not borne out in the polling (with a majority in favour of increased spending via tax increases) or by experience (for example Gordon Brown's national insurance rise in 2002).

We recommend that the Chancellor of the Exchequer takes the first step down this path at the upcoming autumn statement to plug the immediate gap in health and care (up to 2020/21) and buy time for politicians to come together – across parties – to find a long-term sustainable solution.

POLICY RECOMMENDATIONS

1. Create a hypothecated NHS tax worth £3.9 billion to help meet the funding crisis in our health system.

This would be made up of a 1 per cent rise in the higher rate of income tax (raising £1.7 billion), a 1 per cent rise in the rate of employee national insurance above the upper earnings limit (raising £1.3 billion) and by extending employee national insurance to workers above the state pension age (raising £0.9 billion).

2. Reform pensions in order to raise £3 billion a year to plug the social care funding gap.

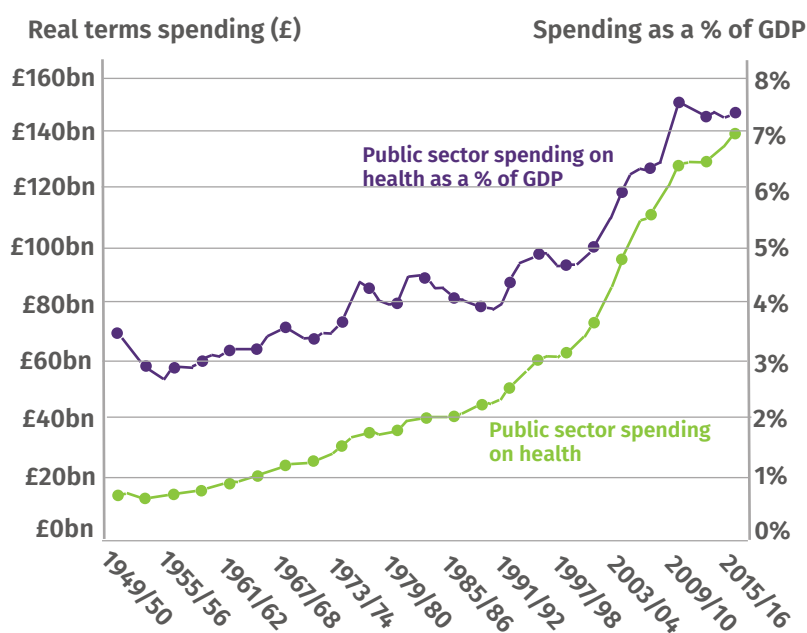
This would involve measures such as capping the tax free lump sum and reducing the earnings threshold above which the pension contributions annual allowance is tapered away.

1. INTRODUCTION

A BRIEF HISTORY OF HEALTH AND CARE SPENDING

Since the creation of the NHS in 1948, spending on health in the UK has grown by an average of 3.7 per cent per annum, faster than economic growth over the same period. We now spend more than 11 times the amount we used to on the NHS and, as a share of GDP, this figure has more than doubled – from 3.5 per cent in 1949/50 to 7.4 per cent in 2015/16 (see figure 1.1).

FIGURE 1.1
Public spending on health since 1948



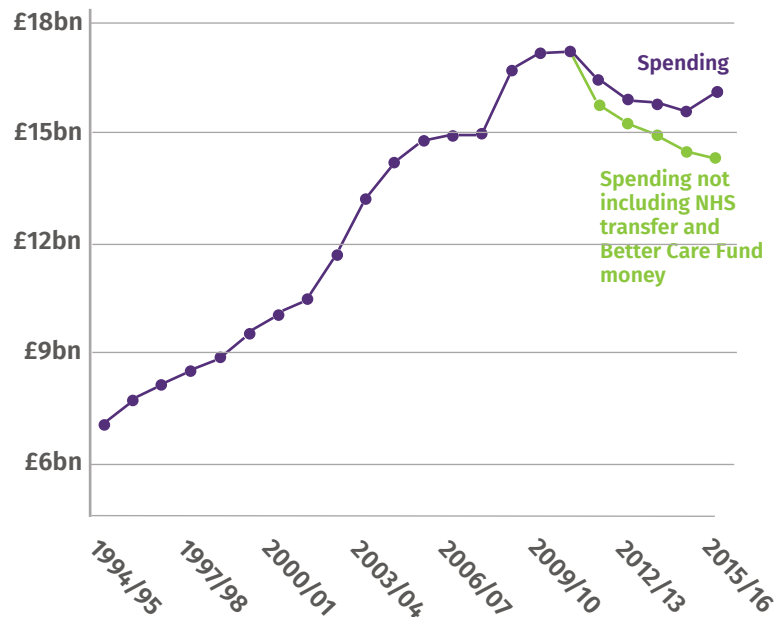
Source: Health Foundation (2017)

A similar story – albeit from a much lower base – can be told for social care. In 2015/16 about £16 billion was spent on the public provision of adult social services in England, including transfers made through the Better Care Fund. This is twice the amount spent in 1994/95 (although nearly a fifth lower than it was at its peak in 2010/11) (Health Foundation 2017).

The overall trend across both health and care is therefore one of growth in spending. This is not particularly surprising: all developed countries have experienced a similar increase over the same period, largely because their health and care systems face similar pressures (OECD 2015). These pressures are examined in more detail in the next section.

FIGURE 1.2

Public spending on social care since 1994



Source: Health Foundation (2017)

THE DRIVERS OF HEALTH AND CARE EXPENDITURE

Ageing

The first reason usually given for the rise in expenditure on health and care in the UK is changing demographics. In particular, people often argue that our ageing population – with the percentage of over 65s growing from 14.1 to 17.8 per cent between 1975 and 2015 (ONS 2017) – has driven up demand (see box) and costs as a result of increasing chronic ill health.

However, there is increasingly clear evidence that this effect has been over emphasised (Smith et al 2000) because healthy life expectancy – the number of years one can expect to live in a healthy state, without debilitating long-term conditions or disabilities – generally grows in tandem with life expectancy. High costs are associated with dying, not ageing per se, and so are largely just shifted later into old age.

For example, Dixon et al (2004) found that the average number of bed days spent in hospital in the period before death does not increase with age. Other work (Canadian Health Service Research Foundation 2003) suggests that the older people are when they die, the lower their health care costs tend to be, although their social care costs may be higher.

Increasing demand on the health and care system

In 2015/16, there were more than:

- 22.9 million accident and emergency attendances – a 22 per cent increase from 10 years ago
- 8.46 million elective admissions – a 41 per cent increase from 10 years ago
- 1 billion prescriptions dispensed – a 50 per cent increase from 10 years ago

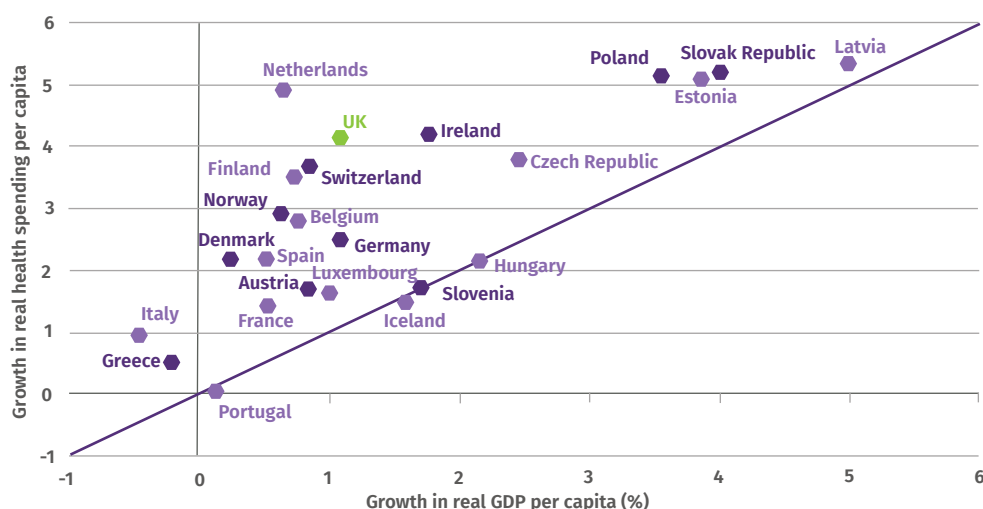
Source: Robertson et al (2017)

This does not mean that demographics and ageing have had no effect. The UK's population has been growing consistently over the last few decades, largely as a result of longer life expectancies, and so more people have been using the health and care system. Moreover, as set out earlier, more of these people are old, and while ageing itself doesn't significantly increase health care costs, the system faces a larger number of people requiring end of life care simultaneously, which does.

Rising incomes

Another factor often cited is that as people's incomes grow – as they get richer – they value health and care more highly and therefore demand more of it (Appleby 2013). In economic terms this means that the income-elasticity of demand is more than one: healthcare is a luxury good. There is significant evidence for this hypothesis: health spending has risen faster than GDP in almost all European countries over the past decade (see figure 1.3). Moreover, a recent study (Smith et al 2009) estimated that this effect counted for between 29 and 43 per cent of rising health and care costs in the US between 1960 and 2007.

FIGURE 1.3
Growth in real health spending and GDP per capita since 2000



Source: Lichetta et al (2016)

New treatments and technologies

Finally, developments in treatments and technology have also been a significant driver of health and care costs.

This makes logical sense. Even a cursory glance at the progress made over the last 50 years – from imaging and anaesthetic technology, to anti-rejection drugs and artificial joints and fibre optics – shows how the scale and scope of what health and care can deliver has broadened and deepened.

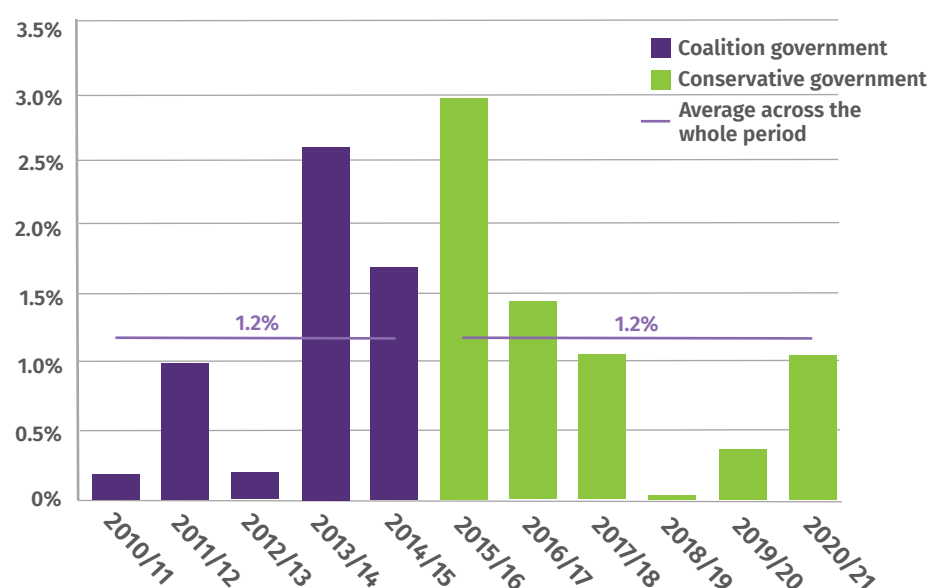
This is good news in terms of health and care outcomes but it all costs money. Studies of the drivers of cost in the US find that technology is the dominant effect: Newhouse (1992) estimates that it accounted for more than 65 per cent of the

growth in US health spend from 1940–90; Cutler (1995) provides a lower, but still dominant, estimate of 49 per cent; while a more recent study by Smith et al (2009) suggests it sits between 27 and 48 per cent.

THE FINANCIAL CRISIS: A SUDDEN STOP

Together, these (and other) factors have meant that spending in the UK has grown at just over 4 per cent per annum over the long term. However, in 2010/11, in the wake of the financial crisis, this changed.

FIGURE 1.4
Annual and average spend on NHS, 2010 onwards



Source: Health Foundation (2017)

The Coalition government put in place a policy of fiscal contraction with plans to reduce public expenditure as a share of GDP from 45 per cent of GDP in 2009/10 to 38 per cent in 2020/21. Relative to other public services the NHS was to be spared this fiscal crunch, with a pledge, maintained by both the Coalition and Conservative governments, to keep increasing its budget in real terms.

However despite this, the reality is that, based on the government’s existing spending plans, this will still have been the NHS’s most austere decade. Funding will have grown at around 1.2 per cent across the UK over the last decade – 0.9 per cent in England – compared to a historical trend growth of just under 4 per cent (Lichetta et al 2016).

Meanwhile, if it’s been a difficult period for the NHS, it’s been even harder for local government and, as a result, social care provision. The amount spent on adult social care has decreased every year since 2010/11 except 2015/16 – although even this small increase disappears if NHS transfers through the Better Care Fund are not included.

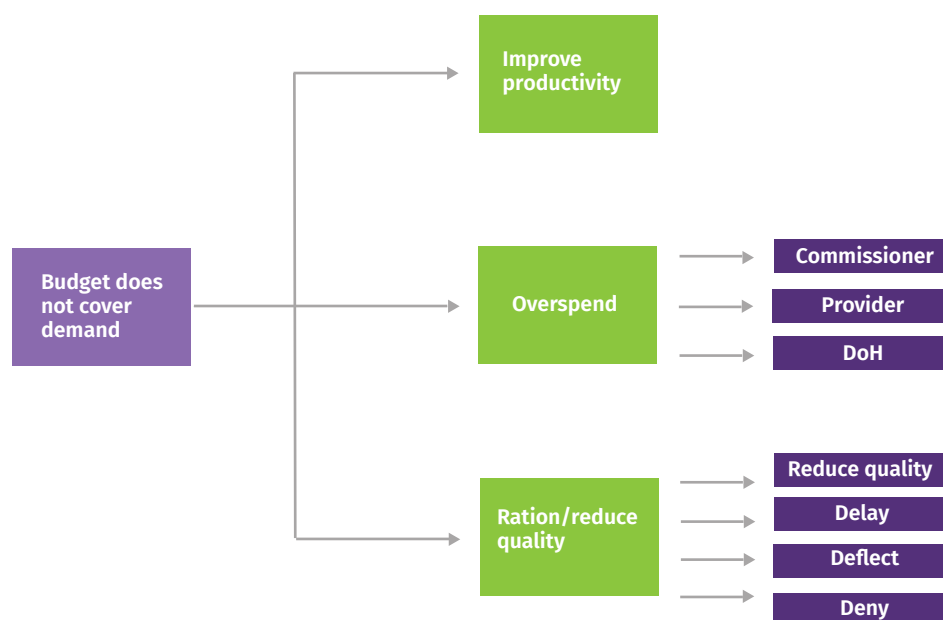
2. AT BREAKING POINT: THE LIMITS OF PRODUCTIVITY GROWTH

RESPONDING TO AUSTERITY

Health and care systems can respond to the contraction in available resources in a number of ways, including: driving up productivity; overspending (either by funding from other sources or by creating deficits); or rationing services (including reducing quality, delaying care, deflecting patients or denying services). This is illustrated in figure 2.1.

FIGURE 2.1

A framework for examining responses to funding cuts



Source: Author's analysis

Over the last seven years of austerity, the health and care system in England has reached for a number of these levers to help manage the financial pressures. This is investigated in more detail in the remainder of this chapter.

THE LIMITS OF PRODUCTIVITY

Since the financial crisis – and the corresponding fall in spending growth – the NHS has consistently looked to increase productivity to fill the funding gap (the difference between rising demand and available resources).

Between 2010–15 this was known as the ‘Nicholson challenge’ which aimed to deliver £20 billion worth of efficiency savings over five years (Appleby et al 2014). More recently it has been encapsulated by Simon Stevens’ *Five Year Forward View* (NHSE 2014) which aims to find £22 billion between 2015–20.

Achieving the ambitions of the Five Year Forward View would require would require productivity to increase by between 2 and 3 per cent a year. This would be unprecedented: the University of York calculates that long-term productivity in the NHS sits at around 0.9 per cent (Roberts et al 2015). Even during the Nicholson challenge it only peaked at about 1.75 per cent (Bojke et al 2015). Likewise, while comparisons across countries are hard to make, the evidence suggests that the NHS performs well on efficiency metrics – both at the macro level (Commonwealth Fund 2014) and within different areas of health and care (although this is more variable).

TABLE 2.1
Estimates of NHS productivity

	Scope	Annual average change
University of York, 2014	England, NHS-wide Total Factor Productivity (TFP)	1.5%
ONS, 2015	UK NHS-wide TFP with quality-adjusted output, 1995–2012	0.8%
Deloitte, 2014	English NHS acute hospitals efficiency frontier shift, 2008/09–2012/13	1.2%
The Health Foundation, 2015	Acute care in English NHS hospitals, 2009/10–2013/14	0.4%

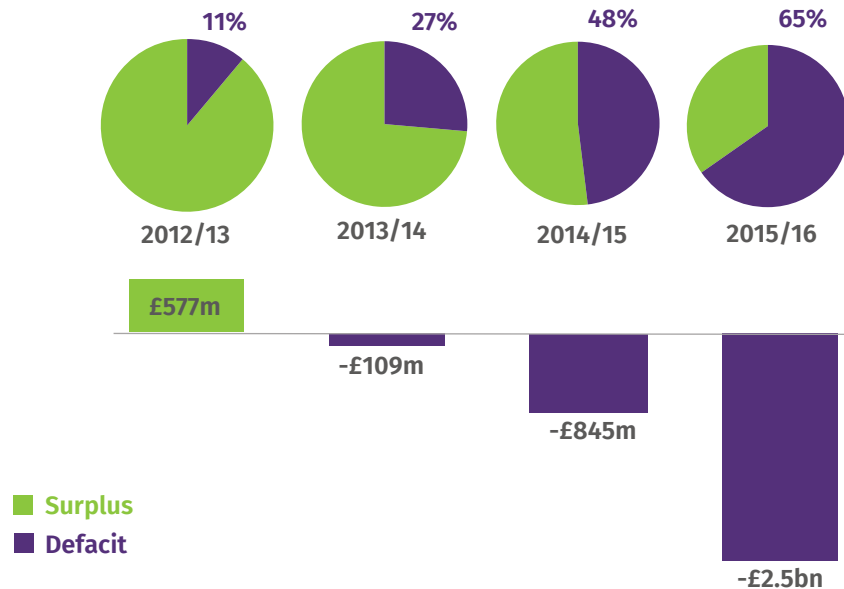
Source: Roberts et al (2015)

Moreover, there is growing evidence that the sources of productivity growth relied on so far are beginning to run out. For example, some of the savings have been derived from the government’s policy of pay restraint, with Office for National Statistics data showing that between 2010–17, the real value of health and social care staff pay fell by 5.8 per cent (CPI) (Gershlick et al 2017). However, this policy is contributing to poor staff retention, growing staff shortages and burgeoning agency staff bills (ibid), and as a result, there are growing calls for a rise in pay and investment in staffing (for example through training and progression).

Another main driver of productivity has been the decreases in the tariff paid to hospitals for undertaking activities such as operations. Every year between 2010/11 and 2015/16, the tariff was ratcheted down another notch, cutting the amount hospitals were effectively paid for each patient by an average of 1.6 per cent a year (Gainsbury 2016). At first, hospitals were able to respond by delivering care more efficiently, but there is increasing evidence that the low-hanging fruit has been picked. The clearest evidence of this is the rising deficits in the acute sector (see figure 2.2) (for example overspending as per the framework set out in figure 2.1).

FIGURE 2.2

Proportion and value of trusts in surplus/deficit in England, 2012–16



Source: Health Foundation (2017)

RATIONING: FALLING BEHIND THE CURVE

As productivity gains have become harder to achieve, policy makers have increasingly turned to various forms of rationing to manage the health and care funding squeeze instead. Four types of rationing are of particular interest to us: reductions in quality of care; delays in care; the movement of care into inappropriate locations; and the outright denial of services.

Reductions in quality of care and patient safety

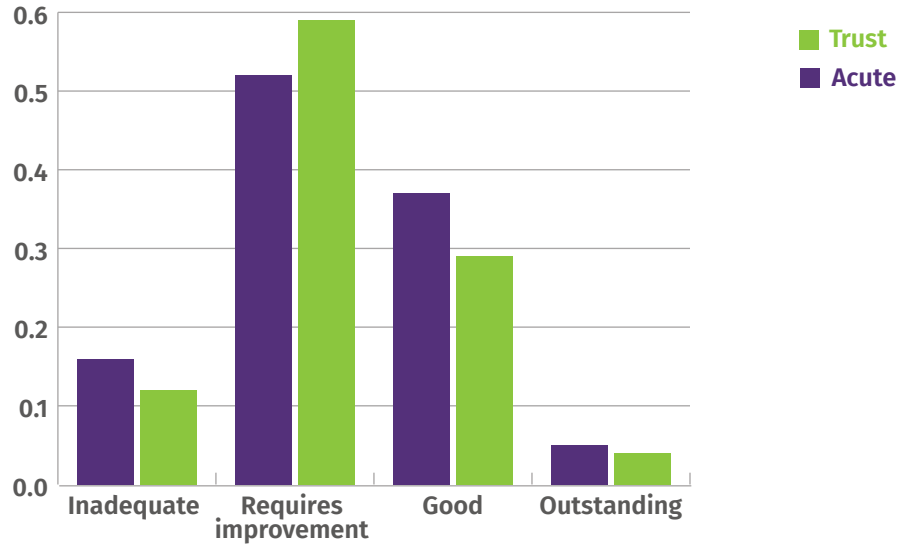
Sometimes referred to as dilution, this is where a service or treatment continues to be provided by the NHS, but the quality of that service is reduced due to pressure on resources. This may be because there are fewer staff to deliver the service, or a change is introduced in the way the service is delivered that has a detrimental effect on quality.

A good metric for quality and safety is the Care Quality Commission's quality ratings (CQC 2016). While they show that over the last few years there has been an overall improvement in ratings in the acute sector, they also show that there are still huge gaps in quality. Sixty-eight per cent of acute hospitals and 71 per cent of foundation trusts are failing to meet the quality standards (being rated as either inadequate or requiring improvement).

Furthermore, the Care Quality Commission's report also demonstrated a clear link between the financial health of a trust and its performance in terms of quality and safety: hospitals with larger deficits are more likely to be deemed inadequate or requiring improvement (see figure 2.3). While the causality between finance and quality could run either or both ways, it seems logical to suggest that the financial crunch is impacting negatively on quality.

FIGURE 2.3

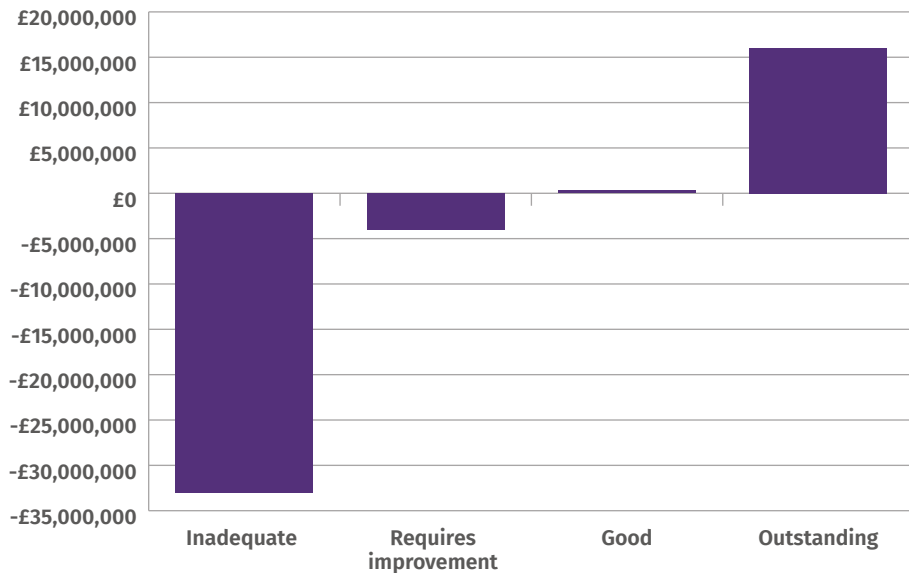
Performance of acute hospitals and foundation trusts (percentage of total)



Source: CQC (2016)

FIGURE 2.4

Relationship between financial performance and CQC rating



Source: CQC (2016)

Delays in care

Delays in care are when patients are required to wait longer for a diagnosis or treatment than is strictly necessary. National standards (such as waiting time

targets) are in place to limit the extent to which the NHS can delay access to some services; however, the last few years has seen a steady decline in the timeliness of treatments (see table 2.2). In many cases – for example, accident and emergency and elective treatments – they are the NHS’s worst performances in a decade or more.

That financial pressures are causing a decline in the timeliness of care in the NHS was implicitly recognised by Simon Stevens, Chief Executive of the NHS, as part of NHS England’s ‘Next Steps’ document (NHSE 2017a), which abandoned the 18 weeks from referral to treatment standard first set out under New Labour. This decision was essentially an admission that the service cannot keep up with best practice under the current financial settlement.

TABLE 2.2
Waiting time performance in the NHS since 2012

Target	2012/13 (%)	2013/14 (%)	2014/15 (%)	2015/16 (%)	2016/17 (%)
Ambulance Red 1 calls 75% response rate within 8 minutes	74	76	72	73	69
A&E waits 95% treated, admitted or discharged within 4 hours	96	96	94	92	89
Elective treatment waits 92% begin treatment within 18 weeks	94	94	93	92	91
Cancer waits 85% receive first treatment within 62 days (urgent)	87	86	83	82	82

Source: Kings Fund (2017)

Deflection of patients

Deflection of patients is where one part of the health and care system refuses to provide an individual with a service (or to fund their care), even though it is clinically appropriate for that person to be treated, and instead seeks to transfer this responsibility to another part of the system.

This deflection of patients has increased over the last few years. The most commonly cited example is the delay in hospital patients being moved into community or care settings while social care packages are put in place (so-called ‘bed-blocking’).

For example, the Kings Fund (2017) found that in 2016/17, more than 78,000 hospital patients were delayed in this way at the end of the month. This was up by 23 per cent on 2015/16 and the worst performance they had recorded. Over the year it totalled almost 2.25 million bed days lost, with a huge cost to the NHS and to the welfare of patients.

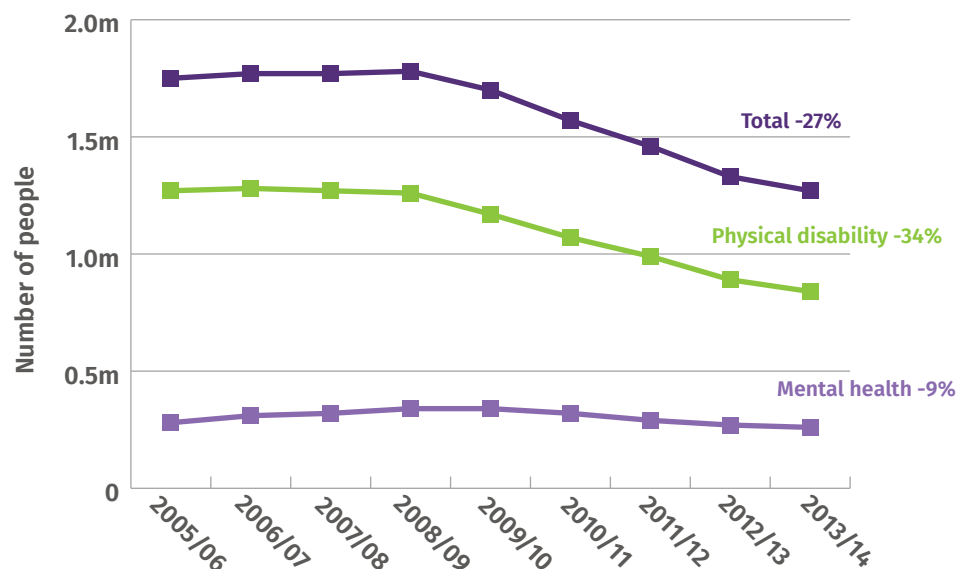
Denying services

Denying services is where patients are not provided with a treatment because the relevant commissioners decide not to fund it. In practice outright denial is rare (except for ineffective or low-value treatments) but an increase in selectivity – only providing certain treatments for certain cohorts – is more common. In the current climate there is evidence that both outright denial and selectivity are on the rise.

This rising selectivity is best seen in social care, where the deep cuts to local government have meant that state funding has increasingly only been given to the most needy. This has left a growing number of people no longer eligible for public support for their care, either having to financially support themselves or go without.

For example, in 2015/16, the number of people aged 65 and over living in England increased by 2 per cent (around 170,000 people), yet the number of them receiving social care fell by 2 per cent (Charlesworth et al 2017). Indeed, there has been a staggering 27 per cent decrease in the number of people receiving social care since 2005/06 (see figure 2.5).

FIGURE 2.5
Rationing of social care services



Source: Health Foundation (2017)

The best example of outright denial comes from the NHS, where NHS England and NICE have agreed to introduce a new ‘affordability test’ for new treatments (NICE 2017). This will mean that even when a drug has been assessed to be cost effective by NICE it will not be provided if it is deemed too expensive in terms of the whole NHS budget.¹ NICE estimates that this could impact on up to 20 per cent of new drugs going forward (ibid).

Another good example of this kind of rationing is the treatment commonly known as PrEP, short for ‘pre-exposure prophylaxis’. Used consistently, it has been shown to reduce the risk of HIV infection in people who are at high risk by more than 90

¹ If it is expected to cost in excess of £20 million.

per cent. However, the anticipated cost of providing PrEP services is £10 million to £20 million a year. NHS England has so far refused to fund the treatment due to its cost. It also argued that as a form of prevention it should be funded by local government, an argument recently rejected by the UK's high court (Osborne 2016). This has resulted in NHS England announcing a trial of the drug in certain areas across the UK (NHSE 2017b) – but many will remain without access.

WHAT NEXT?

The evidence presented in this chapter shows that we can no longer rely on improvements in productivity *alone* to help narrow the health and care funding gap (though there are further productivity savings to be made). Deficits in the acute sector have ballooned, the quality and safety of care is being put at risk, waiting times are on the rise, delayed transfers of care are at an all-time high, and outright rationing in both the NHS and care system is starting to bite.

It is now clear that without further investment in health and care, the system will increasingly lag behind the curve. Better quality care is technically and scientifically possible – the gap between what we know and what we actually do in the system is growing – but it cannot be delivered without an increase in funding.

3.

THE FUTURE OF FUNDING

FUTURE PRESSURES

The conclusion of the previous chapter – that we will need further funding to continue delivering high-quality and timely care – is even more prescient when we consider what the future has in store.

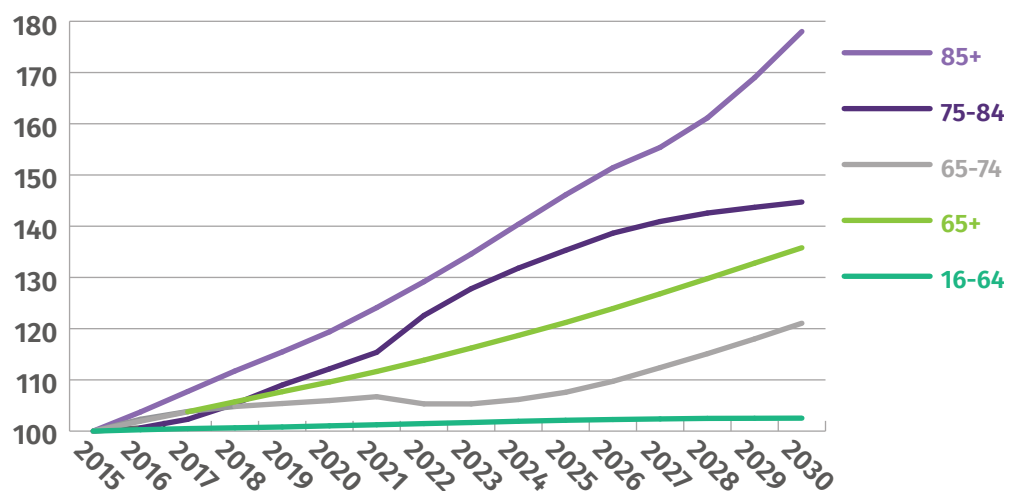
Notably, the factors that have exerted an upward pressure on health and care spending throughout the 20th century are expected to continue – potentially even increase – in the 21st century.

This means that without significantly higher productivity – which, as set out earlier, is unlikely – more funding will be needed to simply maintain the quality of care, let alone drive future improvements in health and care outcomes.

Despite Brexit, economic growth will continue in the UK over the rest of the decade and into the 2020s, sitting at around 2 per cent per annum over the long term (Lawrence 2016). This will lead to further increases in demand as people get richer.

The ageing of the population will also continue at pace, with the number of people over the age of 85 almost doubling by 2030. One in three babies born in 2016 are expected to live to 100 or more (ibid).

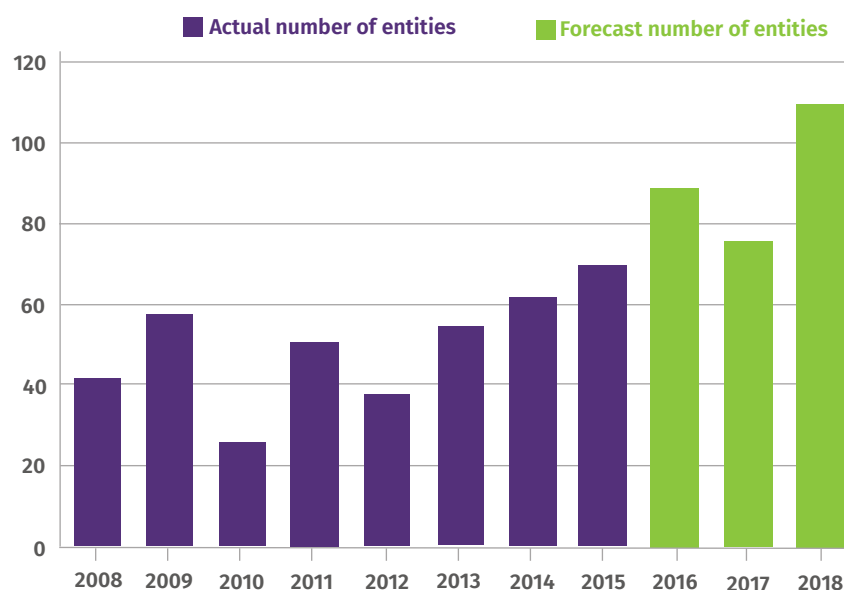
FIGURE 3.1
Ageing UK population between 2015–30



Source: IPPR analysis of ONS (2015) National Population Projections: 2014 Statistical Bulletin

Meanwhile, the scientific and technological possibilities of the 21st century are huge, with medical advancements and the use of big data and automation set to transform the sector. Over 100 chemical entities will be launched in 2018, more than double the amount seen a decade ago (see figure 3.2), with cures for diseases once considered incurable seemingly within reach.

FIGURE 3.2
Recent and forecast number of new chemical entities launched



Source: Bell (2016)

Keeping up with the science

There are strong arguments for increasing the level of funding to the health and care service based on the need to maintain and improve the quality, safety and timeliness of care. However, one of the most compelling arguments is that without funding, the NHS will fail to 'keep up with the science'.

Evidence presented in chapter 2 demonstrated early signs of this problem, with the government introducing a new affordability test for new medicines and several groundbreaking treatments not being funded despite delivering significant health gains. Without a funding boost, this trend could continue into the 21st century.

This is particularly concerning because the evidence suggests that utilising new scientific breakthroughs and medical advancements has been one of the major drivers of improved health and care during the 20th century. For example, Craig et al (2014) estimate that treatment and medical innovations accounted for as much as 50 per cent of the global health gains seen over the course of the last hundred years.

Moreover, there is also evidence that we are approaching a particularly exciting period in the development of new medical and digital innovation which has the potential to cure diseases previously believed to be incurable. Some predict that nearly all premature deaths of children

and adults in middle and early later life could, barring events such as accidents, become preventable (Peto 2015).

Huge investment is being made into areas such as cancer and dementia, as well as techniques like genomic sequencing (Darzi et al 2016) in the hope that this will result in significant leaps forward in what is preventable and treatable. Likewise, there is huge progress in the better use of big data in health (Kayyali et al 2013) and in areas like robotic surgery (PwC 2017).

The impact of some of these advances – if indeed they do deliver on their potential – could be enormous, driving the continued extension of the length and/or quality of life. For example, technological and scientific optimists estimate that the number of centenarians in the UK will grow from 12,000 today to half a million by the middle of the century and over a million by the end, and the life expectancy of babies born today to be around 103 (but with some estimating an upper bound of 150) (Castillo, et al 2017).

However, these gains will only be captured – at least for the majority – if the health and care service can afford to provide these treatments. This will require significant investment, as each wave of progress in terms of health and wellbeing outcomes have required before it. If this investment is not made there will be an ever increasing gap between what is scientifically and technologically possible, and what our health and care service delivers on the ground.

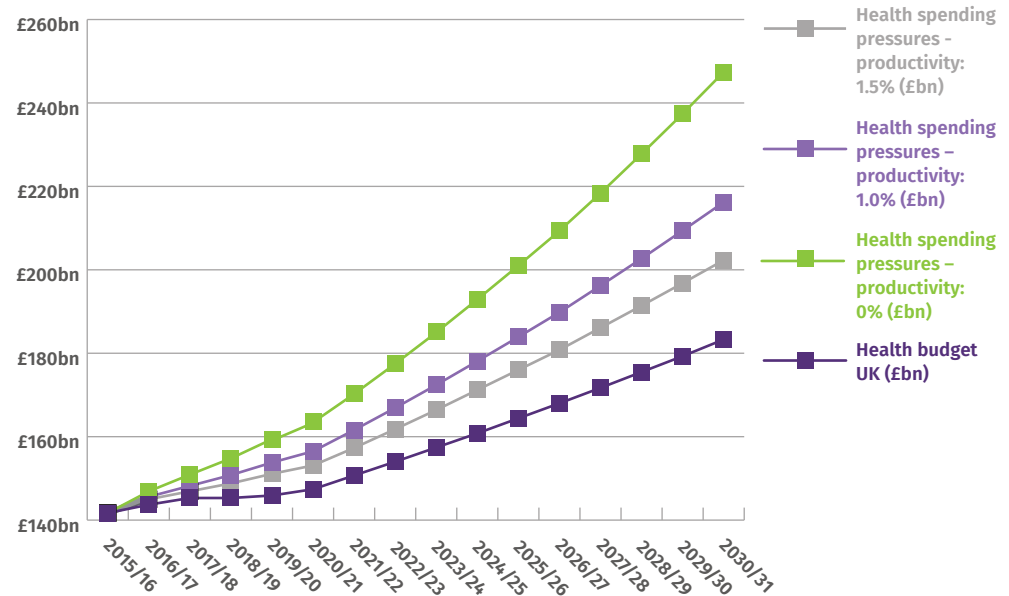
HOW MUCH FUNDING IS NEEDED?

So how much funding will be needed to meet these pressures and deliver on the potential improvements in health and care unlocked by science and technology? There are numerous estimates of the scale of the funding gap for the health and care service over the coming years. The most rigorous of these are presented below.

In the NHS, the size of the gap depends largely on the level of productivity delivered (see figure 3.3). Assuming pressures grow at around 3.8 per cent per annum, if the NHS achieves no efficiency growth there would be a £64 billion gap by 2030/31. This declines to £33 billion if the NHS can match its long-run rate of productivity growth of 1 per cent a year, or £19.1 billion if it maintains above trend productivity growth at 1.5 per cent a year.

FIGURE 3.3

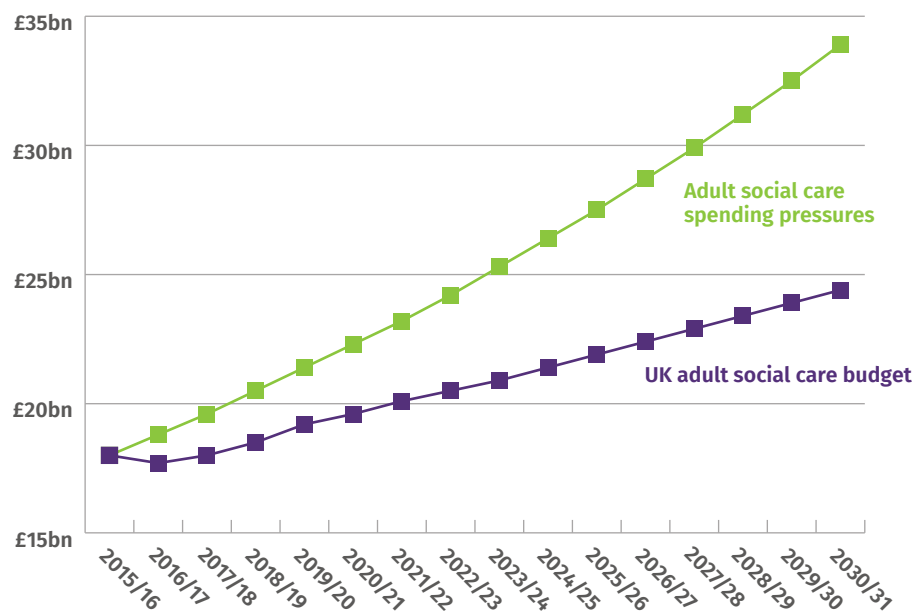
Forecast health funding gap 2030/31



Source: Health Foundation (2017)

FIGURE 3.4

Forecast social care funding gap 2030/31



Source: Health Foundation (2017)

Meanwhile, the social care system is also facing a significant funding gap (see figure 3.4). Most studies estimate that pressures on social care will be larger than on the health sector, rising by an average of 4.3 per cent annum (Roberts 2017). And funding is only likely to rise by 1.6 per cent per year between now and 2020/21; thereafter the modelling assumes it grows in line with projected growth. The result

is a funding gap of £9.2 billion for adult social care in the UK in 2030/31, worth 40 per cent of the projected budget.²

If we combine both the health and care funding gaps (see table 3.1) the full scale of the challenge is revealed. Even assuming the most positive scenario on productivity growth in the NHS, the combined funding gap will hit £28.6 billion a year by 2030/31 – but this could be much higher if the NHS fails to meet its productivity targets or if the government decides, as it should, that more state funding should be allocated to social care. This begs the question, where should this funding come from going forward?

TABLE 3.1
Health and care combined funding gap under different productivity scenarios
(£billion per annum)

Assumptions	2020/21	2030/31
Assuming no NHS productivity increases	18.9	73.7
Assuming 1 per cent per annum productivity increases	11.8	38.1
Assuming 1.5 per cent per annum productivity increases	8.4	28.6

Source: Author's calculations based on Health Foundation (2017)

² This will grow if the entitlements for social care grow as well – for example more people are offered state support for their care needs.

4.

FILLING THE GAP: HOW?

The size of the funding gap facing health and care has precipitated a wide-ranging discussion on how to move forward. The question, 'Where should the funding come from?', is not as easy to answer as it first appears. It raises a whole host of further conundrums. Should we raise additional funding or divert funding from other government budgets? If we wish to raise additional funds, are tax rises the right way to do it, and if so which taxes? Or perhaps we should fund health and care through a different means? The remainder of this chapter addresses these questions.

SYSTEM CHANGE: A RED HERRING

The way that health care is funded varies significantly between countries. However, we can broadly categorise funding systems into three main models: taxation, private health insurance and social health insurance. The key characteristics are set out in table 4.1 alongside their perceived relative strengths and weaknesses.

It is worth flagging upfront that no country – the UK included – fits one of these funding models exactly. Typically, countries use one of the three main funding models set out above as their principal means of funding health and care but supplement this with other mechanisms. For example, all countries – regardless of their principal funding mechanism – make use of user charges to pay for a proportion of overall costs.

The question going forward therefore becomes whether the UK's health and care system has the right mix of funding. Here the evidence – or lack of – is clear: no one funding model or particular mix of funding mechanisms is inherently superior to others. As the OECD concluded, 'There is no health care system that performs systematically better in delivering cost-effective health care' (OECD 2010). This, plus the high costs associated with any transition, means that there is rarely a strong case for a developed country to make the shift between models (Tuohy 1999).

The recent Select Committee on the Long-term Sustainability of the NHS (2017) came to the same conclusion: '...there was nothing in the evidence that suggested any one system for funding health care was systematically better than another in terms of efficiency or performance...We were not persuaded of any link between the way you choose to collect the money to fund a health service and performance...'

The same cannot be said for the social care system. The evidence is clear that the current system is not working, and more significant changes may be needed. A number of options have been discussed recently including: a completely (or near-fully) tax funded system (DoH 2010; Barker 2014); the introduction of a social insurance fund (Neville et al 2017); and the adjustment of the means test (and cap on care costs) applied to social care to stimulate a private insurance market (Dilnot 2011).

TABLE 4.1

Different health and care funding systems

Policy option	Examples	Strengths	Weaknesses
<p>Tax funded</p> <p>Tax revenues are collected to fund health care for a whole population</p>	<p>Australia, Canada, New Zealand and the Nordic countries</p>	<p>Equitable (depending on tax policy): pools both financial and health risks</p> <p>Efficient way of raising money, with low administration costs</p> <p>Strong incentives to control spending due to political cost associated with raising revenue</p>	<p>Risk that health consumes an increasingly large share of government spending (potentially crowding out other areas)</p> <p>May lead to the politicisation of health and care spending</p> <p>Often linked to state provision of health and care which some perceive to be less efficient or innovative</p>
<p>Social insurance</p> <p>Typically, employees and employers pay contributions to cover a defined package of services (sometimes referred to as the Bismarck model)</p>	<p>France, Germany and Japan</p>	<p>Can provide comprehensive cover to all in an equitable way if properly designed (in particular it pools risk so is progressive)</p> <p>Ring fenced funding provides transparency which can help win support for additional spending</p>	<p>Statutory health insurance (SHI) schemes usually result in higher taxes on wages leading to additional cost to businesses (depending on design)</p> <p>If there are many insurers and people can switch between them, administrative costs can be high</p>
<p>Private insurance</p> <p>Individuals (or employers on their behalf) take out health care insurance policies from private organisations</p>	<p>United States and Switzerland. In other countries it sometimes used as supplementary cover (eg Canada or France for user charges) or by high income groups to improve access/ quality</p>	<p>Some argue that it promotes choice for users, encourages competition and drives up standards of care, though the evidence of this is limited</p>	<p>Insurers can refuse to cover or charge high premiums leading to under provision</p> <p>It is regressive, because there is normally no link between the price of premiums and personal income</p> <p>Often inefficient due to high management and administrative costs (need to assess risk, set premiums, design benefit packages and assess claims)</p>

Source: adapted from McKenna et al (2017)

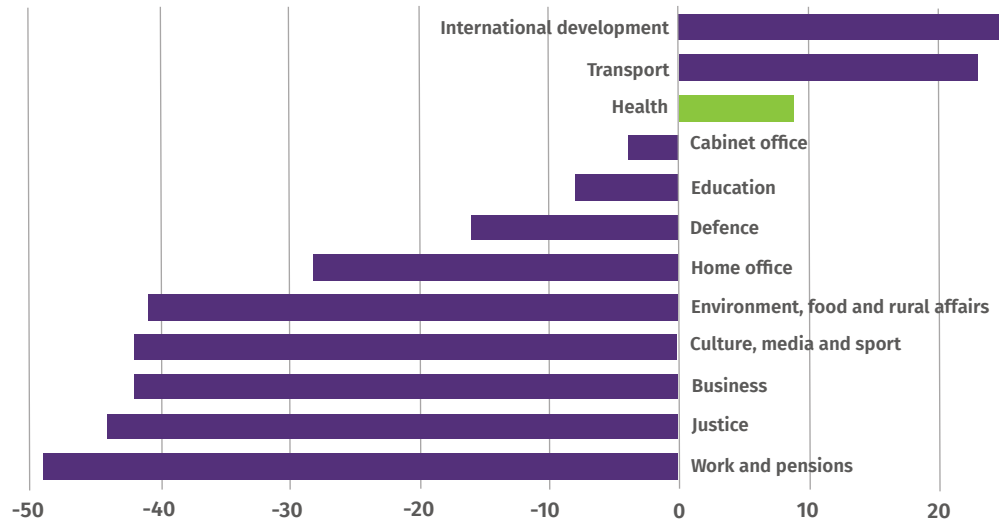
FILLING THE GAP: THE FUTURE OF HEALTH AND CARE FUNDING

Our conclusion from the previous section – that there are no major benefits to radically changing the way we fund healthcare in the UK – has a profound implication: it means that whatever funding the NHS needs must come from existing tax revenues or a rise in taxes.

As set out in chapter 1, since the onset of the fiscal consolidation in 2010/11, the government has increased spending on the NHS (albeit at a much slower rate than the historical trend). However, this funding has not come from additional tax revenues; instead the government has chosen to increase funding for the NHS at the expense of other government departments.

FIGURE 4.1

Departmental change in funding in real terms (per cent) 2010/11–2019/20



Source: Appleby (2017)

With the pressures facing the NHS as set out previously, this path would seem increasingly unsustainable as it would require the government to cut ever deeper into the budgets of other public services – many of which are already at breaking point – to keep up with the demands of healthcare (with one notable exception, see box below). The recent election result and the reaction to scandals such as Grenfell Tower are testament to voters’ growing frustration and anger at poor public services and their limits in tolerating ongoing cutbacks.

Old age spend

Spending on older people has been increasing – and is projected to continue to rise. This is partly a result of the UK’s ageing population: a country with more older people will inevitably end up spending more money on those above work age. However, it is also a result of government spending decisions which have tended (though not always) to favour older people (Birch et al 2013).

The most obvious example of this in recent years has been the decision to maintain the triple lock on pensions. This sees pensions rise by the consumer price inflation (CPI), average earnings growth, or by 2.5 per cent – whichever is the most generous – even as the pension levels (as a percentage of full time earnings) has returned to a value not seen since the original earnings link was removed in 1980 (House of Commons Work and Pensions Select Committee 2016). This has meant that pension incomes have grown by 22.2 per cent since 2010 compared to 7.6 per cent for the average earnings of those in work. Moreover, pensioners still benefit from significant tax breaks on this income when compared to working incomes.

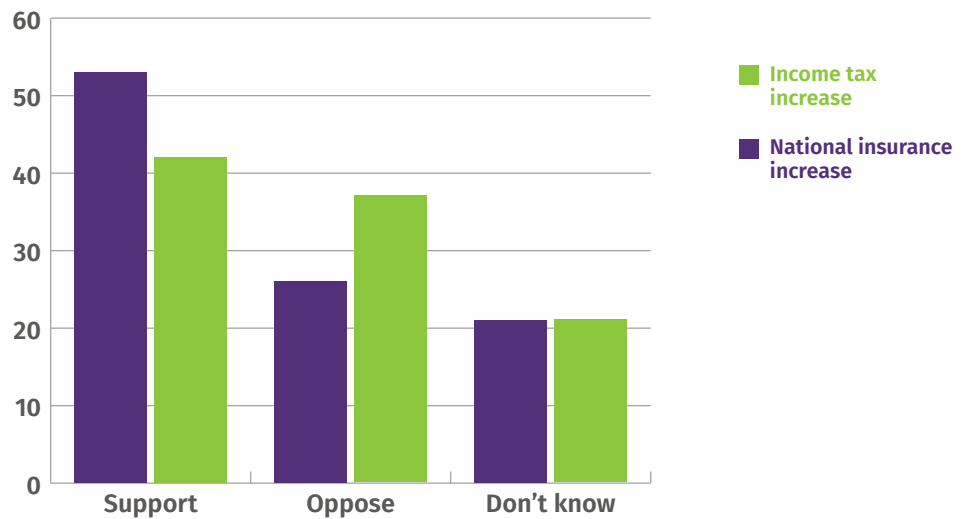
These decisions – ultimately maintained by both political parties during the last general election – throw up significant questions regarding intergenerational fairness. However, they are also questionable in terms of *intragenerational* fairness. While on average most pensioners have done really well over the last decade, a small (but growing) number are

still struggling – in particular, as we have seen in this report, with access to care.

There is a strong progressive case to be made for redistributing funding away from all pensions (including from those who are better off) towards social care (for those people who are struggling). For example, IPPR has previously argued that returning to an earnings link (or the IFS’s ‘smoothed earnings link’), combined with reforms to bring more older age income into tax, could help plug the social care funding gap.

In order to fund the health and care services, therefore, the answer going forward must be tax rises – with an implication for the size of the state. And while politicians are usually reluctant to propose tax rises for political reasons, there is evidence that raising more money for the NHS might even be popular. Recent YouGov polling found that twice as many people support raising national insurance to boost NHS funding than oppose it, and there is support for income tax rises as well (YouGov 2017). This is supported by historical experience: Gordon Brown did the same with good results back in 2002, raising national insurance contributions for employees and employers by 1 per cent.

FIGURE 4.2
Support for increasing tax to fund the NHS



Source: YouGov (2017)

If the next step is raising taxes, which ones should be raised and by how much?

Modelling by IPPR sets out the options below. We give indicative estimates for the extra revenue the government could expect to raise from an increase of one percentage point in several rates of tax including income tax, national insurance and consumption taxes. The estimated revenue raised is shown for 2020/21 and 2030/31 and takes into account forecast changes in private pension income, earnings and expected demographic shifts (particularly the expected rise in the number of pensioner households by 2030/31).

TABLE 4.2**Revenue raised from one percentage point increase in various taxes**

Tax		2020/21	2030/31
Income tax	Basic rate	£5.4bn	£6.7bn
	Higher rate	£1.7bn	£2.0bn
National insurance	Extending above state pension	£0.9bn	£0.9bn
	Employees' main rate (between secondary and upper limit)	£4.3bn	£6.0bn
	Employees' main rate (above upper limit)	£1.3bn	£1.9bn
	Employers' main rate of national insurance	£5.6bn	£7.8bn
VAT	Main rate	£5.9bn	£7.4bn
	Alcohol and tobacco	£0.5bn	£0.7bn
	Sugar	£0.2bn	£0.2bn

Source: IPPR analysis

This shows that a one percentage point increase in the basic rate of income tax, for example, would raise £5.4 billion, and £6.7 billion in 2030/31. The same increase in the main rate of national insurance contributions would raise £4.3 billion a year by 2020/21 and £6 billion by 2030/31. It also shows that while a rise in VAT would increase revenue substantially, so called 'sin taxes' are not going to fill the gap (and should be considered largely for their ability to drive behaviour change instead).

Policy makers must therefore consider this menu of options and work out the right balance of taxes needed to fill the health and care funding gap. Considerations should include how progressive or regressive these taxes are; how efficiently they can be collected; how much revenue they raise; and how politically feasible raising extra revenue for each would be.

Previous IPPR recommendations

Ahead of the general election, IPPR published our manifesto for change (IPPR 2017). It made two main recommendations in terms of health and care funding:

1. Create a hypothecated NHS tax worth £3.9 billion to help meet the funding crisis in our health system.

This would be made up of a 1 per cent rise in the higher rate of income tax (raising £1.7 billion), a 1 per cent rise in the rate of employee national insurance above the upper earnings limit (raising £1.3 billion) and by extending employee national insurance to workers above the state pension age (raising £0.9 billion).

2. Reform pensions in order to raise £3 billion a year to plug the social care funding gap.

This would involve measures such as capping the tax-free lump sum and reducing the earnings threshold above which the pension contributions annual allowance is tapered away.

Combined, these proposals would fill the average health and care gap up until 2021/22 (although more significant revenues would be needed before then if the NHS does not manage to maintain productivity growth above trend at 1.5 per cent or if social care provision were to be extended or improved). However, beyond 2021/22 the gap in both health and care funding continues to grow and would require extra revenue raising measures over and above these commitments.

5. CONCLUSIONS

The NHS is well into its most austere decade ever. And with resources falling every year since 2010 (except 2015/16), times have been even more challenging for the social care system. Yet pressures on both services continue to grow at pace.

The system has, with some success, attempted to manage this mismatch between resources and demand by increasing productivity, with some studies putting NHS productivity above trend at 1.5 per cent per annum. However, the evidence is now clear that we are reaching the limits of productivity growth alone.

Deficits in the acute sector have ballooned, the quality and safety of care is being put at risk, waiting times are at an all-time high, and outright rationing of services has begun to bite. Put more simply, there is a growing gap between what we know – what is technically, scientifically and technologically possible – and what we do.

More investment in health and care will be needed to prevent this gap from growing wider in the future. Even assuming the most positive scenario on productivity growth in the NHS – that it maintains its above average productivity performance – the combined funding gap in the health and care system will hit £8.4 billion a year by 2020/21 and £28.6 billion a year by 2030/31.

How do we fill this gap? Some have suggested that we need to change our funding system but, like the recent Select Committee on the Long-term Sustainability of the NHS, we conclude that this is a red herring. Likewise, funding the increasing demand for health and care via cuts to other public services (as has happened since 2010) is not a sustainable solution on its own.

Instead, we conclude that politicians will have to increase tax to ensure that our health and care system is sustainable in the future. Some may argue that this is politically unfeasible but this is not borne out in the polling: recent YouGov polling found that twice as many people support raising national insurance to boost NHS funding than oppose it. Nor is this borne out by experience: New Labour did just this back in 2002.

As a result, we recommend that the Chancellor of the Exchequer takes the first step down this path at the autumn statement by creating a dedicated ‘NHS tax’ worth £3.9 billion per year by raising both income tax on higher earners and increasing national insurance. This should be introduced alongside extra funding for social care by reform to pensions totalling £3 billion per year. Together, these measures would fill the combined health and care funding gap up to 2020/21.

Beyond this time, however, the funding gap is projected to grow even further and will require a more permanent solution. Therefore the measures set out above, even if implemented, would only buy politicians time to come together across parties to find – and make the case for – a long-term sustainable solution to the health and care funding crisis.

To help them in this endeavour, over the coming two years, IPPR will be hosting an independent review of the health and care system which will look at this long-term challenge in more detail and provide policy makers with innovative new solutions.

REFERENCES

- Appleby J (2013) *Spending on health and social care over the next 50 years: Why think long term?*, Kings Fund. https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/Spending%20on%20health%20...%2050%20years%20low%20res%20for%20web.pdf
- Appleby J, Galea A and Murray R (2014) *The NHS productivity challenge: Experience from the front line*, Kings Fund. https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/the-nhs-productivity-challenge-kingsfund-may14.pdf
- Appleby J (2017) 'John Appleby: 13 reasons to spend more on health and social care', Nuffield Trust. <https://www.nuffieldtrust.org.uk/media/john-appleby-13-reasons-to-spend-more-on-health-and-social-care>
- Barker (2014) *A new settlement for health and social care: Final report*, Kings Fund. <https://www.kingsfund.org.uk/publications/new-settlement-health-and-social-care>
- Bell J (2016) *Accelerated Access Review: Final Report*, OLS. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/565072/AAR_final.pdf
- Birch S, Gottfried G and Lodge G (2013) *Divided Democracy: Political Inequality In The UK And Why It Matters*, IPPR, https://www.ippr.org/files/images/media/files/publication/2013/11/divided-democracy_Nov2013_11420.pdf
- Bojke C, Castelli A, Grašič K and Street A (2015) *Productivity of the English NHS: 2012/13 update*, University of York. https://www.york.ac.uk/media/che/documents/papers/researchpapers/CHERP110_NHS_productivity_update_2012-13.pdf
- Canadian Health Services Research Foundation (2003) *Myth: The cost of dying is an increasing strain on the healthcare system*. www.cfhi-fcass.ca/publicationsandresources/Mythbusters/ArticleView/03-06-01/d6b0f9d9-52dd-450d-b67d-d95967f2bde2.aspx
- Care Quality Commission [CQC] (2016) *The State Of Health Care And Adult Social Care In England 2015/2016*, CQC. http://www.cqc.org.uk/sites/default/files/20161019_stateofcare1516_web.pdf
- Charlesworth A, Firth A, Fisher R, Gershlick B, Gray H, Roberts A, Starling A, Thorlby R and Watt T (2017) *The social care funding gap: implications for local health care reform*, Health Foundation. <http://www.health.org.uk/publication/social-care-funding-gap-implications-local-health-care-reform>
- Commonwealth Fund (2014) *Mirror Mirror, On The Wall: How the Performance of the U.S. Health Care System Compares Internationally*, Commonwealth Fund. http://www.commonwealthfund.org/~media/files/publications/fund-report/2014/jun/1755_davis_mirror_mirror_2014.pdf
- Craig T, Lundebj-Grepstad M, Tordrup D and Taylor D (2014) *Patients' Needs, Medicines Innovation and the Global Public's Interests*, UCL School of Pharmacy
- Cutler D M (1995) 'Technology, Health Costs, and the NIH', paper prepared for the National Institutes of Health Roundtable on the Economics of Biomedical Research, Harvard University and the National Bureau of Economic Research
- Darzi, A and Keown O (2016) *What if every patient were to have their genome mapped?*, Kings Fund. <https://www.kingsfund.org.uk/reports/thenhsif/what-if-every-patient-were-to-have-their-genome-mapped/>
- Department of Health [DoH] (2010) *Building the National Care Service*, Department of Health. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/238441/7854.pdf
- Dilnot A (2011) *Fairer Care Funding: The Report of the Commission on Funding of Care and Support*, Department of Health. <http://webarchive.nationalarchives.gov.uk/20130221121529/https://www.wp.dh.gov.uk/carecommission/files/2011/07/Fairer-Care-Funding-Report.pdf>

- Dixon J, Lewis R, Rosen R, Finlayson B and Gray D (2004) *Managing chronic disease: What can we learn from the US experience?*, The King's Fund. www.kingsfund.org.uk/publications/managing-chronic-disease
- Gainsbury S (2016) *Feeling the crunch: NHS finances to 2020*, Nuffield Trust. <https://www.nuffieldtrust.org.uk/research/feeling-the-crunch-nhs-finances-to-2020>
- Gershlick B, Roberts A, Charlesworth A, Thorlby R, Jones H (2017) *Election briefing: A sustainable workforce – the lifeblood of the NHS and social care*, Health Foundation. <http://www.health.org.uk/publication/election-briefing-sustainable-workforce>
- Guzman-Castillo M, Ahmadi-Abhari S, Bandosz P, Capewell S, Steptoe A, Singh-Manoux A, Kivimaki M, Shipley M J, Brunner E J and O'Flaherty M (2017) *Forecasted trends in disability and life expectancy in England and Wales up to 2025: a modelling study*, The Lancet. [http://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(17\)30091-9/fulltext?elsca1=tlpr](http://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(17)30091-9/fulltext?elsca1=tlpr)
- Health Foundation (2017) *Health and Social Care Funding Explained*, Health Foundation. <http://www.health.org.uk/node/10302>
- House of Commons Work and Pensions Committee (2016) *Intergenerational fairness Third Report of Session 2016–17*, House of Commons. <https://publications.parliament.uk/pa/cm201617/cmselect/cmworpen/59/59.pdf>
- IPPR (2017) *IPPR's manifesto for change: General election 2017*, IPPR. <https://www.ippr.org/research/publications/ipprs-manifesto-for-change-general-election-2017>
- Kayyali B, Knott D and Van Kuiken S (2013) *The big-data revolution in US health care: Accelerating value and innovation*, McKinsey. <http://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/the-big-data-revolution-in-us-health-care>
- Kings Fund (2017) *How is the NHS performing? June 2017: Quarterly Monitoring Report*, Kings Fund. <https://www.kingsfund.org.uk/publications/articles/how-nhs-performing-june-2017>
- Lawrence M (2016) *Future proof: Britain in the 2020s*, IPPR. <https://www.ippr.org/research/publications/future-proof-britain-in-the-2020s>
- Lichetta M and Stelmach M (2016) *Fiscal Sustainability and Spending on Health*, ONS. http://budgetresponsibility.org.uk/docs/dlm_uploads/Health-FSAP.pdf
- McKenna H, Dunn P, Northern E and Buckley T (2017) *How health care is funded*, Kings Fund. <https://www.kingsfund.org.uk/publications/how-health-care-is-funded>
- Neville S, Lewis L, Chazanet G (2017) *UK social care inquiry looks to Japan and Germany for solutions*, Financial Times. <https://www.ft.com/content/3507b50c-0276-11e7-ace0-1ce02ef0def9>
- Newhouse J P (1992) 'Medical care costs: how much welfare loss?', *Journal of Economic Perspectives*, 6(3): 3–21
- NHS England [NHSE] (2014) *Five Year Forward View*, NHSE. <https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf>
- NHS England [NHSE] (2017a) *Next Steps on the NHS Five Year Forward View*, NHSE. <https://www.england.nhs.uk/wp-content/uploads/2017/03/NEXT-STEPS-ON-THE-NHS-FIVE-YEAR-FORWARD-VIEW.pdf>
- NHS England [NHSE] (2017b) *NHS England announces world's largest single PrEP implementation trial to prevent HIV infection*, NHSE. <https://www.england.nhs.uk/2017/08/nhs-england-announces-worlds-largest-single-prep-implementation-trial-to-prevent-hiv-infection>
- NICE (2017), Public Board meeting, NICE. <https://www.nice.org.uk/get-involved/meetings-in-public/public-board-meetings>
- OECD (2010) 'Health care systems: Getting more value for money', OECD Economics Department Policy Notes, No. 2
- OECD (2015) *Fiscal Sustainability of Health Systems: Bridging Health and Finance Perspectives*, OECD. <http://www.oecd.org/publications/fiscal-sustainability-of-health-systems-9789264233386-en.htm>
- Office for National Statistics [ONS] (2017) *Overview of the UK population: March 2017*, ONS. <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/overviewoftheukpopulation/mar2017>

- Osborne S (2016) 'Prep ruling: NHS can provide HIV prevention drug after losing high court case, *Independent*, 10 November 2016. <http://www.independent.co.uk/life-style/health-and-families/health-news/prep-ruling-nhs-hiv-prevention-drug-high-court-case-a7409116.html>
- PwC (2017) *What doctor? Why AI and robotics will define New Health*, PwC. <https://www.pwc.com/gx/en/industries/healthcare/publications/ai-robotics-new-health/ai-robotics-new-health.pdf>
- Roberts A, Thompson S, Charlesworth A, Gershlick B and Stirling A (2015), *Filling the gap: Tax and fiscal options for a sustainable UK health and social care system*, Health Foundation. http://www.health.org.uk/sites/health/files/FillingTheGap_1.pdf
- Roberts A (2017) 'How big is the social care funding gap?', *Public Finance*, 13 March 2017. <http://www.publicfinance.co.uk/opinion/2017/03/how-big-social-care-funding-gap>
- Robertson, R et al (2017), *Understanding NHS Financial Pressures: How Are They Affecting Patient Care?*, Kings Fund. https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/Understanding%20NHS%20financial%20pressures%20-%20full%20report.pdf
- Select Committee on the Long-term Sustainability of the NHS (2017) *The Long-term Sustainability of the NHS and Adult Social Care*, House of Lords. <https://publications.parliament.uk/pa/ld201617/ldselect/ldnhssus/151/151.pdf>
- Smith S D, Heffler S K and Freeland M S (2000) 'The impact of technological change on healthcare cost spending: an evaluation of the literature', Healthcare Financing Administration Centers for Medicare and Medicaid Services. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/tech_2000_0810.pdf
- Smith S, Newhouse J P and Freeland M S (2009) 'Income, insurance, and technology: why does health spending outpace economic growth?', *Health Affairs*, 28(5): 1276-1284. <http://content.healthaffairs.org/content/28/5/1276.full>
- Tuohy C (1999) *Accidental Logics: The Dynamics of Change in the Health Care Arena in the United States, Britain, and Canada*, Oxford University Press
- YouGov (2017) 'Majority of people would support raising National Insurance to fund the NHS', YouGov. <https://yougov.co.uk/news/2017/01/12/majority-people-would-support-raising-national-ins>

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