THE RATIONAL POLICY-MAKER'S GUIDE TO THE NHS

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FOREWORD BY NIGEL EDWARDS

As a long-time observer of the NHS, I welcome this report which tackles what I see as a critical policy issue: the inability of too many of those in policy-making circles to recognise that underfunding the NHS – quite apart from any moral arguments against it – is not an economically sustainable strategy. Since 2010, the focus has been containing expenditure; the results of this are now very evident as the mismatch between need and spending has widened. The failure to invest in buildings, digital and the workforce has built-up long-term problems and damaged efficiency. This report challenges the prevailing narrative that fixing this is unaffordable and, from a citizen's perspective, explores what it will take to ensure that it is efficient and equitable.

Unlike most political discussion of the NHS, this report has taken an evidence-based approach: it looks at the evidence on international healthcare systems' performance and places today's performance of the NHS firmly in the context of what has been delivered by the NHS and by other systems in the past. It shows that not only is the fundamental business model of the NHS sound but also that the case for adopting other models is not made.

The report takes a hard look at the degree and impact of underfunding of the NHS and shows that the recent underperformance of the NHS is an inevitable consequence of that underfunding. Benchmarking shows no evidence of a world-class system being delivered with the funding now available to the NHS.

Perhaps most importantly, the report takes a long-term, holistic view of the NHS as a complex system within an even more complex system: the UK economy. It concludes that, far from being unaffordable as the population ages, a strong NHS will be critical to a strongly-performing economy. We cannot afford to let the NHS fail.

This report is a call to action to all UK citizens, and particularly to those who have – or who hope to have – a role in formulating UK policy in relation to the NHS. Unless we act now, the NHS, a critical element of the UK's post-war social contract, may fail – and if it does, our society will fail with it.

Nigel Edwards

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1. EXECUTIVE SUMMARY: GIVING THE UK THE HEALTHCARE IT NEEDS

Since its foundation in 1948, the NHS has been internationally recognised as world-class.[1] In 2014 the UK healthcare system was ranked as clearly the pre-eminent system in the world and even as recently as 2017[2], it was ranked best overall.

But today, after sustained underfunding[3], the NHS is struggling badly with record waiting lists, falling life expectancy, and wide divergence in healthcare outcomes by wealth. These failings are causing enormous hardship to the UK population. The British public are dying sooner and living with more illness than should be the case given our national wealth. It is therefore vital the problems with the NHS are fixed. And, of course, vital that any proposed solution improves rather than exacerbates the problems.

As proposed solutions to these problems, there are increasing calls for fundamental re-organisation. The word 'reform'[4] is often used but what is often meant is privatisation of provision or adoption of insurance schemes as a means of funding. Some argue that the NHS is now so broken that only radical reform of its business model can save it. Sajid Javid, for example, wrote in an article headed *We need to agree a new NHS future or 1948 dream dies:*[5]

> *"So when I give evidence to The Times Health Commission next week, I intend to say the 75-year-old model of the NHS is unsustainable. And unless it is radically reformed, the principles on which it was founded cannot survive much longer."*

His speech at the Conservative Party Conference[6] while he was Health Secretary gives a hint as to the kind of reforms to funding he had in mind:

> *"The state was needed in this pandemic more than at any time in peacetime. But government shouldn't own all risks and responsibilities in life. We, as citizens, have to take some responsibility for our health too. We shouldn't always go first to the state – what kind of society would that be? Health and Social Care: it begins at home. It should be family first, then the community then the state."*

"Family first, then the community, then the state" might be sound advice if your lawnmower has broken; it makes less sense if you have just had a heart attack or been diagnosed with brain cancer.

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[1] See Section 3 and Appendix 2
[2] Using data largely from 2015: (Commonwealth Fund, 2017)
[3] See Section 4 and Appendix 3
[4] See Definitions
[5] (Javid, We need to agree a new NHS future or 1948 dream dies, 2023)
[6] (Javid, Sajid Javid's speech to conservative party conference, 2021)

Much of the debate around the future of the NHS is based on this kind of rhetoric and on anecdotes rather than data. It is also conducted at the wrong level, namely tactics – organisation design, process design and sourcing – rather than strategy. But anecdotes and rhetoric are no basis for sound policy and tactics are no substitute for strategy. This criticism can be levelled at the Conservative party and also, at times, at Labour.

Key members of the Labour Party sometimes appear to agree – at least in part – with the argument for radical reform and that the solution may be found in increased privatisation. Sir Keir Starmer is on record[7] as saying:

"The reason I want to reform the health service is because I want to preserve it. I think if we don't reform the health service we will be in managed decline. It will always have to be free at the point of use, it of course should be a public service. But that doesn't mean we shouldn't use effectively the private sector as well."

This report takes a non-partisan, citizen-focussed, data-driven, and strategic view of the challenge. It asks, is there evidence that changing the fundamental business model of the NHS – e.g. introducing insurance-based funding or breaking the NHS up into smaller units which can be privatised – could be effective as ways of tackling the current issues? **This is the question that any rational policy-maker should ask.**

The evidence, both domestic and international, is that the answer is a clear 'no': The rational strategy is to recommit to the fundamental model of the NHS, fund it properly and introduce operational improvements over time:

• A rational policy-maker would start by looking around the world at **what works in practice.** Comparison with other healthcare systems shows that the (pre-underfunded) fundamental business model of the NHS makes it the **gold standard** – the naturally pre-eminent healthcare system in the world. There is no credible evidence that a change in fundamental business model could be beneficial;

• The rational policy-maker would move on to ask, ***"what went wrong?"*** The evidence shows that the principal reason for the current fall-off in service levels is **chronic and severe underfunding** – no healthcare system in the world can provide high-quality healthcare on dwindling resources;

• Finally, our rational policy-maker would **think long-term:** even a bad policy will often not be a disaster in one or two years; but if sustained over decades, it will be a catastrophe. A rational policy-maker would ask what kind of policy could still be working a generation or two later. Our analysis over the long-term shows that **we cannot afford the NHS not to hold pre-eminent position** – if the NHS fails, the economy will fail with it.

[7] (BBC, 2023)

A rational policy-maker would conclude that Britain should commit to making **the NHS world-leader again** by driving the system changes outlined in Section 5 and providing the resources needed to deliver world-class outcomes.

The evidence for each of these points is covered briefly in Sections 3, 4, and 5 of this report, and detailed in the appendices. And for those worried about the affordability of such a commitment, Appendix 6 shows how rational policy-makers in the past have tackled similar concerns in equally difficult circumstances.

2. SCOPE AND DEFINITIONS

Strategy without tactics is the slowest route to victory.
Tactics without strategy is the noise before defeat.

– Sun Tzu

1.1 THE SCOPE OF THIS REPORT

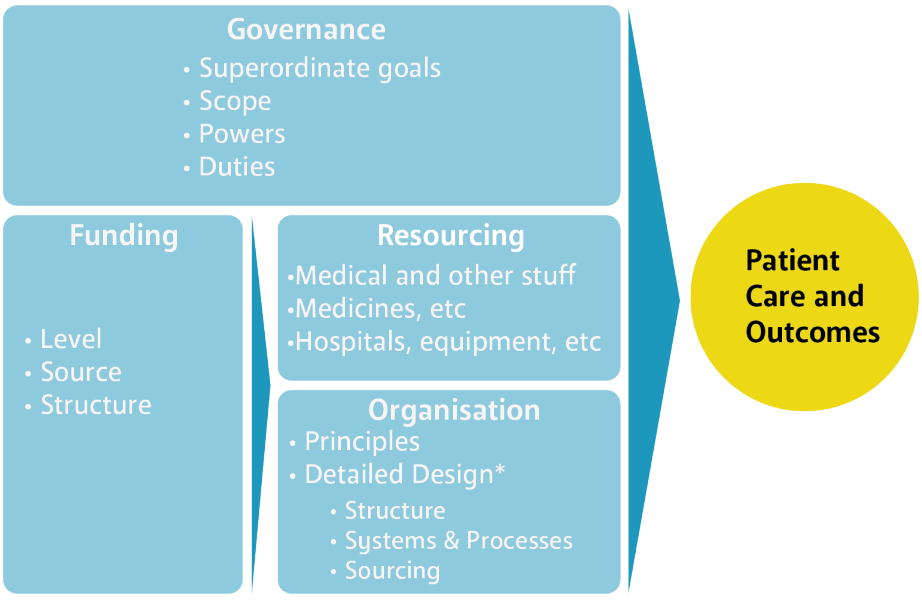
This report focuses on healthcare, not social care, vital though the latter is. In the UK, over three quarters of healthcare is provided by the NHS[8]. Two key factors determine the performance of the NHS:

1. **Strategy** or overall business model: governance, funding, resourcing, organisation design principles;

2. **Detailed organisation design** – management structure, style, systems and processes, staffing and sourcing.

Both are vital but this report focuses primarily on strategy and outcomes. We have also covered strategic *principles* of organisation design. But to cover detailed organisation design adequately would be a task requiring many tens of person-years of effort – and that effort, in the absence of a sound strategy, would be wasted. For that reason, as the diagram below shows, detailed design is out of the scope of this report.

Figure 1: Scope of this report



*Out of scope

[8] The structure and funding of the NHS is set out in more detail in Appendix 5.

Once the strategy is clear and agreed, carefully planned and tested organisation design becomes a powerful tool for optimising performance. Without a sound strategy, as this report makes clear, operational improvements cannot be sufficient to deliver high quality healthcare in the UK.

Adopting *only* the strategy suggested in this report represents the slowest route to victory; but ignoring its conclusions would be merely the noise before defeat.

1.2 DEFINITION OF TERMS

We provide below a table defining the meaning of certain words whose understanding is critical to the report and which may be capable of misinterpretation, or which have multiple meanings in other contexts but a precise meaning here.

Term	Meaning in this report
Business model	The term *business model* refers to the Governance, Funding, Resourcing and Organisational principles of an institution, and to the Outcomes the institution delivers. It does not refer to detailed organisational structure, to operational systems and procedures, etc. important though these are.
Business model of the NHS	The *Business Model of the NHS* refers to it being a universal service, governed in such a way as to optimise effectiveness, efficiency, and equity, funded (adequately) through progressive taxation, and providing high quality healthcare services to the population, at least on a par with those in other developed countries.
Cream-skimming	*Cream-skimming* is a business strategy in which a company finds a way to serve only the most profitable customers in a market. This not only increases its own profits but also harms the finances of its competitors.
Effective-ness	*Effectiveness* refers to the ability of an institution to deliver the outcomes for which it is responsible. In the case of a healthcare system, effectiveness is its ability to deliver beneficial outcomes of care (improved quality of life and/or reduced mortality and morbidity) to the population in question.
Efficiency	*Efficiency* is defined as the ratio of output to input. In this report the key output we consider is the provision of high-quality healthcare services to the population and the key input is the resources – most notably money – needed to provide those services.

Equity	Equity relates to the fairness of provision: as the United Nations' Universal Declaration of Human Rights[9] (to which the UK is a signatory) puts it, *"Article 25: Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and* ***medical care and necessary social services****..."* This right is not contingent upon ability to pay, to being well-connected or to living in a prosperous, well-served area. It is to be to be universally protected.
Privatisation	*Privatisation* refers to any method – of which Appendix 5 details four – of transferring activities which used to be carried out as a public service into the private sector. Selling off is just one of these methods.
Reform	*Reform* refers to changes to the fundamental business model of the NHS. For example, privatisation to drive profit rather than to improve effectiveness, efficiency and equity, or replacement of progressive taxation as a method of funding by direct charges or some form of insurance scheme. We do not use the word reform to refer to operational performance improvement within the fundamental business model of the NHS. For example, increased use of IT to streamline administrative processes and adoption of new technologies with proven cost/benefits are worthwhile improvements but are outside the scope of this report and not covered by the term reform. We also do not use the word reform to refer to wider economic reforms, which the UK needs – only to reform of the business model of the NHS.

[9] (United Nations, 1948)

3. THE NHS HAS BEEN THE INTERNATIONAL GOLD STANDARD

Never change a winning game;
Always change a losing one.

– Bill Tilden

The challenges facing the NHS today and its increasing failure to meet the needs of the UK population have caused some people to accept – without adequate questioning – the notion that its fundamental business model is unsuited to the needs of a 21st century population.

But examination of the data – both international and historical comparisons – indicates the opposite: **the fundamental business model of the UK NHS is better than that of any other in a high-income country.** Specifically:

- Analysis by the Commonwealth Fund[10] sets out the criteria by which, from a citizen's perspective, healthcare systems of developed world countries should be measured;
- Over time, the NHS has been the clear top-performer;
- This is because the fundamental business model of the NHS (free at the point of use, funded by progressive taxation) naturally scores above the other business models in terms of equity.

When it is again properly-funded, the NHS will be able to deliver outcomes in line with other countries, and the NHS will again hold a pre-eminent position.

[10] The Commonwealth Fund is an internationally-respected foundation which for many years has carried out research comparing the performance of developed countries' healthcare systems. See Appendix 2 for more detail.

3.1 COMMONWEALTH FUND ANALYSIS SETSOUT THE CRITERIA FOR EVALUATING HEALTHCARE SYSTEMS

Citizens expect their healthcare system to perform well in three areas:

1. **Effectiveness** – when we are ill or injured, we should get high quality treatment in line with the treatment that citizens in other high-income countries receive;

2. **Equity** – whether we are extremely poor or extremely wealthy, we should be entitled to high quality healthcare, and this should be in practice as well as theory. This means the system needs adequate capacity to give us access to healthcare when we need it;

3. **Efficiency** – as taxpayers, we want it to provide these services efficiently: its costs should not be out of line with other high performing healthcare systems.

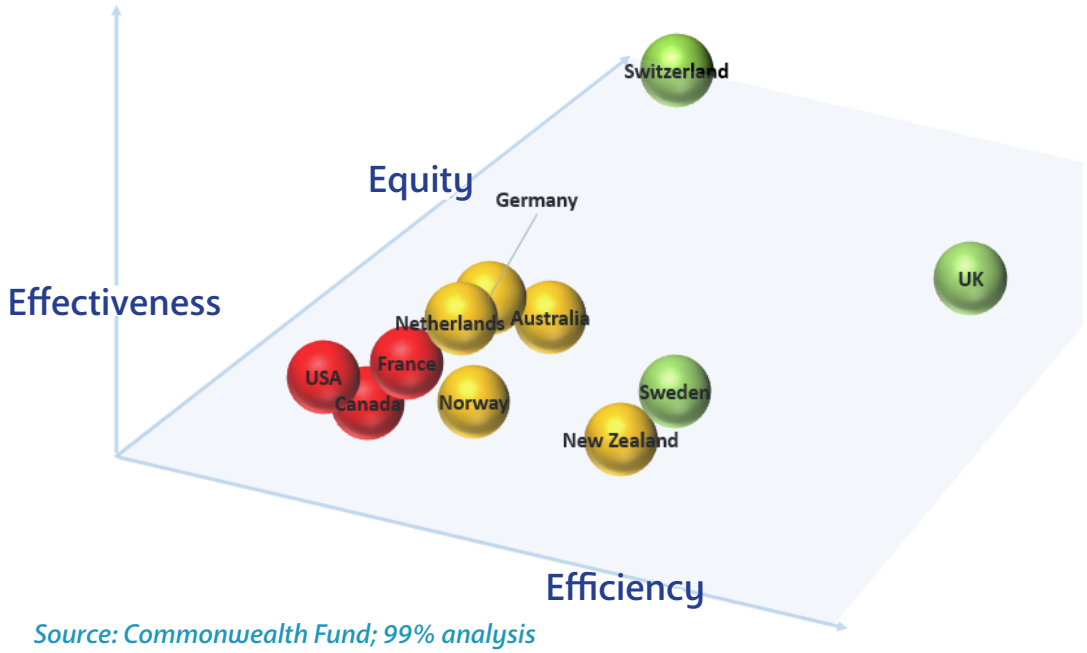
The Commonwealth Fund criteria reflect the three areas above. Their criteria have changed slightly from year to year and are currently Care Process and Healthcare Outcomes (which relate to **effectiveness**), Access and Equity (both of which we have grouped under the heading of **equity**) and Administrative Efficiency and Spending (which relate to our heading of **efficiency**).

3.2 OVER TIME, THE NHS HAS BEEN THE CLEAR TOP-PERFORMER

The UK NHS has often been the best-ranked healthcare system in the developed countries studied. Figure 2 below gives a summary of the 2014 rankings[11]. This reflects data from 2010-3 which is before the underfunding of the NHS had yet made a significant impact on performance.

[11] (Commonwealth Fund, 2014)

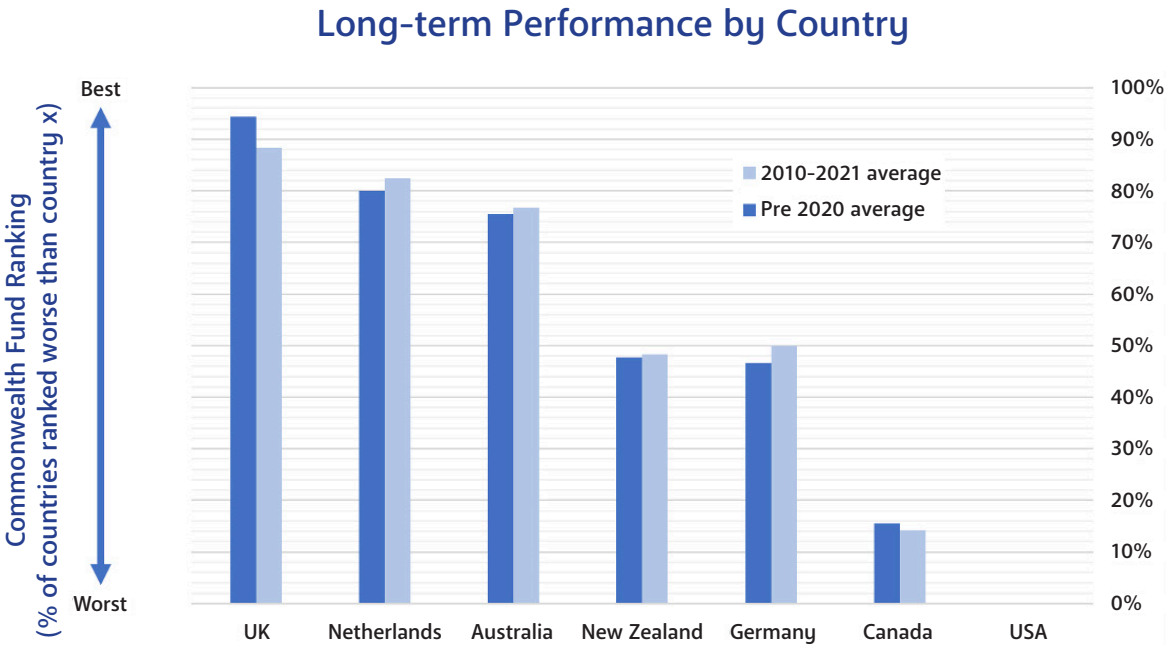
Figure 2: Healthcare Systems Rankings for 2014



Source: Commonwealth Fund; 99% analysis

2014 was a high-point for the NHS but taking the average of the Commonwealth Fund's combined ranking score over all the years since 2010 gives the following picture, which reinforces the pre-eminence of the NHS as the international gold-standard.

Figure 3: Rankings since 2010



Source: Commonwealth Fund; 99% analysis

The NHS has the highest sustained performance of any healthcare system, though it has not always been the pre-eminent performer. The US healthcare system has the lowest performance and has in fact been the poorest performer in every single year, a point to which we will return later.

3.3 THE FUNDAMENTAL BUSINESS MODEL OF THE NHS NATURALLY SCORES HIGHEST ON EQUITY AND EFFICIENCY

The NHS has intrinsic advantages in both equity and efficiency which have been reflected in its rankings.

In terms of equity, the NHS being (still largely) free at the point of use and funded by progressive taxation is the best system yet devised to ensure that access is determined by need not wealth.

Healthcare is expensive, and in countries such as the UK with high levels of income inequality[12], most people could not afford to fund their own healthcare.

This remains true even though the UK has a very efficient system. A study in the British Medical Journal[13] concluded that:

> *"The UK spent the least per capita on healthcare in 2017 compared with all other countries studied ... and spending was growing at slightly lower levels (0.02% of gross domestic product in the previous four years, compared with a mean of 0.07%)."*

Nevertheless, the average cost per person for healthcare in the UK in 2021 was over $5,000 (roughly £4,000)[14], which would put it out of reach for many families. Median household disposable income (income after taxes) fell in 2022[15] to £32,300. Even assuming that an insurance-based system would reduce the tax burden, most families with children could not afford to pay a premium of £16,000[16] for health insurance.

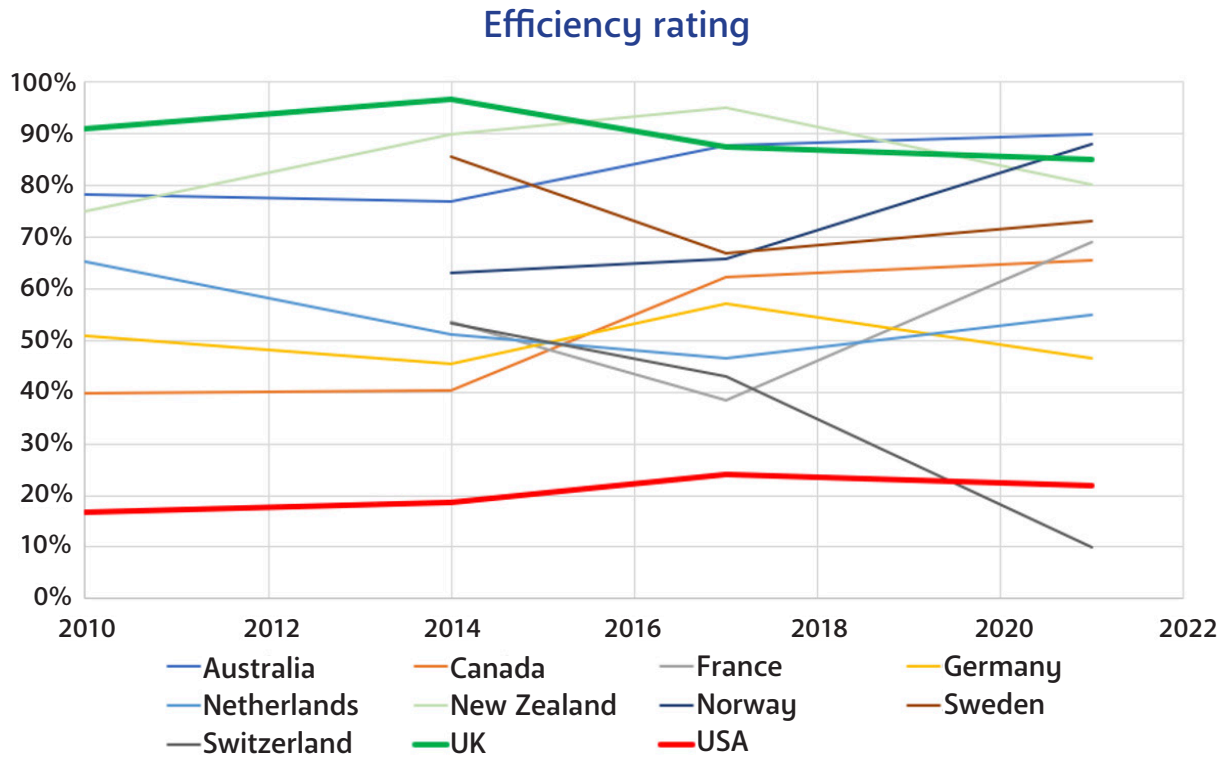
[12] (OECD, 2023)
[13] (Papanicolas, Mossialos, Gundersen , Woskie, & Jha, 2019)
[14] (OECD, 2023)
[15] (Office for National Statistics, 2023)
[16] For a household of two adults with two children

For the UK to adopt an insurance-based system would therefore mean either:

- There was a state-funded insurance system paying for well over half the population, so the private insurance-funded part was a small part of the overall system and the wealthy few paid once for their own insurance and still significant taxes for healthcare for everyone else – politically, of course, this would be unsustainable;
  or
- The state-funded part of the healthcare system only covered a small part of the population and the rest had to pay for their own healthcare despite not being in a position to do so. The result would be a high risk of health-related bankruptcy[17] or worse.

The Commonwealth Fund measures efficiency both in terms of spending and qualitatively. And the UK compares favourably with other countries on these measures.

Figure 4: Efficiency of Healthcare systems



Source: Commonwealth Fund; 99% analysis

[17] (Himmelstein, Lawless, Thorne, Foohey, & Woolhandler, 2019)

Note that the sample used by the Commonwealth Fund in 2010 included only seven of the 11 countries on which they now report.

Again, we see a clear picture: the NHS consistently performs strongly – though less so in recent years – and the US system consistently scores very poorly. This raises serious questions about the tendency of some UK commentators to want to bring 'learnings from the US' or even to invite US healthcare corporations[18] into the UK healthcare system.

Indeed, there is no country which has been consistently more efficient than the UK. One reason for this is its enormous economies of scale, in particular, the monopsony buying power the NHS exercises. The UK pays around 40% of what the US pays[19] for the same drugs, for example:

> *"The United Kingdom, France, and Italy generally have the lowest prices among the comparison countries for all drugs and for brand-name originator, biologic, and nonbiologic drugs separately."*

[18] (Gartside & Gye, 2022)
[19] (Mulcahy, et al., 2021)

3.4 CONCLUSION

Given a natural – and repeatedly demonstrated – tendency for the UK NHS model to score well on equity and efficiency, if it also scores well in outcomes, it will again hold pre-eminent position. The UK debate on the future of the NHS must recognise the evidence shown by these international comparisons and avoid the trap of decision-making by rhetoric and anecdote rather than data.

To jettison the best model, the NHS, especially to replace it with the least successful in the developed world, would be a policy failure of epic proportions. But the international benchmarks suggest that any change to another country's system would be a change to a less efficient system. It would make it more expensive to provide high quality healthcare to the UK population.

The converse is also true: given the natural tendency for the UK to score well on efficiency and equity, for it not to score well overall could only mean that its effectiveness was far below that of other developed countries. That would be an outcome which was both a moral failure and, as we shall see in Section 5, an economic disaster for the UK.

If policy-makers are looking for a benchmark system from which to learn, it is the pre-underfunded NHS to which they should turn. If they are looking for one to avoid, it is the US system.

The fundamental (pre-underfunding) model of the NHS is a winning game; we should not change it.

Appendix 2 gives further detail on these points.

4. THE FALL-OFF IN SERVICE LEVELS IS DUE TO CHRONIC AND SEVERE UNDERFUNDING

Everybody knows the story of another experimental philosopher who had a great theory about a horse being able to live without eating, and who demonstrated it so well, that he had got his own horse down to a straw a day, and would unquestionably have rendered him a very spirited and rampacious animal on nothing at all, if he had not died, four-and-twenty hours before he was to have had his first comfortable bait of air.

– Charles Dickens in Oliver Twist

Funding is a topic which is particularly susceptible to rhetorical argument: one often hears the statement *"we cannot just go on throwing more money at the NHS year after year."* Taken literally, of course, this is illogical: in a growing economy and with a growing and aging population we should expect NHS spending to grow year on year. In the same way, in 50 years, we should expect to be spending more on food, more on education, more on investment and more on research – more on almost everything, in fact. The fact of spending more in no way implies unaffordability[20].

Of course simply spending more does not *guarantee* better performance, as the spending on the US system clearly demonstrates. Underspending, however, does guarantee poor performance, just as starving a horse guarantees its eventual death. And this is what has been happening in the UK:

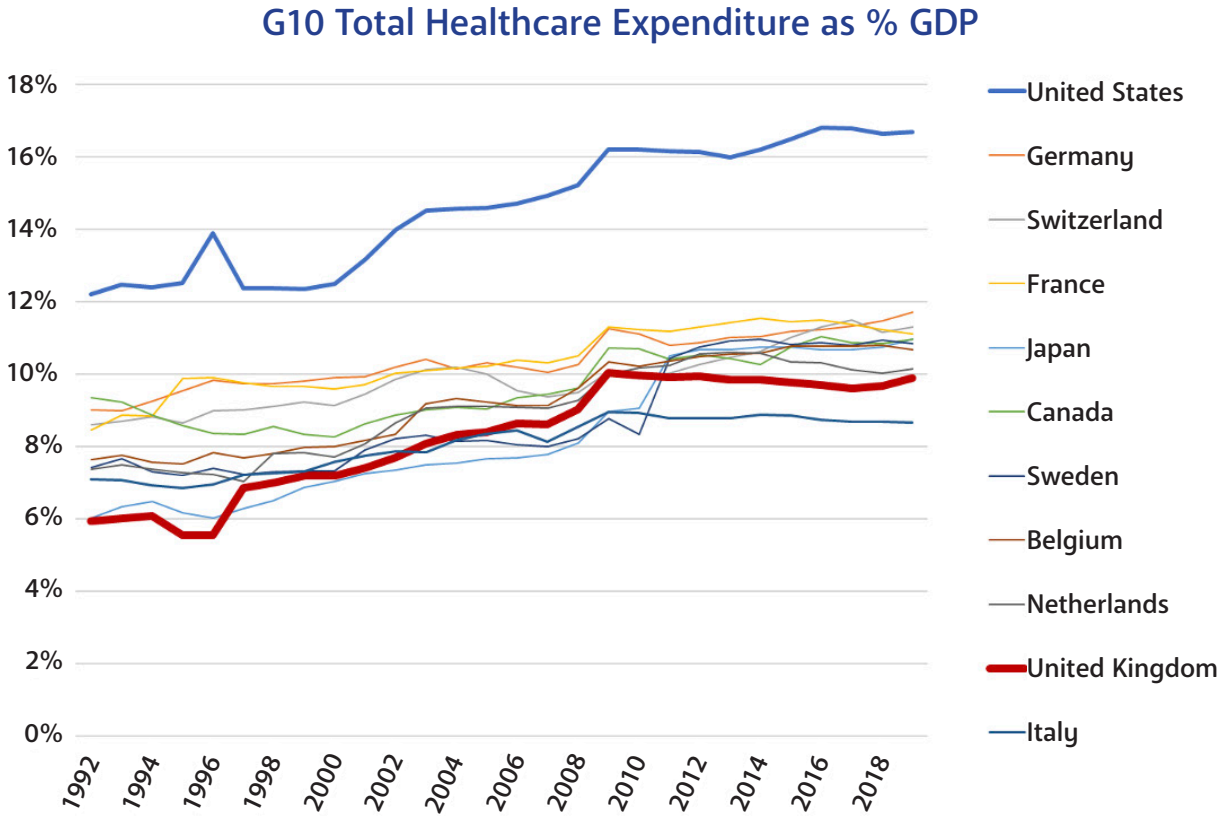
- We spend less on healthcare than other developed countries;
- Our spending has not kept pace with the combination of inflation, population growth and population aging;
- This underfunding has led to the unavailability of resources (staff, hospital beds, technology, etc) and so to poorer performance.

[20] See Appendices 4 and 6

4.1 THE UK SPENDS LESS THAN OTHER DEVELOPED COUNTRIES

Our own benchmarking as well as that done by the Financial Times[21] and others[22] shows that UK spending on healthcare, which had caught up with many of our peers by 2009, has now drifted back and is again far below the average for a "developed world" country.

Figure 5: Total spending on healthcare in G10 countries



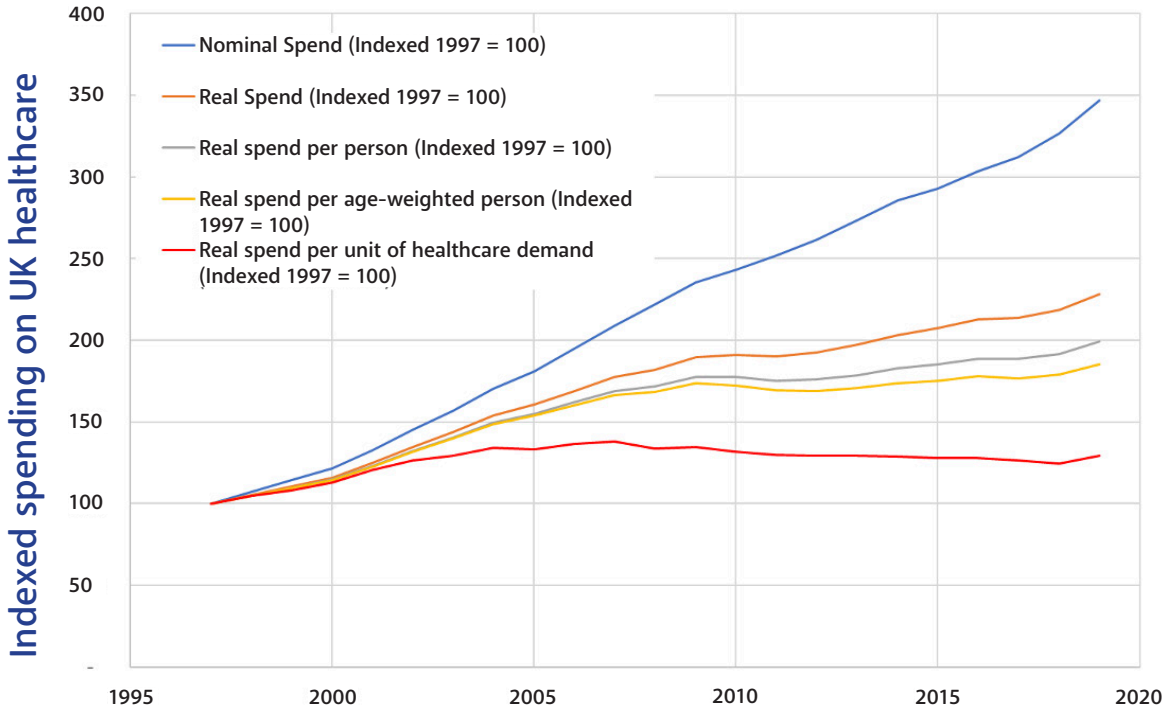
Source: OECD

[21] (Burn-Murdoch, 2022)
[22] (Papanicolas, Mossialos, Gundersen , Woskie, & Jha, 2019)

4.2 NHS SPENDING HAS NOT KEPT PACE WITH NEED

Although the government's claim that it is spending more on the NHS than ever before is true in a highly technical sense, the reality is that spending has not kept pace with need. Once we take into account inflation, population growth and the aging of the population, we see that NHS spending has barely changed since 2009; and when we take into account increased morbidity, we see that real *spending per unit of healthcare workload has actually been falling.* The NHS has been continually *"doing more with less."*

Figure 6: Government spending on healthcare vs workload



Source: ONS, OBR, NHS Digital; 99% analysis

The blue line shows nominal (i.e. taking no account of inflation) spending; the orange line takes into account inflation, but not population growth; the grey line takes into account population growth but not population aging; and the yellow line takes into account the aging of the population. Finally, the red line takes into account the increasing morbidity of the UK population – for example, the increases in diabetes and in mental health issues[23] over this period – which have added to the need for healthcare.

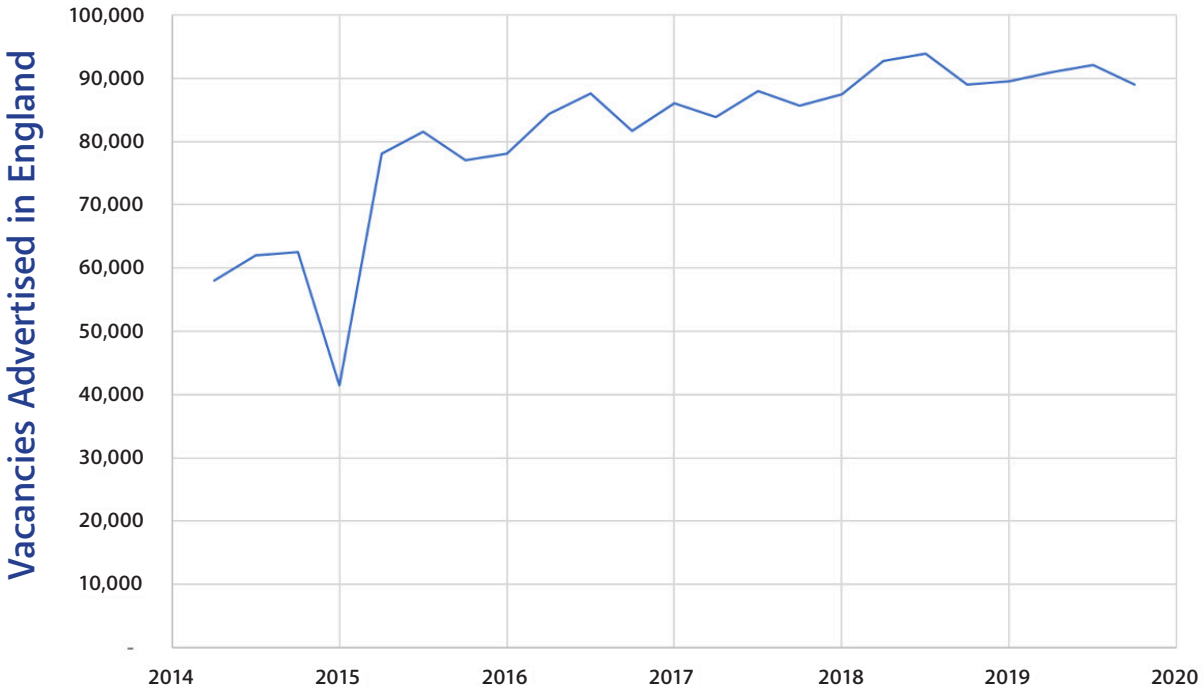
[23] (Baker & Kirk-Wade, 2023)

4.3 THE UNDERFUNDING HAS LED TO POORER SERVICE

This sustained underfunding has led to growing vacancies in the NHS and so, inevitably, to a serious degradation of performance.

There is now a shortfall of staff exceeding 120,000 in the NHS[24].

Figure 7: Vacancies in the NHS over time

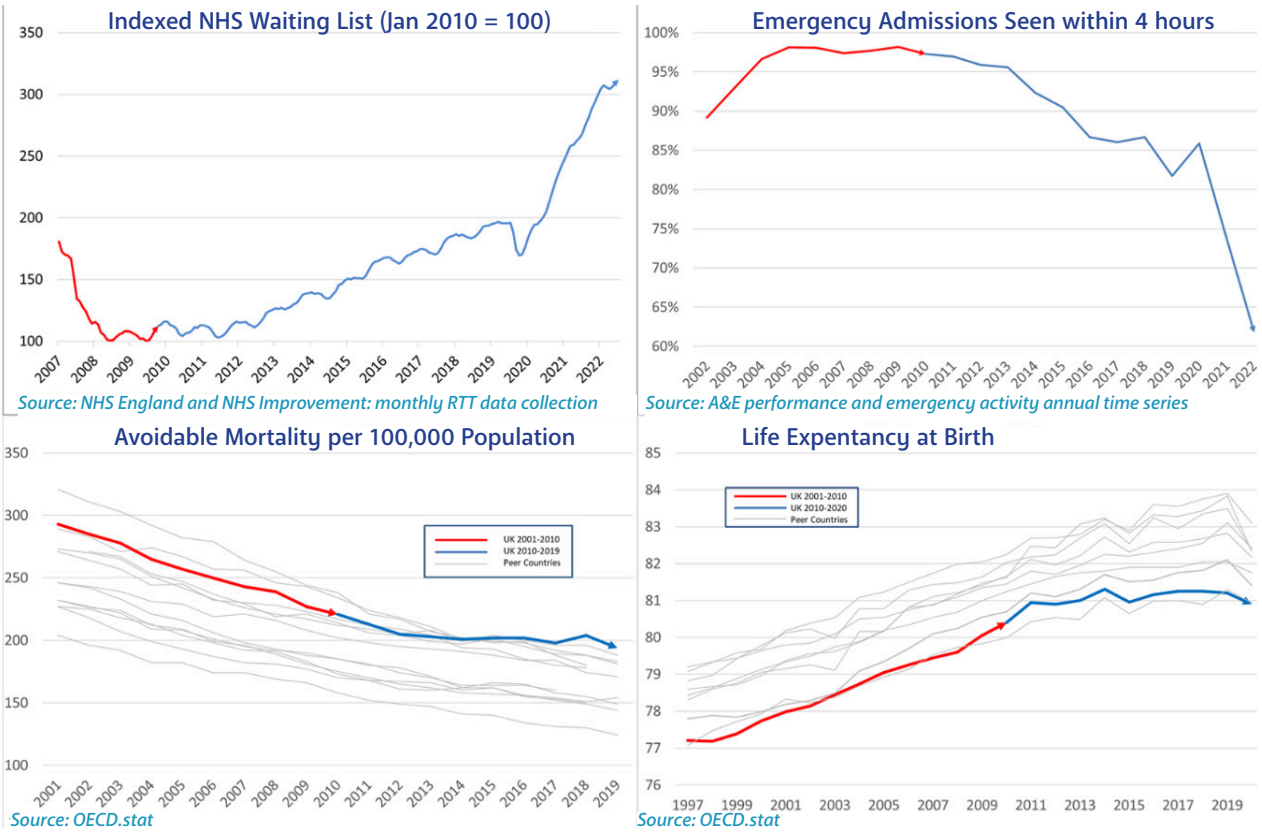


Source: NHS Digital; 99% analysis

As a result, service has declined substantially – waiting lists for referral are now at record levels and people are waiting longer than ever in A&E – and as a result, healthcare outcomes and even life expectancy have begun to decline. Our performance on these outcomes has drifted below that of our peers.[25]

[24] (Campbell, 2022)
[25] See Appendix 3 for more detail

Figure 8: Performance of the NHS over time



Looking at a wider set of outcomes, the World Health Organisation (WHO)[26] concluded in 2019:

> *"The United Kingdom's health system delivers* ***good health outcomes relative to the level of health expenditure and the scale of income inequalities."***

This is true – and it is a testament to the efficiency of the NHS that it is true – but given how low the UK's health expenditure has become and the scale of the UK's income inequalities[27], the fact remains that in many areas our outcomes have fallen below those of our peers.

4.4 CONCLUSION

The UK government has been continually asking the NHS to do more with less. It has been acting like Dickens's experimental philosopher, entrusted with the care of a champion race-horse, and attempting to show that it can live without eating.

Now that the horse can no longer run, it blames the horse, not the diet.

Appendix 3 gives more detail on these points.

[26] (WHO: European Observatory on Health Systems and Policies, 2019)
[27] (OECD, 2023)

5. IF THE NHS FAILS, THE ECONOMY FAILS WITH IT

"Everything should be made as simple as possible, but no simpler."

– attributed to Albert Einstein

Thinking about healthcare systems is inherently difficult because the ways they interact with the wider society are complex. This can lead policy-makers and commentators to ignore this complexity in a search for simplicity; that is a mistake the UK can no longer afford to make:

- The system contains several important chains of cause and effect which are often ignored by policy-makers;
- This is because healthcare is a complex system inside a still more complex system: the economy;
- The interactions between these chains can be modelled and indicate that ***not*** having a strong NHS with good healthcare outcomes is unaffordable.

With current policies, our politicians risk leading the UK to a healthcare and economic disaster.

5.1 THE SYSTEM CONTAINS SEVERAL IMPORTANT CHAINS OF CAUSE AND EFFECT

Common sense is enough to tell us that each of the three chains of cause and effect listed below exists in the real world; it is not enough to tell us how great the real-world impact of each one will be:

- **Chain 1: the Capacity Loop[28]:**
  - o **Economic output enables economic decisions to fund;**
  - o **Funding drives capacity to treat;**
  - o **Capacity to treat (staff, hospital beds, etc) drives treatment provided;**
  - o **Treatment provided drives rates of recovery and hence number of healthy people – a huge number of working age adults are currently unable to work due to ill-health;**
  - o **Number of healthy people of working age drives economic output;**

- **Chain 2: the Poverty Loop:**
  - o **Economic output enables economic decisions to address poverty;**
  - o **Poverty drives morbidity;**
  - o **Morbidity drives demand for treatment;**
  - o **Excess demand causes untreated illness;**
  - o **Untreated illness drives (negatively) number of healthy people;**
  - o **Reduced number of healthy people of working age decreases economic output;**

- **Chain 3: the Prevention Loop**
  - o **Spending on prevention reduces illness;**
  - o **Reduced illness reduces need to treat;**
  - o **Reduced need to treat reduces funding requirement for treatment capacity;**
  - o **Reduced funding requirements make facilitates adequate spending.**

And there are other important issues that are not part of these three loops, for example, the overload loop:

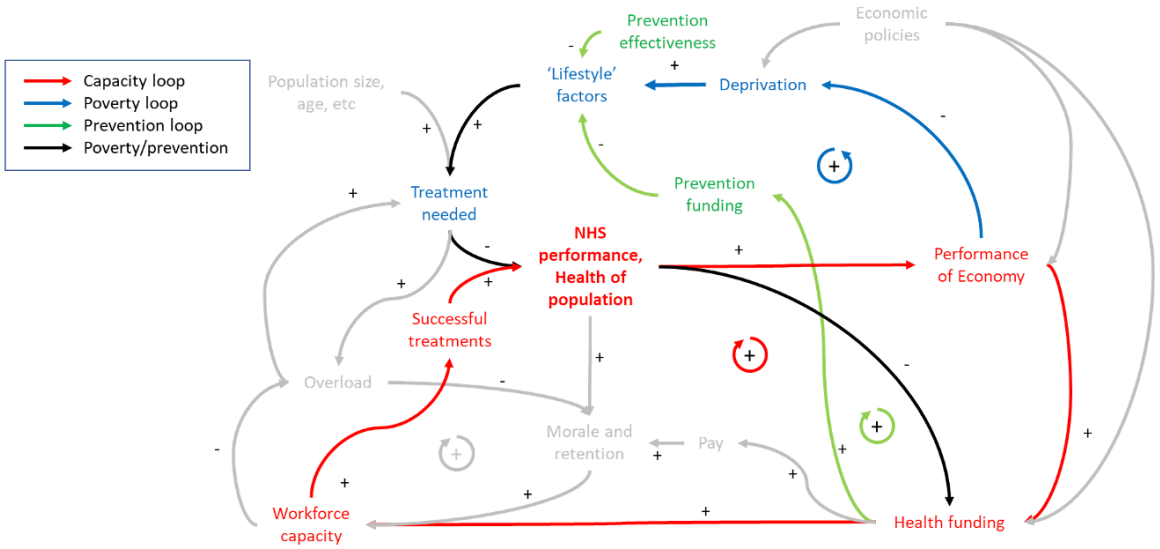
- Having less capacity than needed to deliver the treatment required results in overload; which damages
- Morale and retention; which affects
- Workforce capacity.

[28] The NHS Confederation and the IPPR also examined part of this loop, with similar conclusions: (CF, 2022) found that for every £1 spent on the NHS, the economy grows by £4 and (IPPR Commission on Health and Prosperity, 2023) that well over 2% of GDP has been lost due to long-term ill health.

5.2 HEALTHCARE IS A COMPLEX SYSTEM INSIDE A STILL MORE COMPLEX SYSTEM: THE ECONOMY

When we put the capacity, poverty and prevention loops together, we start to see the complexity. The diagram below shows a simplified picture of the cause-and-effect relationships between the Healthcare system and the wider economy. It looks complex because it is.

Figure 9: Interactions between Health and the Economy



Each individual cause-and-effect link above is easy enough to understand: either there is a positive relationship (in which case the cause and effect decrease together) or there is a negative one (in which case an increase in the cause produces a decrease in the effect). The link between Successful treatments and Health of the population, for example, is a positive one: the ***more*** Successful treatments, the ***greater*** the Health of the population. The link between Prevention Efficiency and Lifestyle factors causing illness is negative: the ***more*** effective the prevention spending, the ***fewer*** people will fall ill.

It is the combination of the links into a system which makes it complex. And for policy-makers, it is tempting just to say, *"I can't possibly deal with all that complexity; let's just use our common sense."*

Tempting, but not rational. Each of these links represents an important real-world connection. As an example, the link between Deprivation and Lifestyle factors causing illness – i.e. between poverty and morbidity – has been comprehensively demonstrated by the work of Sir Michael Marmot[29] and others. Ignoring it does not change the reality.

[29](Marmot, Allen, Boyce, Goldblatt, & Morrison, 2020) (Marmot, Fair society, healthy lives : the Marmot Review: strategic review of health inequalities in England post-2010, 2010)

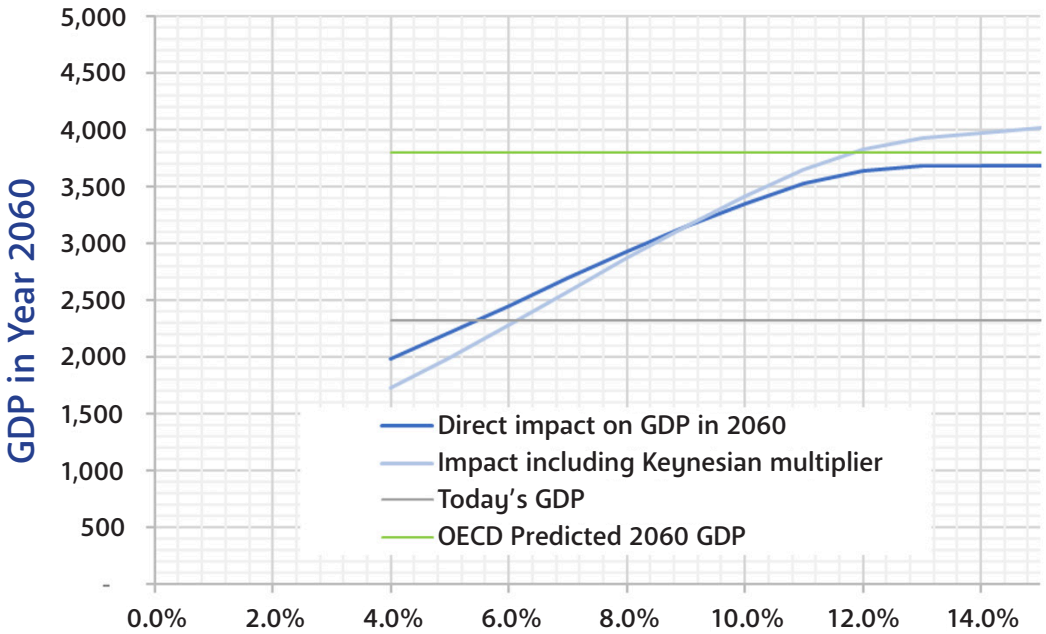
5.3 *NOT* HAVING A STRONG NHS WITH GOOD HEALTHCARE OUTCOMES IS UNAFFORDABLE

The discipline of System Dynamics[30] developed from the 1950s onwards precisely to help policy-makers deal with this kind of complexity and reach sound conclusions in areas where common sense alone will not suffice.

We have built a System Dynamics model based on Figure 5 and described in Appendix 4 which shows both that a **strong economy becomes impossible without a healthy population** (so an underfunded healthcare system has huge cost to the wider economy) and that the cost of meeting demand will (even with an aging population) be a **stable % of GDP** (as long as morbidity within age groups does not continually increase[31] and therapeutic inflation is contained).

The effect of the capacity loop is that, while over-spending on healthcare cannot materially boost GDP, under-spending can catastrophically reduce it. If the UK government were to continue with its underfunding of the current model, *it is not just the NHS that would collapse: the economy would collapse with it.* (In reality, the failure of the underfunded NHS would be likely to force those who could afford it to go private[32] and, in that way, usher in something much more like the US model).

Figure 10: Impact of different funding levels on long term GDP



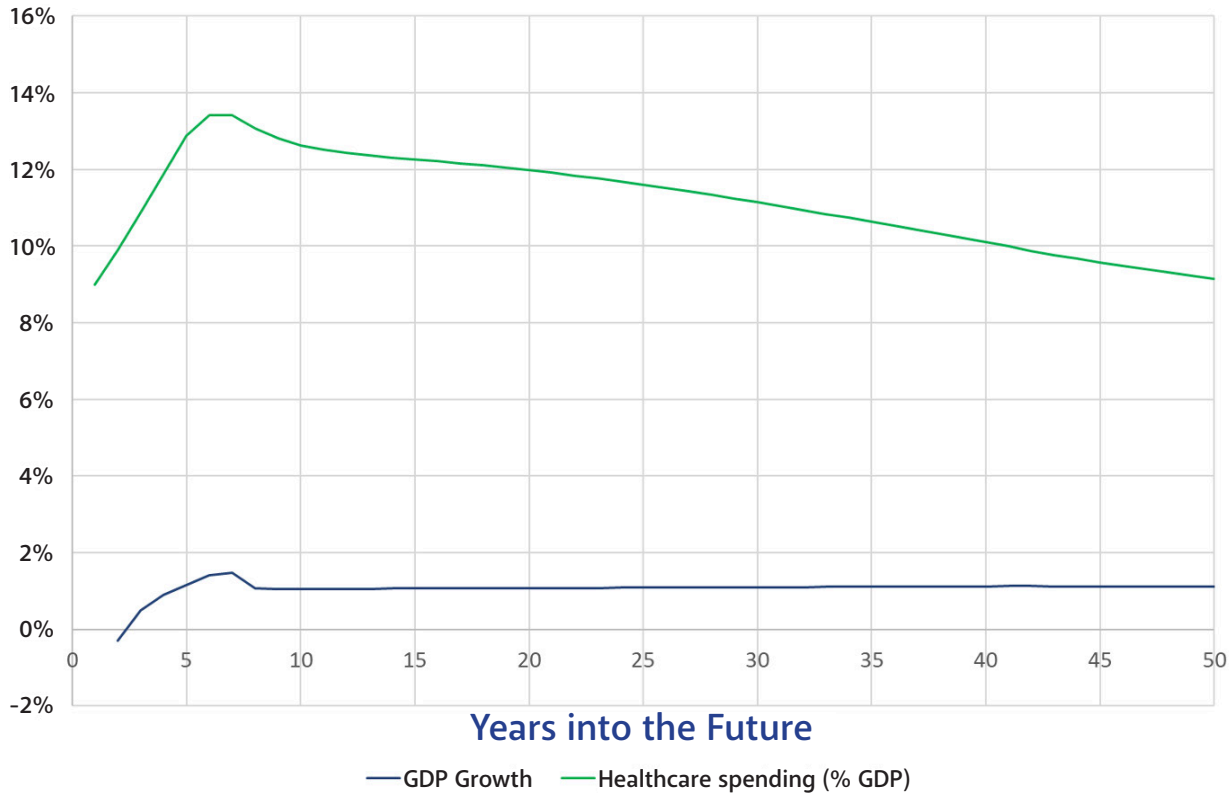
Source: 99% analysis

[30] (System Dynamics Society, 2023)
[31] This requires both action on the social determinants of ill-health and a sound preventive strategy, eg to protect the population against COVID (see Appendix 4)
[32] (Thomas M. E., Four Ways to Privatise the NHS, 2021)

Note: These scenarios assumes that there is no policy adjustment over time, even though the effects of underfunding are clear.

With a more optimistic – and, it is to be hoped, more realistic – assumption that future governments *will* correct this obvious underfunding of the NHS, we see a long-term picture like this.

Figure 11: Long term sustainability of funding



Source: 99% analysis

Note: This scenario assumes: 1) that NHS spending is adjusted to meet need; 2) that there is increased spending on prevention; and 3) that there are effective poverty reduction policies in place which, over time, reduce socially-determined morbidity[33]*.*

The model shows a short-term spike in total healthcare spending as capacity is rebuilt, rather as we saw[34] take place in the years 1997-2009, followed by a return to a steady state spending of around 9% of GDP. There is no reason, in other words, to suppose that the long-term funding needs of the NHS will become unsustainable. Appendix 5 contains more detail in relation to this important finding.

[33] See Appendix 4 for more detail
[34] (Burn-Murdoch, 2022)

Our analysis also suggests that **increased spending on prevention** (up to certain limits) can materially reduce the need for total spend, and that allowing poverty to increase can – via the poverty loop described above – have enormous economic costs to the UK, quite apart from the moral failure it implies.

A rational policy-maker would therefore aim both to fund the NHS adequately with sufficient emphasis on prevention and to tackle the issue of mass impoverishment[35].

5.4 CONCLUSION

Politicians often say, as though it is a self-evident truth, that with an aging population, the NHS as it is currently constituted will become unaffordable. Sajid Javid[36], for example, said that the NHS should move towards a European-style health insurance model, or it will not *"survive many more years."* As we have seen, that is neither self-evident nor true.

In fact, given that the NHS is highly efficient compared with other systems, changing the model would result either in ***higher*** total costs, or reduced provision of healthcare to the UK population, or both.

For the extremely wealthy (the wealthiest 1% and especially the 0.1%), there could be financial benefits. But for the country as a whole, and certainly for the middle classes and lower income groups, a health insurance model would be economically and socially ruinous.

By trying to make decisions about the future of the UK healthcare system seem simple – as Einstein would say *"simpler than possible"* – our politicians risk leading the UK to a healthcare and economic disaster. As well as harming the economy, this means high levels of personal financial distress – around two thirds of US personal bankruptcies involve medical bills[37].

Appendix 4 gives further detail on these points

[35] (Thomas M. E., 99%: Mass Impoverishment and How We Can End It, 2019)
[36] (Gutteridge, 2022)
[37] (Himmelstein, Lawless, Thorne, Foohey, & Woolhandler, 2019)

6. COMMIT TO MAKING THE NHS PRE-EMINENT AGAIN

Unless commitment is made, there are only promises and hopes; but no plans.

– Peter F. Drucker

The arguments set out in Sections 3-5 show that a rational UK policymaker would commit to a step change improvement in healthcare outcomes, delivered fairly across the wealth spectrum – we should abolish the 'inverse care law'[38] according to which those who need most healthcare are those who receive least. We should return the NHS to its pre-eminent position. Indeed, this report shows that as a country, we cannot afford ***not*** to do so.

A meaningful commitment to the UK having a pre-eminent healthcare system delivering on **effectiveness, efficiency** and **equity** requires commitment to the following five principles:

1. **Keeping up with leading developed countries in healthcare outcomes.** This in turn requires

2. **Keeping up with demand in critical inputs** such as numbers of doctors, nurses, hospital beds, equipment, social carers, etc being adequate to meet need;

3. **The NHS to be funded in a way that preserves accessibility** (free at the point of use, funded by progressive taxation, addressing geographic inequities);

4. **The NHS making full use of its scale,** especially its monopsony buying power, to remain a highly efficient system;

[38](The Lancet, 2021)

5. **Fit-for-purpose Governance for the NHS:**

- **Superordinate goals:** these should be world-class healthcare at reasonable cost: Efficiency, Equity and Effectiveness. Profit maximisation of its private sector suppliers/partners should not be a goal, and therefore corporations with a legal duty to maximise returns to shareholders should not be involved in shaping superordinate goals;

- **Increased scope:** the Department of Health and Social Care should have a right of 'veto' on other Departmental plans which adversely affect the health of the population analogous to the role of the Treasury in assessing other Departments' spending plans – *it should not be possible for other Departments to 'meet' their targets by endangering the health of the UK population.*

Although detailed organisation design is out of scope for this report, it is clear that, as in all other areas, continual refinement of organisation, systems and processes will be critical in UK healthcare. Any such changes should be subject to the following organisation design principles:

- **Explicitly avoid conflict of superordinate goals** – employees of corporations with a legal duty [39] to maximise returns to shareholders should not be involved in governance or senior management roles. This does not mean that there should not be a close working relationship – simply that conflicts of interests should not be built into the decision-making system;

- **Preserve economies of scale** in particular, preserve monopsony purchasing power.

Commitment to the five principles set out above will set the UK back on a path towards having the preeminent healthcare system. And this is a path the UK cannot afford ***not*** to take.

[39] Under both the US and UK Companies Acts, the directors of a company have a duty to run it in the interests of its shareholders ('members'), merely 'having regard for' the interests of other stakeholders. (Barker, 2019) (Wikipedia, 2023)

7. THE CHALLENGE FOR OUR POLICY-MAKERS

The best lack all conviction, while the worst
Are full of passionate intensity.

– W B Yeats

The British public is clear in its support for the NHS. Despite polarisation on many other issues, there is strong support right across the political spectrum for the founding principles of the NHS and for proper funding[40]. But the message from our political leaders is far less clearly supportive.

Indeed, many of those who are most outspoken want to see the NHS replaced with a different model of healthcare. We quoted Sajid Javid in the Executive Summary calling for an end to funding through progressive taxation. He is not alone. Oliver Letwin and John Redwood have called for a gradual phasing-out of the NHS:

"A system of this sort would be fraught with transitional difficulties. And it would be foolhardy to move so far from the present one in a single leap. But need there be just one leap? Might it not, rather, be possible to ***work slowly from the present system toward a national insurance scheme?****"*[41]

And Jeremy Hunt, Michael Gove, Kwasi Kwarteng and others wrote: *"****The problem with the NHS is not one of resources. Rather, it is that the system remains a centrally run, state monopoly, designed over half a century ago.*** *... We should fund patients, either through the tax system or by way of* ***universal insurance, to purchase health care from the provider of their choice.****"*[42]

On the other hand, politicians one would expect to be supportive of the NHS have sometimes been equivocal or unclear. Wes Streeting, while confirming that

"The NHS isn't just Labour's greatest achievement. It's Britain's greatest achievement. And the values that underpin the NHS – a publicly-funded public service, free at the point of use – aren't just Labour's values, they are Britain's values, too" has also said that *"Alongside investment will come the change and modernisation that the public are crying out for."*[43]

[40] (The Health Foundation, 2023)
[41] (Gill, 2021)
[42] (Gove, Hunt, Kwarteng, Hannan, & Norman, 2005)
[43] (Streeting, 2022)

If *"change and modernisation"* means commitment to the fundamental business model of the NHS and optimisation of performance within that, then Streeting's comments make perfect sense. But if it is code for 'reform' – i.e. fragmentation and privatisation – it is clear that it is ***not*** what the public is crying out for, and it will damage both the health and wealth of the nation.

UK citizens need to hear a full-throated **commitment to repair the NHS**, properly-funded and run in their interests and **a confirmation that the fundamental business model of the NHS remains the gold-standard**[44].

Politicians of all parties who support the NHS should not be afraid to set out a **positive vision** of how it will look in the future. From the perspectives of patients, employees, and taxpayers, this means setting out plans to deliver significant improvement:

- **Patient perspective: for patients, this means:**
    - **Outcomes** – we have argued in Section 5 that world-class outcomes are not only possible and, of course, desirable from a patient perspective – they are also vital to the long-term performance of the UK economy.
    - **Care** – continuity of care is critical; the balance of evidence[45] suggests that it leads to more satisfied patients and staff, reduced costs, and better health outcomes. And there is increasing evidence that holistic approaches which treat the patient not just the disease produce better outcomes – for example in cancer patients[46].
    - **Equity** – the principle of healthcare funded by progressive taxation and free at the point of use should be confirmed as a key part of any change to the NHS. And, to be meaningful, access should be as needed: this means that rationing by underfunding[47] or by further restricting the scope of NHS services must end.
    - **Prevention** – the evidence on prevention suggests that well-targeted and up to a certain point, each £1 spent on prevention can reduce the later need for £4 on treatment[48].

[44] See Appendix 2 for detailed analysis
[45] (Freeman & Hughes, 2010)
[46] (Islam M. S., 2018)
[47] See Appendix 3
[48] (World Health Organisation, 2014)

- **Employee perspective:**

    - **Fair, respectful treatment** – both for moral and practical reasons, the NHS should treat its staff fairly and with respect. Almost all have seen a real-terms pay cut over the last 13 years; they have also seen their workloads rising as the vacancies have grown with a huge increase in burnout and other stress related illnesses. This is clearly unsustainable.

    - **Workload** for patient-facing staff should be adjusted to allow for relational rather than transactional working. This is vital for continuity of care.

- **Economic perspective:**

    - **Adequate funding:** NHS funding must be adequate to meet need.This will require a period of faster growth to catch up after 13 years of underfunding, and then steady growth thereafter. If adequate spend is directed towards prevention, the spend on treatment can be noticeably reduced. Even under such circumstances, funding will need to grow in line with the size, age, and morbidity of the population. Nevertheless, it will *not* need continually to increase as a percentage of GDP.

    - **High levels of efficiency** relative to other developed countries: the NHS has always been relatively efficient[49], in no small measure this is due to its willingness and ability to exercise monopsony buying power. This is a critical advantage of the NHS over systems such as the US which fragments buying and so favour providers[50] over buyers. This is something that should be preserved in any organisational changes.

    - **Enormous economic benefits:** the systemic links analysed in brief in the Executive Summary and in detail in Appendix 5 show the scale of the economic benefits available to the UK if it has a healthy citizenry, and the enormous economic costs of allowing further deterioration in healthcare provision. These costs vastly outweigh those of proper funding.

[49] See Appendix 2
[50] (Mulcahy, et al., 2021)

Restoring the NHS in this way will have a transformative effect on the lives of British citizens. As patients, the risk of premature death or living with untreated illness or going bankrupt to pay for treatment – a very common occurrence in the United States[51] – will be reduced for all. Citizens who work in the NHS will again be treated fairly, with the respect they deserve as highly qualified professionals and with the job satisfaction of knowing that they are providing the world's best healthcare. And as taxpayers, they will know that they are receiving world-class healthcare at reasonable cost – and that the economy is benefiting hugely.

For any policy-maker who likes the idea of this but remains concerned about affordability, Appendix 6 shows how their predecessors tackled the same issues.

The best of our leaders should not be so lacking in conviction; they should show some of the passionate intensity of the worst.

[51] (Himmelstein, Lawless, Thorne, Foohey, & Woolhandler, 2019)

AFTERWORD BY PROFESSOR MARTIN MCKEE

There are few things about which more uninformed nonsense is talked than the NHS. Time and again we are told that no other country has a similar system, that it is unaffordable, and that a different way of paying for it would work better. All three are wrong, but that doesn't stop some people from repeating these statements again and again, either because they can't be bothered looking at the evidence or have a vested interest in not doing so.

Ultimately, a health service is a means for a civilised society to secure its citizens' human right to healthcare, regardless of wealth. In broad terms, many of those who need health care can't afford to pay for it, either because they start off poor or become poor because of the cost of illness. Those who can afford it need it much less. Of course, anyone's situation can change. If you are poor you can win the lottery (although your chances of doing so are infinitesimally small). And if you are rich you can suffer misfortune, with your health or your wealth, and become poor. Those who designed the NHS in the 1940s were all too aware of the risks that they saw in the two previous decades. The question then is what is the best way to meet the healthcare needs of a diverse population? And as many countries have realized, progressive taxation is the simplest. Even those that, for historical reasons, have social insurance systems, have been relying increasingly on tax as the nature of employment, and thus the ability to collect contributions, has changed.

This report is a welcome reality check. It sets out in detail why the way that we pay for the NHS is the best option. It is cheap and simple. This should, if looked at rationally and disinterestedly, be a settled question. Rather, the issue is how much we spend. And not just in a single year. At present, the money spent on the NHS doesn't look too bad. But that fails to account for over a decade of austerity, with a failure to invest leaving crumbling hospitals, shortages of equipment, and health workers whose salary has fallen drastically in real terms. And we must always remember that, unlike in our European neighbours, prolonged austerity has created a population whose health has not improved in a decade. The NHS is having to pick up the pieces of the widespread failings across all parts of government. Quite simply, the NHS has to do more simply to catch up. That cannot be done with ever-dwindling resources.

There is now widespread agreement that something must be done to fix health care in the UK. This report will help to ensure that, at least, those engaged in the discussions are asking the right question.

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Professor of European Public Health, London School of Hygiene & Tropical Medicine
President, British Medical Association 2022-23
Past President, European Public Health Association
Research Director European Observatory on Health Systems & Policies

APPENDICES

APPENDIX 1:
FREQUENTLY ASKED QUESTIONS

The body of this report focuses on the issues surrounding the fundamental business model of the NHS; it does not tackle the many myths and misconceptions about the NHS.

This appendix considers some of the most frequently made assertions in the political sphere and frequently asked questions on the doorstep, and briefly fact-checks them.

Question / Assertion	Analysis	Verdict
The NHS was founded in 1948: is it still fit for the 21st century?[52]	Appendix 2 shows that until recently – well into the 21st century – the NHS was the best-performing healthcare system in the world. Appendix 3 shows that sustained underfunding has reduced its fitness. The fundamental business model of the NHS remains sound, but its funding levels are now unsustainably low.	**The problems we experience today are due to chronic underfunding**
The NHS isn't perfect: it needs reform	No individual or organisation can be perfect. But they *can* be the best in the world. The NHS was, until recently, the best in the world[53]. We should not seek to adopt a model with a weaker track record. The NHS does not need 'reform' in the sense of changing the core business model. Of course, continuous performance improvement is relevant to all organisations, but this works best when properly resourced.	**It is not perfect, but its fundamental business model is proven**
If the Norwegian system is the best system today: why don't we adopt that?	According to the latest Commonwealth Fund analysis, the Norwegian system is, overall, the best[54] in the world, but it costs $7,049 per person vs $5,387 in the UK. Despite Norway being a far more egalitarian[55] society than the UK, their system scores less well on equity than the NHS. If we were to adopt the Norwegian model, costs would rise sharply, and equity would reduce further.	**The Norwegian model would not work in today's UK**

[52] For example (Share, 2019)
[53] See Appendix 2
[54] (OECD, 2023)
[55] (OECD, 2023)

All I care about is outcomes; the NHS is not delivering. We need a new system.	All benchmarks show that the NHS is a highly efficient system. When properly funded, it delivered good outcomes. Getting good outcomes from a ***less*** efficient system would, of course, be ***more*** expensive. In practice, this would make it ***less*** likely that we would spend enough to ensure good outcomes.	**False.** **We need to spend in line with need.**
The demand for more and better free healthcare is infinite.[56]	This assertion is a rhetorical device. Physically, of course, with a finite population, each member of which can consume only a finite amount of healthcare, infinite demand is impossible. More importantly, as a matter of real-world observation, when vital goods are made freely available, people do ***not*** seek to maximise their consumption. Oxygen is both vital and freely available, but we do not observe people constantly gasping to maximise their oxygen intake. They consume what they need.	**False**
The NHS has too many managers and not enough Doctors and Nurses	It is true that the NHS has too few Doctors and Nurses – vacancies are at record levels.[57] It is not true that it has too many managers – the evidence is overwhelming that it has too few.[58] Without adequate administrative support, clinical staff are sucked into doing this work as well, which is inappropriate on all counts.	**False. The NHS has too few staff of all kinds.**
Why is it so hard to get to see my GP?	Since 2015, the number of fully qualified GPs has consistently fallen[59], with 1,989 fewer in December 2022 than in December 2015. For the government to be on course to deliver its target of 6,000 more GPs by 2024, we should be seeing increases, not continuing declines.	**The number of GPs has been allowed to decline even though the population has grown.**

[56] For example (Parris, 2018)
[57] (BMA, 2023)
[58] (Kirkpatrick & Malby, 2022)
[59] (Nuffield Trust, 2022)

With an aging population, the NHS in its current form is unsustainable: we need a radical change	This is the claim made by Sajid Javid[60] and others; it is misleading and unfounded. The population is aging, and this will increase the demand for healthcare, but our model[61] shows that the costs will not run away as a percentage of GDP – indeed they will never approach the percentage currently spent in the USA. Even more simply, multiplying the age-profile of spending[62] by the predicted population changes does not suggest a problem unless the UK economy performs worse than the OECD long-term forecasts.[63] Finally, since other leading healthcare systems have higher costs than the UK, a radical reform would be likely to worsen sustainability, not improve it.	**False.** **The fundamental business model of the NHS will remain sustainable, but a radical change could make the NHS unsustainable**
The NHS is simply too big to respond to our needs. We need to break it up to make it more human-centred	There is a widespread myth that small businesses are more efficient and more agile than larger ones and therefore better able to meet the needs of their customers. There are doubtless some examples of this in practice. But if it were a general truth, we should see large businesses routinely out-competed by small ones, and the structure of most industries would be highly and increasingly fragmented. Instead, most industries are highly and increasingly[64] concentrated. This is because of the enormous power of economies of scale: increased buying power and the ability to specialise, standardise and automate all come with scale. In short, bigger organisations tend to be more effective and more efficient.	**No: fragmentation would be likely to reduce efficiency and effectiveness**
The profusion of expensive new technologies and treatments will make the NHS unaffordable.	The National Institute for Health and Care Excellence (NICE)[65] exists to help ensure that new drugs and technologies are accepted only when there is a business case for doing so. This advice is reflected, for example, in the British National Formulary – UK physicians do not prescribe drugs which have not been shown to offer greater benefits or lower costs than existing treatments.	**False. New technologies, wisely used, will make the NHS more affordable**

[60] (Javid, We need to agree a new NHS future or 1948 dream dies, 2023)
[61] See Appendix 4
[62] (Office for Budget Responsibility, 2022)
[63] (OECD, 2023)
[64] (Freer , Jacobs, & Jaitly, 2018)
[65] (NICE, 2023)

APPENDIX 2: BENCHMARKING DEVELOPED HEALTHCARE SYSTEMS

This appendix summarises the available benchmarks of healthcare systems in developed countries. It shows that:

- The most comprehensive of these are the Commonwealth Fund reports;
- Other benchmarks are consistent with and often cite the Commonwealth Fund reports;
- The conclusion to be drawn from the benchmarks is that the pre-underfunded NHS has regularly been the best system in the developed world.

THE MOST COMPREHENSIVE BENCHMARKS ARE THE COMMONWEALTH FUND REPORTS

The Commonwealth Fund is the most highly regarded source of independent research into healthcare systems across high income countries. It is unique in its inclusion of survey measures designed to reflect the perspectives of patients and professionals — the people who experience health care in each country during the course of a year. Nearly three-quarters of the measures come from surveys designed to elicit the public's experience of its health system.

For nearly 20 years, The Commonwealth Fund has been compiling annual reports comparing healthcare systems in eleven high income countries. This is done using Commonwealth Fund international surveys in each country and administrative data from both:

- The Organisation for Economic Cooperation and Development (OECD), and
- The World Health Organisation (WHO)

The Commonwealth Fund analyses 71 performance measures across five domains:

1. Access to care;
2. The care process;
3. Administrative efficiency;
4. Equity;
5. Healthcare outcomes.

Between them, as explained in Section 3, these cover our three key dimensions: effectiveness, efficiency, and equity.

The criteria for selecting measures and grouping within domains include:

- Importance of the measure;
- Standardisation of the measure and data across the countries;
- Salience to policymakers; and
- Relevance to performance-improvement efforts.

Whilst no two nations are alike when it comes to healthcare systems, the effectiveness of those systems can be measured and assessed. Each country has settled on a unique mix of policies, service delivery systems, and financing models that work within its resource constraints; the Commonwealth Fund criteria bring these together to provide an overarching analysis and generate insights about the policies and practices that are associated with superior performance.

Within the Commonwealth Fund itself, the criteria are rigorously tried and tested. The assessment measures are examined each year by an independent expert panel to remove highly correlated measures within domains. This has resulted in a comprehensive refinement of each criterion. The panel includes highly qualified and widely respected health economists, statisticians, researchers, and scholars.

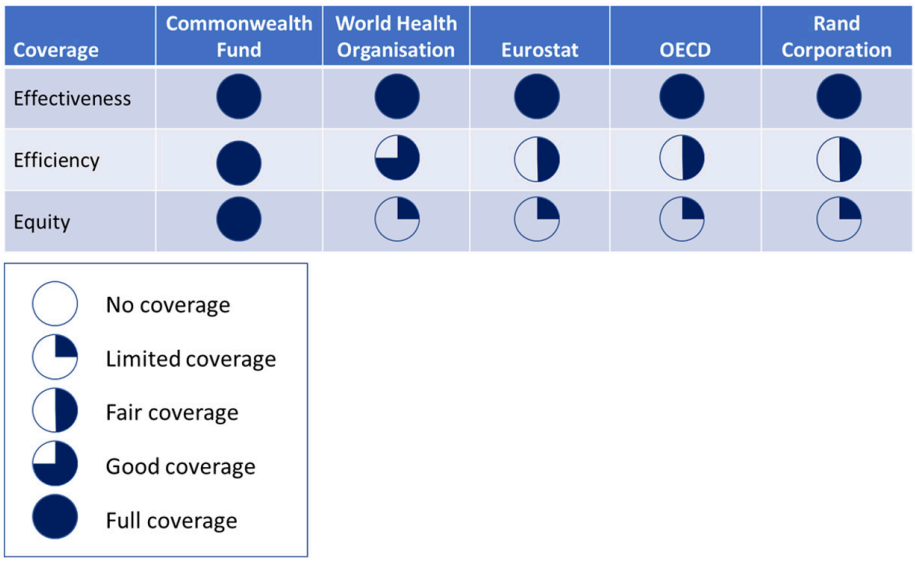
In summary, the criteria have been developed and refined over twenty years, and are accepted globally as the most comprehensive, effective, and independent measurement of healthcare performance.

Other reputable sources of benchmarking information include:

- The World Health Organisation (WHO);
- The Organisation for Economic Co-operation and Development (OECD);
- EUROSTAT; and
- The Rand Corporation.

They are not all as comprehensive in their coverage as the Commonwealth Fund, as the diagram below summarises.

Figure 12: Comparison of International benchmarks



OTHER BENCHMARKS ARE BROADLY CONSISTENT WITH THE COMMONWEALTH FUND REPORTS

Each of these other sources of benchmarking information presents a similar overall picture and indeed they often cite the Commonwealth Fund reports.

For example, the WHO[66] summarised their view in 2019: *"The United Kingdom's health system delivers* ***good health outcomes relative to the level of health expenditure and the scale of income inequalities****."* This is consistent with the findings of the Commonwealth Fund and of this report. In the UK, two highly respected sources are the Nuffield Trust and the Kings Fund. Both of these cite[67] the Commonwealth Fund benchmarks (as well as the raw data from OECD etc).

The one exception that we have found – benchmarks which are uniformly critical of the NHS – are those produced by 'think tanks' within the market fundamentalist network based in Tufton Street[68]. These 'think tanks' have an ideological commitment to reducing the role of the state as the solution to every problem – for example, the UK's housing problems, they say, could be solved if only the state permitted the development of more slums[69]. For this reason, we do not consider their output equivalent to that of the other sources listed above and have not relied on it in this report.

[66] (WHO: European Observatory on Health Systems and Policies, 2019)
[67] (Morris, 2018) (Ham, 2011)
[68] (Knox, 2022) (Niemetz, 2016)
[69] (Clifford, 2015)

THE PRE-UNDERFUNDED NHS HAS REGULARLY BEEN THE BEST SYSTEM IN THE DEVELOPED WORLD

The NHS was, until recently, consistently regarded as the best health service in the world. Here is the summary of the 2017 report, with data from 2015-6, which showed that despite serious slippage the NHS remained the best system overall[70].

Figure 13: Commonwealth Fund summary from 2017 report

Health Care System Performance Rankings

	AUS	CAN	FRA	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
OVERALL RANKING	2	9	10	8	3	4	4	6	6	1	11
Care Process	2	6	9	8	4	3	10	11	7	1	5
Access	4	10	9	2	1	7	5	6	8	3	11
Administrative Efficiency	1	6	11	6	9	2	4	5	8	3	10
Equity	7	9	10	6	2	8	5	3	4	1	11
Health Care Outcomes	1	9	5	8	6	7	3	2	4	10	11

Source: Commonwealth Fund analysis

Far more impressive, however, is the ranking given to the NHS in their 2014 report[71]. In the Commonwealth Fund's report (the data for which related to 2010 to 2013), the NHS was ranked first in most of the domains and had the second lowest expenditure per capita. This is a picture of the NHS before the underfunding described in Appendix 3 had significantly eroded its performance

[70] (Commonwealth Fund, 2017)
[71] (Commonwealth Fund, 2014)

Figure 14: Commonwealth Fund summary from 2014 report

EXHIBIT ES-1. OVERALL RANKING

COUNTRY RANKINGS

Top 2*
Middle
Bottom 2*

	AUS	CAN	FRA	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
OVERALL RANKING (2013)	4	10	9	5	5	7	7	3	2	1	11
Quality Care	2	9	8	7	5	4	11	10	3	1	5
Effective Care	4	7	9	6	5	2	11	10	8	1	3
Safe Care	3	10	2	6	7	9	11	5	4	1	7
Coordinated Care	4	8	9	10	5	2	7	11	3	1	6
Patient-Centered Care	5	8	10	7	3	6	11	9	2	1	4
Access	8	9	11	2	4	7	6	4	2	1	9
Cost-Related Problem	9	5	10	4	8	6	3	1	7	1	11
Timeliness of Care	6	11	10	4	2	7	8	9	1	3	5
Efficiency	4	10	8	9	7	3	4	2	6	1	11
Equity	5	9	7	4	8	10	6	1	2	2	11
Healthy Lives	4	8	1	7	5	9	6	2	3	10	11
Health Expenditures/Capita, 2011**	$3,800	$4,522	$4,118	$4,495	$5,099	$3,182	$5,669	$3,925	$5,643	$3,405	$8,508

Notes: *Includes ties. **Expenditures shown in $US PPP (purchasing power parity): Australian $ data are from 2010.

Source: Calculated by The Commonwealth Fund based on 2011 International Health Policy Survey of Sicker Adults: 2012 International Health Policy Survey of Primary Care Physicians: 2013 International Health Policy Survey: Commonwealth Fund *National Scorecare 2011:* World Health Organization: and Organization for Economic Cooperation and Development, *OECD Health Data, 2013 (Paris: OECD, Nov.2013)*

In the latest report, unfortunately, the NHS lost its world-leading position – it is now ranked only fourth[72] out of 11 developed countries. The UK's drop in rankings from first to fourth in 2021 was associated with lower performance on several of the domains used by the Commonwealth Fund; for example access to care and equity. The countries now leading the UK in the global rankings do not score more highly than the UK across all domains; however, since the previous report, the UK's scores have reduced across all domains.

Appendix 3 shows how the decline in NHS performance since 2014 and its toppling from first place in the global rankings correlate with reduced year-on-year funding.

CONCLUSION

The NHS has regularly been the best performing system in the world. There is no evidence of a cheaper system being able to provide world-class healthcare outcome. Calls for a fundamental shift to a different model are not supported by the evidence – indeed the evidence suggests that any such change would worsen efficiency and equity (and unless funding increased dramatically, effectiveness too).

[72] (Commonwealth fund, 2021)

APPENDIX 3: BENCHMARKING DEVELOPED HEALTHCARE SYSTEMS FUNDING

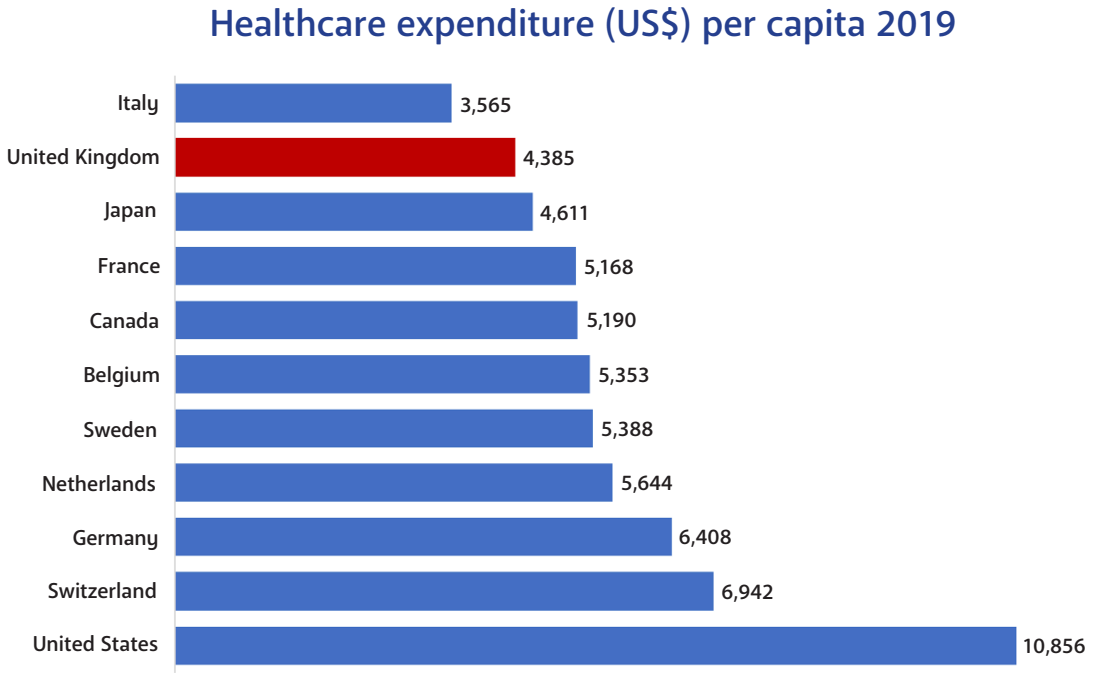
This Appendix examines how healthcare spending in the UK compares with other developed countries' healthcare systems prior to the disruptions of the pandemic, and how it has evolved over the past few years. It shows that:

- UK spending is low compared with other developed countries;
- UK spending has been declining as a percentage of GDP and not keeping pace with the demand for healthcare services;
- This underfunding has resulted in a shortfall of resources and falling service levels to patients.

UK SPENDING IS LOW COMPARED WITH OTHER DEVELOPED COUNTRIES

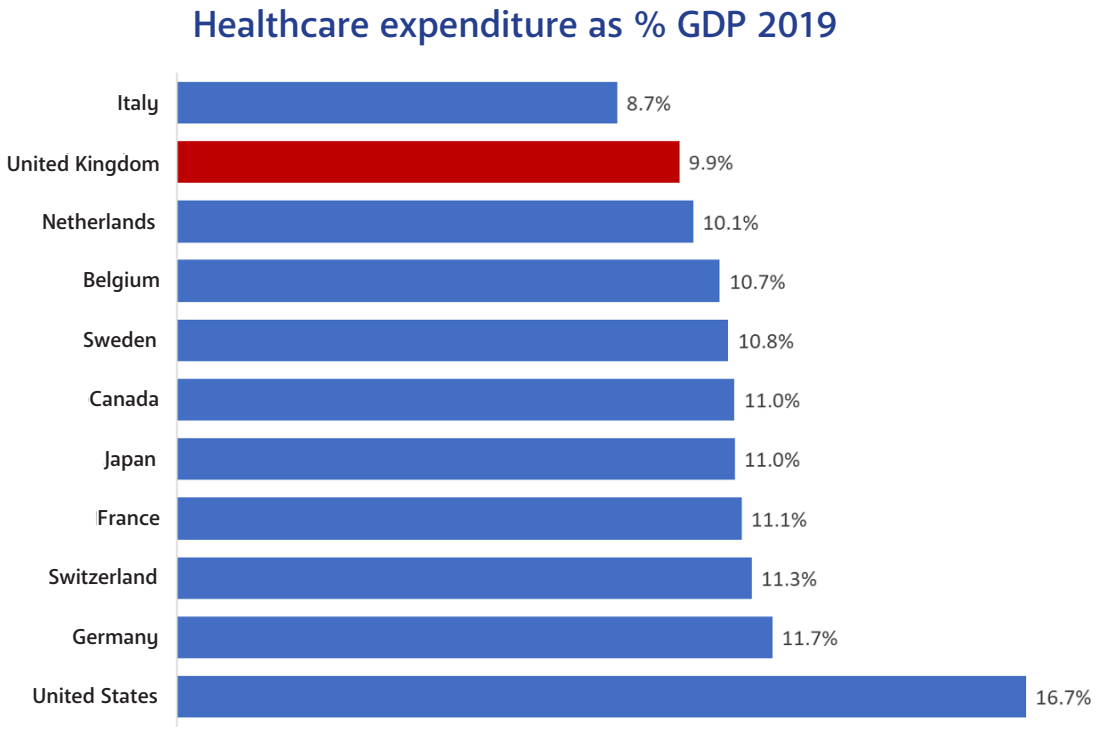
The UK ranked next to bottom amongst G10 countries in 2019 in terms of both healthcare expenditure per capita and as a percentage of GDP.

Figure 15: Healthcare spending in G10 countries



Source: OECD

Figure 16: Healthcare spending:GDP in G10 countries



Source: OECD

As the BMA[73] said, when they looked at the issue in 2019:

> *"The UK spent the least per capita on healthcare in 2017 compared with all other countries studied (UK $3825 (£2972; €3392); mean $5700), and spending was growing at slightly lower levels (0.02% of gross domestic product in the previous four years, compared with a mean of 0.07%)."*

UK SPENDING HAS BEEN DECLINING AS A SHARE OF GDP

How healthcare expenditure in the UK has changed over time to arrive at this situation is revealing. Healthcare costs in almost all countries increase to keep up with inflation, population growth and the increasing health needs of an ageing demographic; and there is additional need for resources to improve the quality of care and health outcomes, adopt new treatments and healthcare technologies, improve patient pathways and meet public expectations. Most countries spend a gradually increasing percentage of GDP on the health of their citizens.

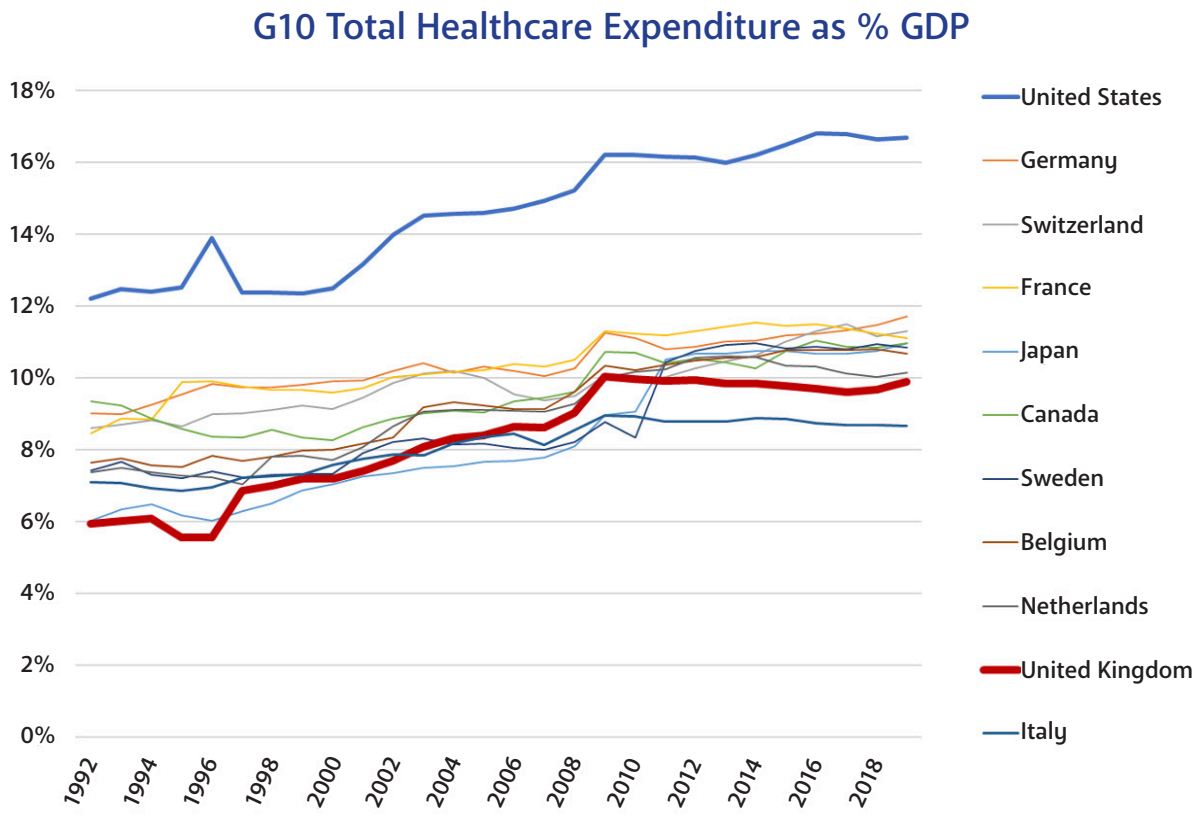
In the UK, spending growth has been far from uniform over time. UK healthcare expenditure increased by an average of 2.1% from 1980 to 1997,

[73] (Papanicolas, Mossialos, Gundersen, Woskie, & Jha, 2019)

"followed by 13 years of much higher growth, averaging 5.7% a year between 1997/98 and 2009/10. But in the decade leading up to the pandemic, real-terms spending increases per head averaged just 0.4% a year and included four years in which spending per head actually fell. This has been a period of stagnation in terms of the resources available to the NHS to fund improvements in health care quality, or to expand its horizons of what it is possible to do for patients."[74]

Comparing healthcare expenditure as a % of GDP also shows starkly how the UK's relative position has declined since 2010; the UK is one of only three G10 countries where this was less in 2019 than 2010.

Figure 17: Trends in Healthcare spending by country



Source: OECD

Analysis by The Health Foundation[75] states that

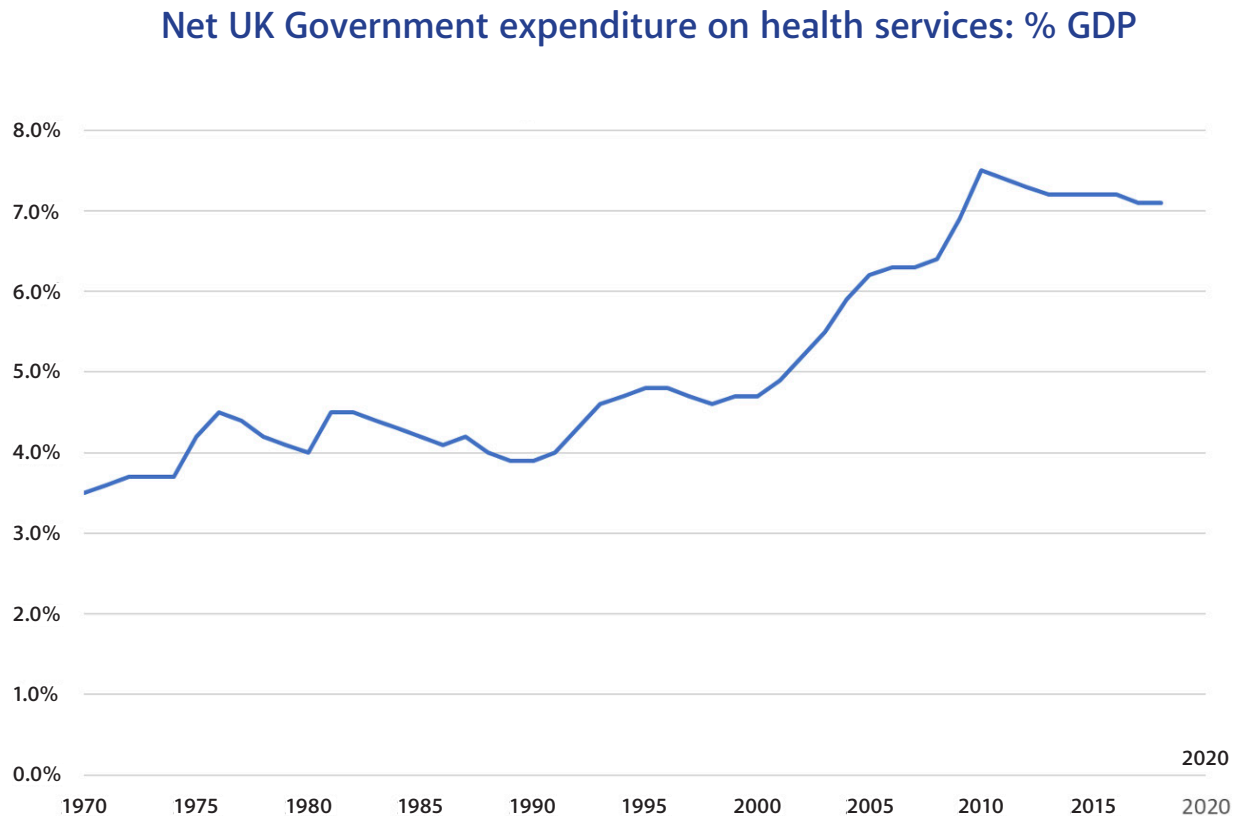
"if UK spending per person had matched the average across the EU14 during the decade, then UK total spending per year would have averaged £227bn between 2010 and 2019 – £40bn higher than actual average annual spending. Matching spending per head to France or Germany would have led to an additional £40bn and £73bn (21% to 39% increase respectively) of total health spending each year".

[74] (Appleby & Gainsbury, 2022)
[75] (Rebolledo & Charlesworth, 2022)

(It is interesting to note that the increased expenditure on the NHS of £350m per week promised by the Leave campaign in the EU membership referendum in 2016 would equate to £18.2bn per annum towards this funding.)

Unsurprisingly, net UK Government spending on healthcare as % GDP also reflects this (Government funding accounts for about 80% of total healthcare expenditure in the UK).

Figure 18: Spending on Healthcare by UK Government



Source: House of Commons Library

The average annual changes in per capita healthcare spending (adjusted for population and demographic factors) during the periods of office of Governments since 1979[76] are as follows.

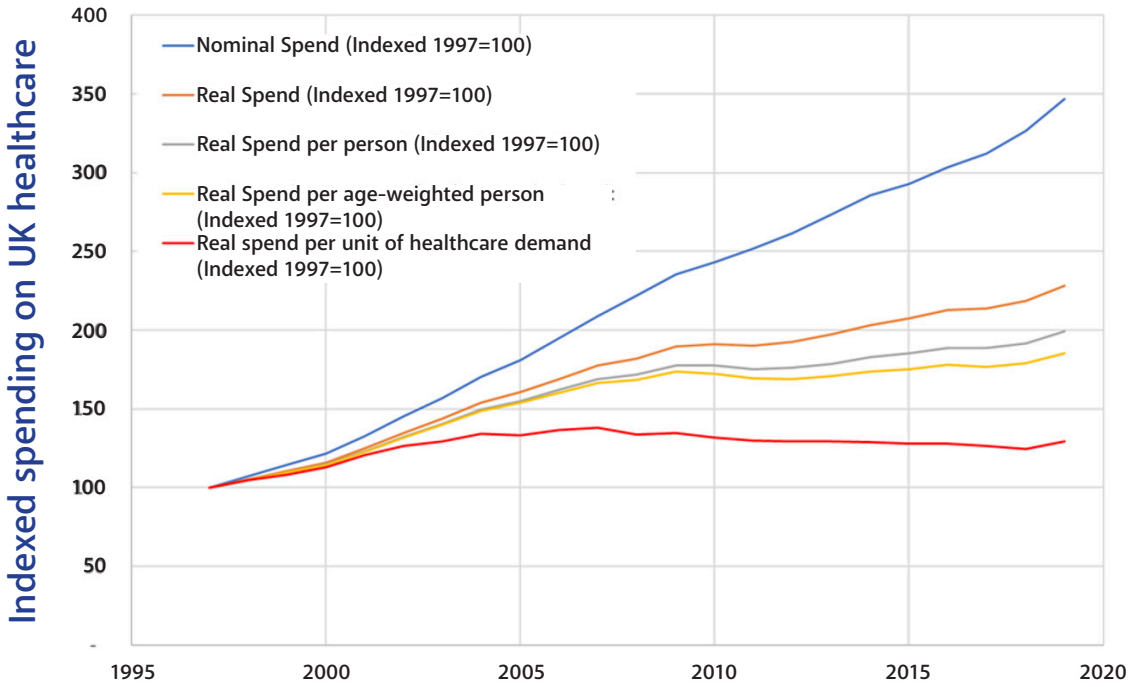
Figure 19: Change in spending by UK Administration

Time period	Political party	Average annual change in per capita health spending (adjusted)
1979–1997	Conservatives	+2.03%
1997–2010	Labour	+5.67%
2010–2015	Con/Lib coalition	-0.07%
2015–2021	Conservatives	-0.03%
2021–2024	Conservatives – committed spend	+2.05%

[76] (Appleby & Gainsbury, 2022)

These levels of funding have not been enough to meet the needs of a growing and aging population with increasing morbidity. In terms of spending per unit of workload, NHS funding has been falling since 2009.

Figure 20: Spending on the NHS compared with need over time



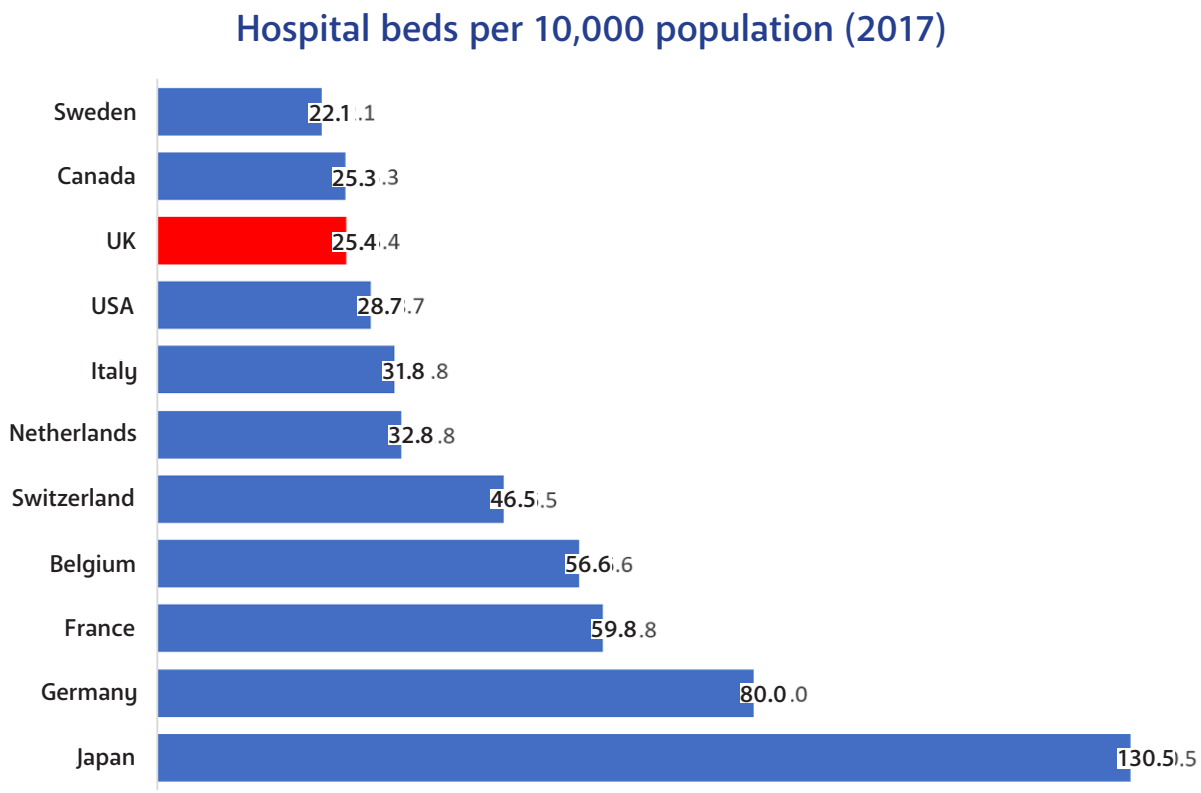
Source: ONS, OBR, NHS Digital; 99% analysis

THIS HAS RESULTED IN A SHORTFALL OF RESOURCES AND FALLING SERVICE LEVELS TO PATIENTS

The effect of this reduced funding on NHS performance has been significant. As resources fall behind, so do service levels and outcomes.

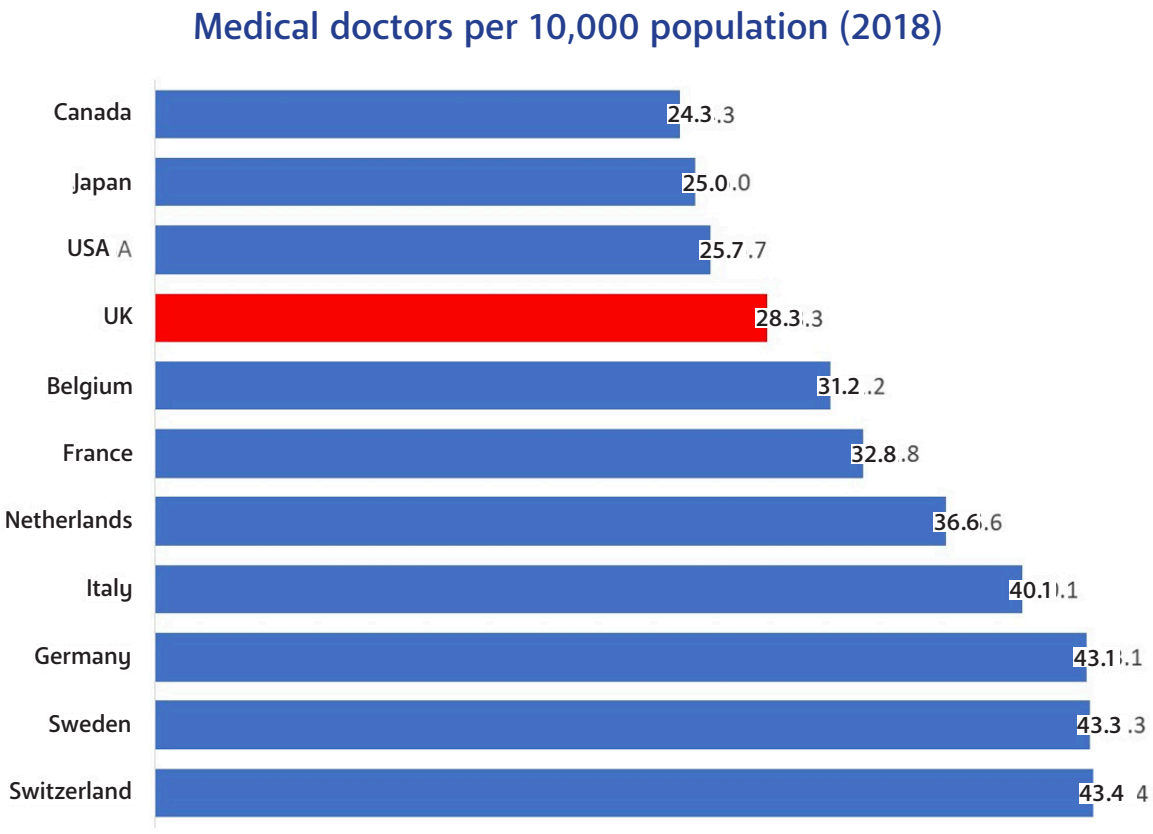
The number of hospital beds and medical doctors per head of population is now towards the lower end of the G10 group (although differences in countries' health systems mean that this is not necessarily directly proportional to healthcare funding).

Figure 21: Comparative provision of hospital beds



Source: WHO

Figure 22: Comparative provision of Doctors



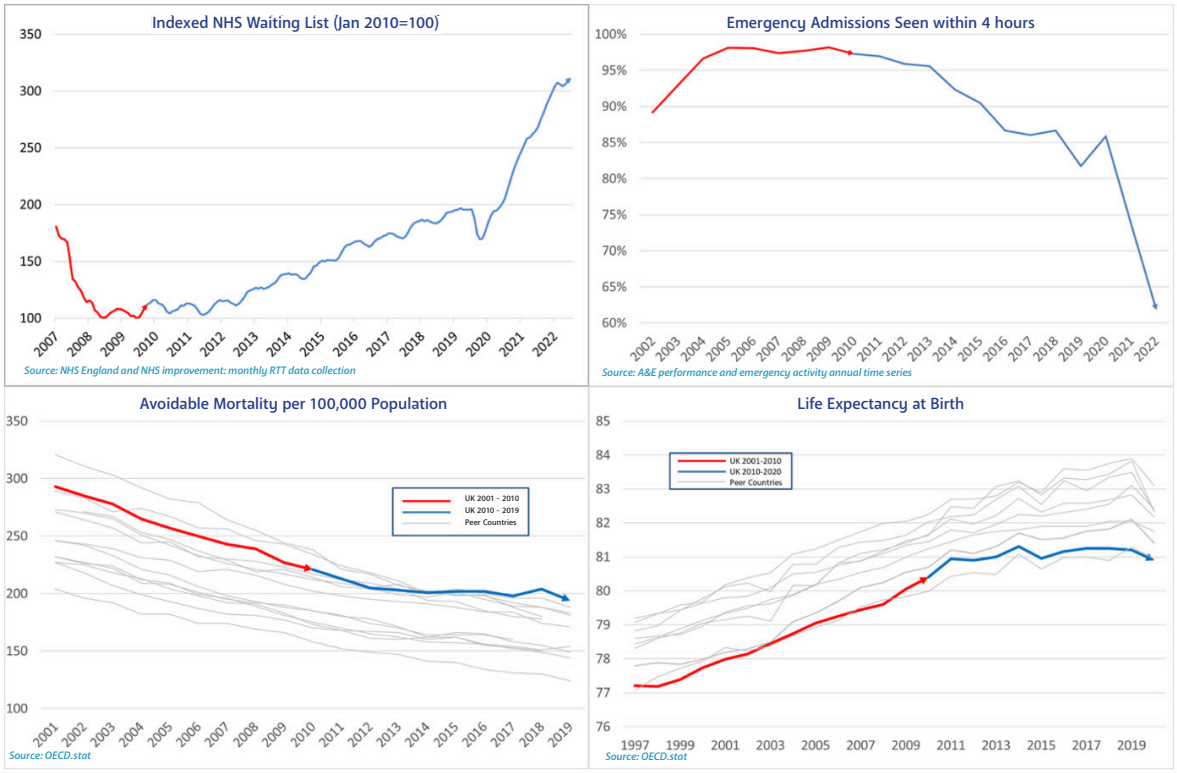
Source: WHO

Unsurprisingly, the availability of resources directly affects the quality of service provided to the public.

The increased NHS funding by the 1997-2010 Labour Government through the NHS Plan 2000 and the success of the 18-week Referral-to-Treatment initiative 2005 – 2009 resulted in very significant reductions in the NHS waiting list and also in the times patients had to wait for treatment (which has a direct impact on patients' health, and also reflects the effectiveness of the flow through the health system).

The stagnation in NHS funding since 2010 has resulted in these gains being lost; and the waiting list in England reached 7.2 million in December 2022, which is the largest figure since the NHS was established in 1948.

Figure 23: Trends in performance levels and health outcomes



Our outcomes – relative to our peer countries – have also worsened over this period.

The effect of the pandemic is clear in the charts above – and so is the pre-pandemic effect on NHS performance of this sustained underfunding.

CONCLUSION

The evidence is clear: the UK has been underfunding the NHS for the past 13 years. This is true whether one looks at international comparisons, at the spending trends pre- and post-2010, or at the fundamental drivers of healthcare demand.

The impact of this underfunding is also clear: it has reduced ability of the NHS to meet the needs of the public.

APPENDIX 4: MODEL STRUCTURE AND RESULTS

This Appendix summarises:

- **The nature and purpose of the model** – it is a model which enables policy-makers to base their decisions on a sound understanding of the interactions between the healthcare system and the wider economy;
- **The structure of and assumptions behind the model** – the most critical assumptions in the model relate to policy decisions on funding, poverty reduction and prevention;
- **The conclusions we can draw from the model** – without a healthcare system which provides good health outcomes, the UK economy would fail.

THE NATURE AND PURPOSE OF THE MODEL

The model we developed is a system dynamics **model of the interactions between the healthcare system and the wider economy**. To model these interactions effectively, it is important to be clear about the scope of the model.

It should neither attempt to be a complete model of the economy, nor a detailed model of the healthcare system. A complete model of the economy would need to include, for example, a complete analysis of the UK's productivity slump – something that no economist has yet managed to achieve. A detailed model of the healthcare system would be unimaginably complex and probably impossible to build.

What the model must do instead is to enable us to look at certain policies – especially those to do with the funding of and load on the healthcare system – and **understand the implications of those decisions on the economy.**

The model looks forward, but it is not a predictive model of the economy. As Simon Wren-Lewis, Oxford Professor of Economics puts it[77]:

"Macroeconomic forecasts produced with macroeconomic models tend to be little better than intelligent guesswork. That is not an opinion – it is a fact. It is a fact because for decades, many reputable and long-standing model-based forecasters have looked at their past errors, and this is what they find."

Instead, what the model does is to enable us to answer questions like: *if all other factors affecting productivity were constant and we decided to fund Healthcare at a given rate, what impact would that have on the economy?* It is, in other words, **a policy-analysis model.**

[77] (Wren-Lewis, 2014)

THE STRUCTURE OF AND ASSUMPTIONS BEHIND THE MODEL

The fundamental assumptions underlying the model are that the healthcare system is universal: access is not determined by personal finances or ability to secure insurance – this assumption is critical if the system is to score well on equity. The healthcare system is, however, limited by physical capacity. The population can be simplified into Young and Adult (<70) and Elderly (>70) for the purposes of modelling the costs of healthcare: the OBR data[78] on healthcare costs by age suggest that this is reasonable. There is always a cause of death, either illness or injury: nobody dies in perfect health. We further assume that funding determines capacity, capacity determines treatments given, age and poverty determine morbidity[79] and policy choices determine both healthcare funding and poverty levels. All figures are real (i.e. inflation-adjusted), not nominal.

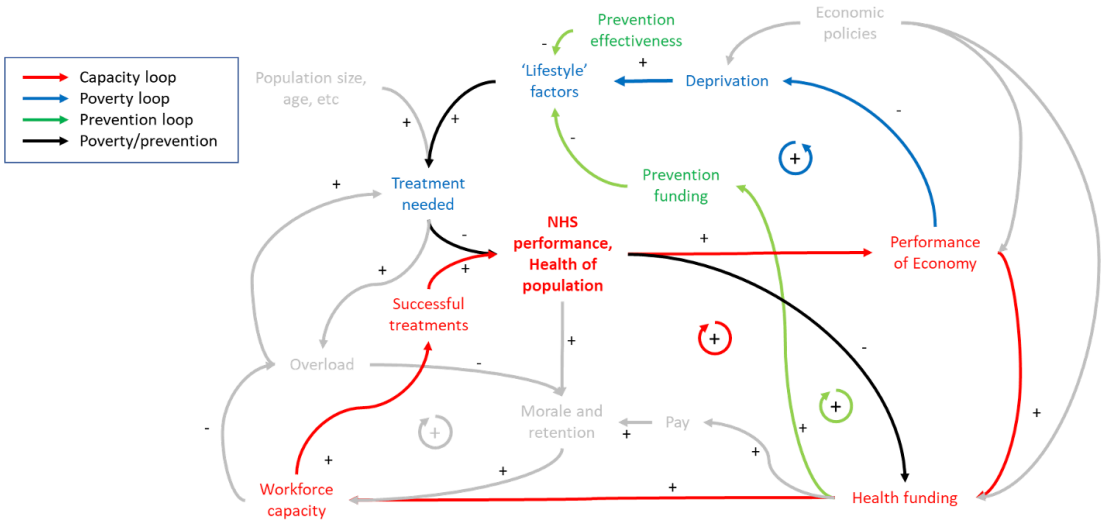
There are two more detailed sets of assumptions:

- **Initial conditions** such as the size and composition of the population at the start of the modelling period – these are things for which reliable data can be obtained;
- **Rules for determining** the state of the world at some point in time (t_n) given the state at the previous point in time (t_{n-1}). These rules are of three types:
    - **Facts of life:** For example, the number of healthy people at any time is equal to the number of healthy people in the previous period, plus the net number of healthy additions to the population,plus the number of ill people recovering, minus the number injured or falling ill;
    - **Policy choices:** For example, the policy determining the rate of spending in period t_n could be driven by the number of unhealthy people in period t_{n-1} (or it could be driven by a policy of reducing healthcare spending each period, or a variety of other policy options);
    - **Exogenous variables:** For example, the underlying rate of productivity growth in the economy.

The structure of the model is a subset of the structure shown in the diagram below (the coloured parts are modelled).

[78] (Office for Budget Responsibility, 2022)
[79] (Barnett, et al., 2012)

Figure 24: Structure of the model



The natural reaction of many people on seeing a diagram like this is to shake their heads in disgust, and say, *I can't begin to understand that.* At one level, they are right: the human mind cannot grasp all the implications of such a model (rather as in physics, we cannot comprehend the three-body problem,[80] and nor is there a simple mathematical solution to it). But the reality does not change simply because our minds cannot fully comprehend it. A rational policy-maker cannot afford to take this natural view, and in the modern world, they do not need to.

All of the arrows in the diagram represent real-world cause-effect relationships, but **only those in the three loops above** have been modelled. In particular, the overload loop has not been modelled – and that could make the effects of underfunding even more severe than the model shows. These are the three looping chains of cause and effect set out in Section 5:

- **Chain 1: the Capacity Loop :**
  - Economic output enables economic decisions to fund;
  - Funding drives capacity to treat;
  - Capacity to treat (staff, hospital beds, etc) drives treatment provided;
  - Treatment provided drives rates of recovery and hence number of healthy people – a huge number of working age adults are currently unable to work due to ill-health;
  - Number of healthy people of working age drives economic output;

- **Chain 2: the Poverty Loop:**
  - Economic output enables economic decisions to address poverty;
  - Poverty drives morbidity;
  - Morbidity drives demand for treatment;
  - Excess demand causes untreated illness;
  - Untreated illness drives (negatively) number of healthy people;
  - Reduced number of healthy people of working age decreases economic output;

- **Chain 3: the Prevention Loop**
  - Spending on prevention reduces illness;
  - Reduced illness reduces need to treat;
  - Reduced need to treat reduces funding requirement for treatment capacity;
  - Reduced funding requirements make facilitates adequate spending.

[80](Wikipedia, 2023)

These chains allow us to determine the effect of policy decisions on funding a restoration of capacity, and also in relation to poverty reduction and spending on prevention.

KEY RESULTS FROM THE MODEL

Looking first at the funding issue, we have **modelled three possible policy options.** The first two are intended to capture the UK government's revealed[81] (though not avowed) policy of reducing the expenditure on healthcare as a percentage of GDP, described in Appendix 3. Of course, spending cannot be reduced to zero, so we have taken two variants as options 1 and 2 as extreme points between which current government policy is likely to lie; option 3 is an alternative, which a new government might like to compare:

1. **Continue with the reduction in spending** on healthcare as a percentage of GDP until it has reached 6%;

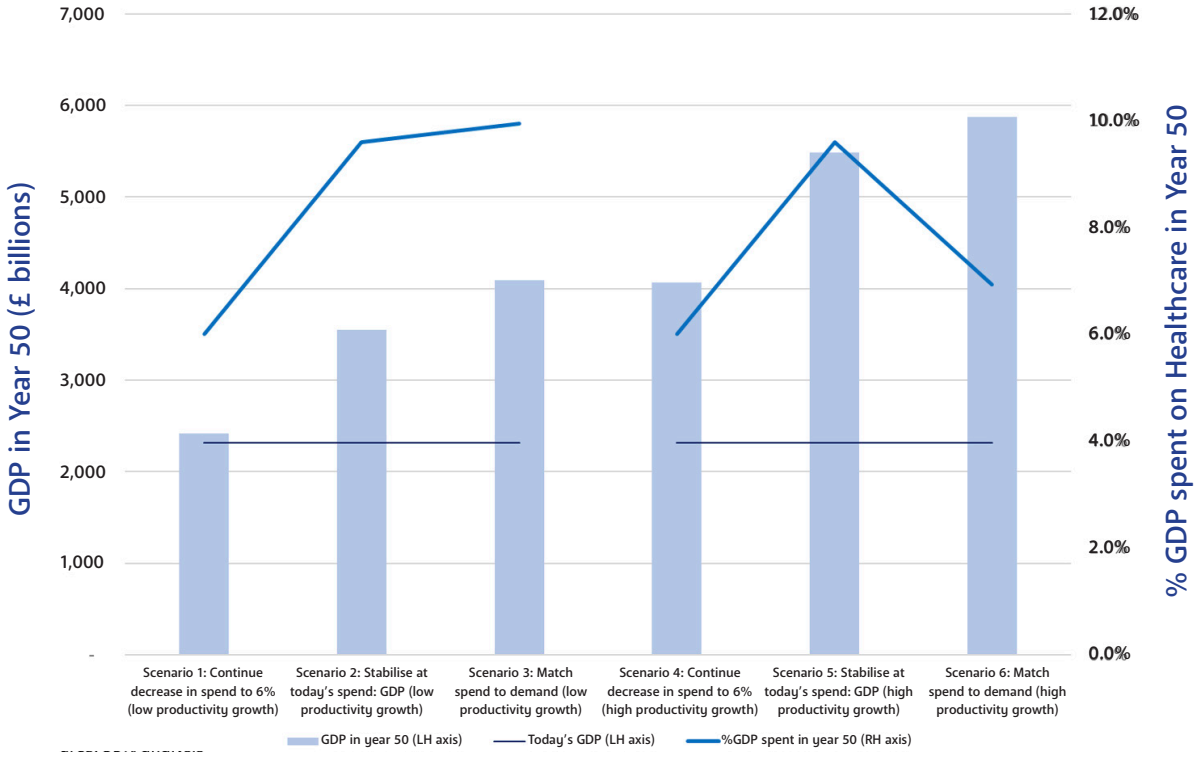
2. **Fix spending at current levels;**

3. **Adjust spend to ensure capacity meets need.**

As GDP growth is largely determined by underlying productivity growth in the economy, which itself has many causes, we have modelled each of these policy choices both in a low-productivity scenario (which reflects the last 12 years and the OECD's long-term forecast for UK GDP growth[82]) and in a higher-productivity scenario (which the UK experienced leading up to the Global Financial Crisis). The results are summarised below.

[81] See Appendix 3 for details of the reduction since 2010.
[82] (OECD, 2023)

Figure 25: Comparison of different scenarios



Source: 99% analysis

It is clear from the chart (Figure 25) that the worst policy choice would be to attempt to continue with the reduction in spend on GDP regardless of its impact on the health of the nation. In the low productivity economy, this would mean that growth would be very close to zero over the next 50 years. This is because it results in ballooning waiting lists and unhealthy people dropping out of the workforce altogether or remaining in it but being less productive. UK health would be so poor that population would actually decline under this scenario. **In short, this is not a credible policy option** (though it has been the apparent policy since 2010).

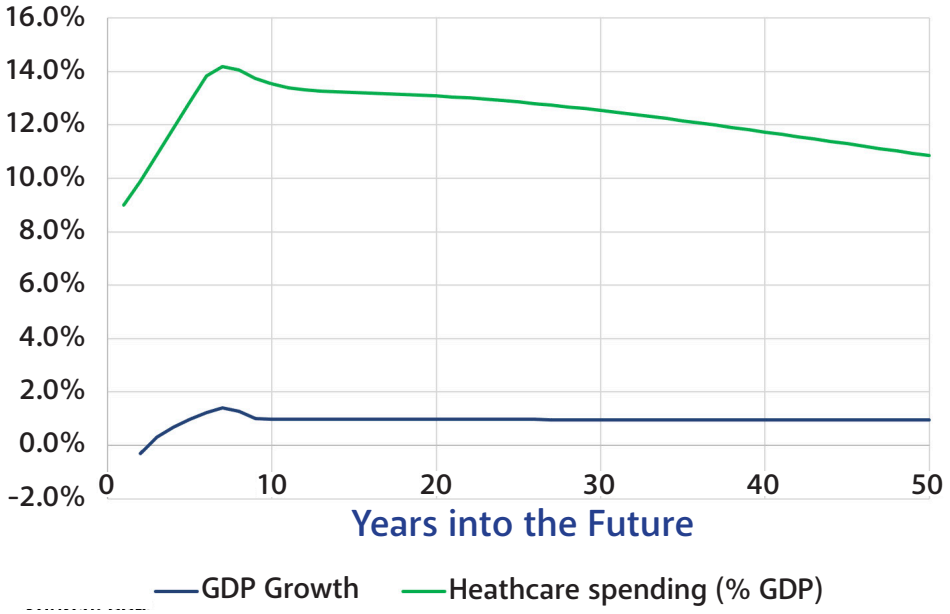
The option of **stabilising NHS expenditure at the current percentage of GDP** is vastly better, but still far from optimal. Under this option, the economy would reach over £3 trillion by year 50. But from the perspective of UK citizens it is still disastrous: waiting lists would not clear and the personal and economic cost would be very high.

The policy option that produces the **best results** is to adjust **NHS spending in line with need.** In the low productivity case, it takes only five years to clear the backlog, and this means both significantly greater economic output and – more importantly – it prevents an explosion in ill-health.

All of these results, of course, look far better in the high productivity scenarios, but the policy conclusion remains the same. Furthermore, since we have not modelled the overload loop, the model results almost certainly flatter the first two policy options, possibly very considerably.

One reason that policy makers may fear to choose the best option is a perception that it would require an explosion in healthcare costs. This is an unfounded fear: it would indeed require a large short-term increase in spending, rather like the spending increases the last Labour government had to enact to rebuild the NHS after 1997, but spending will stabilise and then decline over time (in percentage terms). The graph below shows total UK healthcare spend, of which around one quarter is private sector spend (i.e. spend which does not go through the NHS), so expenditure on the NHS alone could be expected to rise sharply from around 8% of GDP today[83] to around 11% and decline back towards 8% of GDP over time.

Figure 26: Alternative scenario without added prevention and poverty elimination policies



Source: 99%

Note: This scenario assumes: 1) that NHS spending is adjusted to meet need; 2) that only 0.1% of GDP is spent on prevention and 3) that there are no effective poverty reduction policies in place

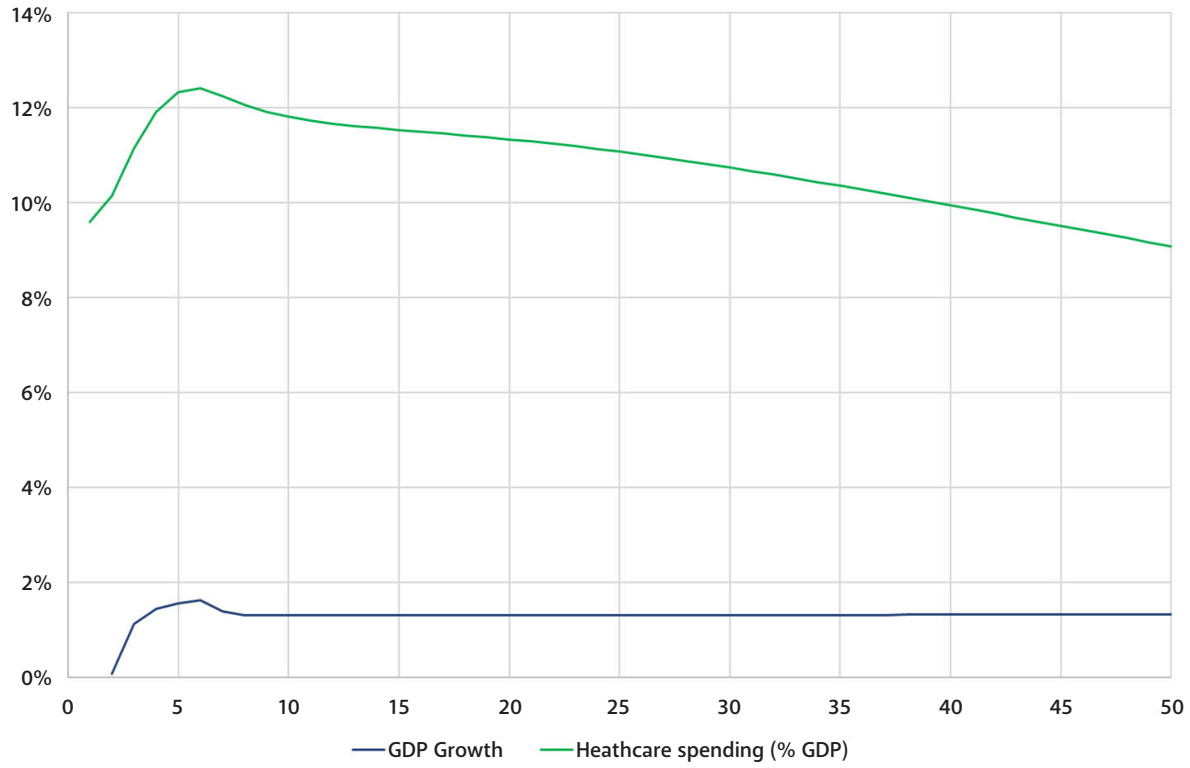
Moving on to look at poverty, and again taking *Scenario 3: Match spend to demand (assuming low productivity growth)* as the base, we can see the economic and health impacts of different poverty reduction policies. We have modelled a situation where, with zero growth, there would be a gradual increase of 0.5% in the poverty rate, but policy choices determine how growth in the economy is used to reduce poverty (or not).

[83] (Burn-Murdoch, 2022)

The difference between a policy of poverty reduction and one which allows poverty to rise makes a difference of around £400 billion in GDP or 10% of the total. The impact on ill-health is even greater. The same policy changes can produce an additional 4 million unwell people – almost 20% of the total.

Finally, the model shows that, again under *Scenario 3: Match spend to demand (assuming low productivity growth)*, preventive spending can significantly but not dramatically reduce the need for healthcare spending on treatment. In year 50, the total cost of healthcare spending is around 9% of GDP vs almost 11% in the previous chart.

Figure 27: Alternative scenario with added prevention and poverty elimination policies



Note: This scenario assumes: 1) that NHS spending is adjusted to meet need; 2) that there is increased spending on prevention; and 3) that there are effective poverty reduction policies in place which, over time, reduce socially-determined morbidity

CONCLUSION

In short, our analysis shows that despite the inherent complexity of considering the UK healthcare system as part of the wider economy, it is not impossible for rational policy-makers to recognise the reality of the interactions and to take them into account. It shows that policy choices on health will have a very material impact on economic growth and that in the low-productivity scenarios, rational health policy is needed to prevent economic disaster.

APPENDIX 5:
PRIVATISATION – NO SILVER BULLET

This appendix shows that, contrary to what some have suggested, there is no evidence that further privatisation, except in very specific circumstances, is likely to improve the performance of the NHS in terms of equity, efficiency or effectiveness. It explains:

- The structure and funding of the NHS;
- The different types of privatisation which are possible and indeed have already been taking place;
- Why further privatisation of the National Health Service (NHS) risks further reducing equity, efficiency, and effectiveness.

HOW THE NHS IS STRUCTURED AND FUNDED

The National Health Service in England is provided by publicly owned NHS Trusts and NHS Foundation Trusts, 'independent' General Practices, Social Enterprises, Private Companies, and Voluntary Sector organisations.

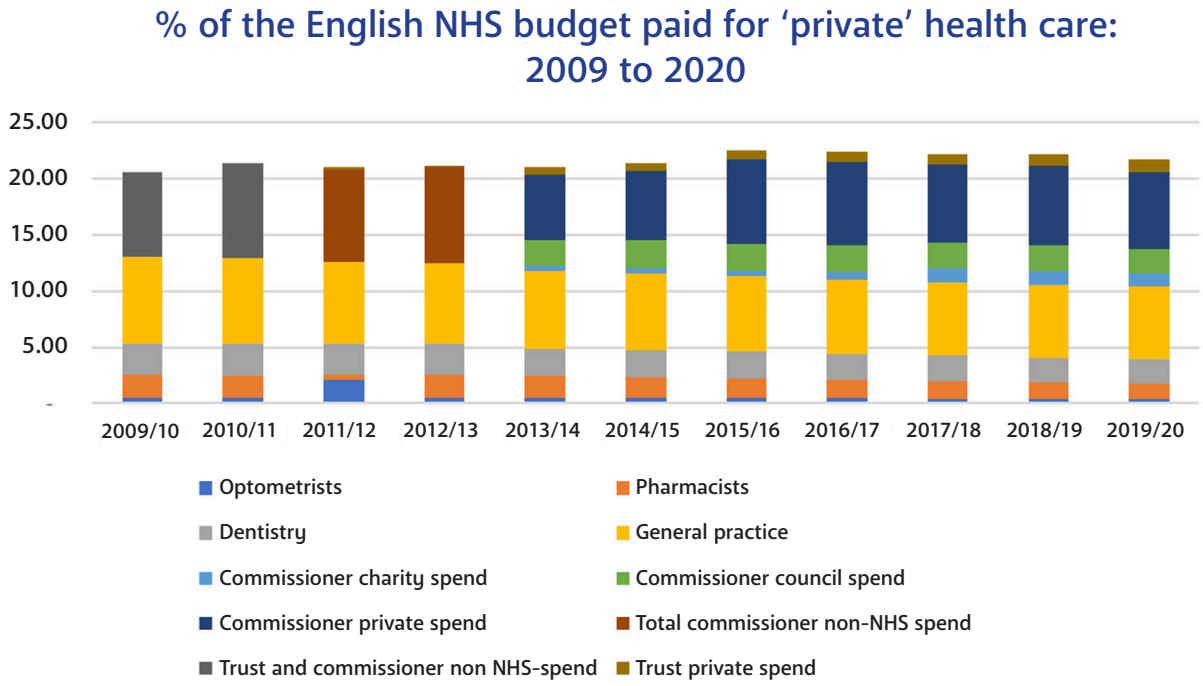
The current disposition of NHS services is an accident of history, evolution, and improvisation, not a national master plan. Nevertheless, by international comparisons[84], the NHS is one of the most cost-effective health services in the world, with some of the lowest management overheads, and, until the last 5 years, outcomes in line with most other developed countries.

Public ownership of the NHS is enacted through contracts issued by 42 Integrated Care Boards (ICBs) on behalf of NHS England, which is an executive non-departmental public body, sponsored by the Department of Health and Social Care. An ICB is a statutory NHS organisation which is responsible for developing a plan for meeting the health needs of the population, managing the NHS budget, and arranging for the provision of health services in a geographical area.

[84] See Appendix 2

78% of the national health budget is spent on acute hospital and mental health services provided by NHS Trusts and NHS Foundation Trusts, which are locally governed, regulated statutory organisations. A further 10% is spent on primary care services which provide the first point of contact in the healthcare system, acting as the 'front door' of the NHS. Primary care includes general practice, community pharmacy, dental, and optometry (eye health) services. General practices (the family doctor service) are officially independent contractors, but they are bound by a national contract, and while they can earn private income, most of their funding is through the public purse. The other primary care providers are mostly private organisations.

Figure 28: Share of NHS Budget going to Private Sector



Source: Dayan M and Buckingham H (2021) "Will the new Health and Care Bill privatise the NHS?", Nuffield Trust.

Based on these official data, the purchase of healthcare from independent sector providers rose from £9.69bn in 2019/20 to £12.17bn in 2020/21, although the percentage of NHS spending with the private sector was 7%, roughly the same as in recent years. The private sector is therefore a marginal provider of NHS services. The majority (including General Practice) is 'mainstream' publicly recognised NHS provision.

Figure 29: NHS England's Purchase of healthcare from non-NHS Providers

	2020-21 £m	2021-22 £m
Independent Sector Providers (Note 1)	12,139	**10,854**
Voluntary sector/Not for profit	1,866	**1,791**
Local authorities	4,312	**4,318**
Devolved Administrations	36	**48**
Other Group Bodies	31	**35**
Total NHSE spend on all non-NHS bodies	18,384	**17,046**
Total RDEL	180,199	**183,774**
Spend with private sector as a % of total RDEL	7%	**6%**
Spend on all non-NHS bodies as a % of total RDEL	**10%**	**9%**

Source: Department of Health and Social Care Annual Report and Accounts 2021-22 (For the period ended 31 March 2022)

These official figures have, however, been contested, and it is possible that up to 25% of NHS spend is already[85] going to the private sector.

WHAT DOES 'PRIVATISATION' OF THE NHS MEAN?

The World Health Organisation[86] defines privatisation as: *"a process in which non-governmental actors become increasingly involved in the financing and/or provision of healthcare services."* There are at least four distinct ways[87] of privatising the NHS, only one of which has not happened:

1. Squeezing out.
2. Throwing out.
3. Contracting out.
4. Big sell-off.

Squeezing out is when the capacity of the NHS is reduced to well below demand, forcing patients who can afford it to turn to the private sector. The current waiting list is estimated at over 7 million, with most access targets missed, including the 2-week wait for a referral to a specialist for suspected cancer. Part of this is a legacy of the pandemic, but even before 2020 the NHS waiting list stood at over 5 million because of sustained underfunding[88].

[85] (Rowland, 2019)
[86] (Muschell, 1995)
[87] (Thomas M. E., Four Ways to Privatise the NHS, 2021)
[88] See Appendix 3

Longer NHS waiting times are creating a market demand for unproven and potentially harmful therapies in the UK. The harm caused can include physical, psychological and financial harm. As an example, many private clinics are offering so-called "regenerative medicine" or "stem cell" therapies for a variety of conditions, and are particularly targeting patients with orthopaedic conditions. A recent article by orthopaedic surgeons[89] highlights the problem and indicates the range of side effects that patients can experience. Some patients have experienced serious adverse events following the administration of such therapies, including life threatening blood clots . Unfortunately, when patients are harmed, it is generally the NHS that has to step in to remedy the situation, creating an additional burden on already over-stretched services.

Throwing out is when the government removes treatments from NHS coverage. When the NHS was founded and until 1989, opticians' services were covered for everyone. Now, most people pay for their own glasses and contact lenses. This has also happened with prescriptions, over-the-counter medicines, and certain minor surgical procedures.

More recently the government contract for dental services has forced many dentists to offer only private treatment, leading to a scarcity of NHS dentistry. A recent report[90] indicates that less than half of children in England have access to an NHS dentist. In some parts of the country, termed dental deserts[91], there is almost no chance of seeing an NHS dentist . This has led to significant health inequalities in dental care. For instance, in 2018-19, the number of children attending hospital for carious tooth extractions was more than three-fold higher (per 100,000 population) in the most deprived compared to the least deprived groups[92]. In 2015-16, tooth extractions that were mostly for preventable tooth decay in children ages 0-19 cost the NHS about £50.5 million. The negative impact on wellbeing resulting from poor access to dental care, accompanied with the huge and unnecessary costs of treating preventable tooth decay, should serve as a warning of what is likely to happen to other NHS services with increasing levels of privatisation.

Contracting out is when we *can* still get a service free from the NHS, but the service is provided privately. Some ambulance services are now private, the plasma resources[93] element of the blood transfusion service, even dialling 111 may connect you to a private sector employee. For patients, this is less serious than a squeeze-out or a throw-out, but it could result in one of these if the provider finds the service insufficiently profitable.

[89] (Murray, et al., 2020)
[90] (NHS Digital, 2022)
[91] (Association of Dental Groups, 2022)
[92] (Public Health England, 2021)
[93] (Department of Health & Social Care, 2013)

For example, several years ago a private company, Circle, took over the management of Hinchingbrooke Hospital but exited the contract early when it was unable to make a profit. Recently private hospital providers, including Circle, have called for an increase in the NHS Tariff, or they will stop providing additional capacity to the NHS to help reduce waiting lists. This is the same tariff that NHS providers must work with – without the benefit of cream-skimming[94].

The Big Sell-Off. The extreme case of the big sell-off would be for the government to turn the NHS into a limited company and then auction it in a single large transaction. This has not happened and is unlikely to happen.

It would be possible to have everything the NHS does delivered by the private sector but still claim (as the government does) that *"the NHS is not and never will be for sale to the private sector."* The NHS would be reduced to a brand, sitting on top of a network of private sector providers.

Presumably, it is the big sell-off that the government is referring to when it makes its claim that it has no intention of privatising the NHS.

[94] See Definitions

WHY PRIVATISATION OF THE NHS CAN LEAD TO LOWER EQUITY, EFFICIENCY AND EFFECTIVENESS

Lower **equity** results from:

- **Uneven access to care:** Privatisation leads to inequitable access to healthcare services, where those who can afford to pay for private healthcare services receive faster or higher-quality care, while those who cannot afford private healthcare face longer waiting times and reduced access to certain services. This results in health inequalities and worse health outcomes for vulnerable populations.

- **Focus on profitable services:** In a privatised system, private companies may prioritise profitable services over unprofitable services, leading to a reduction in services that are less financially viable but essential for public health, preventive care, or care for rare or complex conditions. This results in a narrow focus on profitable services rather than addressing the comprehensive healthcare needs of the population.

Lower **efficiency** can result from:

- **Administrative costs:** Privatisation introduces additional administrative costs such as marketing, billing, and profit margins that are not present in a publicly-funded system like the NHS. These administrative costs divert resources away from direct patient care and reduce overall efficiency.

- **Fragmentation and lack of coordination:** Privatisation results in a fragmented healthcare system with multiple private providers, each with its own administrative processes, systems, and priorities. This lack of coordination and standardisation leads to inefficiencies, duplication of services, and difficulties in managing and coordinating patient care across different providers. This can result in increased administrative burden, delays in care, and poorer patient outcomes.

In terms of quantitative analysis of the impact of these factors, the BMJ recently carried out an investigation[95] into the use of private hospitals during the height of the COVID pandemic and found that the taxpayer had received very poor value for money.

[95](Oxford, 2023)

The Public Accounts Committee was also unconvinced by the suggestion that the solution to the NHS backlogs was increased use of the private sector. It recommended[96] that,

"Alongside its Treasury Minute response to this report, [NHSE] should write to us more fully describing the real-world impact of community diagnostic centres, surgical hubs, increased use of the independent sector, and the advice and guidance programme. It should set out its understanding of the extent to which these initiatives have so far generated genuinely additional activity, rather than simply displacing activity elsewhere in the NHS."

Reduced **effectiveness** can result from:

- **Profit motive:** Private companies are legally obliged to run the business in the interests of "all members" i.e. shareholders[97], which means that their primary goal is to generate revenue and maximise profits. When applied to healthcare, this can result in prioritising profit over patient care, leading to decisions that may not always be in the best interest of patients. For example, the Circle Healthcare episode at Hinchingbrooke, described above. Private companies may also cut corners on staffing levels, wages, or quality of equipment and supplies to reduce costs and increase profits, which can ultimately compromise the quality and safety of patient care.

- **Loss of public accountability and transparency:** Privatisation reduces the level of public accountability and transparency in healthcare services. Private companies may not be subject to the same level of scrutiny and regulation as public entities, which can lead to reduced transparency in reporting on quality and safety data, pricing, and performance metrics. This makes it difficult for patients and the public to assess the performance and effectiveness of private healthcare providers and may result in reduced overall quality of care.

- **Focus on profitable services:** In a privatised system, private companies will attempt to prioritise profitable services over unprofitable services, leading to a reduction in services that are less financially viable but essential for public health, preventive care, or care for rare or complex conditions. This results in a narrow focus on profitable services rather than addressing the comprehensive healthcare needs of the population. It also opens the possibility of cream-skimming[98], leaving the NHS with the most difficult and expensive cases and reducing its apparent efficiency.

[96](House of Commons Committee of Public Accounts, 2023)
[97](Wikipedia, 2023) (Barker, 2019)
[98]See Definitions

- **Risk and Patient Safety:** Urgent, Emergency and Intensive Care are very expensive to run and are only found in NHS hospitals. Private hospitals cherry-pick the easier, lower risk, and more profitable elective procedures. If complications arise following elective treatment in a private hospital, the patient is taken by ambulance to an NHS hospital.

In terms of quantitative analysis of the impact of these factors, the Lancet last year carried an analysis[99] that showed a correlation between increased privatisation and higher mortality.

CONCLUSION

"Overall, the privatisation of the NHS can introduce profit motives, administrative costs, fragmentation, reduced public accountability, and other challenges that can lead to lower equity, efficiency, and effectiveness of healthcare services, compromising patient care and outcomes.

In non-clinical areas of the UK's healthcare system, relations between the private sector and the NHS, for example NHS procurement of drugs from private sector manufacturers, must be properly governed and regulated. GPs have historically been independent contractors who overwhelmingly only work for the NHS and follow national standards – problems have arisen when they have been part of corporate entities.

The evidence shows that privatisation of clinical services leads to reductions in equity, in efficiency and, most importantly, in effectiveness."

[99](Goodair & Reeves, 2022)

APPENDIX 6: AFFORDABILITY

The claim that *"policy x, however desirable it might be, is simply unaffordable"* is one which is so rhetorically powerful that it acts as a block to many sound policies. And this includes taking a rational approach to the funding of the NHS.

So this appendix briefly sets out what economists have known for at least 80 years: that governments which issue their own currency can afford to do anything for which the physical resources are available to supply the goods and services in question. In other words: *where there is a will, there is a way.* And governments have found it whenever they were determined to do so.

THE VIEW FROM THE 1940S

After Churchill's famous "we shall never surrender" speech[100], there was little discussion about whether the UK could afford to fund going to war: the question was how to pay for it. And this question was addressed by John Maynard Keynes[101] in 1940. Keynes tackled not just what he showed was the relatively simple question of where the money could come from but also the thornier one of what physical resources needed to be dedicated to the war effort. He went further: he showed that he could

> *... snatch from the exigency of war positive social improvements ... an advance towards social economic equality greater than any we have made in recent times.*

Keynes explained his approach more simply in 1942[102]:

> *Assuredly we can afford this and much more.* ***Anything we can actually do, we can afford.*** *Once done, it is there. Nothing can take it from us.* ***We are immeasurably richer than our predecessors. Is it not evident that some sophistry, some fallacy, governs our collective action if we are forced to be so much meaner than they in the embellishments of life?***

[100] (Churchill, 1940)
[101] (Keynes, How to Pay for the War, 1940)
[102] (Keynes, We Can Afford This, 1942)

Some people reacted to this by claiming that if the government were to spend more than it raised in taxes, disaster would inevitably follow. The national debt would balloon, and the interest on that debt would then grow to the point where it would stifle economic growth. In 1943, the economist Abba Lerner published his classic paper, *Functional Finance*[103], which explained Keynes's points in more detail, but still (for an economics paper) clearly and simply. In it he sets out why, even if deficit spending were used to boost economic growth:

- The national debt does ***not*** have to keep on increasing;
- Even if the national debt ***did*** grow, the interest on it would ***not*** have to be raised out of current taxes;
- Even if the interest on the debt ***were*** raised out of current taxes, these taxes would constitute only a fraction of the benefit enjoyed from the government spending, and would not in any case be lost to the nation but merely transferred from taxpayers to bond-holders;
- High income taxes would ***not*** discourage investment because appropriate deductions for losses would diminish the capital actually risked by the investor in the same proportion as his net income from the investment was reduced.

In 1942, the National Government of Great Britain commissioned Sir William Beveridge, the Director of the London School of Economics, to produce a report[104] on the reconstruction of Britain after the war ended. Beveridge's report set out a blueprint for a better, fairer, more prosperous society, which would reward the nation for the shared sacrifices during the war. Specifically, Beveridge aimed to free Britain from what he called Five Giants:

- Want [poverty],
- Disease,
- Ignorance,
- Squalor and
- Idleness [unemployment].

The report was published in November 1942, and was overwhelmingly popular with the public.

[103] (Lerner, 1943)
[104] (Beveridge, 1942)

After the war, Attlee's government would have had plenty of excuses for non-delivery: at the end of the Second World War, Government debt to GDP stood at over 250%; the cost of servicing that debt was over 5% of GDP; more than half of national income had been diverted to the war effort and over 5 million people mobilised into the Armed Forces; some 5% of national wealth been destroyed, and 1% of the population lost (and the equivalent figures were even worse in some other countries).

Nevertheless, in 1948, at a time when the ratio of government debt to GDP was still over 200%, Attlee's government founded the NHS. Also in 1948, it passed the National Assistance Act, which abolished the poor law system and established a social safety net to protect the poorest and most vulnerable, completing the work of the National Insurance Act of 1946.

The social contract in the UK was transformed. Everyone, whatever their background and current financial state had access to high-quality healthcare. Everyone had access to a safety net for times when things in their lives went wrong. Everyone played a part in building this new world.

And the UK economy benefited hugely: the Golden Age of Capitalism was the most successful period[105] *in the UK's economic history.*

THE 21ST CENTURY VIEW

The 21st century view has been far more ambiguous. For most of the time, politicians have ostensibly retreated into the pre-Keynesian view that governments should run like households and seek to 'balance their books.' And most of the media have tended to endorse this fallacy[106].

But when it was obviously necessary to act to save the economy, for example after the Global Financial Crisis or during the height of the pandemic when much of the economy had to be shut down, governments suddenly remembered that they have the extraordinary power to create money.

After the Global Financial Crisis, the government – via the Bank of England's Quantitative Easing programme – created around £445 billion[107] of new money to prevent a collapse in the banking system.

During COVID, the government created around £450 billion more to prevent a collapse in household finances when people would otherwise have had no income.

[105] (Thomas M. E., 99%: Mass Impoverishment and How We Can End It, 2019)
[106] (Thomas M. E., 2020)
[107] (Murphy, The history and significance of QE in the UK, 2020)

In total, during the 21st century, the government has created £895 billion[108] of new money – *when it had the will to do so.*

And the view from economists is supportive. The argument for government spending to pay for healthcare, save businesses from bankruptcy, create new jobs, and prevent a climate apocalypse has been made by the proponents of Modern Monetary Theory, for example Stephanie Kelton in her book *The Deficit Myth*[109]. This book explains in detail how money is created and shows that the idea that governments should – or even responsibly could – budget in the same way as a normal household is no more than (admittedly compelling) rhetoric. Richard Murphy[110] has explained how, specifically, the NHS can be funded without harming government finances or triggering inflation.

For non-economists, the argument that a currency issuing government can afford to invest wisely, even when the national debt is at 100% of GDP or more is set out simply in Chapter 12 of Mark Thomas's book, *99%: Mass Impoverishment and How We Can End It*[111] .

But politicians and the media have – by and large – reverted to the notion that the government finances constitute a brake on what can be done for the public good. And our government continues to rein-in public spending even though it is clear that most public services are struggling badly.

Why do we accept such a defeatist mindset today? One reason may be that the national mood was very different in the post-war period from today. As Margaret McMillan, Professor of International History at Oxford University, explained[112];

"The shared suffering and sacrifice of the war years strengthened the belief in most democracies that governments had an obligation to provide basic care for all citizens."

That shared suffering and sacrifice may have been necessary to win the war. And as evolutionary biologists David Sloan Wilson and Edward O Wilson[113] put it,

"*Selfishness beats altruism within groups. Altruistic groups beat selfish groups. Everything else is commentary."*

[108] (Bank of England, 2023)
[109] (Kelton, 2020)
[110] (Murphy, The NHS funding crisis and how to solve it, 2023)
[111] (Thomas M. E., 99%: Mass Impoverishment and How We Can End It, 2019)
[112] (McMillan, 2008)
[113] (Wilson & Wilson, 2007)

Along with a mood of altruism and solidarity, there was one of hope. After six hard years, during the early part of which defeat seemed inevitable, the UK and its allies had emerged victorious. Even more than is usual after a war, the victors felt that good had triumphed over evil. Yes, there was a challenging task of reconstruction – but that was nothing compared with the challenges of the war itself. The national mood then was one of hope and solidarity.

That all seems a long time ago. The Global Financial Crisis (GFC) and the subsequent Great Recession have affected the national mood. Many people now expect the next generation to be worse off than the last, and although this outcome is not inevitable, their fears are not without reason[114].

The official response to the GFC has had two main planks: Quantitative Easing and Austerity. The benefits of QE went disproportionately to the top 5%[115]; while the costs of austerity were felt mainly at the bottom. There is no sense of shared sacrifice, but an increasing tendency to blame. We blame the baby-boomers; we blame Generation X. We blame the unemployed; we blame the elite. We blame immigrants; we blame native British. This has weakened the sense of solidarity within society. The national mood today is one of fear and isolation.

The *Zeitgeist* today is the opposite of the post-war national mood. And that affects our priorities. If I feel isolated and fearful, my main concern is to protect myself and my family; if I feel hopeful and part of a cohesive group, I want to work to create an attractive future for the whole group. It is that *Zeitgeist,* not any economic limitation, which prevents us from investing in our shared future.

But the national mood can change: all that is required is leadership.

[114] (Thomas M. E., 99%: Mass Impoverishment and How We Can End It, 2019)
[115] (Islam F. , 2012)

CONCLUSION

There is no question that the UK economy is larger today than it was in 2010 (in terms of real per capita GDP): we are therefore richer than we were then. As Keynes points out, it is evident that there must be some fallacy or sophistry involved in claiming that what was affordable then – an NHS whose costs are in line with those of other developed countries – has by some mysterious and never-explained process become unaffordable today.

As Keynes pointed out, anything we can actually do, we can afford. The caveat is important: the fact that we ***can*** afford them does not mean that we can actually do them. Governments can print money instantly; they cannot train doctors and nurses instantly. The physical shortage of resources ***does*** place a brake on the rate of progress – which is why our model does not assume an instant addition of enough resources to clear the backlog – but lack of money does not.

In the past, rational policy-makers – Keynes, Beveridge, and Attlee – showed that it was affordable, in ***far*** more difficult circumstances than today, to invest in transforming British society. And that investment also had huge economic benefits.

The only obstacle is a lack of will.

APPENDIX 7: SOURCES

Appleby, J., & Gainsbury, S. (2022, 10 17). *The past, present and future of government spending on the NHS.*
Retrieved from https://www.nuffieldtrust.org.uk/:
https://www.nuffieldtrust.org.uk/news-item/the-past-present-and-future-of-government-spending-on-the-nhs

Association of Dental Groups. (2022, 5). England's Dental Deserts: *The urgent need to "level up" access to dentistry.*
Retrieved from https://www.theadg.co.uk/:
https://www.theadg.co.uk/wp-content/uploads/2022/05/ADG-Report_The-urgent-need-to-level-up-access_April-2022_V3.pdf

Baker, C., & Kirk-Wade, E. (2023, 3 13). *Mental health statistics: prevalence, services and funding in England.*
Retrieved from https://researchbriefings.files.parliament.uk/:
https://researchbriefings.files.parliament.uk/documents/SN06988/SN06988.pdf

Bank of England. (2023, 5 3). *Quantitative easing.*
Retrieved from https://www.bankofengland.co.uk/:
https://www.bankofengland.co.uk/monetary-policy/quantitative-easing

Barker, R. (2019, 2 21). *Duties of a Company Director.*
Retrieved from https://companieshouse.blog.gov.uk/:
https://companieshouse.blog.gov.uk/2019/02/21/7-duties-of-a-company-director/

Barnett, K., Mercer, S. W., Norbury, M., Watt, G., Wyke , S., & Guthrie, B. (2012, 5 12). *Epidemiology of multimorbidity and implications for health.*
Retrieved from https://www.thelancet.com/:
https://www.thelancet.com/action/showPdf?pii=S0140-6736%2812%2960240-2

BBC. (2023, 1 15). Keir Starmer: The NHS must reform to survive.
Retrieved from https://www.bbc.co.uk/:
https://www.bbc.co.uk/news/uk-64279654

Beveridge, W. (1942, 11). *1942 Beveridge Report.*
Retrieved from https://www.parliament.uk/:
https://www.parliament.uk/about/living-heritage/transformingsociety/livinglearning/coll-9-health1/coll-9-health/

BMA. (2023, 4 23). *NHS medical staffing data analysis.*
Retrieved from https://www.bma.org.uk/:
https://www.bma.org.uk/advice-and-support/nhs-delivery-and-workforce/workforce/nhs-medical-staffing-data-analysis

Burn-Murdoch, J. (2022, 12 23). *Britain's winter of discontent is the inevitable result of austerity.*
Retrieved from https://www.ft.com/:
https://www.ft.com/content/b2154c20-c9d0-4209-9a47-95d114d31f2b

Campbell, D. (2022, 9 1). *NHS vacancies in England at 'staggering' new high as almost 10% of posts empty.*
Retrieved from https://www.theguardian.com/:
https://www.theguardian.com/society/2022/sep/01/nhs-vacancies-in-england-at-staggering-new-high-as-almost-10-of-posts-empty

CF. (2022). *The link between investing in health and economic growth.* London: NHS Confederation.

Churchill, W. (1940, 6 4). *WAR SITUATION.*
Retrieved from https://api.parliament.uk/:
https://api.parliament.uk/historic-hansard/commons/1940/jun/04/war-situation

Clifford, T. (2015, 8 5). *BRITAIN NEEDS MORE SLUMS.*
Retrieved from https://www.adamsmith.org/:
https://www.adamsmith.org/blog/planning-transport/britain-needs-more-slums/

Commonwealth Fund. (2014, 6). *MIRROR, MIRROR ON THE WALL.*
Retrieved from https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_fund_report_2014_jun_1755_davis_mirror_mirror_2014.pdf:
https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_fund_report_2014_jun_1755_davis_mirror_mirror_2014.pdf

Commonwealth Fund. (2017, 7). *Mirror, Mirror 2017: International Comparison Reflects Flaws and Opportunities for Better U.S. Health Care.*
Retrieved from https://www.commonwealthfund.org/:
https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_fund_report_2017_jul_pdf_schneider_mirror_mirror_exhibits.pdf

Commonwealth fund. (2021, 8 4). *Mirror, Mirror 2021: Reflecting Poorly.*
Retrieved from https://www.commonwealthfund.org/:
https://www.commonwealthfund.org/publications/fund-reports/2021/aug/mirror-mirror-2021-reflecting-poorly

Department of Health & Social Care. (2013, 7 19). *Minister welcomes Bain Capital buying majority stake in PRUK.*
Retrieved from https://www.gov.uk/:
https://www.gov.uk/government/news/minister-welcomes-bain-capital-buying-majority-stake-in-pruk

Freeman, G., & Hughes, J. (2010). *Continuity of care and the Patient Experience.*
Retrieved from https://www.kingsfund.org.uk/:
https://www.kingsfund.org.uk/sites/default/files/field/field_document/continuity-care-patient-experience-gp-inquiry-research-paper-mar11.pdf

Freer , B., Jacobs, M., & Jaitly, S. (2018, 11 21). *The global consolidation wave in 5 charts.* Retrieved from https://www.capitalgroup.com/: https://www.capitalgroup.com/advisor/insights/articles/global-consolidation-5-charts.html

Gabriele, E. (2017). Re-Evaluating The Keynesian Multiplier: Critiques And Evidence From Europe. *Center for Relationship Banking and Economics Working Paper Series*, WP 21.

Gartside, B., & Gye, H. (2022, 6 23). *Rishi Sunak met private US social care firms to discuss 'opportunities' in the UK.* Retrieved from https://inews.co.uk/: https://inews.co.uk/news/politics/rishi-sunak-met-private-us-healthcare-firms-uk-social-care-market-health-nhs-1702556

Gill, B. (2021, 7 14). *Bob Gill describes how an admired public health service is secretly being changed to for-profit American-style "managed care."* . Retrieved from https://consortiumnews.com/: https://consortiumnews.com/2021/07/14/sicko-uk/

Goodair, B., & Reeves, A. (2022). Outsourcing health-care services to the private sector and treatable mortality rates in England, 2013–20: an observational study of NHS privatisation. *The Lancet Public Health 2022,* e638-e646.

Gove, M., Hunt, J., Kwarteng, K., Hannan, D., & Norman, J. (2005, 7 6). *DIRECT DEMOCRACY: An Agenda for a New Model Party*. Retrieved from https://whatwouldvirchowdo.files.wordpress.com/: https://whatwouldvirchowdo.files.wordpress.com/2015/09/direct_democracy___an_agenda_for_a_new_model_party.pdf

Gutteridge, N. (2022, 12 15). *Health insurance should be considered to help pay for NHS, says Sajid Javid.* Retrieved from https://www.telegraph.co.uk/: https://www.telegraph.co.uk/politics/2022/12/15/health-insurance-should-considered-help-pay-nhs-says-sajid-javid/

Ham, C. (2011, 11 15). *Commonwealth Fund survey: if the NHS is doing well, why is it changing?* Retrieved from https://www.kingsfund.org.uk/: https://www.kingsfund.org.uk/blog/2011/11/commonwealth-fund-survey-if-nhs-doing-well-why-it-changing

Himmelstein, D. U., Lawless, R. M., Thorne, D., Foohey, P., & Woolhandler, S. (2019). Medical Bankruptcy: Still Common Despite the Affordable Care Act. *American Journal of Public Health 109, no. 3, 431-433.*

House of Commons Committee of Public Accounts. (2023, 2 2). *Managing NHS backlogs and waiting times in England.* Retrieved from https://committees.parliament.uk/: https://committees.parliament.uk/publications/34131/documents/187908/default/

IPPR Commission on Health and Prosperity. (2023). *HEALTHY PEOPLE, PROSPEROUS LIVES.* London: IPPR.

Islam, F. (2012, 8 23). *Bank of England: QE makes the wealthy even wealthier.* Retrieved from https://www.channel4.com/: https://www.channel4.com/news/by/faisal-islam/blogs/bank-of-england-qe-makes-the-wealthy-even-wealthier

Islam, M. S. (2018). Treat Patient not just the disease. *Oncology Reviews*, 12(2):374.

Javid, S. (2021, 10 5). *Sajid Javid's speech to conservative party conference.* Retrieved from https://www.conservatives.com/news/2021/sajid-javid-s-speech-to-conservative-party-conference: https://www.conservatives.com/news/2021/sajid-javid-s-speech-to-conservative-party-conference

Javid, S. (2023, 1 20). *We need to agree a new NHS future or 1948 dream dies.* Retrieved from https://www.thetimes.co.uk/: https://www.thetimes.co.uk/article/sajid-javid-times-health-commission-we-need-to-agree-a-new-nhs-future-or-1948-dream-dies-2qp28b7d5

Kelton, S. (2020). *The Deficit Myth.* London: John Murray.

Keynes, J. M. (1940). *How to Pay for the War*. London: Macmillan.

Keynes, J. M. (1942). *We Can Afford This.* Retrieved from https://www.lrb.co.uk/blog/: https://www.lrb.co.uk/blog/2019/november/we-can-afford-this

Kirkpatrick, I., & Malby, B. (2022, 1 24). *Is the NHS overmanaged?* Retrieved from https://www.nhsconfed.org/: https://www.nhsconfed.org/long-reads/nhs-overmanaged

Knox, T. (2022, 4). *International Health Care Outcomes Index 2022.* Retrieved from https://www.civitas.org.uk/: https://www.civitas.org.uk/content/files/International-Health-Care-Outcomes-Index-FINAL.pdf

Lerner, A. (1943). Functional Finance. *Social Research*, Vol 10, No. 1 pp38-51.

Marmot, M. (2010). *Fair society, healthy lives : the Marmot Review : strategic review of health inequalities in England post-2010.*

Marmot, M., Allen, J., Boyce, T., Goldblatt, P., & Morrison, J. (2020). *HEALTH EQUITY IN ENGLAND: THE MARMOT REVIEW 10 YEARS ON.* London: Institute of Health Equity.

McKinsey Global Institute. (2016, 7). *POORER THAN THEIR PARENTS?* Retrieved from www.mckinsey.com: www.mckinsey.com/global-themes/employment-and-growth/poorer-than-their-parents-a-new-perspective-on-income-inequality

McMillan, M. (2008, 9 11). *Rebuilding the World after the Second World War.* Retrieved from https://www.theguardian.com: https://www.theguardian.com/world/2009/sep/11/second-world-war-rebuilding

Morris, J. (2018, 7 31). *International comparisons of healthcare quality.* Retrieved from https://www.nuffieldtrust.org.uk/: https://www.nuffieldtrust.org.uk/news-item/international-comparisons-of-healthcare-quality

Mulcahy, A. W., Whaley, C., Gizaw, M., Schwam, D., Edenfield, N., & Becerra-Ornelas, A. U. (2021). *International Prescription Drug Price Comparisons.* Retrieved from https://aspe.hhs.gov/: https://aspe.hhs.gov/sites/default/files/documents/ca08ebf0d93dbc0faf270f35bbecf28b/international-prescription-drug-price-comparisons.pdf

Murphy, R. (2020, 11 22). *The history and significance of QE in the UK.* Retrieved from https://www.taxresearch.org.uk/: https://www.taxresearch.org.uk/Blog/2020/11/22/the-history-and-significance-of-qe-in-the-uk/

Murphy, R. (2023, 1). *The NHS funding crisis and how to solve it.* Retrieved from https://www.taxresearch.org.uk/: https://www.taxresearch.org.uk/Blog/wp-content/uploads/2023/01/FFTF-NHS-funding-1-23.pdf

Murray, I. R., Chahla, J., Frank, R. M., Piuzzi, N. S., Mandelbaum, B. R., & Dragoo, J. L. (2020). *Rogue stem cell clinics.* Retrieved from https://pubmed.ncbi.nlm.nih.gov/: https://pubmed.ncbi.nlm.nih.gov/32009438/

Muschell, J. (1995). *Privatization in health.* Retrieved from https://apps.who.int/: https://apps.who.int/iris/handle/10665/58523

NHS Digital. (2022, 2 24). *NHS Dental Statistics for England, 2021-22, Biannual Report.* Retrieved from https://digital.nhs.uk/: https://digital.nhs.uk/data-and-information/publications/statistical/nhs-dental-statistics/2021-22-biannual-report

NICE. (2023, 4 29). *NICE.* Retrieved from https://www.nice.org.uk/: https://www.nice.org.uk/

Niemetz, K. (2016). *Universal healthcare without the NHS. London: IEA.* Retrieved from https://iea.org.uk/publications/universal-healthcare-without-the-nhs/: https://iea.org.uk/publications/universal-healthcare-without-the-nhs/

Nuffield Trust. (2022, 12 31). *General practice.* Retrieved from https://www.nuffieldtrust.org.uk/: https://www.nuffieldtrust.org.uk/nhs-staffing-tracker/general-practice

OECD. (2023, 4 12). *GDP long-term forecast.*
Retrieved from https://data.oecd.org/gdp/gdp-long-term-forecast.htm:
https://data.oecd.org/gdp/gdp-long-term-forecast.htm

OECD. (2023, 5 24). *Health expenditure and financing.*
Retrieved from https://stats.oecd.org/:
https://stats.oecd.org/#

OECD. (2023, 3 27). *Income inequality.*
Retrieved from https://data.oecd.org/:
https://data.oecd.org/inequality/income-inequality.htm

Office for Budget Responsibility. (2022, 7). *July 2022 Fiscal Risks and Sustainabilty report.*
Retrieved from https://view.officeapps.live.com/op/:
https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fobr.uk%2Fdocs%2Fdlm_uploads%2Fchapter_4_charts_and_tables_FRS_July_2022.xlsx&wdOrigin=BROWSELINK

Office for National Statistics. (2023 , 3 27). *Home People, population and community Personal and household finances Income and wealth Average household income, UK.*
Retrieved from https://www.ons.gov.uk/:
https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/householddisposableincomeandinequality/financialyearending2022/previous/

Oxford, E. (2023). The NHS paid private hospitals £2bn in the pandemic: did taxpayers. *BMJ,* 380 p329.

Papanicolas, I., Mossialos, E., Gundersen , A., Woskie, L., & Jha, A. K. (2019). Performance of UK National Health Service compared with other high income countries: observational study. *British Medical Journal,* 367.

Parris, M. (2018, 7 7).
Retrieved from https://www.thetimes.co.uk/:
https://www.thetimes.co.uk/article/nhs-guarantees-second-rate-healthcare-3kjnrspml

Public Health England. (2021, 3 19). *Inequalities in oral health in England: summary.*
Retrieved from https://www.gov.uk/:
https://www.gov.uk/government/publications/inequalities-in-oral-health-in-england/inequalities-in-oral-health-in-england-summary

Rebolledo, I., & Charlesworth, A. (2022, 11 16). *How does UK health spending compare across Europe over the past decade?*
Retrieved from https://www.health.org.uk/:
https://www.health.org.uk/news-and-comment/charts-and-infographics/how-does-uk-health-spending-compare-across-europe-over-the-past-decade

Rowland, D. (2019, 10 1). *Flawed data? Why NHS spending on the independent sector may actually be much more than 7%.*
Retrieved from https://blogs.lse.ac.uk/:
https://blogs.lse.ac.uk/politicsandpolicy/nhs-spending-on-the-independent-sector/

Schneider, E., Shah, A., Doty, M. M., Tikkanen, R., Fields , K., & Williams, R. D. (2021, 8). *MIRROR, MIRROR 2021.*
Retrieved from https://www.commonwealthfund.org/:
https://www.commonwealthfund.org/sites/default/files/2021-08/Schneider_Mirror_Mirror_2021.pdf

Share, A. (2019, 11 17). *IT IS NOT JUST A MATTER OF MORE MONEY Part Two - NHS- Is the 1948 model fit for 21st Century? No!!!*
Retrieved from https://www.linkedin.com/:
https://www.linkedin.com/pulse/just-matter-more-money-part-two-nhs-victim-its-own-success-share/

Streeting, W. (2022, 9 28). *Streeting announces ten-year plan to make NHS "fit for the future".*
Retrieved from https://labourlist.org/:
https://labourlist.org/2022/09/streeting-announces-ten-year-plan-to-make-nhs-fit-for-the-future/

System Dynamics Society. (2023, 3 6). *SYSTEM DYNAMICS: 60 YEARS OF PROGRESS*
Retrieved from https://systemdynamics.org/:
https://systemdynamics.org/infographic/

The Health Foundation. (2023, 2 23). *Public support for government's handling of the NHS reaches new low, polling finds .*
Retrieved from https://www.health.org.uk/:
https://www.health.org.uk/news-and-comment/news/public-support-for-government-s-handling-of-the-nhs-reaches-new-low

The Lancet. (2021). 50 years of the inverse care law. *The Lancet,* Volume 397, Issue 10276, Page 767.

Thomas, M. E. (2019). *99%: Mass Impoverishment and How We Can End It.* London: Head of Zeus.

Thomas, M. E. (2020, 11 26). *Twaddle and Illiteracy.*
Retrieved from https://99-percent.org/:
https://99-percent.org/twaddle-and-illiteracy/

Thomas, M. E. (2021, 11 24). *Four Ways to Privatise the NHS.*
Retrieved from https://99-percent.org/:
https://99-percent.org/four-ways-to-privatise-the-nhs/

United Nations. (1948, 12 10). *Universal Declaration of Human Rights.* Retrieved from https://www.un.org/en/about-us/universal-declaration-of-human-rights: https://www.un.org/en/about-us/universal-declaration-of-human-rights

WHO: European Observatory on Health Systems and Policies. (2019, 11 14). *United Kingdom: Country Health Profile 2019.* Retrieved from https://eurohealthobservatory.who.int/: https://eurohealthobservatory.who.int/publications/m/united-kingdom-country-health-profile-2019

Wikipedia. (2023, 4 12). *Companies Act 2006.* Retrieved from https://en.wikipedia.org/wiki/Companies_Act_2006: https://en.wikipedia.org/wiki/Companies_Act_2006

Wikipedia. (2023, 5 13). *Three-body Problem.* Retrieved from https://en.wikipedia.org/: https://en.wikipedia.org/wiki/Three-body_problem

Wilson, D. S., & Wilson, E. O. (2007, 12). *Group Selection, A Theory Whose Time Has Come ... Again.* Retrieved from https://www.sciencedaily.com: https://www.sciencedaily.com/releases/2007/11/071128151814.htm

World Health Organisation. (2014). *The case for investing in public health.* Retrieved from https://apps.who.int/: https://apps.who.int/iris/handle/10665/351406

Wren-Lewis, S. (2014, 8 11). *On Macroeconomic Forecasting.* Retrieved from https://mainlymacro.blogspot.com/: https://mainlymacro.blogspot.com/2014/08/on-macroeconomic-forecasting.html

APPENDIX 8: AUTHORS' CREDENTIALS AND ACKNOWLEDGEMENTS

CONTRIBUTING AUTHORS

Name	Professional qualifications and experience	Experience as a citizen
Chris Banks	Chartered Accountant (ICAEW), MSc Business Process Improvement, PG Dip Project Leadership. Formerly: CEO North West Anglia NHS Foundation Trust, CEO NHS Cambridgeshire, Executive Chair East Coast Community Health Services CIC, Chair Health Inclusion Matters CIC (primary care for homeless people), Trustee Arthur Rank Hospice Charity, Non-executive director Phase (Young People's Support) CIC Recently: CEO Tower Hamlets GP Care Group CIC. Currently: Partner Banks Cannell LLP, Non-executive director Gateway Primary Care CIC and Non-executive director Efficiency North Holdings Ltd.	I am developing the odd long-term condition as I age, but they are well managed with the considerable support of an excellent GP and the NHS, and free medication. My wife and three children have all benefited from the NHS, but we use a private dentist because there are no NHS dentists where we live.
David Booth	Strategist, working with organisations including the NHS. Previous experience includes 20 years in business management with United Biscuits, Grand Metropolitan and Smith & Nephew in senior roles across marketing, HR, and strategic development. M.A.(Oxon) in Mathematics. Certified Management Consultant and Fellow of the Strategic Planning Society. Author of 'Strategy Journeys – a guide to effective strategic planning' which was shortlisted for the CMI Management Book of the Year 2018.	Impressed by the dedication of people working in the NHS that I have been privileged to work with. Committed to the principles of a society that prioritises the health and well-being of all its citizens and provides equitable access to high quality healthcare. Three sons working in the NHS or associated organisations.

Nick Butterworth	MA (Cantab) Engineering PhD (Cantab) Modelling Uncertainty Former Bank of England Foreign Exchange Portfolio Manager and Banking Supervisor Former JPMorgan Derivatives Specialist and Investment Director	Two daughters in the NHS: a Clinical Scientist (Radiotherapy Physics) and an FY2 (Second Year Junior Doctor)
John Carlisle	BA (Econ), MSc, D. Univ. Owner of JCP, a consultancy that was the largest provider of construction partnership deliveries in Europe and South Africa (1991- 2002), mainly in the extractive industry. Chair of the Leadership Development Institute at Rhodes University, South Africa. 2001/2 Visiting Professor at the Sheffield Business School from 2006 to 2013. Council Member (Governor) at Newman University, UK Member: Cabinet Office Government Construction Strategy Procurement Commission Author of Beyond Negotiation (1989), introducing collaborative commissioning in industry	Altruistic kidney donor Activist since 2012, working with KONP, SOSNHS, Health Campaigns together to make the economic case for the NHS. Helped finance the NHS film: Groundswell (2018) My daughter is a Senior Nurse Practitioner in Haematology.
Norma Cohen	City College of New York – BA, Political Science 1980 Columbia University Graduate School of Journalism – MSc Journalism 1982 London School of Economics – MSc (Research) Economic History 2015 Queen Mary University of London and Bank of England – Collaborative PhD, awarded April 2020 After graduating from Columbia's Graduate School of Journalism, I joined Reuters in New York, covering capital markets, economic and monetary policy, and several interest rate-sensitive industries.	A dual British/US national Growing up in NYC in public housing, with no access to medical care as a child (my mother took us to the Emergency Room at NYC hospitals when we became really ill) Moved to the UK in the 80s, as Reuters correspondent, encountered the giant of health systems, the NHS

	I was posted to the London bureau in 1986, covering capital markets and regulation. In 1988, I joined the Financial Times in London, covering a variety of financial industries including fund management, pensions, commercial real estate, and stock exchanges. I joined the Economics Team in 2008, taking my pensions coverage with me. I persuaded the FT to create the post of Demography Correspondent for me in 2012.	Amazed at the high-quality pre- and post-natal care I received when I had my babies on the NHS. Had a child with moderate to severe asthma who needed to be hospitalised several times. Realised I could not return to the US because there was no way I could have found affordable, high quality health care in the way that I could in Britain. Remain very grateful to the NHS for helping up to raise two wonderful, healthy children.
Shirin Eghtesadi	MSc. In Control Systems, Imperial College, University of London PhD. In Parallel processing applied to pattern recognition, Kings College University of London IT manager in an international City law firm	NMO patient for the past 23 years, indebted to the NHS and NHS research for my life today. Mother of two brilliant children on the autistic spectrum, who had to be assessed privately because of the 'rationing' of NHS services due to underfunding. Carer and daughter of an elderly patient who died in an under-staffed NHS hospital ward in 2022
Rob Garner	MSC in Organisational Consulting (distinction), University of Middlesex. Diploma in Public Administration, Liverpool University Career in Human Resource Management covering public, private and voluntary sectors culminating in 14 years as Group HR Director at HP Bulmer plc.(FTSE 250)	Many experiences of NHS and care system; most significant being when my son suffered major brain injuries following a motor accident. He spent 3 months in coma at Birmingham Children's Hospital followed by intensive rehabilitation at Alder Hey Hospital. I was humbled by the care, kindness skill and commitment of so many NHS staff.

		The NHS is our gift to each other - available in times of greatest need. It must be protected and developed. My son is a senior pharmacist.
Vince Gomez	MSc in International Securities and Banking from the ISMA Centre at Reading University. Vince is a seasoned financial market practitioner and technology enthusiast with over 20 years of trading experience in European fixed-income markets. He has held senior positions at a number of European financial institutions including Lloyds, Natixis, Société Générale and UBS.	
Patricia Murray	Currently Professor of Stem Cell and Regenerative Biology at the University of Liverpool. Registered General Nurse, Royal Liverpool Hospital (1987) BSc Molecular Biology, University of Liverpool (1997) PhD in Stem Cell/Developmental Biology, University of Liverpool (2000). My interests include stem cell biology and research integrity. I oppose the inappropriate use of unproven therapies that have potential to cause harm and my concerns about some high profile cases have been reported in the main stream media. I was an expert witness for the prosecution in the criminal trial of the surgeon Paulo Macchiarini.	My daughter is a nurse in the NHS and I have many colleagues who are clinicians in the NHS. I am deeply saddened by the years of underfunding that is resulting in poor standards of patient care and strongly feel that privatisation will reduce standards even further. I believe that the health and wealth of the UK is dependent on a well-funded NHS. I am also very concerned that reduced access to NHS care is leading to an increased number of private clinics that are offering unproven and potentially harmful therapies to vulnerable patients.
John Oates	SRN, RMN (retired), B.A (Psychology Social Policy), Dip IP Law, NHS data analyst	Growing up in the post war period, I benefitted immensely from the existence of the NHS, and later joined its

		workforce at a time when it was adequately funded and provided first class health care. I am passionately opposed to privatisation of the NHS which is arguably unethical, and believe it should remain free at the point of use, so my children can also like me benefit from its services.
Tony O'Sullivan	Tony O'Sullivan has been the co-chair of Keep Our NHS Public since 2015. He retired as an NHS consultant paediatrician in 2016. Dr O'Sullivan was a consultant in community paediatrics and disability 1993-2016 and Director of Services for Children & Young People at Lewisham & Greenwich NHS Trust 2011-14. During this time, he also played a key role in the successful campaign to overturn Jeremy Hunt's decision to close Lewisham Hospital."	
Vicky Sargent	BA (Oxon) History and Economics Digital communications consultant Worked extensively on contracts with government departments, local authorities and NHS, specialising latterly in social care	Fortunate myself to have had little need to use NHS services so far, apart having children and when caring for very elderly relatives with diseases of old age, including Parkinson's, severe visual impairment, hearing loss, falls and dementia, as well as end of life care. My partner however has the NHS to thank for life-saving treatments for cancer and sepsis
Charles Smith	Charlie Smith is a freelance PR person, trade press journalist and business blog writer, and has been involved with various causes as a campaigner.	He owes his life to the NHS and has been part of 99%'s NHS Project team since its early days.
Lorraine Stanley	Founder and CEO of SWAD (Sex With A Difference), a not-for-profit training organisation specialising in the area of disability and sex.	Invited speaker at BASHH's annual conferences; HIV Prevention England's annual conference & others.

	Currently running a 2-year campaign to reduce sexual & reproductive health inequalities in the NHS. Certificate in Training Practice, CIPD Medical Secretary, Training Administrator and Training & Development Adviser at Royal Marsden Hospital. Received the Trust's Quality Award for my work in these areas. Assistant Development Adviser (Community Services) at Sutton Council. Qualified in nutrition and exercise to music & became a successful Franchisee. First pilot area of NHS social prescribing for weight management. Lay member on the BASHH Public Panel (Professional body for NHS sexual health medical staff).	Contributor to a research project "Sexual Citizenship and Disability – Implications for Theory, Practice and Policy" by Dr Julia Bahner, Postdoctoral Research Fellow, Lund University, Sweden. Developed M.E. and Fibromyalgia in 2004. Official diagnosis took 2 years. Diagnosed with Autism at age 42; had to be assessed privately because no NHS services were available in my area. Parent Carer to a young adult with autism who was failed by CAMHS and NHS primary care. User of NHS mental health support services.
Raj Thamotheram	BSc in neuropharmacology Qualified as a medical doctor in 1984 from Bristol University, then did a GP vocational training scheme at Northwick Park Hospital and left medicine in part because it was clear how the Conservative Party was intent on privatising the health service. 20 years experience of responsible investing. A detailed understanding of how the for-profit health sector in the USA delivers pretty good returns for shareholders but extremely bad public health returns for the average US citizen. Direct experience of the political influence of the pharmaceutical industry and its negative impact during the AIDS epidemic and again during the COVID-19 pandemic.	As a child – moderately severe asthma needing several admissions and T&As. Diagnosed with an inoperable cancer in 2016 (which was operated in Italy). Having chemo since. Regular experiences with medical/nursing staff who are overworked and under intolerable levels of stress. Second hand knowledge of "financial toxicity" from US contacts with cancer – this refers to the detrimental effects of the excess financial strain caused by the diagnosis of cancer on the well-being of patients, their families and society.

	Many of my former colleagues have taken early retirement from the NHS due to stress and concerns about how they were being forced to practice by top down & ill planned "reform" directives	Relatives (with a range of conditions including burst appendix, dementia, diabetes) have faced sub-optimal care in part because of overworked and unsupported junior doctors. The situation now is much worse than it was 10 years ago.
Mark E Thomas	MA (Cantab) in Mathematics Former Strategy Director of UniChem plc Former Head of Strategy Consulting at PA Consulting Group Visiting Professor at IE Business School Author of *99%: Mass Impoverishment and How We Can End It*	Life saved by the NHS at the age of 10. Father of two autistic children, husband of long-term NHS user.
Hannah, Lady Walker	Squadron Leader RAF (Retired) Personnel and Intelligence. Studied Applied Psychology and Computing. Advanced Diploma in Psychotherapy Worked for 6 years on Acute Psychiatric ward Past Chairman, Board of Trustees, Dorset Mental Health charity Co-Editor and contributor to *Our Encounters with Madness* (2011 PCCS Books). Author of opening Chapter in *Modern Mental Health; Critical Perspectives on Psychiatric Practice* edited by Steven (2013 Critical Publishing). Articles on Mental Health published in major broadsheets. Speaker at national conferences on Mental Health and Recovery. Regular appearances on Sky News's *The Take* with Sophy Ridge.	Recipient of 5 titanium joints and 4 spinal plates from the NHS Psychiatric patient 1991-2014 Diagnosis of Bipolar Disorder PTSD from RAF service Severe osteoarthritis Cervical Spondylitic myelopathy

Samantha Wathen	**Previously a lecturer in further education, since 2018, Samantha has been the Press and Media Officer for Keep Our NHS Public, an organisation that strives for a well-funded and fully publicly owned and provided NHS.** **She is a passionate NHS campaigner with a particular interest in advocating for better working conditions and the need to support the mental health of NHS staff. Samantha is an occasional journalist on NHS matters and her articles have appeared in The Metro, The Independent, Tribune and Public Sector Focus magazine.**

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