REFORM

# HOSPITAL OF THE FUTURE

## A framing paper

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*Reform* is established as the leading Westminster think tank for public service reform. We believe that the State has a fundamental role to play in enabling individuals, families and communities to thrive. But our vision is one in which the State delivers only the services that it is best placed to deliver, within sound public finances, and that both decision-making and delivery is devolved to the most appropriate level. We are committed to driving systemic change that will deliver better outcomes for all.

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## ABOUT REIMAGINING THE STATE

After a decade of disruption, the country faces a moment of national reflection. For too long, Britain has been papering over the cracks in an outdated social and economic model, but while this may bring temporary respite, it doesn't fix the foundations. In 1942 Beveridge stated: "a revolutionary moment in the world's history is a time for revolutions, not for patching." 80 years on, and in the wake of a devastating national crisis, that statement once again rings true. Now is the time to fix Britain's foundations.

*Reform's* new programme, *Reimagining the State*, will put forward a bold new vision for the role and shape of the State. One that can create the conditions for strong, confident communities, dynamic, innovative markets, and transformative, sustainable public services.

*Reimagining Health* is one of the major work streams within this programme.

## ABOUT REIMAGINING HEALTH

This paper is part of the *Reimagining Health* work stream. While the National Health Service was once visionary, as demand rises and outcomes deteriorate, a fundamental rethink is needed. The current model no longer works for patients, who too often struggle to access high-quality timely care; for medical staff, who feel disempowered, stressed, and burnt out; or for taxpayers, who foot an increasing bill for a service which is struggling to cope. In short, the structures and institutions designed to meet the challenges of the post-war world are not equipped to deal with our current and future health challenges.

'Reimagining Health' seeks to explore how to transform England's approach to health. It will consider how to move from a treatment-oriented model to one geared towards health creation, the changes necessary in healthcare to facilitate this, and how to build a fair and sustainable approach to funding.

### Reimagining Health Council

*Reform* is grateful to the expert members of the *Reimagining Health* Council who provide valuable insight and advise on the programme. Their involvement does not equal endorsement of every argument or recommendation put forward.

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The arguments and any errors that remain are the authors' and the authors' alone.

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# 1. Introduction

There is a broad consensus that the future of healthcare relies on health creation rather than treating sickness. But while there is significant debate about the future of primary care and community services, the role of hospitals in a future model is largely overlooked. Given that a hospital's unique value add is in addressing the acute end of need, their role in a system designed around *preventing* this need is ambiguous. Hospitals are going through an identity crisis.

Moving services away from hospitals into the community raises a fundamental question whose answer has evaded policymakers for decades: how to shift funding and resources to other parts of the system. The absence of a vision of what hospitals should look like in a prevention oriented-model is one of the key barriers to achieving this shift.

Instead the hospital healthcare debate centres on resources – usually calls for more – rather than whether the right type of resources are being deployed to meet the right type of demand. In any case, simply increasing funding or staffing in perpetuity is not a viable option, nor will it deliver an effective healthcare system.

Indeed, for the most part, recent reforms have perpetuated the post-war model rather than rethinking it for modern needs. While the sophistication of the medicine, surgery, and technology looks very different from that of 1948, the hospital model itself has not adapted. Yet clinical demand today is unrecognisable from that of 1948.

*Reform*'s Hospital of the Future project will outline a vision for the hospital within a system reorientated towards prevention and early intervention. This programme seeks to provide a long-term vision with a new, revitalised model of secondary care for the 21st century.

There are severe problems facing hospitals in the immediate term: financial deficits in NHS trusts, a reliance on locum working, outdated equipment, and a growing maintenance backlog, to name a few. But underlying these short-term problems is a profound set of structural questions as to how a hospital fundamentally operates and whether this is the right model.

This framing paper will diagnose the problems in hospitals today – what they are, why they exist, and the long-term prognosis. It will be followed by the publication of several papers outlining a detailed programme of reform to reimagine hospitals for the 21st century.

# 2. Explaining hospitals

Hospitals are commonly defined by their individual functions, whether that be Accident and Emergency or surgery, but rarely by how these functions interact with each other. While there is often good reason for this – in that different departments face different medical and operational questions – this failure to understand the hospital as its own unit of analysis is misguided. The interaction of different functions in hospitals is fundamental to the entire operating model and, as this paper will explore, a failure to analyse it as such has embedded dysfunction and reduced productivity.

## 2.1 The unique role of the hospital

The hospital plays a distinct role in the healthcare system. If general practice exists to provide 'expert generalism' and social care exists to maintain a person's independence, the hospital exists to provide specialist care, at scale, extremely quickly, for specific needs.

1. **Scale**

The scale of patient access in a hospital is of a different quantum to the rest of the healthcare system. They are deliberately configured to maximise treatment volume in one location.

To use an example: Croydon University Hospital – with 500 beds – can treat 350,000 patients a year as outpatients. They will also treat 120,000 in the Accident and Emergency department each year, with 41,000 admitted for emergency hospital care; and receive 27,000 elective inpatients a year.[1]

The average number of patients covered by a Local General Hospital is 100,000, while the average number registered to a GP practice in England is 10,000.[2]

2. **Specialism and severity**

The benefit of the hospital is the range and depth of specialisms it offers in one place. This includes both clinical expertise and equipment, enabling the most severe clinical needs to be treated.

There are hundreds of clinical specialisms but those most common in all general hospitals include cardiologists, colon and rectal surgeons, critical care medicine specialists, dermatologists, emergency medicine specialists, obstetricians and gynaecologists, and radiologists, among many others. Specialism in medicine is extremely important, but as this

[1] *Croydon University Hospital* (Croydon Health Services NHS Trust, 2023).
[2] Nick Bostock, 'Average GP Patient List Hits 10,000 in Landmark Shift for General Practice', 2024.

paper will explore, a bias towards specialism (and specialisms within specialisms) in the hospital model is increasingly inappropriate as patients have clinical needs that span multiple specialisms.

In conjunction with this clinical expertise, hospitals also include a range of specialist equipment. This refers to diagnostic, operational, and monitoring equipment, and includes everything from MRI scanners, blood pressure monitors and ECG machines, to surgical tables, operating lights and surgical robots.

3. **Speed**

The final unique contribution of the hospital is the speed at which it is designed to respond to urgent clinical needs. Unlike other parts of the health system which operate around routine and pre-scheduled appointments, often during the working week, hospitals are explicitly designed to respond to urgent care, constantly re-prioritising patients based on the severity of clinical need. Hospitals are open 24/7 365 days a year and are constantly staffed at a level that enables them to respond adequately to every type of unscheduled medical emergency.

## 2.2 The fundamental logic of hospitals

### 2.2.1 Economies of scale

Since the creation of the hospital, the logic of the physical hospital building has always been that it enables substantial economies of scale.

Economies of scale arise from being able to achieve high levels of utilisation of specialist capacity, both human and technical. For example, health systems have high fixed infrastructure costs, in that they must pay for diagnostic and operating theatre equipment as well as hospital beds and staff. These high fixed costs become substantially more cost efficient the larger the patient base that uses them.

Thus, the core logic of hospitals is that they provide a range of services that draw on economies of scale, providing different forms of care to high volumes of patients using the same underlying infrastructure base.

With this said, it is still not clear what the optimal size and scope of a hospital is if it is to make the most use of its available expertise, infrastructure and equipment. Hospitals that are too large can depart from the optimal level of efficiency and exhibit diseconomies of scale.[3]

[3] Monica Giancotti, Annamaria Guglielmo, and Marianna Mauro, 'Efficiency and Optimal Size of Hospitals: Results of a Systematic Search', ed. Saravana Kumar, *PLOS ONE* 12, no. 3 (29 March 2017): e0174533, https://doi.org/10.1371/journal.pone.0174533.

But at the other end of the scale, small hospitals might be inefficient because the fixed infrastructural and administrative costs are shared across too small a caseload.[4]

How hospitals achieve economies of scale is also evolving. Many large regional hub hospitals are seeking to increase volumes in specialised services to deliver high-quality care affordably,[5] while smaller hospitals are forming networks to invest in infrastructure, share back office costs and retain staff who want to undertake a range of clinical work.[6]

### 2.2.2 Interdependence

A natural consequence of economies of scale is the co-location of numerous different functions, processes and specialisms in one building, as outlined below in Figure 1. This creates significant interdependencies.

Every patient pathway in a hospital consists of unique combinations of different tasks and processes depending on the patient's need. If a hospital has, for example, 250,000 patient pathways a year, each with varied diagnostic and medical needs, it must be designed to respond to the non-uniformity and unpredictability of patients.

The interdependencies of these processes has led many to draw lessons from other industries such as manufacturing, supply chain management, and airlines.[7] While healthcare understandably has its own nuances – in that it must deal with the unpredictability of medicine and how patients respond to treatment – there is merit in these comparisons. Hospitals are similar to factories in that they are built around a set of interconnected processes, and if these processes do not run smoothly, or if they are poorly coordinated, the organisation will fail to deliver.[8]

## 2.3 The basic functions of every hospital

Hospitals provide a wide range of services, from the emergency treatment of life-threatening conditions, to physiotherapy, to the delivery of babies. While the functions a hospital carries out depends on the type of hospital it is, its purpose and its size, there are a range of basic functions which are standard, outlined in Figure 1.

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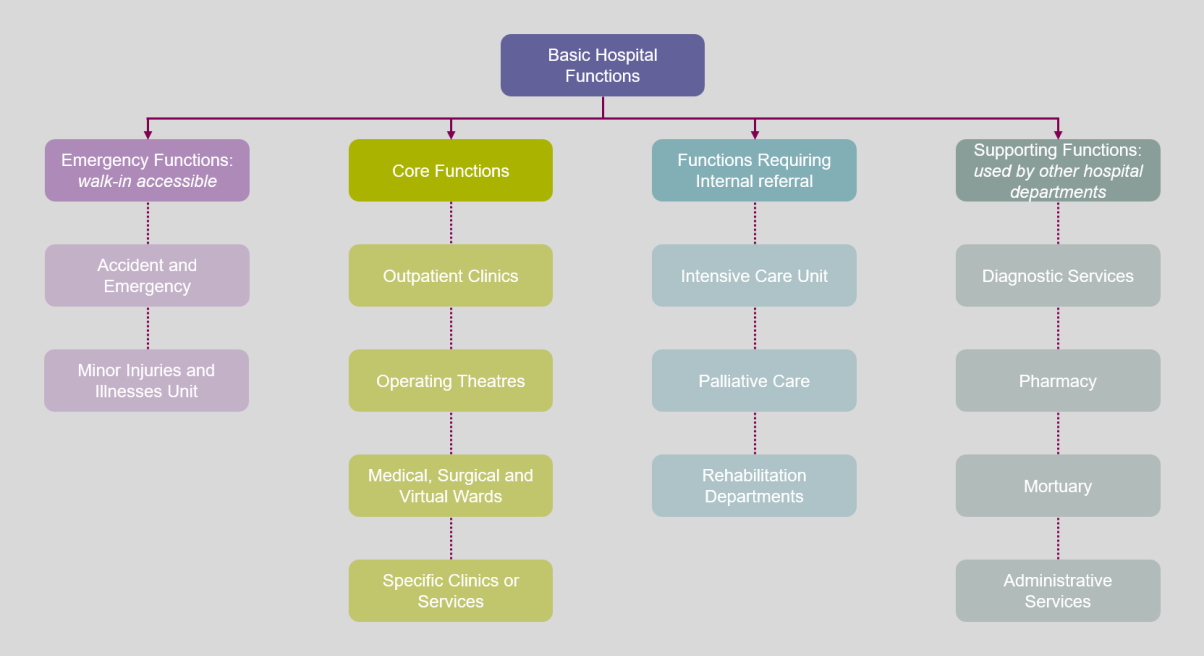
[4] Ibid.
[5] Penelope Dash et al., *The Hospital Is Dead, Long Live the Hospital!* (McKinsey & Company, 2019).
[6] Ibid.
[7] A Morton and J Cornwell, 'What's the Difference between a Hospital and a Bottling Factory?', *BMJ* 339, no. jul20 1 (20 July 2009): b2727–b2727, https://doi.org/10.1136/bmj.b2727.
[8] Ibid.

**Figure 1: The basic functions of standard UK hospitals**




Patient admissions to hospital will be either emergency or elective. Emergency admissions occur when a patient unexpectedly needs immediate care, making up 41.6 per cent of admissions in 2023-24 in general hospitals.[9]

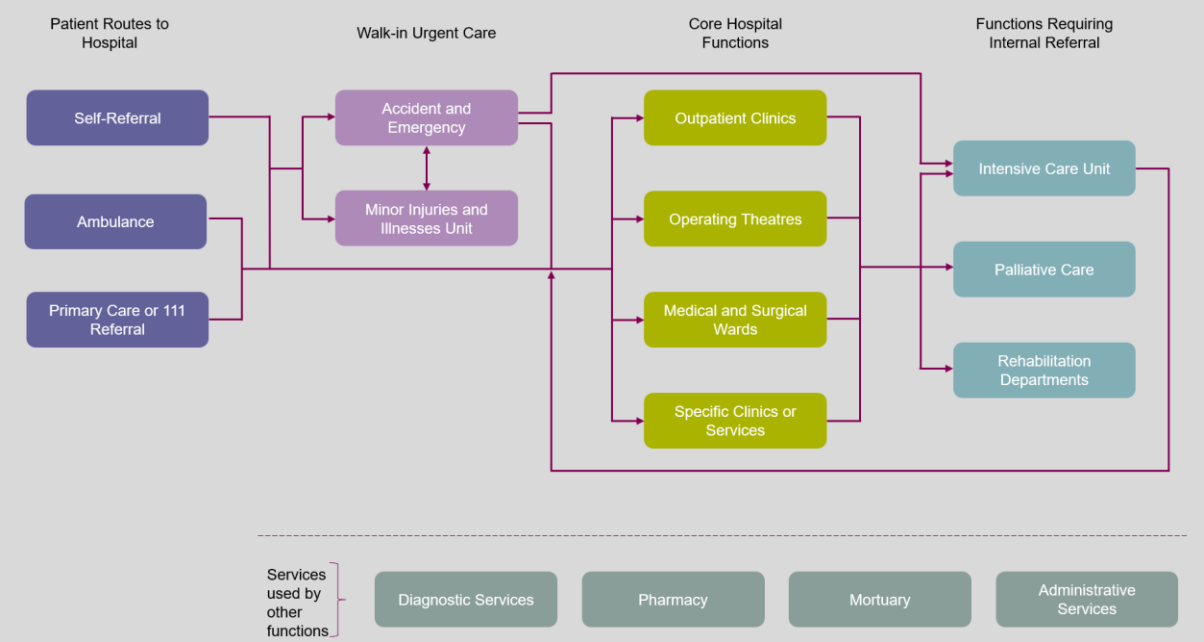
Elective admissions are for scheduled care, making up 58.4 per cent of hospital admissions in 2023-24.[10] A referral, from a hospital specialist or primary care physician, is a prerequisite for an elective admission. Once admitted, there are three key types of patients in a hospital:

- Inpatient – patients receiving hospital treatment, who are staying overnight for 1 or more nights;
- Outpatient – patients with hospital appointments who will not be staying in hospital overnight; and
- Day patient – patients having tests, surgery or treatment who have been given a hospital bed for the day, but will not be staying overnight.

Once a patient is in the hospital system, whether they have been admitted or not, they can move between hospital departments and may require care from a variety of hospital functions. This journey through and between hospital functions, usually referred to as patient flow, is hugely varied for each patient. This is depicted in the Figure below.

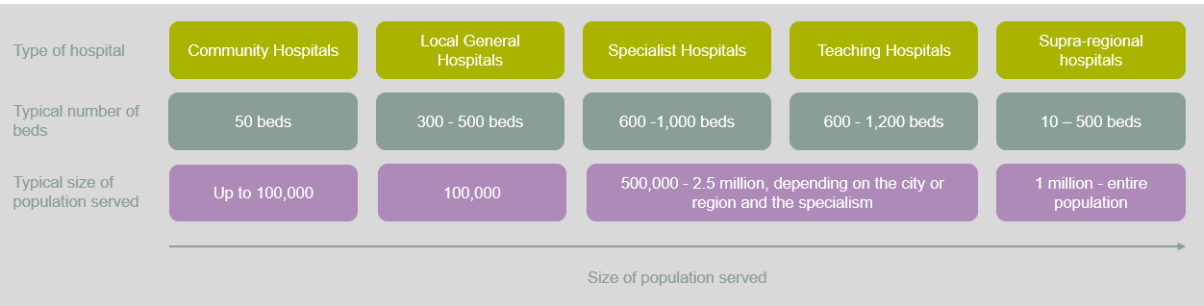
[9] NHS England Secondary Care Open Data and Publications, 'Hospital Admitted Patient Care and Adult Critical Care Activity: Summary Table - 2023-24', 2024.
[10] Ibid.

**Figure 2: Stylised depiction of patient flow within hospitals**




When a 'standard' hospital is discussed, this usually refers to a Local General Hospital. However, there are many other types of hospital playing crucial roles too. These different types of hospitals may perform the basic functions of a standard hospital and some additional functions, or they may perform only more specialised/specific functions alongside some basic functions.

**Figure 3: The different types of hospitals**




## 2.4 How hospitals are organised and funded

The responsibility for provision of secondary and community care in England is divided geographically between 42 integrated care systems (ICSs) – a partnership of organisations that together plan and deliver health and care services to those who live and work in their area.

ICSs are made up of a number of other organisations, including: an Integrated Care Board (ICB) responsible for the planning and delivery of all NHS health and care services in the ICS, Integrated Care Partnerships (ICPs) responsible for developing and implementing community-level health and care services, local authorities, place-based partnerships and provider collaborations.[11]

NHS trusts operate within the framework of the ICS they are under, but they are distinct organisations and are responsible for delivering specific clinical services including secondary care, mental health services and community health services. All NHS hospitals in England are managed by trusts. Trusts may run one or multiple hospitals. There are various types of trusts in England, as well as ambulance trusts which operate across the UK.

The trust a hospital is under affects the care they are able to provide and the way they operate. Figure 4 unpacks the different trust types.

[11] Rosie Beacon, *Close Enough to Care: A New Structure for the English Health and Care System* (Reform, 2024).

**Figure 4: The different types of NHS trusts in England**

| Body | | Function | Current Number |
|---|---|---|---|
| NHS England Trusts | Acute Trusts | • Provide acute care in hospitals, including inpatient treatment, outpatient treatment, emergency facilities and specialist services<br>• Many NHS hospitals are managed by acute trusts<br>• Provide services to patients in their region | 124 |
| | Mental Health Trusts | • Provide health and social care services to people with mental health issues in England<br>• Manage hospitals and services to provide inpatient and outpatient mental health treatment<br>• Usually provide services to people in their specific region, with some exceptions for the more specialist services that are offered nationally | 50 |
| | Community Trusts | • Provide district nursing, health visiting, school nursing, community physiotherapy, speech and language therapy and other community services<br>• Manage some smaller or community hospitals<br>• Provide services to patients in their region | 16 |
| Ambulance Trusts | | • Provide ambulance services across the UK<br>• Ambulances provide emergency medical care, on the scene, to any person requiring treatment (regardless of immigration or visitor status), including transporting emergency patients to hospital as needed<br>• Ambulances also have responsibility for non-emergency patient transport (this function is sometimes provided through private contractors in England) | England: 10<br>Scotland: 1<br>Wales: 1<br>NI: 1<br><br>Total UK: 13 |
| Foundation Trusts | | • Any of the above trusts can have foundation trust status<br>• They have greater financial and managerial autonomy than a non-foundation trust, with a degree of independence from the Department of Health and Social Care<br>• Board of directors for foundation trusts are directly accountable to their local population<br>• Government's original ambition was for all of England's trusts to eventually become Foundation Trusts<br>• Controversial, on introduction, due to their greater level of independence, and concerns about accountability, healthcare provision inequality and privatisation | 154 (out of England's total 229 trusts) |

NHS England calculates the expected cost of healthcare for each area in England and allocates funding on this basis. Different regions are allocated different amounts of funding, based on the level of need in their area rather than population size.[12]

Consequently, different regions in England have differing levels of per-person healthcare spending, meaning some hospitals are better funded than others. Typically, London has the highest healthcare expenditure per person and East England areas have the lowest.[13]

Another key cause of variation in the management and funding of hospitals is the NHS trust they operate under. Many hospital trusts cover more than one hospital. Trusts have the

[12] NHS England, *Allocations*, 2024.
[13] Ibid.

freedom, or responsibility, to manage their own budgets, to engage in income generating activity (or not) and to decide their area's secondary care service provision. [14]

Hospitals thus have different access to, and levels of resources, as a result of which trust they belong to.[15] As well as resourcing differences, managerial variations – including partnerships with other trusts or differences in the priorities of each trust – affects the quality of service hospitals provide, their participation levels in research, and their engagement in innovative technology and healthcare solutions.[16] Differences in the provision of hospital care across different trusts is substantial – this is demonstrated by the huge variation in mean length of hospital stays across different trusts, from 6 to 48 days, in 2022.[17]

[14] Mark Exworthy et al., 'From Commodification to Entrepreneurialism: How Commercial Income Is Transforming the English NHS', *Public Money & Management* 44, no. 4 (18 May 2024): 308–16, https://doi.org/10.1080/09540962.2023.2243775; NHS Data Model and Dictionary, *NHS Trust*, 2024.
[15] Ibid.
[16] Paul Roberts, 'Greater than the Sum of Its Parts?: Sharing Board Leadership between NHS Trusts' (NHS Confederation, 2024).
[17] Francesca Cavallaro et al., *Longer Hospital Stays and Fewer Admissions: How NHS Hospital Care Changed in England between 2019 and 2022* (The Health Foundation, 2023).

# 3. Understanding the symptoms

The symptoms of the hospital crisis are clear to all: costs are increasing, outcomes deteriorating, access declining, and productivity stagnating. Unsurprisingly, as a result, patient satisfaction is at a historic low.[18]

It is worth noting that while hospitals are underperforming relative to the share of resources they deploy, there are a number of factors that limit hospitals' performance that are beyond their direct control, including significant differences in their legacy financial positions and patient differences based on local demographics. Similarly, the state of the estate can vary greatly through factors outside of the trust's control (for example, one off funding being allocated out of political luck).

Nevertheless, there are significant issues underlying our current model of care, and this chapter unpacks each of the individual symptoms.

## 3.1 Costs are growing

Hospitals are famously the most expensive part of the health system and, as a result, a substantial cost driver for the perpetual increase in health spending.

Total health spending in England reached £182 billion in 2022-23.[19] For context, this meant health spending was over three times the spending on England's schools and approximately 30 times the budget of the Prison and Probation Service for England and Wales.[20] Unlike many other public services, health spending in the UK consistently increases each year, except in the years following Covid cash injections.[21]

Hospitals account for the majority of that spend, and indeed spending for acute care has increased more than that for primary, community, and social care, and the public health grant. NHS acute, ambulance and acute mental health services have received an average annual increase between 2016 and 2023 of 4.4 per cent, 5.2 per cent and 5.3 per cent in real terms respectively.[22] By contrast, funding for NHS community health services grew at an average rate of 0.5 per cent a year.[23]

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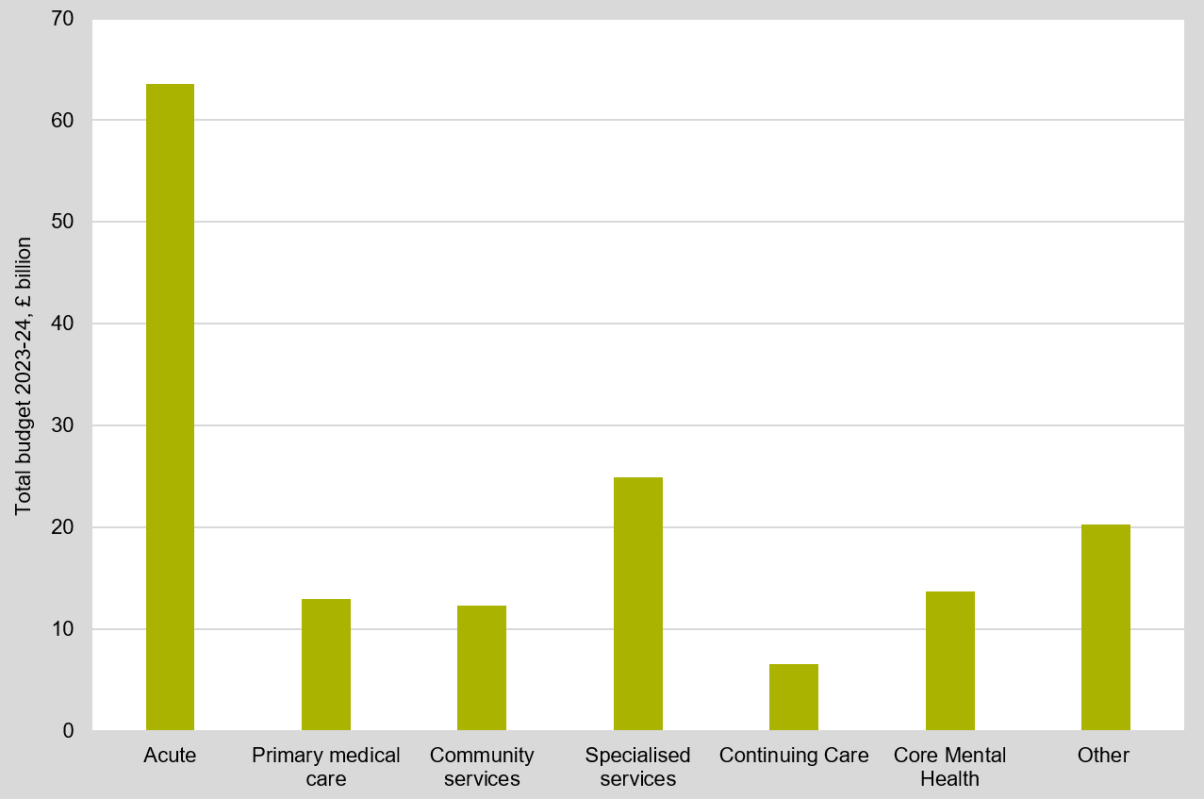
[18] Danielle Jefferies et al., 'Public Satisfaction with the NHS and Social Care in 2023' (The King's Fund, 2024).
[19] The Health Foundation, 'Health Care Funding: Three Key Questions about Funding in England', 2023.
[20] GOV.UK, *School Funding Statistics; Financial Year 2022-23*, 2023; HM Prison & Probation Service, 'Annual Rerport and Accounts, 2022/23', 2023.
[21] British Medical Association, *Health Funding Data Analysis*, 2024; GOV.UK, *Public Spending Statistics: July 2024*, 2024.
[22] Sally Gainsbury, *Where Does the NHS Money Go?* (Nuffield Trust, 2024).
[23] Ibid.

**Figure 5: Comparative funding for the provision of different NHS services**



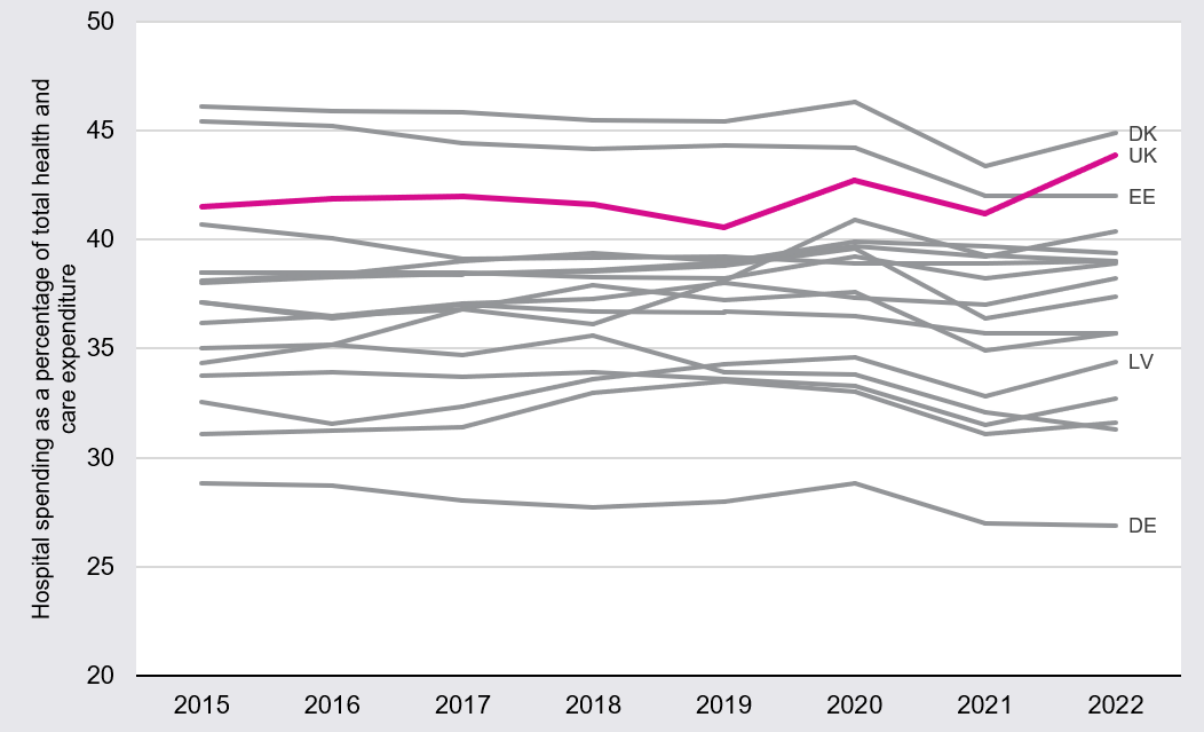

Source: NHS: Expenditure, Question for Department of Health and Social Care, UIN 2419, answered on 21st December 2023.

The UK spends significantly more than comparator countries on hospitals and the acute sector (see Figure 6 below). Given that successive government and NHS policy has been to shift care out of hospitals and into the other settings, the fact that secondary care services still make up over 70 per cent of the NHS commissioning budget is worrying.[24]

Despite this growth in expenditure, NHS trusts' finances remain unstable. In 2022-23, NHS trusts – both foundation and non-foundation – ran a total deficit of £450 million.[25] In May 2024, 44 per cent of NHS trust chief executives and finance directors forecast their trust would run a deficit for 2024-25, with only 11 per cent forecasting a surplus.[26]

[24] Nuffield Trust, 'Feeling the Crunch: NHS Finances to 2020', 2016.
[25] NHS England, *Consolidated NHS Provider Accounts 2022/23*, 2024.
[26] NHS Providers, *Briefing on the Financial Challenges Facing NHS Trusts*, 2024.

**Figure 6: Proportion of health spending on hospitals, UK versus comparator countries**




Source: OECD, Current expenditure on health (all functions), by hospital providers, 2024; Peer Countries: Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Sweden, and Switzerland.

Explaining increasing costs and decreasing stability is multifaceted, as is explored in Section 3.2 and 4.4. Secondary care services, by their nature, are expensive to provide. The average 9-minute face-to-face GP consultation costs £45 (adjusted for 2022-2023 prices).[27] By contrast, the average cost of an MRI was £170 in 2022-23 prices. Treatment can cost considerably more. Treating a urinary tract infection in hospital, for example, can cost anything from £482 to £8,585. Complex procedures can cost over £40,000.[28]

The University Hospitals Bristol and Weston NHS Foundation Trust provides over 100 clinical services across 10 sites. In 2023-24, the Trust's total expenses to provide these services was over a billion pounds.[29] For context, the general practice budget for the entire country was £9.7 billion in 2022-23.[30]

[27] NHS England, *Quarter of a Million More Seen by GPs in the East of England during October as Costs of 'No-Shows' Revealed*, 2023.
[28] *2022/23 National Tariff Payment System: National Tariff Workbook with July 2022 Revised Cost Uplift Factor* (NHS England, 2022).
[29] University Hospitals Bristol and Weston NHS Foundation Trust, 'Annual Report and Accounts 2023/24', 2024.
[30] Gainsbury, *Where Does the NHS Money Go?*

## 3.2 Performance and productivity are plummeting

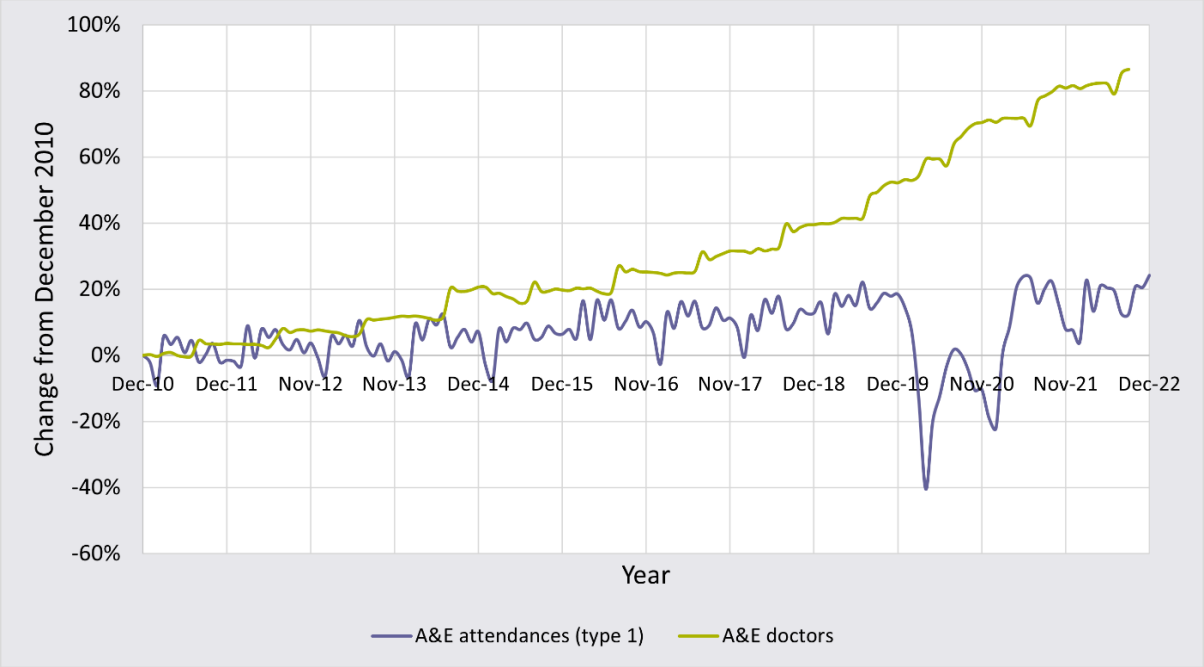
Even with this caveat, expenditure on the acute sector as it is currently configured within the healthcare system is poor value for money.

Since A&E waiting times have increased so dramatically, this may suggest that demand had significantly increased or resources decreased. Neither of these have occurred (see below).

Elective waiting lists are experiencing backlogs. These have increased in part due to demand, with waiting lists growing prior to the pandemic, showing demand already outstripping supply. Covid-19 then exacerbated this by artificially suppressing demand. Post-pandemic that demand rushed back into the system, overloading it, in turn creating backlogs.

The performance in emergency care indicates significant productivity issues. Emergency medicine has been the fastest growing clinical speciality in the NHS. There has been a near doubling in the number of emergency medicine doctors from 4,799 in 2010 to 9,172 in 2022. This has long outstripped the growth in A&E attendances.[31]

**Figure 7: Change in A&E attendances and emergency medicine doctors (FTE) since December 2010**




Source: *Reform*, 'The A&E crisis: what's really driving poor performance?', February 2023.

[31] Sebastian Rees and Hashmath Hassan, *The A&E Crisis: What's Really Driving Poor Performance?* (Reform, 2023).

This represents a decline in productivity, that can be seen more broadly across hospitals. Figure 8 shows that while hospitals had 15.8 per cent more consultants and 24.6 per cent more junior doctors in 2023 compared to 2019, they had 4.3 per cent fewer emergency admissions and 1.3 per cent fewer non-emergency admissions.[32]

Activity levels have improved slightly in 2023, with elective activity now slightly higher than in 2019, but not proportionately to the significant increase in staffing. In comparison, primary care is delivering 20 per cent more appointments per month than it was in 2019.[33]

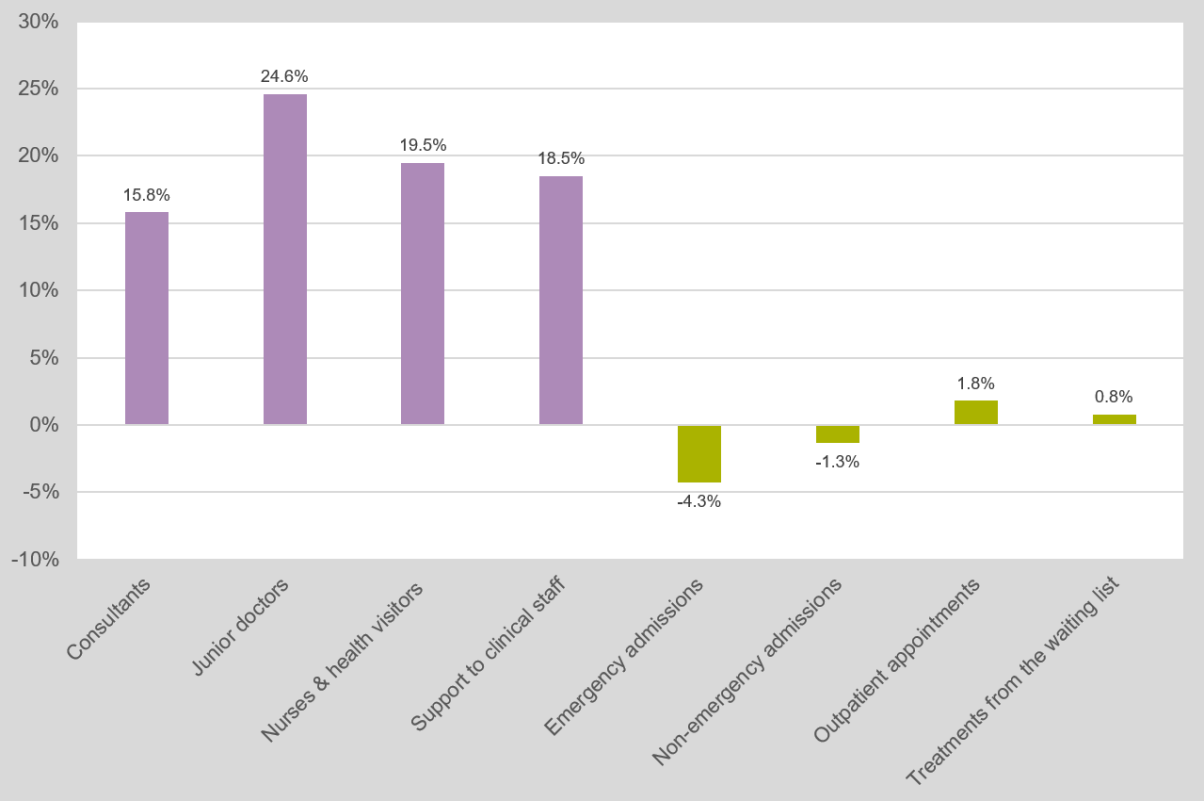
Encouragingly, hospital productivity seems to be improving recently. Through the first seven months of 2023, around 5 per cent more patients from the elective waiting list were treated compared to the first 7-months of 2019.[34] This falls short of NHS England's goal, set in 2022, to deliver a 20.9 per cent increase in elective activity in 2024-25 compared to 2019-20 levels, but is still optimistic.

While increased activity does not necessarily mean increased productivity, recent data suggests *most* hospital activity has increased more than staffing, indicating increased productivity. The number of elective hospital admissions from January to July 2024 is 10.3 per cent more than the same months in 2023 and the number of outpatient appointments is 9.2 per cent more.[35] Whereas the number of full-time-equivalent consultants January to July 2024 is only 3.6 per cent greater and the number of nurses and health visitors has increased by 6.4 per cent in the compared time periods.[36]

Staffing is, of course, not the only 'input' into the NHS, and the ability to translate more clinicians into increased activity also depends on the availability of equipment and beds, the quality of management and the knock-on impacts of failures in other parts of the system. In addition, an increasingly complex patient profile, as explored in Chapter 4.4, will have an effect.

[32] Max Warner and Ben Zaranko, *Is There Really an NHS Productivity Crisis?* (Institute for Fiscal Studies, 2023).
[33] Royal College of General Practitioners, 'GPs Have Seen a 20% Workload Increase and Appointments Growing in Complexity, Says College Vice Chair', 2023.
[34] Olly Harvey-Rich, Max Warner, and Ben Zaranko, *NHS Hospital Productivity: Some Positive News* (Institute for Fiscal Studies, 2024).
[35] Ibid.
[36] Ibid.

**Figure 8: Change in hospital staff levels and demand since 2019**




Source: Institute for Fiscal Studies, 'Is there really an NHS productivity crisis?' 2023.

**How does this workforce increase map onto the NHS workforce shortages?**

Despite these staff increases, there are estimated to be 121,000 full time equivalent vacancies in the NHS and only 26 per cent of the workforce state that there are enough staff at their organisation.[37]

Understanding the workforce through raw numbers can be unhelpful because as highlighted above, simply increasing the workforce does not necessarily increase output or improve outcomes. Most important is how the workforce is composed and applied.

Workforce shortages are not uniform across the country or across the NHS. Coastal communities, for example, have 15 per cent fewer consultants and 7 per cent fewer nurses per patient.[38] Given the ageing population in many coastal communities, it is possible to conclude that demand for services is high in these areas, hence why shortages might be higher.[39] Other reasons also include the location of medical schools, and that some staff

[37] Saoirse Mallorie, *Staff Shortages: What's behind the Headlines?* (King's Fund, 2024).
[38] Ibid.
[39] Ibid.

prefer to live and work in more affluent areas, especially if some areas lack access to social amenities (entertainment venues or good schools for children.)[40]

The workforce shortage also does not apply specifically to hospitals, but the entire system. There are well established workforce crises outside of hospitals, for example in the district and community nursing workforce. Since 2018, the vacancy rate has fallen in the acute sector but risen in all other sectors, most of all in the ambulance sector.[41] While vacancy data is not available for allied health professionals, high vacancy rates have also been reported for physiotherapists and occupational therapists.[42]

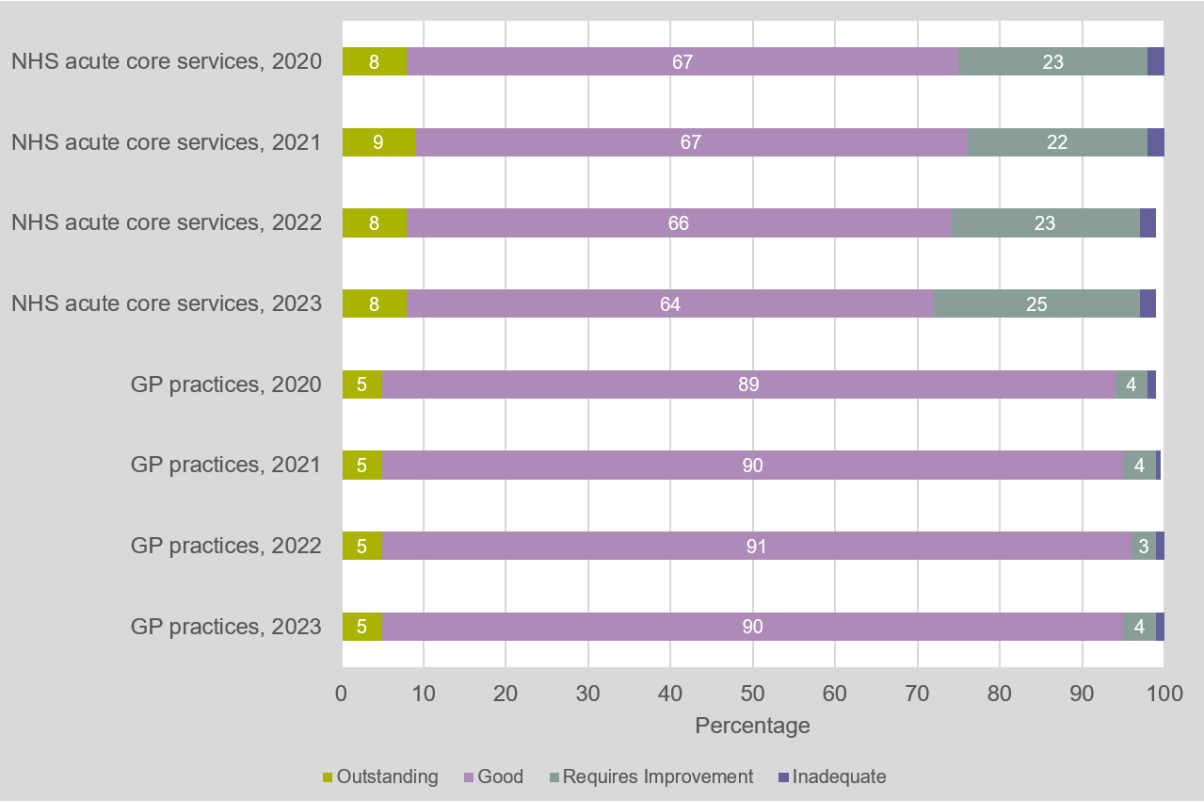
However, while it is the case that many hospitals claim to have significant vacancies, the fact that increased staffing has not resulted in commensurate increases in activity, and that we already have very high staffing levels by international standards, could also suggest that the vacancy problem is a red herring. Within the OECD, the UK had the second highest number of hospital staff per 1,000 people in 2022.[43]

Delivering positive health outcomes for patients is the core purpose of hospitals, but they are increasingly unable to deliver this. Significantly more acute care services require improvement than GP practices, as depicted by Figure 9. In 2023, more than a quarter of acute core services were judged either inadequate or requires improvement by the regulator.[44]

Though while the poor performance of many hospitals is uncontroversial, a direct comparison with GPs is not completely indicative of relative poor performance. The CQC assessment of hospitals is more rigorous than for GPs, as it is more difficult to identify unmet need in primary care, whereas this is straightforward to identify in secondary care through waiting lists. Late referrals from primary care leading to poor outcomes in secondary care are also not adequately assessed.

[40] Ibid.
[41] Ibid.
[42] Saoirse Mallorie, *Staff Shortages: What's behind the Headlines?* (King's Fund, 2024).
[43] Lucina Rolewicz, Billy Palmer, and Cyril Lobont, *The NHS Workforce in Numbers* (Nuffield Trust, 2024).
[44] Care Quality Commission, *Appendix: CQC Ratings Charts*, 2023.

**Figure 9: Comparative Care Quality Commission (CQC) ratings for acute core services and General Practice 2020-23**




Source: Care Quality Commission, 'Appendix: CQC ratings', 20 October 2023; Care Quality Commission, 'Appendix – ratings charts as at 31 July 2021', 21 October 2022; State of Care, 'Appendix: Ratings charts', 2019/20.

Analysis of the UK's performance in the treatment of certain diseases with other comparable countries reveals the underperformance of hospital care. Almost across the board, the UK performs comparatively poorly. In particular, the UK's five-year cancer survival rates, for the most common types of cancer are especially concerning.[45] It is, however, important to note that this data does not factor in the impact of non-hospital influences, such as late presentation with cancer symptoms because of failures in primary care, or economic, social and lifestyle factors which affect the prevalence of particular diseases.

[45] Tim Knox, 'International Health Care Outcomes Index 2022', *CIVITAS*, 2022.

**Figure 10: Comparative five-year cancer survival rates for different cancer types**

| Rank | Breast cancer survival rate | Colon cancer survival rate | Rectal cancer survival rate | Lung cancer survival rate | Stomach cancer survival rate |
|---|---|---|---|---|---|
| Best | United States | Australia | Australia | Japan | Japan |
| 2nd | Australia | Belgium | Canada | Canada | Belgium |
| 3rd | Japan | Japan | Belgium | United States | Austria |
| 4th | Sweden | Canada | New Zealand | Austria | Germany |
| 5th | Canada | United States | Netherlands | Sweden | United States |
| 6th | Finland | Sweden | Japan | Australia | Portugal |
| 7th | New Zealand | Finland | Denmark | Germany | Australia |
| 8th | Portugal | Germany | Sweden | Belgium | Italy |
| 9th | France | Italy | Finland | Ireland | Canada |
| 10th | Netherlands | New Zealand | Austria | France | Ireland |
| 11th | Belgium | France | United States | Netherlands | Spain |
| 12th | Denmark | Austria | United Kingdom | Denmark | France |
| 13th | Italy | Spain | Germany | Italy | Finland |
| 14th | Germany | Netherlands | Ireland | Portugal | New Zealand |
| 15th | United Kingdom | Denmark | Italy | New Zealand | Netherlands |
| 16th | Spain | Portugal | France | Spain | Sweden |
| 17th | Austria | Ireland | Portugal | United Kingdom | United Kingdom |
| 18th | Ireland | United Kingdom | Spain | Finland | Denmark |

Source: Civitas, 'International Health Outcomes Index 2022', April 2022.

One reason for lower cancer survival rates is later stage diagnosis – a problem that will be exacerbated by long elective waiting lists. Yet this fails to fully explain the UK's comparatively lower cancer survival rates as for some cancers, such as ovarian cancer, patients in the UK are diagnosed at a similar stage to other countries, yet survival rates are still lower.[46] The UK also performs comparatively poorly across a wide variety of other diseases and conditions.

[46] Charlotte Lynch, 'Measuring up: How Does the UK Compare Internationally on Cancer Survival?', *Cancer Research UK*, 2019.

**Figure 11: Comparative outcomes across other diseases and conditions**

| Rank | Ischaemic stroke mortality | Haemorrhagic stroke mortality | Heart attack mortality | Stillbirth and 0-7 day infant mortality | Maternal mortality |
|---|---|---|---|---|---|
| Best | Netherlands | Portugal | Netherlands | Japan | Denmark |
| 2nd | Denmark | Sweden | Canada | Finland | Ireland |
| 3rd | Finland | Finland | Portugal | Portugal | Netherlands |
| 4th | Canada | Netherlands | Denmark | Italy | Austria |
| 5th | Portugal | Canada | Sweden | Denmark | Australia |
| 6th | Sweden | Denmark | Spain | Sweden | Germany |
| 7th | Spain | Spain | New Zealand | Spain | Spain |
| 8th | New Zealand | New Zealand | Finland | Austria | Italy |
| 9th | United Kingdom | United Kingdom | United Kingdom | Netherlands | Japan |
| 10th | | | | Greece | Belgium |
| 11th | | | | Ireland | Sweden |
| 12th | | | | Canada | United Kingdom |
| 13th | | | | United States | New Zealand |
| 14th | | | | Germany | Canada |
| 15th | | | | United Kingdom | France |
| 16th | | | | Belgium | Finland |
| 17th | | | | Australia | Greece |
| 18th | | | | France | Portugal |

There are no countries listed from 10th to 18th place in the first three columns due to a lack of comparable data.

Source: Civitas, 'International Health Outcomes Index 2022', April 2022.

## 3.3 Access is declining

Access to secondary care has deteriorated rapidly. This was significantly exacerbated by the pandemic, but was declining prior to 2019.

In July 2024, there were 7.62 million cases on the waiting list, up from 4.57 million pre-pandemic. The NHS waiting list is an indication of unmet need for hospital care, but it nonetheless fails to capture the full extent of unmet need. The waiting list does not include patients waiting for non-consultant led treatment, or patients waiting for follow-up appointments once they have begun treatment. The waiting list also does not include patients who require care but have not yet presented to healthcare providers.

*Reform* analysis in 2023 estimated that more than 11 million patients are waiting for ongoing care – around 3.5 million more people than the elective backlog. Shockingly, 47 per cent of acute trusts claim either not to hold this information, to be unable to present it in an accessible format or failed to respond to the FOI within 10 weeks of receiving the request

(the statutory requirement is 20 days). This suggests that trusts themselves may be struggling to effectively understand and manage their waitlists.[47]

Patients are also waiting longer to be admitted as inpatients to hospital from emergency care. In March 2015, the quarterly number of patients waiting 12 hours or more for admission was 987. In March 2024, this had increased by 143 times, to 141,693.[48]

In addition, there are persistent regional inequalities in access to healthcare in England. For example, during December 2023, the percentage of emergency attendances seen within 4-hours or less was lowest in the East of England (71.61 per cent), the North West (73.15 per cent) and the North East and Yorkshire (74.24 per cent), compared to the highest in the South East of England (81.19 per cent).[49]

Socioeconomic inequalities in access are also widely observed. As of August 2022, people who lived in the most deprived parts of England were over twice as likely to wait more than a year for elective treatment compared to those in the most affluent areas.[50] What's more, the effect on a patient's health of waiting for treatment is not the same across different groups. Those with multiple long-term conditions, the most socioeconomically deprived, those with unmet social care needs and certain ethnic groups, for example, experience worse consequences from delayed treatment.[51]

## 3.4 Patient experience is suffering

Worryingly, all sources paint the same bleak picture: that there has been a downward trend in public satisfaction with the care and treatment they receive in the NHS. The most recent British Social Attitudes survey recorded the lowest levels of satisfaction with the NHS since the service began in 1983: with only 24 per cent of the public being 'satisfied' with the NHS.[52]

More specifically, such studies also provide an insight into the patient experience within hospitals. The general trend is consistent with that at a system level, that is, there has been a general decline in perceptions of the standard of care received.[53]

The most recent CQC annual survey of adult hospital inpatients revealed that patient experience has deteriorated since 2020.[54] These findings align with the most recent BSA

[47] Sebastian Rees and Hashmath Hassan, 'The Hidden Waitlist: The Growing Follow-up Backlog' (Reform, 2023).
[48] *Accident and Emergency (A&E) Waiting Times* (The King's Fund, 2024).
[49] NHS England, 'A&E Attendances & Emergency Admission Monthly Statistics, NHS and Independent Sector Organisations in England: December 2023', 2024.
[50] Ruth Robertson, Nicola Blythe, and Danielle Jefferies, *Tackling Health Inequalities on NHS Waiting Lists* (The King's Fund, 2023).
[51] Ibid.
[52] Danielle Jefferies et al., *Public Satisfaction with the NHS and Social Care in 2023: Results from the British Social Attitudes Survey* (King's Fund, 2024).
[53] Ipsos, 'Public Perceptions of Health and Social Care (May 2024)' (The Health Foundation, 2024).
[54] Care Quality Commission, *Adult Inpatient Survey 2023*, 2024.

survey.[55] Only 35 per cent of people say they are satisfied with inpatient services, compared to 41 per cent in 2021 and 64 per cent in 2019, which is a nearly 50 per cent drop in the past 4 years.

37 per cent of respondents to the most recent BSA survey reported being dissatisfied with A&E services. Whilst this is a 1 percentage point increase from the previous year, it is not a statistically significant change, and still represents the second worst levels of satisfaction with A&E services.

[55] Jefferies et al., 'Public Satisfaction with the NHS and Social Care in 2023', (The King's Fund, 2024).

# 4. Diagnosing the symptoms

Common diagnoses suggest the UK is under-staffing or under-spending on hospitals. As highlighted in Section 3.2, this is routinely discredited by available data. Rather, the persistent problems facing hospitals arise from a complicated structural and cultural inheritance. To tackle both short- and long-term crises, policymakers must understand the structural problems that underly them.

Too often, blunt measures that tell us little, such as bed occupancy, are used as a proxy measure for the efficiency of hospitals. Patients are understood in terms of one clinical episode rather than as a person with multifaceted needs. Hospitals operate as an island rather than in partnership with the rest of the system. And hospitals suffer from poor, or insufficient, management.

## 4.1 Patient flow is poorly understood and measured

It is well established that 'patient flow' is at the heart of the current crises in hospitals, particularly the A&E crisis.[56] The inability to move people efficiently through hospitals undermines the ability to let more people in.[57] Yet despite underpinning the overall efficiency of hospitals, patient flow is poorly measured and understood.

Patient flow is complicated by nature – a patient journey through a hospital may involve hundreds of clinical and administrative tasks and the same tasks can happen at different times in different places.[58] Even if a process is designed so that only tasks that are valuable and necessary are undertaken, patient flow will also be affected by variations in demand and capacity.

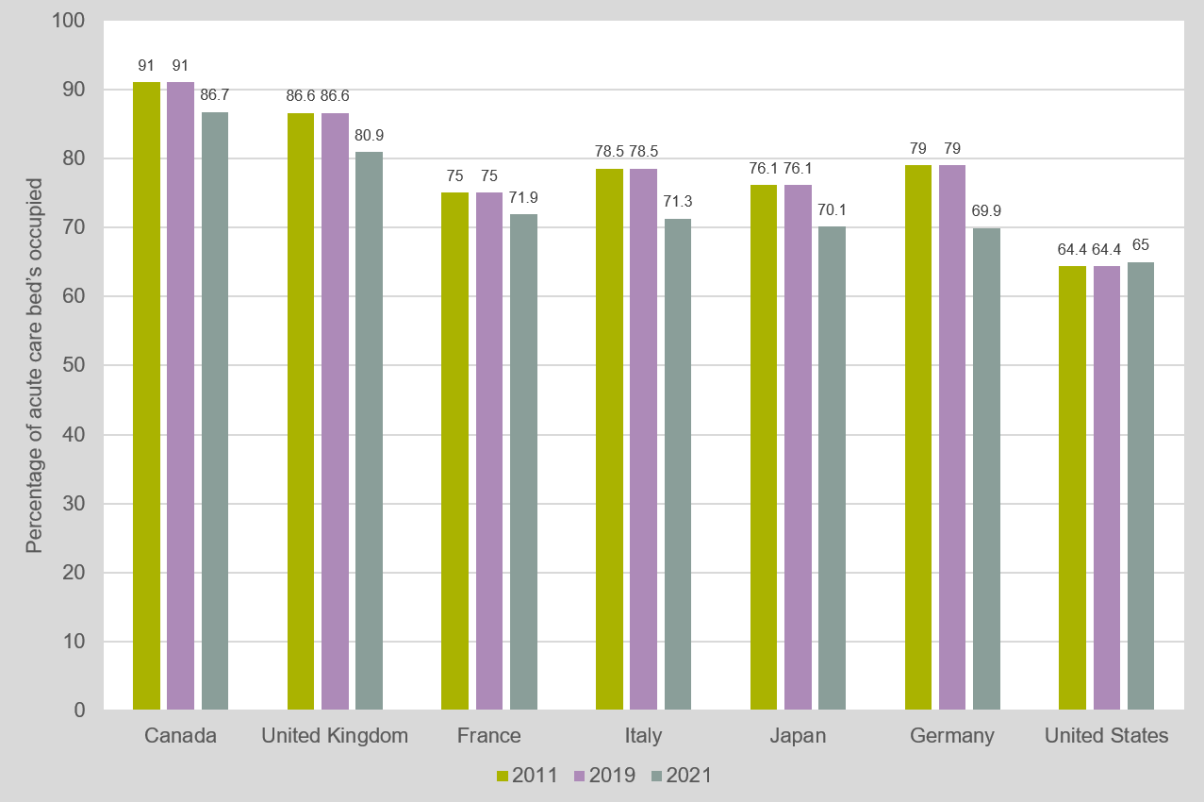
Many would attribute congestions in patient flow to bed occupancy or inability to discharge into social care, but these are both only part of the story, and fail to capture the core of the issue. Because patient flow is not consistently measured across hospitals – and "what gets measured gets managed"– it means that proxy data, such as bed occupancy, is used as a substitute.[59] This means that hospitals often have no way to tell how effectively patients are moving through the hospital, and therefore where the biggest risks of bottlenecks and delays are, what is causing these, and how to reduce or eliminate them.

[56] Danielle Jefferies, *An NHS in Crisis: Patients Are Now Waiting Longer for Almost Every Type of Emergency Care* (King's Fund, 2023); Sasha Karakusevic, *Understanding Patient Flow in Hospitals* (Nuffield Trust, 2016).
[57] Sasha Karakusevic, *Understanding Patient Flow in Hospitals* (Nuffield Trust, 2016)
[58] Sarah Garrett, *Improving Patient Flow* (The Health Foundation, 2013).
[59] Ara Darzi, *Independent Investigation of the NHS in England* (Department for Health and Social Care, 2024).

Take bed capacity, which does affect patient flow. Bed occupancy has increased since 2010, with 92.6 per cent occupied in 2023-24 Q4 compared to 86.3 per cent in 2010-11 Q1.[60] The UK has internationally high occupancy rates of acute care beds, with the fifth highest out of the OECD 28.[61]

However, rules such as keeping the proportion of beds occupied at 85 per cent or 92 per cent are misleading – management need to be able to accommodate patients in beds, but also manage the number moving in and out of them, which peak at different times.[62] This is further undermined by the fact current modelling techniques are often based on counting occupied beds at midnight. As surgery has become more sophisticated, there has been a big increase in day surgery – which increases daytime pressure, but reduces midnight occupancy.[63]

**Figure 12: Comparative occupancy rate of acute care beds in hospitals**




Source: Health at a Glance 2023: OECD Indicators, 'Hospital beds and occupancy', 2023.

[60] *Hospital Bed Occupancy* (Nuffield Trust, 2024).
[61] OECD, *Health at a Glance 2023: OECD Indicators*, Health at a Glance (OECD, 2023), https://doi.org/10.1787/7a7afb35-en.
[62] Sasha Karakusevic, *Understanding Patient Flow in Hospitals* (Nuffield Trust, 2016).
[63] Ibid.

The inability to measure patient flow presents particular challenges:

- It creates a lack of clarity and drive of action on patient next steps throughout their stay in hospital.
- Patients can become stuck on the wrong speciality wards, hence not getting the right focus of care and support to progress quickly.
- It creates bottlenecks for sub-processes, such as diagnostics.
- As patients become more complex and frail, with a range of different needs, they can move between wards more often. Every patient transfer requires sufficient resource for this process to happen without delay – such as time for cleaning, patient transfer, handover and communication. Without each of these, the process will take longer than necessary and queues will build up.[64]

A poor understanding of patient flow means hospitals are poorly prepared for variations in capacity, which in turn means staffing allocations do not accurately reflect expected peaks in demand, further allowing queues to build up. This also partially explains the productivity crisis in hospitals – it is not necessarily that demand is creating unmanageable queues, but that a failure to properly understand and manage patient flow through the entire hospital is creating misalignment of resources and unnecessary delays.

For example, interviewees for this paper informed us that discharges are typically 50 per cent lower at the weekend than in the week, creating a demand pressure by Monday morning. This can take until Thursday to ease, adding to the queue length – in turn increasing bed pressure – and length of stay throughout the hospital.

Patient flow is not just a hospital-based problem: capacity problems in social care are frequently cited as a reason for poor patient flow. There is undeniably a crisis in social care, but this should not be overstated as the explanation for delays to discharge. Many delays still result from basic operational failures within the NHS. *Reform* analysis of NHS England data suggests that on average in December 2022 at least 43 per cent of discharge delays were due to issues which are the NHS's responsibility.[65]

These include delays to writing discharge summaries, deciding discharge care plans and patients awaiting medicines to take home, transport from hospital, or diagnostic tests. These coordination challenges may stem from the managerial deficit outlined below – without effective managerial input, basic operational processes suffer.

The causes of delayed discharges are also different depending on the locality. A study from the King's Fund found more than 20 different causes of delayed discharge across six different hospital sites. These sites were also significantly different in how their health and care services were organised.[66]

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[64] Ibid.
[65] Sebastian Rees and Hashmath Hassan, 'The A&E Crisis: What's Really Driving Poor Performance?' (Reform, 2023).
[66] Alex Baylis et al., *Hospital Discharge Funds: Experiences in Winter 2022-23* (King's Fund, 2023).

These problems are all underpinned by cultural factors. Interviewees for this paper suggested that medics often do not feel responsible for the performance of the organisation they notionally belong to, but are primarily focused on their individual patients. For example, when doing ward rounds, doctors considering patients for discharge may decide that it is better for an individual patient to stay in bed a bit longer, but at the same time there could be other patients with much greater need lying on trollers in various corridors.

## 4.2 Hospitals are internally incoherent and fragmented

Preventative, whole-person care and efficient patient flow in the hospital is consistently undermined by the historically compartmentalised approach created by specialist medicine.[67] Clinical teams and departments too often work independently of each other, and this is reinforced by how services are funded, data is collected, and staff are trained.

Such fragmented care results in lower quality and leads to coordination inefficiencies, such as repeated tests, conflicting advice or suboptimal prescribing. It is also often unclear who, of the specialists a patient sees, is ultimately responsible for their care and treatment. Many patients require treatment from more than one specialist, meaning they are moved around from specialist to specialist either within hospital(s) or across appointments. The lack of clarity regarding responsibility can lead to key aspects of a patient's care being missed including their dietary and hydration needs, basic bathroom functions, mental health needs, and ensuring a patient understands their treatment.[68]

Specialisation is extremely important in medical practice, but given the demographic context, it is questionable whether hospitals would have such a hyper-specialised model if designed today.

The benefits of specialism in medical practice are extensive – it can produce better medical outcomes for patients with one specific or acute problem and improves the UK's international competitiveness by pushing the frontiers of medical science.

But generalism, even in a specialist acute setting, still adds significant value both clinically and operationally. It helps to improve patient flow within hospitals, improves continuity of care, and ultimately produces better medical outcomes, more cost efficiently, for elderly and multi-morbid patients. There is also evidence that super specialism creates diseconomies of scale – the narrower the specialisation of each medic, the more medics you need to cover all types of patient conditions, even if each patient only has one condition.[69]

**Funding and resource allocations happen within departments**

[67] Future Hospital Commission, *Future Hospital: Caring for Medical Patients* (Royal College of Physicians, 2013).
[68] Anna Dixon, 'Do We Need More Generalists in Our Hospitals?', *The BMJ Opinion*, 2011.
[69] I J P Loefler, 'Are Generalists Still Needed in a Specialised World? The Renaissance of General Surgery Survival of the General Physician', *BMJ* 320, no. 7232 (12 February 2000): 436–40, https://doi.org/10.1136/bmj.320.7232.436.

The financing models within the NHS are largely unable to support care that crosses pathways or organisations, but are instead focused on episodes of care and activity provided by specific organisations.[70] As a result, the current structures for budget setting and financial reporting within hospitals fail to adequately align the multi-speciality needs of patients.

The NHS Payment Scheme – the hospital financing model that replaced Payment by Results – uses many different payment mechanisms, but for the most part is a blended payment made up of variable and fixed elements:[71]

- The variable element funds elective (planned) care, outpatient procedures, outpatient first attendances, chemotherapy, and some diagnostic imaging. There will be expected levels of activity set to aid planning, but the contract is activity-based. The provider receives funding for the actual level of activity delivered.
- The fixed element is a stable, pre-agreed value for the expected annual level of activity in all services outside of the scope of the variable element.

In acute services, following most patient episodes, trained clinical coders review the clinical notes and apply unique and precise codes to the aspects of patient care.[72] Moving patients between specialists is therefore also cost-inefficient, as this can allow additional activity, and therefore costs, to add up. Rather than sharpening the incentives to avoid hospital care, it can undermine a shift towards prevention by disproportionately absorbing financial resource that could otherwise be invested in out of hospital services.[73]

This financial fragmentation is reinforced by the way that data on service delivery is selected and analysed, by having an excessively narrow focus on just those patients who, for example, access inpatient beds run by a single medical specialty service.[74] This can mean that the needs of patients in the hospital system not accessing these specialty beds are neither recognised nor met.[75]

From a cultural perspective, different specialists within the same hospital also often compete for resources, such as funding, equipment and space, and can be territorial over these resources.[76] This makes optimal and flexible allocation of resources much more difficult for hospitals, increasing the chance of inefficiencies and reducing agility.

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[70] Beccy Baird et al., 'Making Care Closer to Home a Reality: Refocusing the System to Primary and Community Care' (The King's Fund, 2024).
[71] Fiona Boyle, *Introduction to the NHS Payment Scheme* (Healthcare Financial Management Association, 2024).
[72] Ibid.
[73] Chris Ham and Judith Smith, *Removing the Policy Barriers to Integrated Care in England* (The Nuffield Trust, 2010).
[74] Future Hospital Commission, *Future Hospital: Caring for Medical Patients* (Royal College of Physicians, 2013).
[75] Ibid.
[76] Ibid.

**Bias towards specialism within the workforce**

The NHS aims to provide patient-centred hospital care, but the specialist-centric model promotes the opposite. The current model encourages doctors and clinicians to look at a patient's specific medical issues individually, not considering the person as a whole, resulting in a lower overall quality of care, worse health outcomes and cost inefficiencies.

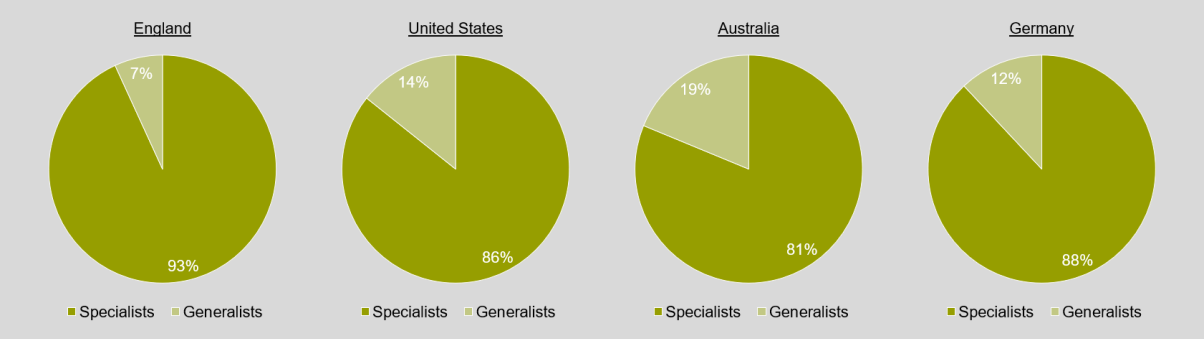
The necessity of a shift towards generalism has been widely accepted by recent governments.[77] It is now a longstanding ambition for NHS hospital care to be recalibrated towards more generalism, with very little success: as of June 2024, the proportion of NHS hospital consultants with a generalist specialism was 2.99 per cent, a decade earlier it was 2.31 per cent.[78]

Despite this, more generalist consultant positions, such as the role to manage the acute medical take (detailed in breakout box below) for a set time period, frequently go unfilled – in 2015, 40 per cent of take positions in England and Wales were unfilled.[79] NHS multidisciplinary teams in hospitals often do not focus on cross-specialism cases, instead focusing on particular diseases, such as cancer, heart failure or dementia.[80] These patients do often have extensive and complex needs which multidisciplinary teams help meet, but this is not helping to deliver the needed shift to cross-specialism generalism.

Specialist-centric hospitals are prevalent globally, but NHS hospitals are an outlier with especially high levels of specialisation as shown by Figure 14.

[77] NHS England, *The Doctor of the Future Is a Generalist*, 2020.
[78] NHS England, 'NHS Hospital & Community Health Service (HCHS) Monthly Workforce Statistics', 2024.
[79] *Supporting the Acute Medical Take: Advice for NHS Trusts and Local Health Boards* (Federation of the Royal Colleges of Physicians of the United Kingdom, 2019).
[80] Michele Castelli et al., 'The Forgotten Dimension of Integrated Care: Barriers to Implementing Integrated Clinical Care in English NHS Hospitals', *Health Economics, Policy and Law* 18, no. 3 (July 2023): 321–28, https://doi.org/10.1017/S1744133122000214.

**Figure 14: Comparative proportion of specialist versus generalist hospital doctors**




Source: NHS England, 'NHS Hospital & Community Health Service (HCHS) monthly workforce statistics', June 2024; Association of American Medical Colleges, 'U.S. Physician Workforce Data Dashboard', November 2023; Australian Government Department of Health and Aged Care, 'Summary Statistics, Medical Profession', 2023; Worth Health Systems Fact, 'Germany: Healthcare Workers', November 2024 (data from 2021); eurostat, 'Healthcare personnel statistics – physicians', July 2023 (data from 2021); Statistica, 'Number of general practitioners practicing in Europe in 2021, by country', October 2024 (data from 2021).

Additionally, a cultural bias against generalism in the medical profession makes generalist roles less appealing to prospective clinicians. A 2022 study at Imperial College School of Medicine found medical students associated generalist roles with lower prestige and lower income, combined with the same workload as specialists.[81] Generalism is not typically celebrated or rewarded, or seen as particularly aspirational, whereas the well-funded, super specialist, internationally expert roles are.

**What does the 'medical take' tell us about generalism in a hospital setting?**

Once a patient comes in from A&E, they must go through a filtering mechanism to ensure they are admitted to the correct speciality. This process is known as the 'medical take'. It is a particularly high-stress, high-pressure role.

The take is usually supervised by an on-call registrar (a doctor training to be a consultant) who is training in a speciality with a dual accredit in general internal medicine or who is training in a generalist speciality.[82] The take provides rapid assessment of presenting patients, allocating them to the appropriate speciality team and managing patient flows. This role is unappealing to many doctors. The number and complexity of patients being admitted via the take is increasing, and such a substantial and unfettered workload –

[81] Adam T. Misky et al., 'Understanding Concepts of Generalism and Specialism amongst Medical Students at a Research-Intensive London Medical School', *BMC Medical Education* 22, no. 1 (December 2022): 291, https://doi.org/10.1186/s12909-022-03355-1.
[82] Royal College of Physicians, Royal College of Physicians of Edinburgh, and Royal College of Physicians and Surgeons of Glasgow, *Supporting the Acute Take: Advice for NHS Trusts and Local Health Boards*, 2015.

medical take registrars are the only adult speciality registrar who cannot refuse a patient – is unappealing.[83]

This is exacerbated by the managerial responsibilities it involves on top of the clinical ones. This includes coordinating and leading junior doctors, nursing staff in A&E, nursing staff across the wards, consultants in other departments, ambulance staff and non-clinical staff such as receptionists or bed managers.

As a result, the take is frequently understaffed, and supervised by overworked, stressed registrars or by registrars of a different, less suited speciality. These staffing and workload issues often result in the take being a bottleneck for patient flow.[84]

Further contributing to this bottleneck effect, the take is often burdened by inefficient processes. The take team is constantly changing, meaning those involved in any take period are often unfamiliar working with each other. The supervising registrar sometimes changes partway through a take period, disrupting work. Specialty teams are often brought into patient cases too late and collaboration with primary care and A&E is fragmented, both increasing the workload of the take.[85]

The take demonstrates how the approach to generalism in a hospital setting necessitates a fundamental rethink. Despite their obvious importance in ensuring patient flow, where generalists do exist in hospitals – of which there are few – the role is instinctively unappealing, and as a result, retention and recruitment is poor, creating a vicious cycle. Consequently, it creates bottlenecks and perpetuates inefficiency.

## 4.3 Hospitals operate as islands

The interface between primary, secondary, and social care has long been beset with challenges, and as strain on the NHS increases, these relationships fracture further.

Integration between the different parts of the health system has been an objective of health policy reform for decades. Achieving it has proven complex, as it involves answering difficult trade-offs about where resource should sit in the system and therefore where funding is directed.

A core part of integrated care concerns the interface between acute hospitals and community-based services, with the dual aim of ensuring both the ‘front door’ and ‘back door’ of the hospital works efficiently. Hospitals need to work closely with primary and

[83] *Supporting the Acute Medical Take: Advice for NHS Trusts and Local Health Boards* (Federation of the Royal Colleges of Physicians of the United Kingdom, 2019).
[84] Catriona J Shaw, Victoria F Moxham, and Hugh Cairns, ‘Managing the Take’, *BMJ*, 7 April 2010, c1654, https://doi.org/10.1136/bmj.c1654.
[85] Royal College of Physicians, Royal College of Physicians of Edinburgh, and Royal College of Physicians and Surgeons of Glasgow, *Supporting the Acute Take: Advice for NHS Trusts and Local Health Boards*, 2015.

community care to reduce demand at the front door of the hospital, and with social and community care to prevent delays to discharge at the back door of the hospital. Realising the integration ambition at both a systemic level and at an operational level has proven difficult, undermining the overall effectiveness of secondary care.

**Funding models and incentives**

Financial flows within hospitals promote internal fragmentation, and funding flows within the wider NHS promote external fragmentation. The different parts of the NHS – primary care, community care, and hospital care – are not financially incentivised to work better together.[86] A perennial issue with prevention is that those making the prevention investment do not often see the return on that investment. This can disincentivise investments that generate cost savings in the wider system because they come at the expense of one specific part of the system.

While the development of ICSs was intended to overcome this by pooling budgets and commissioning ability, they are still driven by central NHS targets for the majority of their funding,[87] and NHS targets remain disproportionately focused on the treatment of illness or injury rather than the prevention of them, as noted in the 2023 Hewitt Review.[88] With the funding left over, ICSs struggle to work around complex, uncoordinated funding systems in hospitals in order to shift resource to where it's most needed.[89]

With DHSC and NHS spending, resources, and, as a consequence, power, skewed towards the acute sector, this leads to the domination of hospitals in the wider health system and in ICBs – even if they were structurally designed to enable a more preventative model, the power balance within ICBs can undermine this.

The lack of financial incentives is further entrenched by structural and regulatory incoherence. The oversight and governance of hospital trusts is confused, including ICBs, NHS England, NHS England regions, and the CQC – it is overbearing and too much detail is demanded from multiple sources. Indeed, a particular problem is that hospital trusts are overseen and run largely as independent entities rather than components of a local health system. Integrated Care Boards were supposed to fix this but their ambiguous authority in overseeing trusts has led them to be less effective.[90]

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[86] Edward Jones, Skeena Williamson, and Jonathan Barron, *Unlocking Reform and Financial Sustainability: NHS Payment Mechanisms for the Integrated Care Age* (NHS Confederation, 2024).
[87] Rosie Beacon, *Close Enough to Care: A New Structure for the English Health and Care System* (Reform, 2024).
[88] Patricia Hewitt, 'The Hewitt Review: An Independent Review of Integrated Care Systems' (GOV.UK, 2023).
[89] Beccy Baird et al., *Making Care Closer to Home a Reality: Refocusing the System to Primary and Community Care* (King's Fund, 2024).
[90] Beacon, *Close Enough to Care: A New Structure for the English Health and Care System*, 2024.

**Absence of communication and technological infrastructure**

The focus on the high-level structural questions can also distract from practical, and highly surmountable, problems on the ground, which undermine day-to-day integration between services.

Crucial to the integration ambition is reducing demand at the front door via primary and community care. But a commonly cited frustration of secondary care clinicians is that they receive too many inappropriate referrals which could be more effectively managed in general practice.[91] This can then lead to an excessive burden on the secondary care specialist system. But often there are no communication channels in place between relevant specialists and general practice, leaving GPs to err on the side of caution, which may unnecessarily increase the elective backlog.

From the perspective of general practice, GPs struggle to contact specialist doctors over the phone which has proven problematic when patients require urgent care. GP surgeries manage a large volume of waiting list enquiries and spend significant time writing expedite letters to encourage secondary care colleagues to see the patient sooner.[92]

Even where communication channels do exist, phones often go unanswered due to operational pressures and relevant email addresses are difficult to find. And where relevant individuals are contacted, communications are rarely stored reliably in the care record.[93] Much of this communication however, would not be necessary if the technology infrastructure was sufficient.

The Summary Care Record has been implemented in recent years to ensure a greater range of patient information from the GP record is available in secondary care. But this has not been applied universally and it does not allow secondary care clinicians to amend the GP record directly.[94] Different organisations also use different software and hardware with different capabilities, functions, information captured and formats. This limits how much staff across organisations can work together and share medical information.[95] All of this reduces productivity and frustrates clinicians across the health system.

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[91] *General Practice and Secondary Care: Working Better Together* (Academy of Medical Royal Colleges, 2023).
[92] Ibid.
[93] Ibid.
[94] *Supporting Effective Collaboration between Primary, Secondary and Community Care in England in the Wake of Covid-19* (British Medical Association, 2020).
[95] *General Practice and Secondary Care: Working Better Together* (Academy of Medical Royal Colleges, 2023).

## 4.4 Operational inefficiencies drive poor productivity

As outlined in Section 3.2, the NHS's productivity crisis in secondary care is well documented.[96] In the NHS, productivity is a measure of performance that compares the amount of output provided (for example, surgical procedures, GP consultations, or outpatient attendances) with the amount of inputs required to provide those services (for example, staff, medical equipment, and drugs).[97]

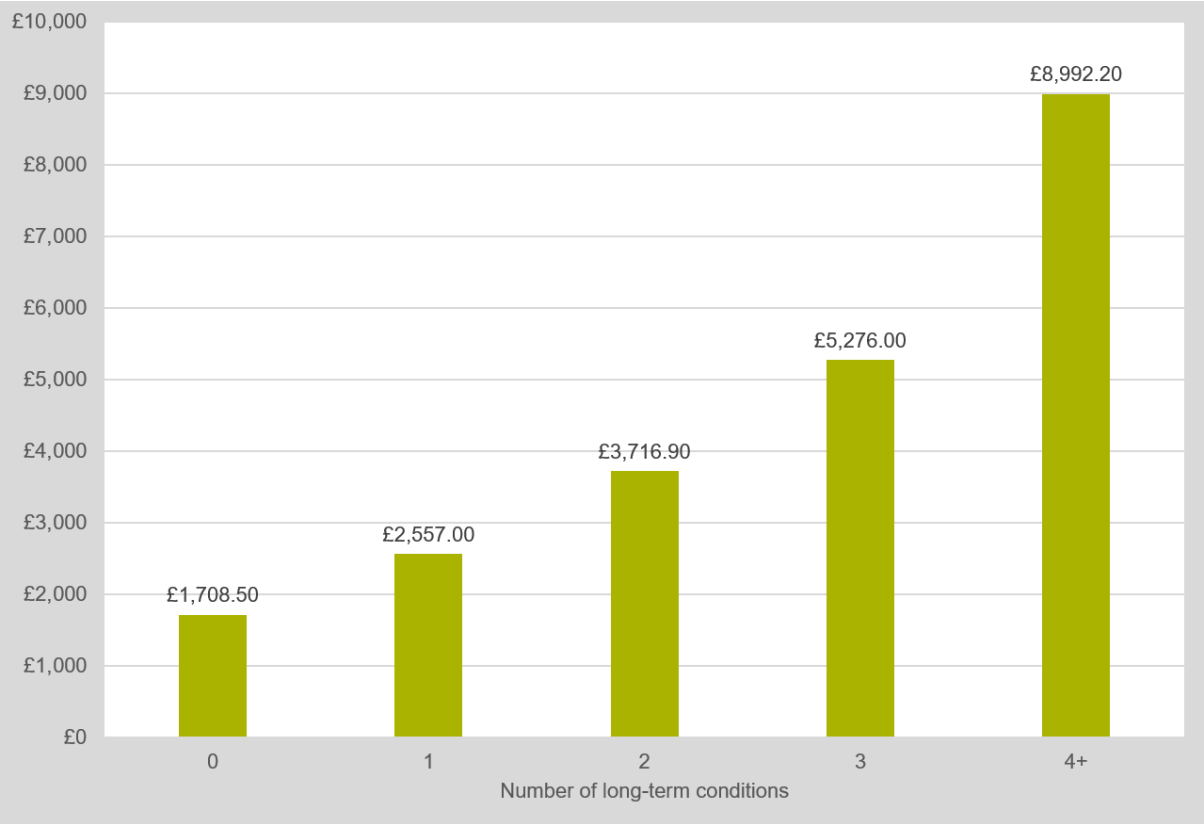
Providing an accurate measure in the NHS is famously difficult, as data has a bias towards secondary care (where activity is more easily measured) and accounting for output does not always account for quality of care.[98] Nevertheless, hospital productivity has declined and this undermines access to care. Put simply: patient attendances have only slightly increased, workforce has significantly increased, while waiting times have increased dramatically.[99] Insufficient management and capital underinvestment are two of the key issues.

**Patient complexity**

Older and multimorbid patients stay in hospital longer, require a higher volume of services per admission and have more complex treatment requirements.[100] In fact, increased patient complexity accounts for more than half of the observed increases in length of hospital stays following emergency admission.[101] Increased costs per patient and longer hospital stays would, based on usual measures of NHS productivity, indicate lower productivity, hence increasing patient complexity has a negative effect on measured hospital productivity figures.[102]

[96] Sam Freedman and Rachel Wolf, 'The NHS Productivity Puzzle: Why Has Hospital Activity Not Increased in Line with Funding and Staffing?' (Institute for Government, 2023); Warner and Zaranko, *Is There Really an NHS Productivity Crisis?* (Institute for Fiscal Studies, 2023).
[97] Julian Kelly, *NHS Productivity* (NHS England, 2024).
[98] Ibid.
[99] Freedman and Wolf, 'The NHS Productivity Puzzle: Why Has Hospital Activity Not Increased in Line with Funding and Staffing?' (Institute for Government, 2023); Warner and Zaranko, *Is There Really an NHS Productivity Crisis?* (Institute for Fiscal Studies, 2023).
[100] Julian Kelly, *NHS Productivity* (NHS England, 2024).
[101] Ibid.
[102] Ibid.

**Figure 15: Average costs of a hospital admission, based on the number of long-term conditions a patient has**




Source: PLOS Medicine, 'Multimorbidity combinations, costs of hospital care and potentially preventable emergency admissions in England: A cohort study', 2021.

One key cause of the high costs associated with providing care to complex patients is the over specialised NHS hospital model which is poorly suited to the needs of complex patients, as discussed at the beginning of this chapter.

What's more, complex patients are treated most cost-effectively in community, not hospital, settings.[103] Yet for a wide variety of reasons, poor management of long-term conditions in primary and community care settings is common, leading to avoidable hospital admissions.

**Insufficient management**

Management in and of the NHS has long been controversial. Successive politicians have consistently disparaged the role of managers in healthcare, claiming they needlessly divert funds away from frontline staff. As productivity in the NHS plummets, these views have been routinely discredited.

[103] Iris Megido, Yael Sela, and Keren Grinberg, 'Cost Effectiveness of Home Care versus Hospital Care: A Retrospective Analysis', *Cost Effectiveness and Resource Allocation* 21, no. 13 (February 2023): 1–8.

'Managers' is a broad term that could refer to a wide range of administrative roles in the NHS. In this context, it refers to roles that devote all or the bulk of their time to the activity of coordinating the work of others and ensuring the most efficient operating model possible. There are three key problems with NHS management in secondary care: there are not enough managers, they are not effectively targeted and trained in their domain, and it is not clear which models of management are most effective for performance improvement.

First, the NHS, compared to other industries, is under managed. NHS managers make up 1.9 per cent of the workforce compared to 11 per cent of staff employed in management roles in the overall economy.[104] The NHS has very high hospital staffing relative to peer countries but has very few managers: OECD figures show that in 2014, the NHS was spending less than half the OECD average on administration and management combined.[105]

The role of managers is also not effectively defined, and therefore the key competencies expected of managers are ambiguous. The Messenger Review of NHS Leadership found that "there is an absence of accepted standards and structures for the managerial cohort within the NHS … it has long been a profession that compares unfavourably to the clinical careers in the way it is trained, structured and perceived."[106] Training can vary widely in quality and length, and varies between being accredited and unaccredited.[107] In particular, problems often lie at middle and lower management levels where management basics can be very poor.

Lastly, it is not clear which models of management are most effective for performance improvement. There is variable evidence on the correlation between more management and higher performance, but this is likely because performance is contingent on a multitude of interdependent factors, and the application of these vary across trusts. [108]

**Low capital investment**

A consistently cited reason for poor productivity in secondary care is capital underinvestment. That is, investment to create or improve long-term assets that support public services and economic growth. This is distinct from day-to-day expenditure (otherwise known as 'revenue spending'). The most common uses of the NHS's capital budget is research and development, building and maintaining NHS facilities and equipment such as MRI or CT scanners.

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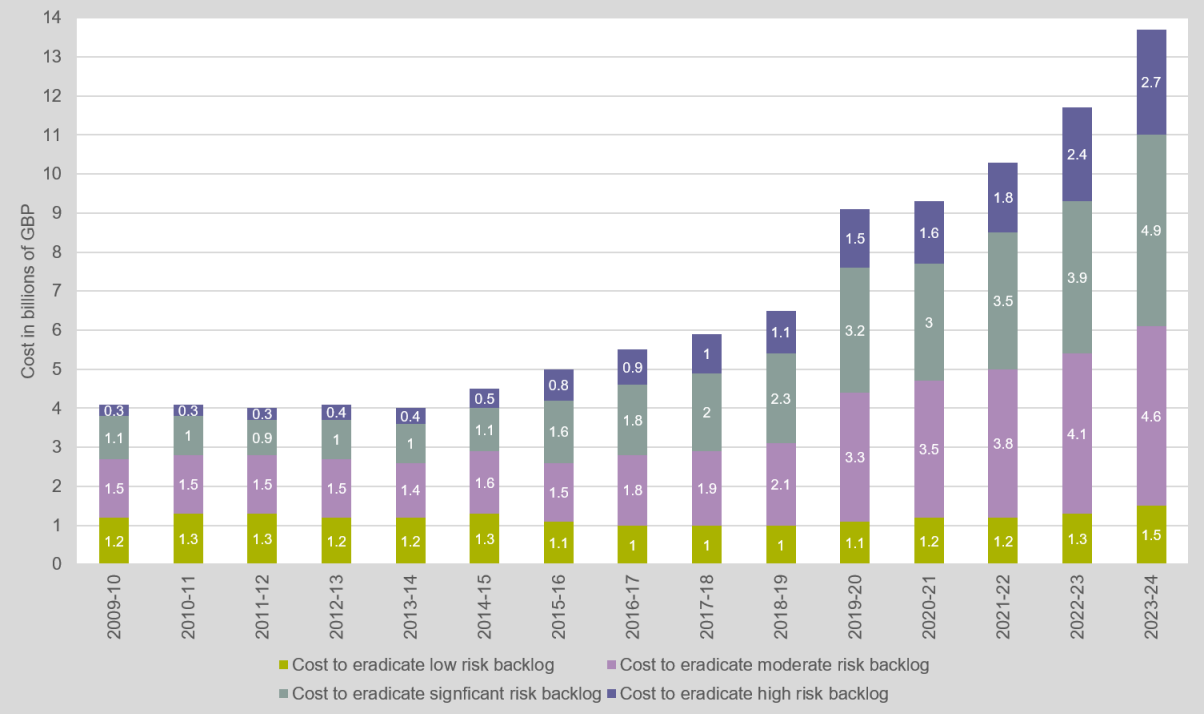
[104] S Freedman and R Wolf, 'The NHS Productivity Puzzle: Why Has Hospital Acitivity Not Increased in Line with Funding and Staffing?' (Institute for Government, June 2023). Ibid.
[105] Ibid.
[106] Gordon Messenger and Linda Pollard, *Health and Social Care Review: Leadership for a Collaborative and Inclusive Future* (Department for Health and Social Care, 2022).
[107] Richard Hyde and Niamh O Regan, *A Picture of Health? Examining the State of Leadership and Management in Healthcare* (Social Market Foundation, 2023).
[108] John Power, Dr Sean Phillips, and Stuart Carroll, *Just About Managing* (Policy Exchange, 2024).

Over the past 15 years, levels of capital investment have grown dramatically, but this is partially to compensate for the fact that from 2014-15 to 2019-20, funds from capital budgets were transferred to support day-to-day spending and relieve the growing pressures in the NHS.[109]

The dire state of NHS England's hospital estates contributes to poor secondary care productivity. In 2023-24, the cost to resolve the backlog of maintenance for all 'risky' NHS England buildings was estimated to be just over £13.75 billion.[110] Worryingly, over 55 per cent of those costs would be needed just to tackle high-risk and significant risk building issues.[111] The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust, for example, has 5,062 steel and timber support props to prevent the hospital from collapsing.[112]

**Figure 16: The cost and severity of maintenance issues with NHS buildings**




Source: The King's Fund, 'Capital investment in the NHS', 2024.

Hospital equipment is also in a concerningly poor state. Freedom of Information requests, to approximately 30 per cent of NHS trusts, found 40 per cent of these hospitals use outdated medical equipment such as X-rays, CT and MRI scanners and radiotherapy machines.[113]

[109] *Capital investment in the NHS* (The King's Fund, 2024).
[110] NHS England: Digital, 'ERIC - 2023_24 - Report - Provisional', 2024. Ibid.
[111] Ibid.
[112] The Queen Elizabeth Hospital King's Lynn NHS Foundation Trust, *Maximising Safety of Our Current Site*, 2024.
[113] Louis Morris, 'Outdated Equipment Being Used in 40% of Hospitals, New Research Finds', *National Health Executive*, 2023. Ibid.

Further, 59 per cent of the trusts had at least one X-ray machine that was more than 20-years old.[114] England lags behind the OECD averages for scanners (CT, MRI and PET-CT) per million population and ranks lowest among 23 countries for CT scanner provision.[115] This has contributed to waiting time and wait list growth.[116]

There are numerous negative consequences, for patients and staff, resulting from poor NHS hospital estates. Perhaps most obviously, shut or disused facilities caused by unsafe buildings or unusable equipment reduces the capacity of secondary care. Broken lifts, unfit-for-use or outdated equipment, and finding workarounds for estate issues causes major inefficiencies, similarly reducing secondary care capacity.

The staff of St Mary's Hospital in Paddington, for example, estimate they waste 10-15 per cent of their time finding workarounds for estate problems.[117] Such inefficiencies are a huge drain on hospitals' productivity but they also pose injury and health risks for staff and patients with weak flooring, flooding and sewage leaks.

The inadequacy of basic technology in NHS hospitals is pervasive, limiting the quality of healthcare hospitals can provide and having a significant negative impact on productivity. Indeed, in 2022, it was estimated more than 13.5 million hours of doctors' time was lost each year (across primary and secondary care) because of inadequate or malfunctioning IT systems and equipment.[118]

Freedom of Information requests in 2023 found computer system errors in Nottingham hospitals deleted 400,000 patient letters, causing them to go unsent, and EPR system errors similarly caused 24,000 letters to go unsent from Newcastle hospitals.[119] Test results are commonly mislabelled or lost due to IT system errors.[120] Computers and printers are frequently unreliable.

Currently, 10 per cent of NHS hospitals do not have electronic patient records (EPRs).[121] Many hospitals that have EPR systems use them in combination with paper records. The variety, even within individual hospitals, of patient record systems can make accessing patient information very challenging across hospital departments, let alone between different

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[114] Morris, 'Outdated Equipment Being Used in 40% of Hospitals, New Research Finds'. Ibid.
[115] Tammy Lovell, *UK Ranks Lowest Internationally for Number of Scanners per Million* (Digital Health, 2024).
[116] The King's Fund, *Waiting Times for Elective (Non-Urgent) Treatment: Referral to Treatment (RTT)*, 2024.
[117] Tim Orchard, 'Hospitals Are Crumbling, and the Impact on Patients Is Immeasurable', *The New Statesman*, 2023.
[118] British Medical Association, 'Getting IT Right: The Case for Urgent Investment in Safe, Modern Technology and Data Sharing in the UK's Health Services', Building the Future, 2022.
[119] Sharon Barbour, 'Nottingham University Hospitals Trust Failed to Send 400,000 Letters', *BBC News*, 29 September 2023; Sharon Barbour, 'Newcastle Hospitals Says Computer Error Lost Patient Letters', *BBC News*, 26 September 2023.
[120] Laura Hughes, '"Operating in the Stone Age": NHS Staff's Daily Struggle with Outdated Tech', *The Financial Times*, 2024.
[121] Ibid.

hospitals or between hospitals and primary or social care providers. The lack of interoperability between patient record systems risks crucial medical information remaining unknown to clinicians, putting patient health at risk, as well as often resulting in repeated tests, medication errors and other efficiency losses.[122]

[122] Ibid.

# 5. The long-term prognosis

The long-term prognosis for hospitals underscores the need to fundamentally rethink secondary care for a new era of care. Clinical demand is changing as populations age and their clinical needs become more complex. The cost of care is increasing as people are living longer. Without a coherent vision of the future hospital, there is also a risk that actually achieving a upstream shift to prevention could destabilise hospitals.

Even if the underlying problems previously outlined did not exist, these factors should force a step change in the policy approach to secondary care.

## 5.1 Clinical demand is changing

The health and care needs of the UK population have changed substantially since the NHS was first established in 1948.

As Figure 17 shows, people are more likely to suffer and die from diseases like cancer and dementia whereas previously people suffered more from strokes and heart disease.

**Figure 17: Biggest killers, as a percentage of deaths in England and Wales**

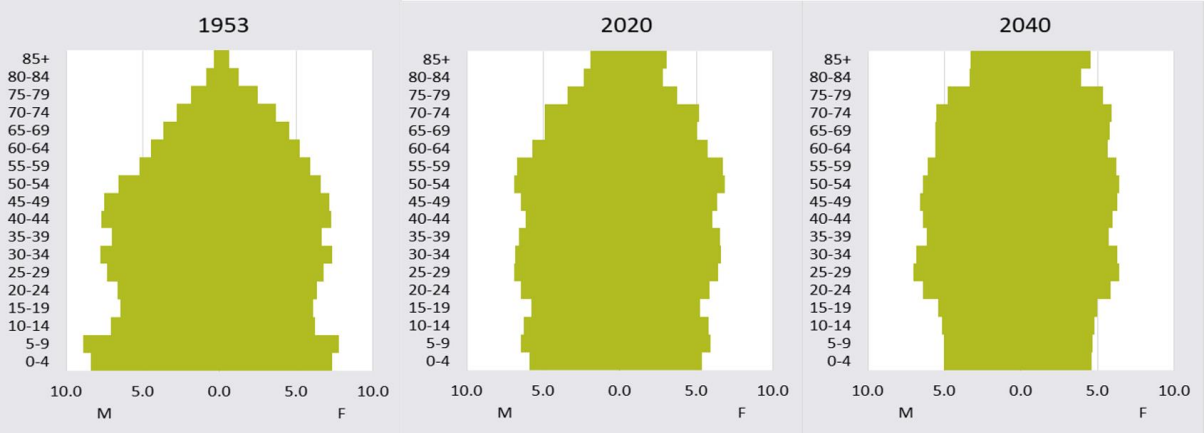
| Disease | 1948 | 2017 |
|---|---|---|
| Heart Disease | 28.8 | 15.7 |
| Stroke | 11.2 | 6.2 |
| Cancer | 16.8 | 27.8 |
| Tuberculosis | 4.7 | 0 |
| Diabetes | 0.8 | 1.1 |
| Senility and Dementia | 2.6 | 10.5 |

Source: Nuffield Trust, 'Facts and Figures on the NHS at 70', June 2018.

People are also more likely to live longer. In 1948, life expectancy for males was 65.9 and 70.3 for females and in 2022, life expectancy rose to 79.3 and 83.1 respectively.[123] Additionally, life expectancy is set to increase to 86.4 and 88.9 by 2066.[124]

[123] Nuffield Trust, 'Facts and Figures on the NHS at 70', June 2018; ONS, 'Single Year Life Tables, UK and Constituent Countries', 2024.
[124] Office for National Statistics, 'Living Longer: How Our Population Is Changing and Why It Matters', 2018.

**Figure 18: Projected demographic changes up until 2070**




Source: ONS, 'National population projections: 2020-based interim', 2022.

However, this does not mean people are living healthier lives. Indeed, people are more likely to spend longer living with multiple diseases (known as multimorbidity) and this is set to increase in the future. By 2035, 67.8 per cent of people aged 65 and over are likely to have two or more conditions; this compares to 54 per cent in 2015.[125] Additionally, projections also suggest that there will be double the number of people aged over 65 living with four or more conditions than in 2015.[126] A Global Burden of Disease Study found that people spent more years in poor health in 2010 compared with 1990.[127]

Inevitably the changing clinical demand will change the nature and volume of care. Multimorbid patients are at a higher risk of unplanned readmission to hospital.[128] By 2060, the demand for hip and knee replacement is estimated to increase by almost 40 per cent.[129]

## 5.2 The costs of care are increasing

It is a perennial issue in health economics that the more care improves, the more health costs. This is also underpinned by wider social and economic trends that collectively make cost pressures in healthcare particularly acute.

[125] Andrew Kingston et al., 'Projections of Multi-Morbidity in the Older Population in England to 2035: Estimates from the Population Ageing and Care Simulation (PACSim) Model', *Age and Ageing* 47, no. 3 (1 May 2018): 374–80, https://doi.org/10.1093/ageing/afx201.
[126] Ibid.
[127] Murrary et al, 'UK Health Performance: Findings of the Global Burden of Disease Study 2010', *The Lancet* 381, no. 9871 (2013).
[128] Luciana Pereira Rodrigues et al., 'Association between Multimorbidity and Hospitalization in Older Adults: Systematic Review and Meta-Analysis', *Age and Ageing* 51, no. 7 (1 July 2022): afac155, https://doi.org/10.1093/ageing/afac155.
[129] G.S Matharu et al, 'Projections for Primary Hip and Knee Replacement Surgery up to the Year 2060: An Analysis Based on Data from The National Joint Registry for England, Wales, Northern Ireland and the Isle of Man', *The Annals of The Royal College of Surgeons of England* 104, no. 6 (2022).

Global average life expectancy has increased by almost 23 years over the past 60 years.[130] Medical and technological innovations have helped to extend life expectancy and enabled people to live with diseases when this would not previously have been the case. Advancements have occurred in numerous fields of medicine: diseases prevention (vaccinations); diagnostics (such as MRI and AI screenings); and new drugs, most recently Ozempic and Leqembi, which help manage diseases such as diabetes and Alzheimer's.

One of the challenges this presents is that, unlike in other industries, technological advancements in health and care are cost escalating rather than cost containing.[131] For example, estimates attribute around 25 to 50 per cent of annual growth in health expenditure to technological progress.[132]

Additionally, advancements might also increase demand without reducing labour input. For instance, where new technologies treat conditions for which there have not been any, or any effective, treatments, costs will likely rise.[133] This is also the case for diseases with current unmet needs.[134] And in particular, given future demographic trends of an ageing, longer-living population with rising numbers of morbidity, the fiscal burden of health and care is going to increase further.

Baumol's cost disease is also a factor. This refers to the need to increase wages across all sectors of the economy even though productivity changes are not uniform across these sectors. Labour productivity tends to lead to higher wages, but it is easier to increase productivity in sectors such as manufacturing where many processes can be automated, reducing the costs per unit. This is not true for healthcare where the dependency on human labour is embedded in the service, and even with technological innovation, this is highly unlikely to change.

Irrespective, as the economy grows, wage pressures will rise due to competition for resource. It has been forecast for example, that if this current trend persists in healthcare it will equate to 50 per cent of UK GDP by 2100.[135]

Lastly, over much of the post-war period, the steady rise in spending on health was partly offset by falling spending on defence and debt interest, which together fell to an equivalent proportion of national income, otherwise known as the 'peace dividend'. Over the past two years, spending on both defence and debt interest have begun to rise again as a share of GDP, reflecting the Government's growing debt stock and rising geopolitical tensions.[136]

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[130] Swiss Re Institute, 'Longer Lives — Impact of Medical Advances on Life Expectancy', 2023.
[131] Office for Budget Responsibility, 'Fiscal Sustainability Report', 2015.
[132] A Marino and L Lorenzoni, 'The Impact of Technological Advancements on Health Spending - a Literature Review', *OECD Health Working Papers*, 2019.
[133] Office for Budget Responsibility, 'Fiscal Sustainability Report', June 2015.
[134] Ibid.
[135] Jochen Hartwig, 'What Drives Health Care Expenditure?—Baumol's Model of "Unbalanced Growth" Revisited', *Journal of Health Economics* 27, no. 3 (May 2008): 603–23, https://doi.org/10.1016/j.jhealeco.2007.05.006.
[136] *Fiscal Risks and Sustainability* (Office for Budget Responsibility, 2024).

## 5.3 Prevention could destabilise hospital finances

The new Government has followed in the footsteps of previous governments in promising a shift to prevention.[137] If they succeed where others have failed, the services that hospitals provide will have to be descoped. This will affect the stability of hospitals if not implemented in line with wider reform of the hospital model.

Prevention in itself requires answering some difficult trade-offs as to which part of the system deserves priority for funding. It may also require confronting unpleasant truths: that it may not be guaranteed to provide cost benefits in the short term at least, not least as it is likely to involve some double-running costs until the model has matured.

Moving funding away from hospitals is further complicated by the fact that hospital finances are harder to disentangle than local primary and community contracts. As discussed, acute trust finances have a high fixed cost base and rely on cross-subsidisation between services in hospitals.[138] As such, when money is needed in the system to balance overspends or meet efficiency targets, it is more straightforward for commissioners to take it out of smaller local contracts with primary and community care providers than reduce funding in hospitals.[139]

**Illustrative example of how reduction in scope could affect hospital income**

Following an elective episode, trained clinical coders will review the clinical notes and apply unique codes to each aspect of the patient's care. The respective department is reimbursed an agreed amount for delivering aspects of that patient's care.[140]

Therefore, because hospitals work off a reimbursement model for much of the care they deliver, reducing the volume of care delivered is the equivalent of a shop owner having to continue running a shop despite the footfall – and therefore income – reducing substantially.

Nevertheless, even despite reduced footfall hospitals (like shops) still need sufficient capacity available to provide a service in case there is a sudden increase in demand. This reduces the economies of scale and the overall volume of cash coming into a hospital, undermining its financial stability.

Working off the assumption that:

[137] 'Secretary of State for Health and Social Care's Address to IPPR', *Department of Health and Social Care*, 2024.
[138] Baird et al., 'Making Care Closer to Home a Reality: Refocusing the System to Primary and Community Care', 2024.
[139] Ibid.
[140] Fiona Boyle, *Introduction to the NHS Payment Scheme* (Healthcare Financial Management Association, 2024).

- The total NHS cost per MRI examination is approximately £170[141]
- Hypothetically, this MRI scanner can perform diagnostics tests on 7,000 patients annually (26 patients a day for 260 days a year)
- The total reimbursement to the hospital for these scans would be £1,190,000

However, if this demand was shifted to alternative locations away from hospitals, this could substantially reduce a hospital's income:

- A 25 per cent reduction would decrease income to £892,500.
- A 50 per cent reduction would decrease income to £595,000.

[141] *2022/23 National Tariff Payment System: National Tariff Workbook with July 2022 Revised Cost Uplift Factor* (NHS England, 2022).

# 6. A vision for the future hospital

Hospitals, once the cornerstone of care, are now overwhelmed and unproductive, struggling to meet the needs of increasingly diverse and aging populations. The need for reform is irrefutable.

The barriers to overcome in hospitals are particularly challenging: they are complicated, interdependent systems staffed by a large and diverse workforce, with deeply entrenched processes and culture.

Rather than focusing on discrete functions or individual problems in hospitals, *Reform's* 'Future of the Hospital' programme will start from the ground up and reimagine the hospital as if they were being designed from scratch today. This raises four fundamental questions which will be explored through subsequent papers. If we were to design a hospital based on current demographic needs:

- How should the patient journey through the hospital change?
- How would hospitals interact with the rest of the healthcare system?
- How would the entire configuration and location of secondary care services look different?
- How would this change the scale, clinical portfolio, workforce, infrastructure, and funding model of secondary care?

**Figure 19: The vision for the future hospital**

| Current approach | New approach |
|---|---|
| The NHS is hospital centric with hospitals consuming the majority of financial and human resources | The NHS is community centric with resources for hospitals commensurate to the demand created by a prevention focused model |
| Hospitals are the first port of call for patients, even those with non-urgent clinical needs | Hospitals should be hard to get into and easy to get out of |
| Patient flow is fragmented and needlessly lengthened by inefficiency and poor discharge processes | The patient journey is as smooth as possible and length of stay as short as possible |
| Patients are treated according to individual episodes of care for individual conditions | Patients are treated holistically and their journey through the hospital reflects this |
| Specialist care is bottlenecked in a single physical hospital building | Multiple locations of specialist care within the community and the home with larger hospitals available for more complex cases |
| Elective and emergency care are unacceptably delayed with significant geographical disparities in access | The appropriate level of expertise is provided quickly and efficiently across the country, with appropriate level of resource for each area's need |
| The financing model rewards episodic care, undermining collaboration as well as prevention | The financing model incentivises whole person care underpinned by collaboration within the hospital and the wider health system |
| Significant unmet secondary care demand despite substantial increase in resources | Patients receive the right care from the right clinician in the most appropriate setting, whether hospital or community |

## 6.1 Secondary care as a service, not a building

The model of secondary care is not changing with the nature of demand. *Reform* will challenge how the physical hospital building itself can change, and how the same level of care can be provided outside of the traditional hospital. Secondary care should be considered a service, agnostic of the physical building, able to be delivered much closer to, or even inside, the home.

Many of the pioneering medical innovations that revolutionised modern healthcare had not been invented in 1948 and conditions that dominate healthcare usage and expenditure today – chronic pain conditions, diabetes, and dementia – were either rare or poorly understood. Most importantly, the increasing volume and complexity of clinical demand changes how care is delivered on the ground in the hospital. It affects the balance of skills needed in the workforce, the equipment, and crucially, the location of care.

A reimagined model of secondary care involves three core pillars of service delivery: the hospital, the community, and the home. The increasing sophistication of technology is normalising virtual wards, and the potential for these to reduce costs while improving care is potentially significant. The role of community hospitals and diagnostics could also be transformative where it is considered a fundamental part of the system rather than an add-on.

Indeed exploring the physical division between emergency and elective care is not new. Alternative approaches to secondary care have been experimented with in recent decades: from polyclinics to community diagnostic centres, and these are all worthy innovations. But they have not been explored in partnership for what the overall secondary care system should look like in an ideal world, but rather tweaked at the edges or in response to a particular need (such as large elective backlogs).

Rethinking the division of care in a hospital raises fundamental questions about economies of scale, as well as logistical concerns about services, facilities and rotas. *Reform* will methodically explore previous attempts to shift the location of secondary care. It will then explore, given the changing needs of the population, what the ideal composition of secondary care would be. This will include how the workforce would need to adapt, the configuration of services and scale.

## 6.2 Reimagining patient flow

Patient flow in hospitals needs a fundamental reset. Encouragingly, the landscape is optimistic: the analytical capabilities of technology have never been more sophisticated. There is also much to be learned from other industries that specialise in non-uniform flows, such as supply chain management, and carefully considering how this can be applied to the unique medical context.

First, it should be considered that patient flow is both a problem within the wider health system – through suboptimal integration with primary and secondary care – and within hospitals themselves. These are mutually reinforcing: without effective integration across the system, the efficiency of the patient flow within the system will never be satisfactory because there will be excessive unnecessary demand. Without efficient services within the hospital, patient outcomes deteriorate, and as a result demand will continue to rise across ancillary services such as primary, community and social care. Hospitals too often operate as islands. The current system takes a building, runs the building financially and clinically and thinks this will help the rest of the system.

Yet, even with the appropriate level of demand in the hospital, the flow within the hospital would still be inefficient without commensurate management and flow co-ordination. Accepting that patients have multiple needs and an increased level of frailty, oversight of where patients are and how this is affecting the overall flow of the hospital, rather than a particular department, is an essential function for the modern hospital.

Management speaks to a variety of different roles within the hospital, from the Chief Executive to a ward flow co-ordinator, and a reimagined approach to management will refer to analytical roles around efficiency and resource allocation, as well as operational roles. The relationship between management and clinicians is well established as one of the most fractious in the NHS, consistently undermining operational efficiency. Reconciling this cultural divide is paramount.

Unsurprisingly, integration and management will always be undermined without sufficient technological and communication infrastructure. The capabilities of data analytics in flow co-

ordination are sophisticated: predictive analytics, real time monitoring, analysing resource allocation, and identification of high-risk patients. Though underlying this is an essential need to improve the basic technology infrastructure: Electronic Health Records across the system and functioning computer programmes within the hospital.

*Reform* will specifically explore a more effective model of system wide integration, the role of management and flow co-ordination and the technology infrastructure to enhance this.

# 7. Conclusion

It is evident that reform is no longer a nice to have but essential to the future sustainability of the NHS. Though while the goal is clear – improve patient care while reducing inefficiencies – the path to meaningful reform is less so. Despite the hurdles—political, financial, and logistical—reforming hospitals will not be solved by incrementalism.

For policymakers, hospital reform highlights a perennial issue in health policy: balancing long-term goals with the need to firefight in the short term. While these are often thought to be in conflict, they can be mutually reinforcing. Fixing management will solve inefficiencies now, as well as insulate the system in the long-term. Adapting the balance of skills in the workforce will respond to changing population demand today, in addition to making it more resilient as populations age. Increasing capital investment will reduce the elective backlogs and make hospitals more efficient in the long-term than they otherwise would have been.

But this cannot happen in the absence of a vision for healthcare in the long-term. Policymakers have paid lip service to prevention for decades, but realising the prevention ambition will always be unachievable if there is not a coherent plan for what the role of the hospital is, and how it can achieve this. Otherwise, the modus operandi that has existed for decades – a hospital centric health system – will continue, draining resource out of the health service and forcing costs to increase in perpetuity.

As the healthcare landscape continues to evolve, the pressure to overhaul hospital systems will only intensify. The decisions made today will shape the future of healthcare delivery, and with mounting pressure on the system, the imperative for reform has never been more obvious.

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