

# How much should we spend on the NHS?

*There is an apparent paradox when it comes to NHS funding: the government is spending a record amount of money on it, and yet it is underfunded. **Nicholas Barr** explains why NHS costs are rising faster than inflation and outlines what would have to change for the NHS to be fully funded.*

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Conservative MP Dan Poulter recently [defected](#) to Labour because in his view the government was not committed to a high-quality National Health Service (NHS). A Conservative spokesperson responded by saying that “we are raising NHS funding to a record £165bn a year.” Good answer, wrong question. Dr Poulter is not asking, “How much is being spent on the NHS?” but “is enough being spent?” His answer is a firm “No”. Is he right?

## Why the costs of providing health care are rising

To get a grip on the question the starting point is to unpack the multiple upward pressures on medical spending.

*Inflation.* When inflation is higher, the NHS budget needs to rise accordingly. In recent years, even that low hurdle has not been met. In addition, there are multiple reasons why even if the NHS budget was indexed to the general Consumer Price Index (a proud boast of the 2010-2015 coalition government) that wouldn't be enough.

*One reason is the so-called “[Baumol cost disease](#)” (also referred to as excess medical inflation). The argument is slightly technical but hugely important. The famous economist William Baumol explained why the prices of services rise faster than prices generally. The driver is that with technical advance, the productivity of workers in manufacturing rises and, as a result, so do their wages, driving up wages throughout the economy. However, the productivity of workers in service industries rises more slowly (Baumol uses the example of a Beethoven string quartet, which requires as many musicians today as in the 19th century), so rising wages are not offset by rising productivity. Health care is mostly a service industry and, moreover, a very labour intensive one. The NHS employs about 1.6 million people, making it one of the largest*

employers in the world. Because of the cost disease, even if nothing else changed, the NHS budget would need an annual increase larger than the general inflation rate just to stand still.

But other things are also adding to medical costs.

*Technical advance* increases the possibilities for medical intervention and, connected, raises expectations. The NHS today performs cataract operations and hernia repairs in much larger numbers than in the past, often as day cases, and hip replacements are widespread – improving the quality of life in ways that in the past were not possible, to say nothing of [complex heart and spinal operations](#) and organ transplants.

*The population the NHS covers is also larger.* Since 2000, the UK population has risen by 13.5 per cent, implying the need to increase the NHS budget proportionately.

*And that growing population is also growing older.* There are more older people not only because of population increase but also because between 2000 and 2022 [life expectancy](#) rose by 4.4 per cent for men and 3.25 per cent for women. That increase affects costs because health spending per person by age is U-shaped, being highest around birth and in older age. Older people have more medical problems and are more likely to have multiple problems. Over 50 per cent of older people have [at least three health conditions](#), including heart disease, diabetes, arthritis, and high blood pressure, requiring doctors to balance different treatments – for example high blood pressure increases the likelihood of strokes, but unduly low blood pressure can induce blackouts, falls and broken bones.

The effect of population ageing on the costs of health care is profound. It is easiest to explain with a simple arithmetic example [1]. Suppose that:

- Average medical spending per pensioner (aged 65 or over) is 5 times as high as per worker (illustrative but plausible).
- Initially there are 200 pensioners and 800 workers, i.e. an age-dependency rate of 25 per cent (for simplicity we leave children out of this exercise).
- With longer life-expectancy and falling birth rates, there might be a shift to 250 pensioners and 750 workers, i.e. an age-dependency rate of 33 per cent.

In this example, the increase in the demand for health care from a constant but older population is equivalent to that of an extra 200 workers (see text box below). The numbers are plausible. Across the OECD, the age dependency rate in 2015 was 28 per cent; the projected figure for 2025 is 35 per cent, and for 2050, 53 per cent ([OECD 2017](#), Table 5.5.)

## Ageing and medical spending

In the initial situation, for the purposes of medical spending, the country has a population of  $800 + 5 * 200 = 1800$  worker equivalents.

With longer lives, the country has a population of  $750 + 5 * 250 = 2000$  worker equivalents.

Thus the increase in the proportion of pensioners increases the demand for health care, which is equivalent to an increase in working-age population of 200.

### What next?

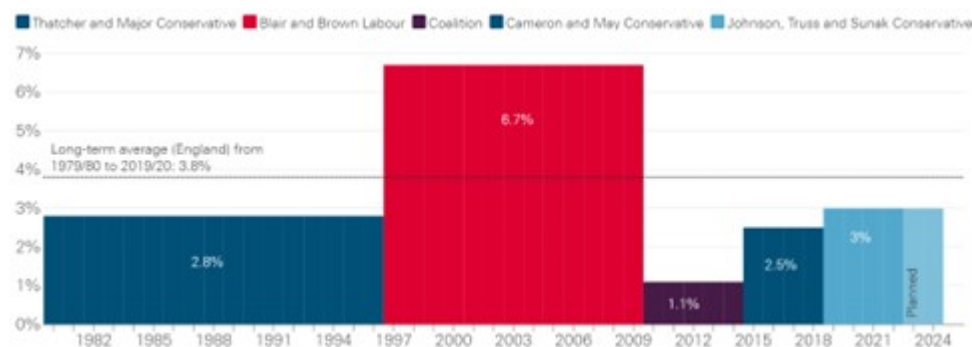
Policy makers love the idea of a single “right” answer. The bad news is that there is no such thing. Deciding on the optimal amount to spend on health care is a multidimensional problem, including inflation, an aging population, the overall state of the economy, and the relative importance that the electorate places on other issues such as education defence, the state of the roads, etc.

The electorate’s attitudes towards taxation are also key. In Nordic countries people are prepared to pay high taxes in return for high-quality public services; and because they get high-quality public services, they are prepared to continue to pay higher taxes. Finally, the attitude of financial markets to increased government borrowing also plays a major role – attitudes that will be influenced by whether the proposed borrowing is plausible. The violent reaction to the ill-considered mini-budget of September 2022 was largely because borrowing was mainly to finance current consumption (e.g. lower taxes), rather than investment (e.g. higher spending on health care, education and training). That reaction was [both predictable and predicted](#).

That there is no single quantitative answer, however, does not mean that that we have to

be agnostic. Even a cursory glance at the data in Figure 1 shows both the large annual increases in real spending under the Blair and Brown governments, the sharp decline during the Coalition government, and the limited annual increase since then.

**Figure 1: Average real-terms growth in total health spending, England 1980 – 2024**

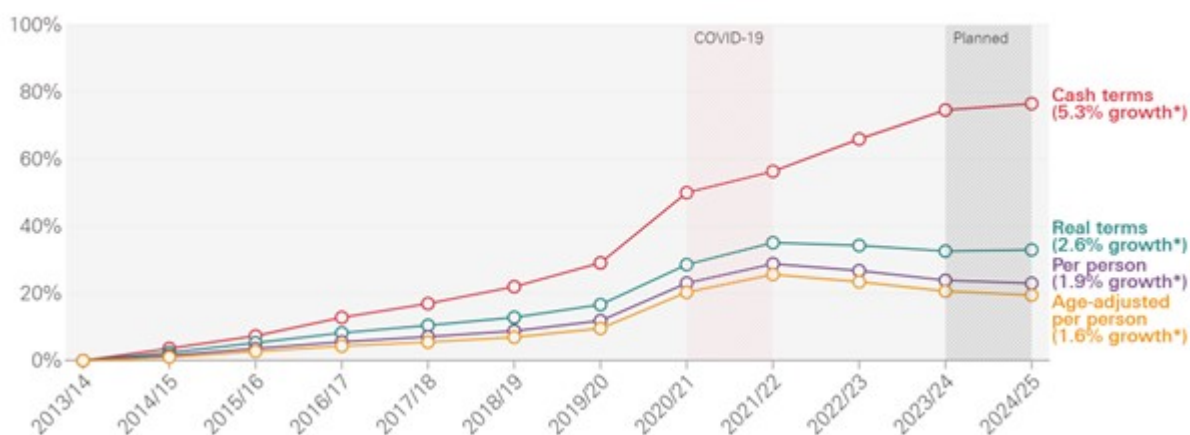


Source: [The Health Foundation](#), March 2024, Figure 3, drawing on data in [House of Commons Library](#), January 2019.

What do these figures tell us about whether we are spending enough on the NHS? Holding medical spending constant in real terms, where “real” is measured in terms of the standard consumer price index, represents a reduction. Since excess medical inflation, technical advance, population increase and ageing all go in the same direction, the reduction is substantial. Figure 2 shows spending data adjusted for inflation, population increase and rising life expectancy, but omitting the Baumol cost disease, rising demands arising from advances in medical technology and the backlog created by the Covid-19 pandemic.

**Figure 2 NHS spending adjusting for population size and age, England, 2013-14 to 2024.25**

NHS England RDEL (cumulative % increase vs. 2013/14)



Source: [The Health Foundation](#), March 2024, Figure 4

The government can rightly claim to be spending more than at any time in the past. But that's not the question.

Dr Poulter's argument for defecting from the Conservative party is not based primarily on official public spending data, but instead on his and others' lived experience, and the data on waiting lists and failure to meet treatment times in Accident and Emergency. He is answering the right question and, sadly for all of us, his answer is right.

[1] I am grateful to Howard Glennerster for educating me on this point.

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