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The NHS productivity puzzle

Why has hospital activity not increased in line with funding and staffing?

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About this report

In response to the Covid-19 pandemic, the government provided the NHS with a large injection of funding. That funding means that hospitals now employ more staff than ever. But despite those increases, hospital activity remains below pre-pandemic levels on some metrics. This report examines why this has happened and what might be needed to bring productivity back in line with trend levels. It was funded by the Health Foundation, an independent charitable organisation working to build a healthier UK.

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Executive summary

The NHS is in crisis. Elective waiting lists are at their highest ever levels. Every month record numbers of people – reaching the hundreds of thousands – wait more than four hours to be seen in A&E. People are struggling to get GP appointments; those who do and seek a referral are more likely than ever to see it rejected.

NHS performance has become a major political problem for the government, with voters considering it the most important issue facing the country after the cost of living.[1] Satisfaction with the NHS is at an all-time low.[2] At the heart of this crisis is a productivity puzzle.

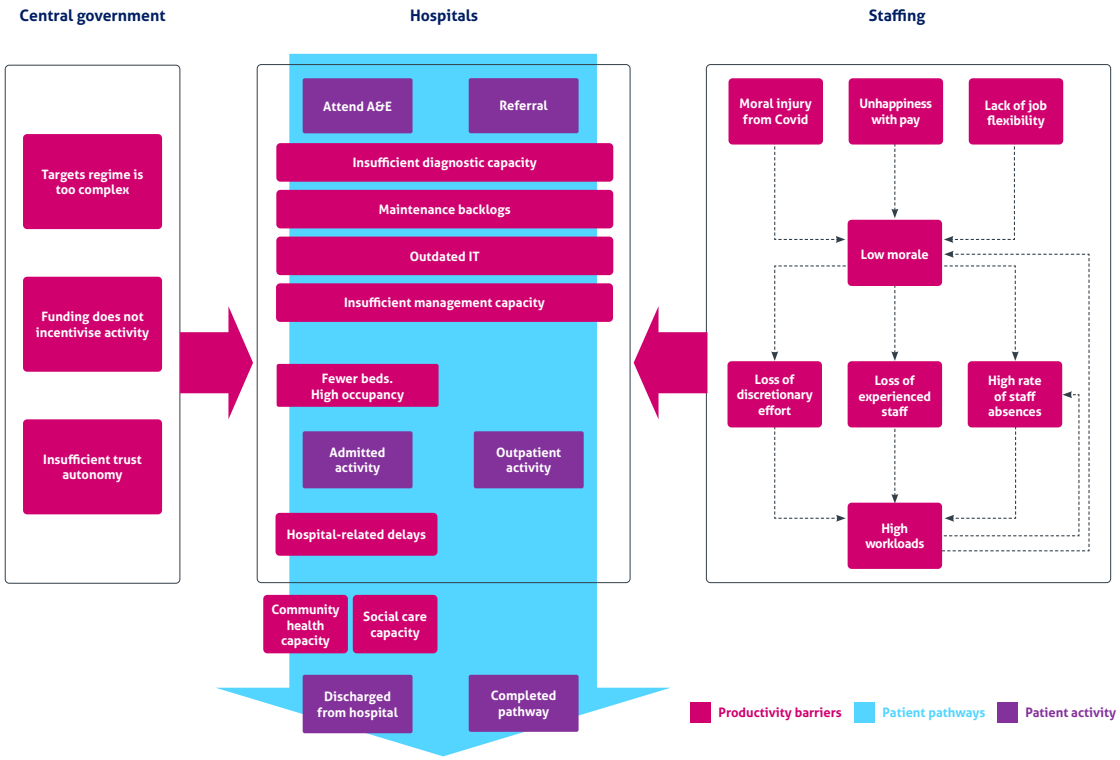
Clearly the pandemic posed great challenges for health systems around the world. In the UK, government responded by sharply increasing funding for the NHS. Some of this was one-off money for things like PPE and temporary Nightingale hospitals, but much has also gone towards a permanent uplift. Most of that has been spent on additional staff. Between December 2019 and December 2022 the number of full-time equivalent (FTE) junior doctors, and nurses and health visitors, increased by 16.4% and 10.9% respectively.[3] But despite this the number of people being treated in hospitals is only marginally higher than it was before the pandemic. On some important metrics it's lower.

Understanding why this is the case is key not only to dealing with the immediate crisis but also to long-term reform of the NHS. Productivity, under the official Office for National Statistics (ONS) measure, was already falling by the end of the 2010s, after rising for the previous two decades. In 2019 waiting lists were already going up, A&E wait times were getting worse and hospital capacity already exceeded. The trigger for the problems the NHS now faces may have been Covid, but the bullet had already been loaded beforehand. It is necessary to go back well before 2019 to understand what has happened over the past few years, and why the NHS is in so much trouble now.

In a system as complex as the NHS there never will be a single reason for any outcome. In our assessment of the data and the recent history of the health system, as well as interviews and roundtables with dozens of experts and clinicians, we identified three main areas that are contributing to the current situation:* the lack of capital investment, which has made it harder to treat patients and caused inefficiencies; high staff churn, more inexperienced staff and low staff morale; and problems with hospital management and incentives from the centre. All of these problems were present before Covid, but the extra strain on the system has created a perfect storm. The report, produced jointly by Public First, the Institute for Government and supported by the Health Foundation, looks at each area in turn.

* This report covers the NHS in England.

Figure 1 **Barriers to better hospital productivity**



Source: Institute for Government, Public First and Health Foundation analysis.

Key findings

We identify the slow flow of patients through over-capacity hospitals, covered in **Chapter 1** of this report, as the most immediate cause of the problems:

- Bed capacity in England is now at significantly lower levels than in other developed countries, with hospitals running at unsafe levels of occupancy even before the pandemic.

- Lack of capacity has been exacerbated by the worsening problem of delayed discharges that leaves around 10% of the total number of beds – equivalent to 20 hospitals – occupied with patients who have no medical need to be there but, usually, remain there due to a lack of available care outside the hospital system.

- Outpatient activity has also dropped relative to staffing, which seems to be linked to stalled diagnostic testing. The UK has the fifth lowest number of CT and PET scanners and MRI units per capita in the OECD. More than half a million outpatients have been waiting more than six weeks for a diagnostic test.

- This is a result of the UK's long-standing minimal capital spending on health care relative to other countries. This has been worsened by the Department of Health and Social Care (DHSC) raiding its capital budget to cover gaps in revenue funding.

- Capacity problems lead to less productive use of staff time as they expend more effort navigating around the lack of beds and equipment. Higher staff numbers could be being used to bring down the backlog – but only in a higher capacity system.

- There is a risk that GPs making fewer referrals – in part to address hospital capacity concerns – is creating a 'hidden backlog' by allowing treatable conditions to deteriorate and possibly leading to more unplanned admissions.

Chapter 2 looks at how changes in the composition and morale of NHS staff could be exacerbating the problem:

- Despite a big increase in the overall number of doctors and nurses, the balance looks to have shifted towards less experienced practitioners, who may be less able to speed up patient flow. There has also been an increase in staff churn, which is disruptive in hospitals.

- There is a lack of staff at the most critical points for patient flow – namely ward nurses and managers. This increases the impact of capacity problems. On top of these structural factors we have heard a lot about low morale, due to burnout, backlogs and the ongoing pay dispute.

Chapter 3 investigates the system within which the interaction of capital (like beds) and labour (staffing) occurs – the targets and incentives attached to hospitals and how well placed the management is to meet these:

- The NHS is chronically undermanaged. Management levels have fallen from an already low base, and managers lack the analytical capacity to identify blockages and solve them.

- However, recruiting more managers without changing anything else is unlikely to be sufficient. Surprisingly, some evidence shows that more managers can have little impact on performance. Given the wide-ranging management literature – including on hospitals – that demonstrates its importance, this is likely to be because of how the NHS is currently operating. Managers have insufficient ability and freedom to make consistent decisions.

- Much of the New Labour-era system of targets and financial incentives was diluted before the pandemic, and then abandoned altogether, which has made it hard for managers to act with clarity. While there are good reasons to move to an integrated care system (ICS), which incentivises preventative and joined-up care, that system needs to be clear to those operating within it.

- The current ICS system – though admirable in its aims – is arguably too convoluted to help: it will not, for instance, support greater hospital activity or clear accountability.

These are overlapping, thematic areas and not discrete symptoms. It is not therefore possible to identify the exact contributions of each to the overall drop in output, and there is also significant variation between trusts. But any serious attempts at rebuilding the NHS need to consider all these factors, and recognise that they were all problems brewing before Covid, which have been exacerbated by the sudden shock. More capacity, a more stable and supported workforce, and greater clarity on objectives and finances from the government are all needed.

Though daunting, these challenges are surmountable. After all it is only a decade since public satisfaction with the NHS was at historically high levels, and wait times for patients at record lows. Repeating exactly the same set of policies of that era may not be the answer, but policy makers can certainly learn from them.

The stark numbers at the moment do not mean that the NHS model is broken. Nor that it must shift to a dramatically different model. But to get back to previous performance levels will require politicians asking the right questions and focusing on the right problems – rather than chasing headlines. Our final chapter sets out what we think these questions are:

1. **How can policy makers design a long-term capital settlement for the NHS that hospitals can rapidly and nimbly use?**

2. **What is the right balance between resilience and efficiency – and how much spare capacity is needed in the health system?**

3. **What can be done to incentivise senior staff to stay in the NHS?**

4. **What is the best way to increase management, including clinical management, in hospitals?**

5. **What model can most effectively balance the need for clear lines of responsibility and autonomy with the need to integrate different parts of the health system?**

6. **How can data collection be improved and streamlined?**

Introduction: understanding the problem

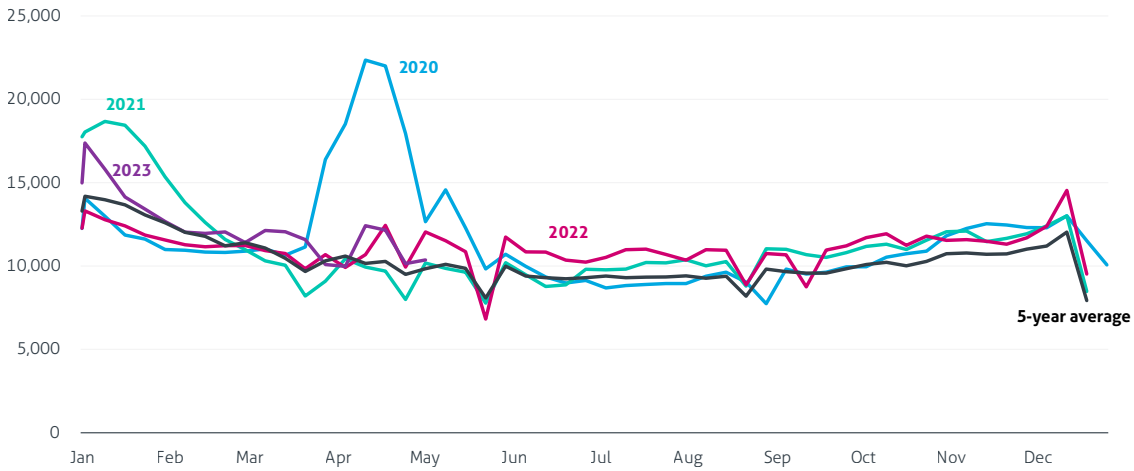
NHS hospitals in England are struggling to manage both emergency and elective admissions. In February 2023 more than 125,000 people, 10.6% of those attending, had to wait more than 12 hours in A&E, a situation one experienced health expert described as "apocalyptic".[1]

A decade earlier, in February 2011, just 40,800 people had waited more than four hours, 2.9% of those attendees. It wasn't until the winter of 2014 that the four-hour wait percentage rate dipped below the 95% target, but it never really recovered. In December 2019, just before the pandemic hit, the figure stood at just under 380,000, or 20.2% of attendees. By December 2022, after the pandemic, four-hour wait figures reached a nadir of 700,000 (35%).[2] Winter 2023 looks set to be similar if not worse.

Full A&E departments had knock-on effects across the system. In December 2022 ambulances backed up in queues around hospitals leading to record mean response times for a category 2 ambulance call – covering issues like strokes and chest pains – of 90 minutes.[3] Ambulances were forced to adopt new procedures to drop patients off regardless of whether there was A&E capacity.

The Royal College of Emergency Medicine has estimated that these problems within A&E led to 23,000 excess deaths in 2022 alone, about 3% above average.[4] Excess deaths in 2023 remain high – 8% above the five-year average (which includes the pandemic years).[5]

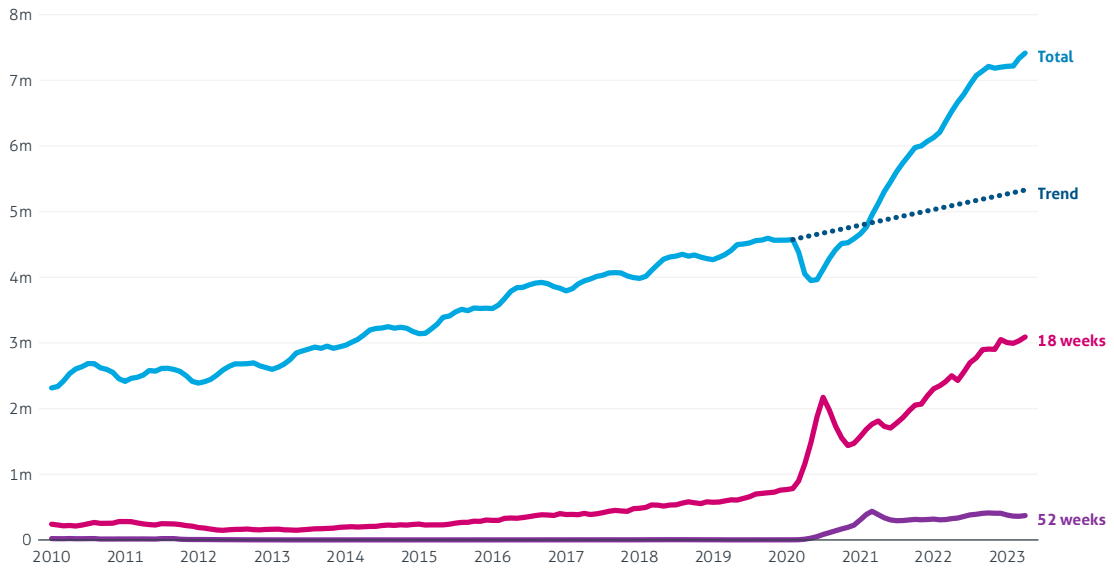
Figure 2 **Weekly deaths in England and Wales, by year, 2020–2023**



Source: IfG, Public First and Health Foundation analysis of Office for National Statistics, 'Deaths registered weekly in England and Wales, provisional' (Table 1), 12 May 2023.

The elective backlog has got much worse too. It hit 7.20 million in December 2022 – rising to a new record of 7.42 million in April 2023 – drastically up from a low of 2.32 million in January 2010. This too had started getting worse well before the pandemic. The backlog had already hit 4.57 million by December 2019, with more than 750,000 waiting more than 18 weeks, up from lows of 150,000 in 2012. There are now around 3.0 million people who have been waiting more than 18 weeks.[6]

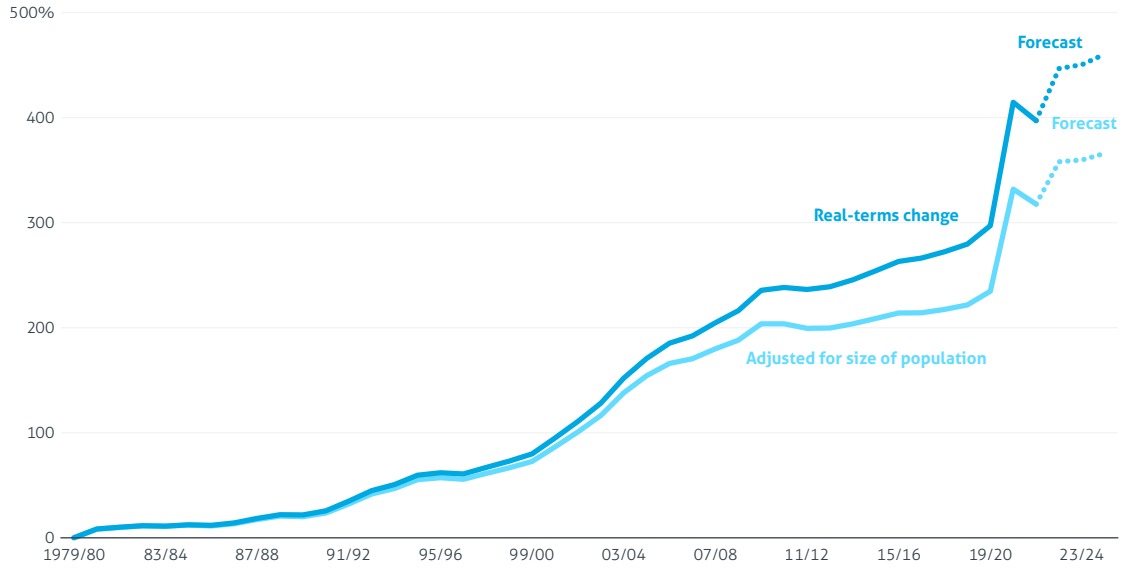
Figure 3 **Elective waiting list length, total and by length of wait, January 2010 to April 2023**



Source: IfG, Public First and Health Foundation analysis of NHS England, 'Referral to treatment waiting times' ('Full time series' table), April 2023. Notes: The 'trend' line is a seasonal forecast, using pre-Covid data as the baseline.

These numbers might suggest that referrals for treatment had dramatically increased, or that resources similarly decreased. Neither has happened. Spending on health has increased, even taking inflation, population growth and demographics into account, albeit at a much slower rate than during the New Labour years.[7]

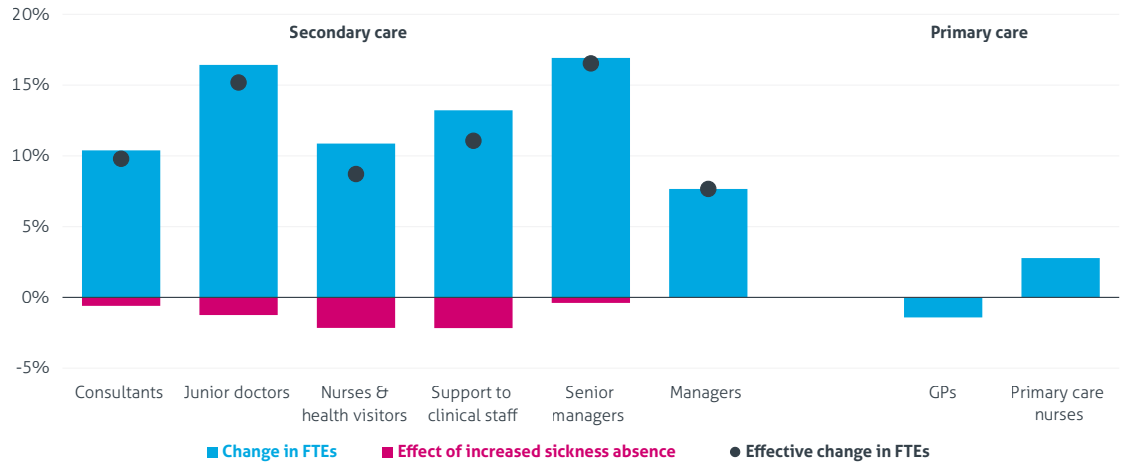
Figure 4 **Change in public spending on health, in real terms and adjusted for population changes, since 1979/80**



Source: IfG, Public First and Health Foundation analysis of HM Treasury, 'Public Expenditure Statistical Analyses', ('Chapter 5 tables'), 2021/22; HM Treasury, 'Spring Budget 2023' ('Table 2.1: Resource Departmental Expenditure Limits (DEL) excluding depreciation'); Office for National Statistics, 'Mid-year population estimates', 2021; and Office for National Statistics, 'National population projections: 2020-based interim', 2022.

Since 2019 there has been a sharper spike in spending. Even taking high inflation into account, funding for the NHS in England will increase by 2.9% a year in real terms on average across this parliament.[8] Much of this money has gone on increasing staff numbers. Even taking higher levels of sickness among NHS staff since the pandemic into account there has been substantial growth – for instance 16.4% more junior doctors and 10.9% more nurses and health visitors.[9]

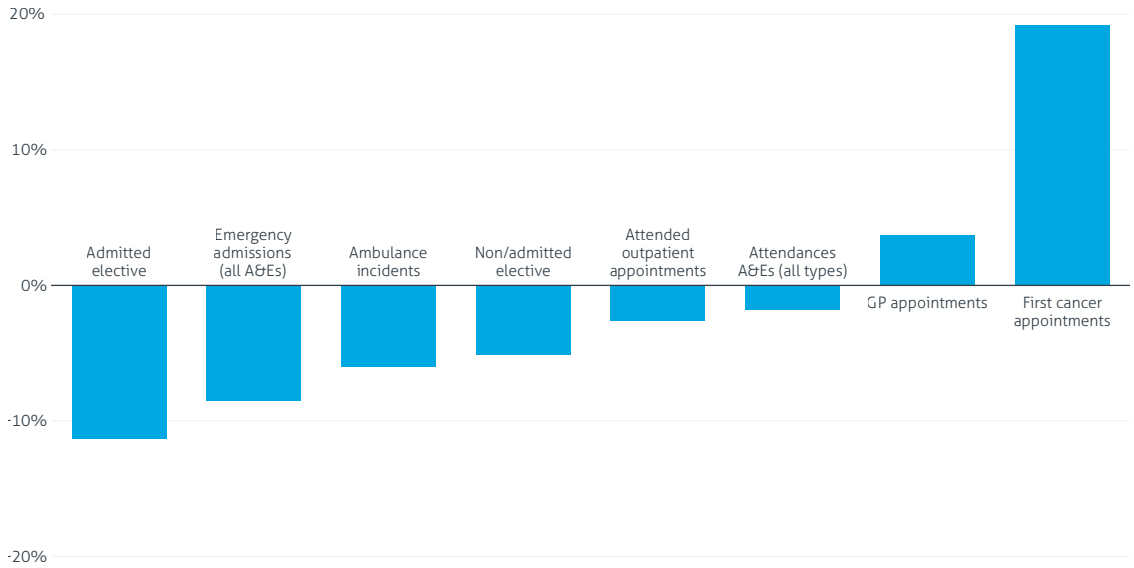
Figure 5 **Change in NHS FTE staff, by group, between December 2019 and December 2022**



Source: IfG, Public First and Health Foundation analysis of NHS England, 'NHS workforce statistics: England and organisation' ('1.England' table), January 2023; NHS Digital, 'NHS sickness absence, by reason and staff group' ('Table 2: Count'), December 2022; and NHS Digital, 'GP workforce, bulletin tables' ('1a' table), March 2023. Notes: 'GPs' refers to fully qualified, permanent GPs, so excludes GPs in training grades and GP locums. There is no sickness absence data for primary care. Adapted from Institute for Fiscal Studies analysis.

Yet despite all of this there were significantly fewer patients treated in hospitals in 2022 than there were in 2019, with attended outpatient appointments down 2.6% and attendances across all types of A&E down 1.8%. Activity levels have improved somewhat during 2023, with levels of elective activity now slightly higher than in 2019, but not proportionately to the big increase in staffing. To clear the backlogs activity will need to increase much higher than it was before the pandemic; the NHS Recovery Plan aims for 130% of pre-pandemic activity. Current performance suggests the NHS is a long way from that.

Figure 6 **Change in NHS activity, by type, 2019–2022**

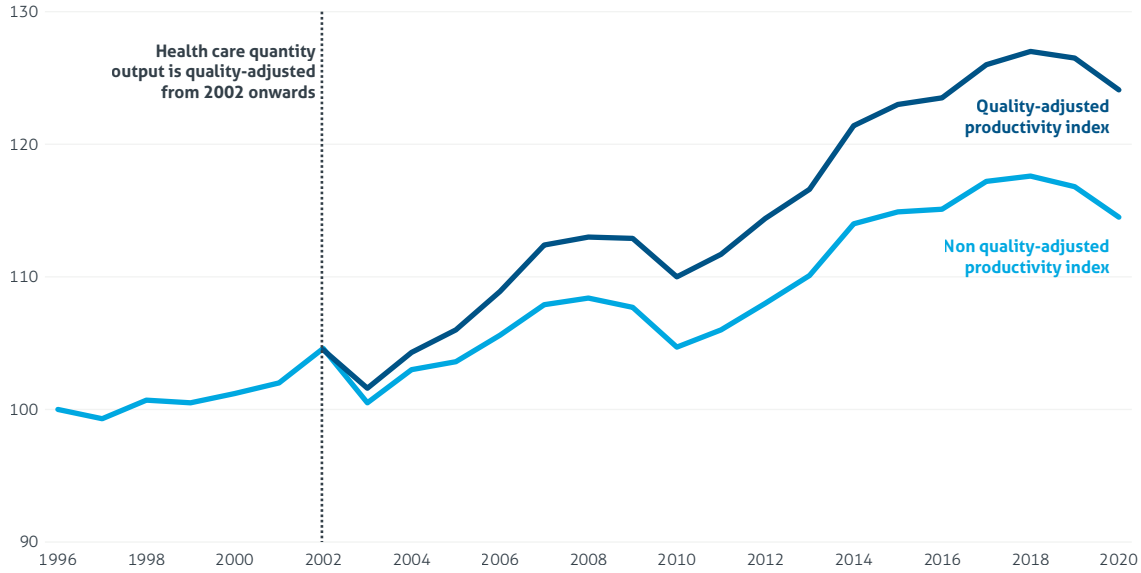


Source: IfG, Public First and Health Foundation analysis of NHS England, 'Referral to treatment waiting times' ('Full time series' table), March 2023; NHS England, 'Ambulance quality indicators' ('Incidents' table), March 2023; NHS Digital, 'Monthly Hospital Episodes Statistics for Admitted Patient Care and Outpatients' ('HES_09_OPEN_DATA' table), December 2022; NHS England, 'A&E attendances and emergency admissions' ('Activity' table), March 2023; NHS England, 'Cancer waiting times' ('Monthly data – Two week wait from GP urgent' table), March 2023; and NHS England, 'Appointments in General Practice' ('Table 1'), March 2023. Notes: 'A&E' refers to all types of A&E departments.

This is not a phenomenon purely caused by Covid. Clearly productivity fell dramatically during the worst of the crisis as everything was reworked to respond to a new threat. Infection control meant trying to keep as many people away from hospital as possible, and maintaining more space between patients, further restricting capacity. Protocols around use of PPE also added to the time taken to treat patients. But productivity was falling before 2020, and has remained much lower even after the worst of the pandemic has passed.

Under the ONS measure productivity had been growing for 15 years up to 2018 but then fell in the two years preceding the pandemic.[10] Post-pandemic problems in the health system are not exclusive to the UK. But while other European countries have also struggled to get back on track,[11] most were more resilient in the first place so the drop-off in performance has not had such dramatic effects.

Figure 7 **Health care productivity, 1996–2020**



Source: IfG, Public First and Health Foundation analysis of Office for National Statistics, 'Public service productivity, healthcare', 2020. Notes: This is an index, where 1996=100.

This, then, is the 'productivity puzzle' at the heart of this report. Why were things getting worse before the pandemic, and then why did they get so much worse again, even after rising spending and higher levels of staffing?

1. Patient flow: beds and discharges

The immediate cause of the backlogs in hospital waiting lists, worsening A&E wait times and ambulance delays is full hospitals. There is a basic capacity problem. Hospital trusts were 'running hot' before the pandemic hit and were not able to cope with the additional requirements that created. Once capacity was reached, and then pushed over 100%, it became much harder to recover as backlogs built up and still more pressure was created.

In this section we look at four connected issues. First is why capacity was so tight, and bed numbers so much lower, than in comparable countries before the pandemic. Second, why and how that capacity has been further reduced by the vexed issue of delayed discharges – people being stuck in hospital beds longer than is medically necessary. Third, how outpatient capacity has also been harmed by lack of equipment. And finally, how NHS budgetary decisions have contributed to the problem by making it harder to increase physical capacity, even as staffing numbers rise.

In addition to the issues discussed below, we heard anecdotally that patients may have more severe conditions now than before the pandemic, necessitating longer stays in hospital, and thus further slowing patent flows. However, there is no firm evidence to support this and, even if it is a contributing factor, we think it is likely to be less important than the others discussed in this chapter.

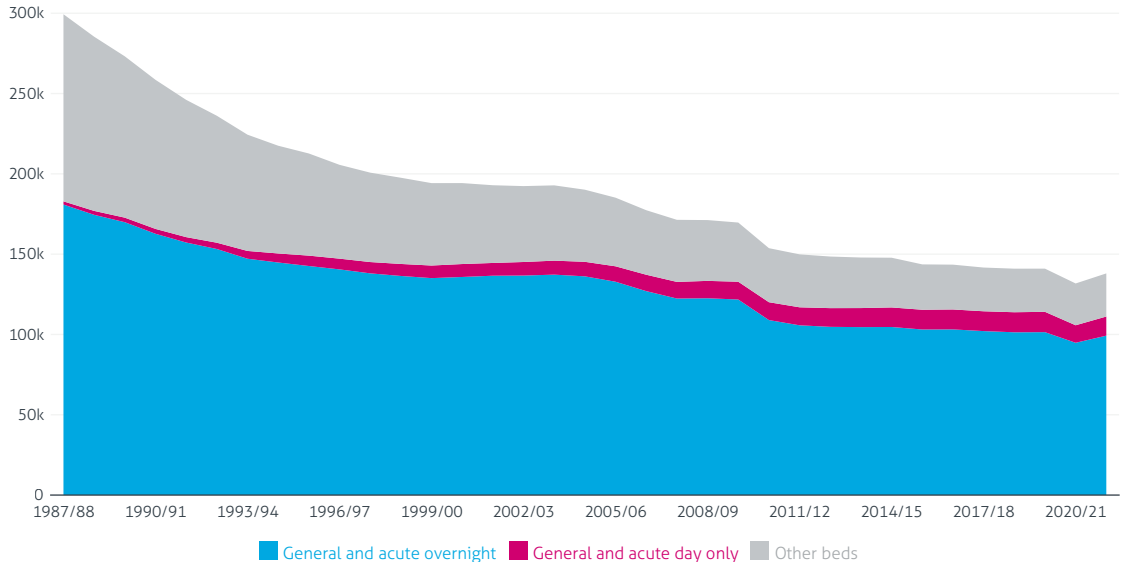
Bed reduction

NHS bed numbers have been falling for decades, more than halving in the last 30 years from 299,000 in 1987/88 to 141,000 in 2019/20.[1] This was a deliberate strategy maintained across multiple administrations to boost efficiency.

Most of the lost beds have been for patients with mental health conditions and those with learning disabilities as part of a concerted effort to move these services into the community and to stop people becoming institutionalised. Few if any would propose reversing this, though lack of resourcing for these community services remains a problem.

Acute bed numbers, though, have fallen too, by 44% over the last 30 years.[2] Improvements in surgical techniques have led to quicker recovery times but this has been counteracted to some degree by an ageing population with growing demand. At least some of the bed reduction was predicated on improvements in patient discharge which, as we will see, has not happened.[3] Since 2010/11 available beds have reduced by 5% while admissions have increased by 15%.[4] In 2019 the then NHS chief executive Simon Stevens acknowledged that bed closures had gone too far.[5]

Figure 8 **Available NHS beds, by type, 1987/88–2021/22**



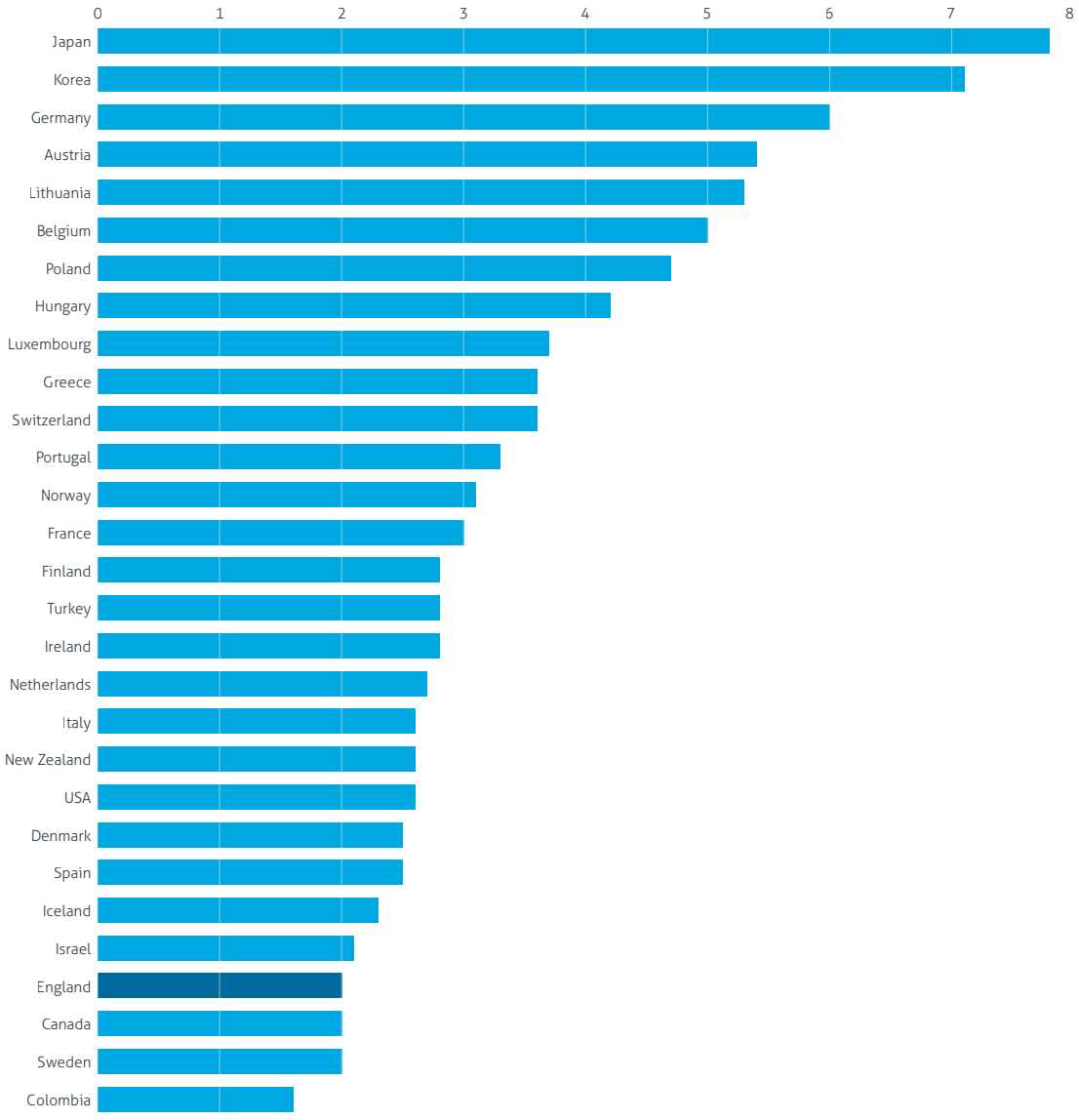
Source: IfG, Public First and Health Foundation analysis of NHS England, 'Bed availability and occupancy data' ('Open overnight' and 'Open day only' tables), December 2022. Notes: 'Other' beds are comprised of learning disabilities, maternity, and mental illness beds.

Other countries have also reduced bed numbers in response to changing approaches to mental health and surgery but the UK is at the extreme end. England has two beds per 1,000 residents compared to three in France and six in Germany, according to the OECD (see Figure 9).[6] Both countries were better able to manage Covid surges during the pandemic and that inbuilt resilience has left them with lower backlogs now.

This meant that pre-pandemic bed occupancy was already running dangerously high. The NHS set a benchmark of 92% occupancy as the maximum safe level in 2017, after finding this represented a tipping point after which A&E performance was negatively affected.[7] But this was challenged by the Royal College of Surgeons and the Royal College of Emergency Medicine, who argued that 85% was the right balance of safety and efficiency.[8]

Even the 92% level was regularly being breached by 2019. According to King's Fund analysis, "in 2019/20, overnight general and acute bed occupancy averaged 90.2 per cent, and regularly exceeded 95 per cent in winter, well above the level many consider safe".[9] During the winter of 2022/23 many trusts went over-capacity to the point of having to declare critical incidents and cancelling non-urgent treatment. NHS England figures show that in December 2022, some 95.2% of adult general and acute beds were occupied, with some trusts close to 100%. This has improved recently: in April 2023 the figure was 94%, though this is still well past the NHS's own 2017 benchmark for safety. There is no reason to think next winter won't be as bad or even worse.

Figure 9 **Acute hospital beds per 1,000 population, by OECD country, 2018 or latest year**



Source: IfG, Public First and Health Foundation analysis of OECD, 'Hospital acute beds, per 1,000 inhabitants', 2018 or latest year. Notes: England is a Health Foundation estimate, as the OECD is not able to provide data for the UK as some constituent countries' data is missing.

Health Foundation analysis suggests the NHS will need to add between 23,000 and 39,000 beds by 2030/31 just to maintain 2018/19 levels of care as the population ages. This is equivalent to 38–64 hospitals, or at least £17–29 billion of capital investment, and quite possibly a lot more given cost overruns on current building projects. Even this investment, well above currently planned levels, would only slightly increase the UK's bed-per-population levels to somewhere between 2.3 and 3.1 per 1,000 people and would not offer significantly greater resilience to future shocks like the pandemic.[10]

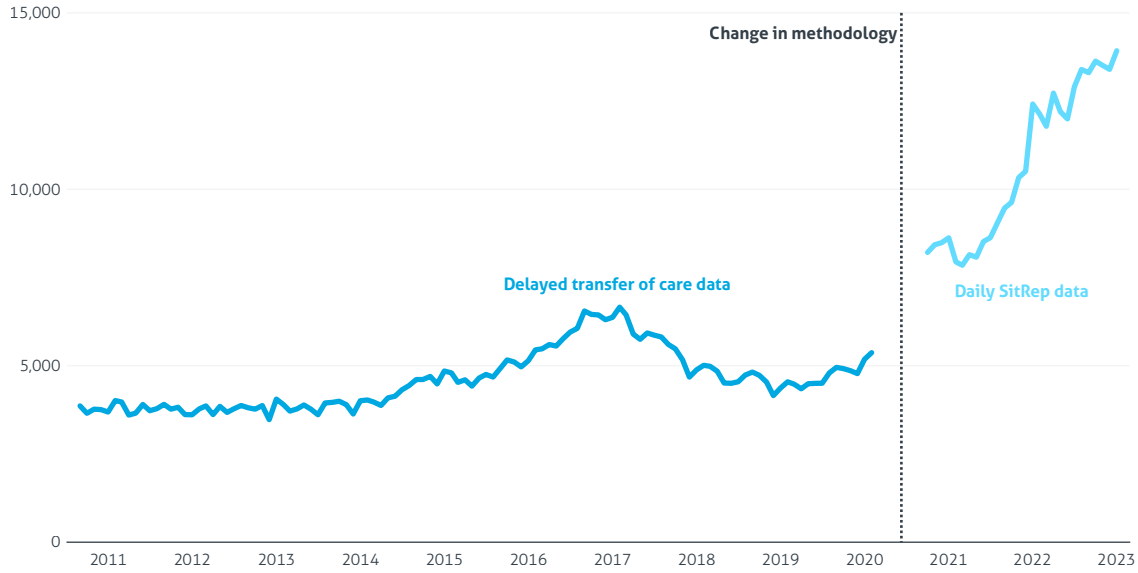
The UK is not on track to deliver anything like that number. The NHS Recovery Plan involves adding 5,000 beds in the next two years.[11] It seems inevitable, then, that more beds will be necessary. But to reduce the pressure on future capital budgets it may also be possible to improve capacity of existing hospitals through greater use of virtual wards, which allow patients to be supported via calls and online

consultations by hospital doctors, with the occasional home visit when necessary, and by increasing social care capacity and the availability of community nursing. In the next section we will look at how existing capacity is being heavily squeezed by inadequate resourcing for these sectors.

Discharge

A substantial portion of existing hospital capacity is taken up by patients who have no medical need to remain in wards but do need some care. Around 13,500 beds, just under 10% of the total – almost 20 hospitals' worth – are occupied by patients who no longer meet the 'criteria to reside'.[12] Before the pandemic the figure was 5,300, though a change in data definitions means this is not directly comparable. Even since December 2020, when the new data definitions were being used, there has been a 57% jump.[13] Additional resources from the DHSC as part of its recovery plan have done little to improve the picture.

Figure 10 **Beds occupied by people who could be discharged, September 2010 to January 2023**



Source: IfG, Public First and Health Foundation analysis of NHS England, 'Urgent and Emergency Care Daily Situation Reports – 2022–23: Discharge delays' ('Table 2' and 'Table 3'), 30 March 2023 and NHS England, 'Delayed transfer of care' ('Delayed days by type' table), February 2020.

These delayed discharges are not just occupying beds that could be used by other patients but also put those patients at higher risk of acquiring infections and losing mobility. This may necessitate additional treatment, creating something of a vicious cycle and potentially increasing their need for medical support in the future. Reducing this number is critical to NHS recovery.

Delayed discharges are primarily caused by loss of capacity outside acute hospitals

The blame for these delays is often pinned on social care – specifically, the lack of available social care beds and staff. That is certainly a big part of the problem. Failures of integration between the NHS and residential social care, mainly provided by private companies overseen and funded by local authorities, has caused difficulties for years. The social care market is fragmented and dependent on a low-paid workforce that has been harder to attract as the labour market has tightened and Brexit has stopped workers from Eastern Europe in particular from taking up roles. There were 165,000 vacancies in the social care sector at the end of 2021/22, over 10% of posts.[14] Demand looks unlikely to abate; the number of older users of local authority funded home care services or direct payments is projected to rise from 231,500 in 2018 to 371,800 in 2038[15] – an increase of 60.6% – which will require more staff to work in the sector.

Health Foundation analysis suggests that the percentage of discharges delayed by patients waiting for social care services did not increase substantially during 2022. And though the data collection methodology changed after the pandemic, the percentage levels look similar to before 2020. This suggests that the raw number of discharges delayed due to social care has gone up since before the pandemic but despite being the largest single factor it has not, proportionately, grown as an issue compared to other things.[16]

Nuffield Trust analysis of FoI data provided by trusts shows that for patients who have been in hospital for more than a week and whose discharge is delayed, only 18% need permanent care, usually in a nursing home. A further 25% need care at home; for example, through community nursing support like a physio, or domiciliary social care, or a combination of both. Of the rest, 22% need a short-term bed stay, usually for rehabilitation, though these are often situated in care homes, and just under 25% are stuck due to a discharge issue in the hospital. This latter group "have been identified as medically fit for discharge, but need further assessment, a discharge summary, or agreement on what further care they need".[17]

Outside of social care there are several ways the NHS could reduce discharges, though only some are within the control of trusts. Some – such as short-term beds in care units – still rely on capacity within the care home sector, even though they are funded by the NHS.

Likewise there is often little hospitals can do directly to increase community nursing provision, which is necessary to support both care at home and some short-term bed capacity. Data on the provision of community services is painfully opaque, partly because they are offered by a mix of trust, local authority and third sector providers. But analysis from the Nuffield Trust shows that, as far as can be seen in the incomplete data, real-terms funding for these services has fallen in recent years – being flat in cash terms between 2018/19 and 2020/21.[18]

It is definitely the case that NHS community nurse staffing has fallen – the number of district nurses fell by 42.2% between September 2009 and December 2019. Numbers have continued to fall since the pandemic, with a further drop of 7.1% between December 2019 and December 2022.[19] This will be partly due to services shifting towards third sector and independent providers but there has also been an overall decline. Moving services out of trusts can also make the integration between hospitals and community care harder to achieve.

This is a good example of the negative cycle caused by short-termism in NHS spending driven by central government desire to manage overall spending while still seeing hospital care as a political imperative. As acute care has been prioritised community services have been cut back putting acute care under more pressure and requiring even more money to be pulled into hospitals.

Weak management and poor incentives are affecting administrative delays to discharge

Alongside the lack of support outside hospitals poor internal discharge processes are also hampering discharge efforts. During the most intense phases of the pandemic the sense of crisis seems to have led hospitals to take more risks around discharge, and NHS England promoted 'discharge to assess' where patients receive follow-up assessment at home to decide what future care they need as the default.[20] Unfortunately there is evidence that some of these discharges did not receive the necessary follow-up, so it is understandable why trusts are now being more cautious, especially as the number of older, frailer patients, often without family support, is increasing.[21]

Nevertheless, many interviewees told us that discharge processes remain unwieldy in many hospitals, with lengthy delays over assessments of future care needs, and in filling out the necessary forms and getting medicines from the pharmacy. As discussed in subsequent chapters, driving improvements here requires investment in operational management, and a change in management culture around targets and incentives (covered in detail in Chapter 3). Reducing staff churn would also help to avoid processes constantly having to be re-learnt by new team members.

DHSC and NHS England clearly see improving discharge as critical to the success of their recovery plan and have continued to encourage 'discharge to assess' as their preferred approach. They have also provided several pots of additional funding including a £500 million Adult Social Care Discharge Fund in September 2022 and a further £250m for winter pressure and discharge in January. As yet these seem to have had little impact on numbers, though it's possible things could have been even worse without them.

Short-term emergency pots, hypothecated to specific activities, are difficult for trusts and other providers to plan around – especially as different parts of the health system have different incentives. For instance, while the NHS might want to get patients out of hospitals and into the social care system faster, it can be in the interests of responsible local authorities to delay assessments so the cost falls on the NHS rather than their limited budgets. Tackling these types of frictions requires considered reform not emergency schemes.

Perhaps more promising is the investment in virtual wards – used by hospital trusts to treat patients without admitting them in the first place, or to provide ongoing care after discharge. There are different models and approaches but all involve doctors and nurses providing care via remote monitoring and video calls alongside home visits when necessary.[22] There are now more than 340 virtual ward programmes across England, through which over 100,000 patients were treated in the last year.[23] These cannot, however, substitute for acute care in hospitals or ongoing long-term social or community care. There is also a risk that patients who would not have been admitted as inpatients end up on virtual wards and so anyway increase workload for staff.[24] We do not have clear evidence on their impact on patient outcomes or overall efficiency.

Outpatients

There has been particular focus on the scarcity of hospital beds and the problems of delayed discharges during the now annual winter crisis in 2022–23, prompting additional funding from the government, targeted at discharges. But the headline waiting list figure the government has promised to bring down as one of its five main pledges for the coming year consists mainly of outpatients. As of April 2023, waiting lists for elective care had grown to 7.4 million – up from a low of 2.39 million in 2012. Of that number, 3 million people had been waiting for more than 18 weeks,[25] and just 15% of the waiting list had received a decision to admit.[26]

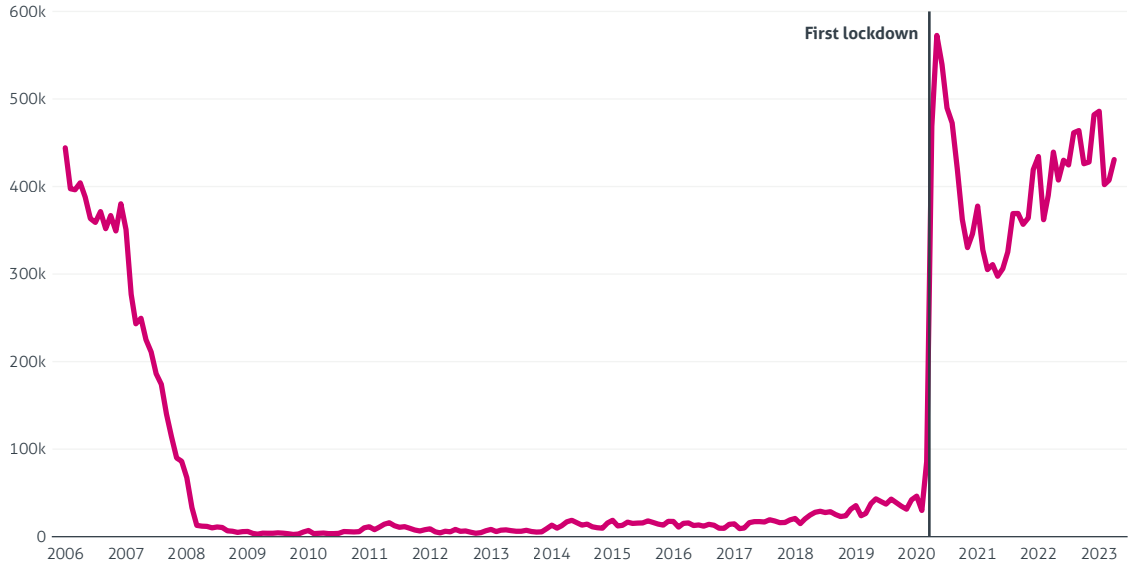
Overall elective activity has returned to where it was before the pandemic but given the large increases in staffing and funding one would expect it to be higher, especially given the trend increase prior to the pandemic.[27] As most elective activity does not relate to inpatients it shouldn't be as affected by bed capacity and delayed discharges, though there will be some knock-on effect for those patients who do need beds (elective inpatient treatments are typically discharged much faster than emergency inpatients and so having one fewer bed delays far more treatments).

One possibility for the lack of increased elective activity relative to 2019 is that doctors' time is being spent on emergency patients and so despite the higher numbers the extra time is being swallowed up by that. That said, there aren't any more beds now and, as we have seen, a larger proportion of those beds are filled with patients who are medically fit to leave and so do not need as much attention from doctors. So there should be more staff capacity to see outpatients than seems to be the case.

Diagnostic test capacity is limiting doctors' ability to increase elective activity

Another possible cause for lower than expected elective activity is the role of diagnostic tests, which most patients on waiting lists require to resolve their case and identify any treatment they might need. Here the availability of equipment naturally limits the number that can be carried out. For instance, King's Fund analysis of the cardiology waiting list shows that of 349,000 patients just 34,000 have a decision to admit, 160,000 are waiting for diagnostics and 155,000 for outpatient treatment or decisions.[28] NHS data shows that in December 2022, some 1.5 million people were waiting for one of the 15 key diagnostic tests compared to 1 million in December 2019. Of those, almost a third were waiting for more than six weeks (30.8% against a target of 1% – which was typically met from 2008, when it was introduced, to 2017).[29] This number has been steadily rising since the summer of 2021.

Figure 11 **People waiting 6+ weeks for a diagnostic test, January 2006 to April 2023**



Source: IfG, Public First and Health Foundation analysis of NHS England, 'Monthly diagnostic waiting times and activity' ('Table: 6+ week waits'), April 2023.

For the worst performing of the most common 15 tests almost half of patients are now waiting more than six weeks, including 45.2% of patients waiting for a urodynamics test and 43.2% of those waiting for a flexi sigmoidoscopy in December 2022.[30]

Overall diagnostic activity is now slightly higher than before the pandemic: in 2022 there were 0.5% more tests than in 2019, but backlogs in other areas have meant this increase has not flowed through to greater productivity. In November 2020 a long-awaited review of diagnostic services by Professor Sir Mike Richards was published, which proposed establishing community diagnostic centres (CDCs) away from main hospital sites to speed up tests.[31]

Ninety-two CDCs have now been set up and ran 2.4 million tests in 2022, compared to 23.6 million carried out in hospitals in 2019. Unfortunately, it is not possible to directly compare the number of tests carried out in CDCs to public NHS diagnostic datasets. But there is a concern that much of the activity that is taking place in CDCs is not additional activity, but rather activity that is being displaced from hospitals. This may be because in practice half the CDCs have been established on hospital sites, often even using existing equipment,[32] and because diagnostic staff have been moved to the CDCs from hospitals. If CDCs could offer genuinely additional capacity they could make a significant difference to reducing the elective backlog.

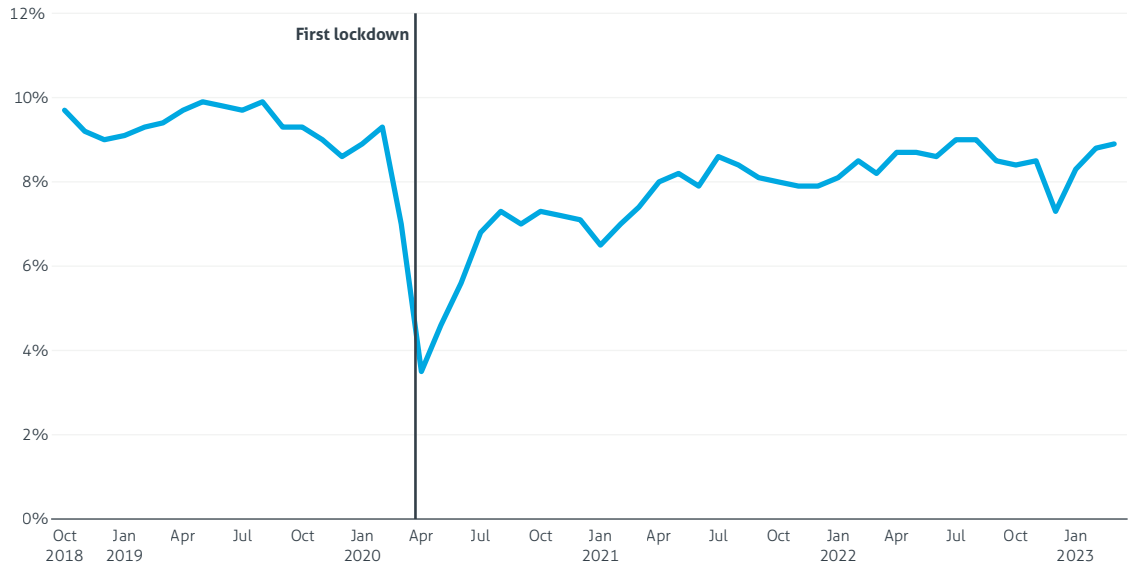
Reductions in referrals may be creating a 'hidden backlog'

Another innovation has been to increase the pressure on primary clinicians – usually GPs – to use the 'advice and guidance' (A&G) route for patients rather than referrals to hospitals. This involves the GP calling or emailing a hospital doctor to ask for advice on the patient and/or whether a referral is required.[33] It has been used since 2015 but NHS England introduced a target for GPs to have 12 A&G patients for every 100 outpatient appointments in October 2021 in an attempt to reduce the backlog;[34] later increased to 16. The National Audit Office found this target was being exceeded in spring 2022, with 22 requests per 100 outpatient appointments.[35]

Unfortunately the NHS does not publish any data about the characteristics or outcomes for patients who have been the subject of advice and guidance requests, meaning that we know little about the impact of this A&G route. The NHS now publishes a dataset that combines deferred A&G cases with elective activity, to show the effective level of activity. This shows that in January 2023 effective activity was at 106% of the 2019/20 baseline, and actual activity was at 102%.[36] But we do not know how many of these cases ultimately end up with a referral or whether they risk creating a 'hidden backlog' of patients not on waiting lists but in need of further help. Nor, critically for the question of overall system productivity, do we know how much time hospital doctors are spending on these cases.

More generally we can see there has been an overall drop in the percentage of GP referrals leading to appointments since the pandemic, but as yet the effects of this are unknown.

Figure 12 **GP appointments resulting in a specific and acute referral, October 2018 to March 2023**



Source: IfG, Public First and Health Foundation analysis of NHS England, 'Appointments in General Practice' ('Table 1'), March 2023; and NHS England, 'Monthly Outpatient Referrals Data, Outpatient Referrals Time-series' ('MRR timeseries' table), March 2023. Notes: "GP appointments" refers to attended GP appointments. Data was first published in 2018/19.

Alongside this drop in referrals and shift to A&G, a higher number of referrals are being rejected by hospitals or, where no slots were available, have been recorded. Prior to the pandemic there were around 40,000–50,000 'appointment slot issues' a week, where referrals can't be made for some reason. That figure is now running at around 90,000.[37] It is possible that expanding A&G further could help reduce the backlog and the pressure on hospitals but it is also possible that this combined with rejected or failed referrals is storing up bigger problems for the future. And that a lack of transparency may be hiding the true scale of the challenges faced by the NHS. The British Medical Association (BMA) certainly thinks so, arguing that these 'hidden' backlogs "are likely to result in worsened conditions down the line, leading to greater demand on health services".[38] This could create a vicious cycle with more unplanned admissions in the future putting yet more pressure on limited hospital capacity.

Capital spending

Recent UK governments' habit of low investment in NHS buildings, infrastructure and technology is one reason there are fewer beds in English hospitals than in comparable countries, and for those hospitals to have already been running far too hot before the pandemic hit. This has both harmed resilience and reduced productivity.

Low capital spending has left the UK's health system with too little capacity to manage shocks and is now seriously harming productivity

The Johnson government promised voters "40 new hospitals" at the 2019 election. Only three of these were ever intended to be new hospitals under the conventional definition: 25 are rebuilding projects and a further 12 additional wings in existing hospitals.[39] But even this limited programme has been hit with serious delays. Just 10 of the projects even have planning permission.[40]

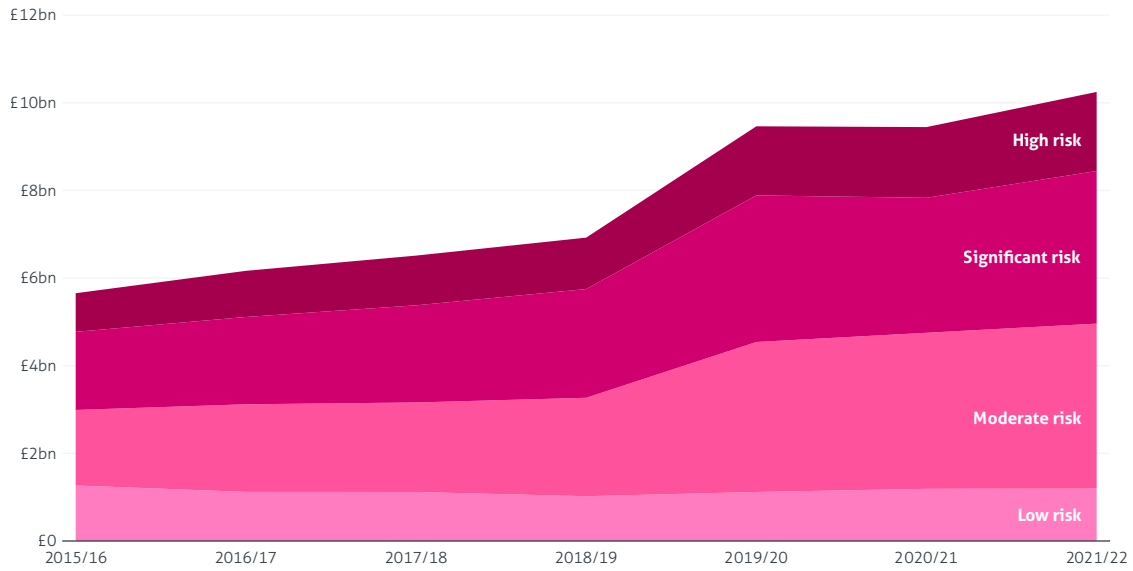
A paper presented to the NHS board in December 2022 noted that "the Programme has not, to date, had a budget for the full Programme agreed by HMG, a Programme scope or timeline".[41] Only one project has been completed, with six under construction. None of the rest has had its business case approved,[42] while the health secretary has acknowledged the original funding allocation is not enough to complete the projects.[43] Leaked documents show the original cost estimate was £16bn and it has now risen to around £35bn.[44] The Treasury was not keen on the initial manifesto proposal and has done little to help it be realised. The health secretary recently announced a list of schemes that would be going ahead, with some projects delayed until after 2030. There was little clarity over where the money would come from or how much projects would cost, and given previous delays any promises need to be treated sceptically.[45]

Low capital spending also means that maintenance problems on the existing estate are growing, with a £10.2bn backlog up from below £6bn in 2015/16.[46] Maintenance problems can cause delays in medical procedures as equipment and buildings need to be patched up more regularly. Just six hospital trusts account for 26% of the total backlog so the difficulties these delays are causing is not evenly distributed across the system (two of the largest – Imperial and Nottingham – have seen their new build programmes delayed beyond 2030 in the recent announcement).[47] There are still 284 NHS buildings – around 14% of the total – that were built before 1948.[48]

An open letter by one trust chief executive, Sir Mike Deegan at Manchester University Foundation Trust, indicates the kind of delays to treatment, and poor value for money, that these backlogs can cause:

> "There are concerning levels of unplanned maintenance, including a recent ceiling collapse in the theatre block caused by steam pipe vulnerability and mould issues. The theatres are expected to be closed for six weeks, potentially impacting on 100 to 200 cancer and long waiting patients. This is seriously jeopardising the ability to meet the national waiting time standards for cancer and referral to treatment. [Our Trust] will need to continue to spend over £1m a month on backlog and maintenance in order to keep the hospital as operational as possible, whilst accepting the risk of continued disruption due to estate issues."[49]

Figure 13 **Cost to eradicate the hospital estate maintenance backlog, 2015/16–2021/22 (real terms)**



Source: IfG, Public First and Health Foundation analysis of NHS Digital, 'Estates Returns Information Collection - dataset for ERIC 2021/22, report version 2' ('Table 10').

Beyond these issues of physical bed capacity and maintenance backlogs, lack of capital spend causes other blockages in the system. For instance, as noted above, the NHS's ability to clear backlogs for diagnostic tests is naturally hampered by a physical lack of equipment. The UK has the fifth lowest number of CT and PET scanners and MRI units per capita in the OECD: 16.5 per million people, compared to an OECD average of 44.8.[50] Unlike new hospitals this equipment is not hugely expensive relative to overall budgets, though to date the CDC programme has not added significant amounts of new equipment to the overall stock.

Technology infrastructure is also a weakness and is hugely varied across trusts and hospitals. We heard from interviewees the frustration of slow-loading computers and creaking internal systems. As many as 27 trusts still do not have electronic patient records and rely to some degree on paper.[51] Attempts to fix this have again been hampered by lack of capital funding. A £2.1bn investment announced by the then chancellor, Rishi Sunak, in 2021 has shrunk to less than £1bn, as money has been diverted by DHSC to other more urgent priorities.[52]

The story of low capital investment leading to lower productivity is not new. It is driven by the political imperative to focus on immediate acute pressures while keeping overall cost rises as low as possible. Apart from two years between 2007 and 2009 the UK has always spent significantly less on health care capital than the OECD average – in recent years it has been about half as much as a proportion of GDP.[53,54]

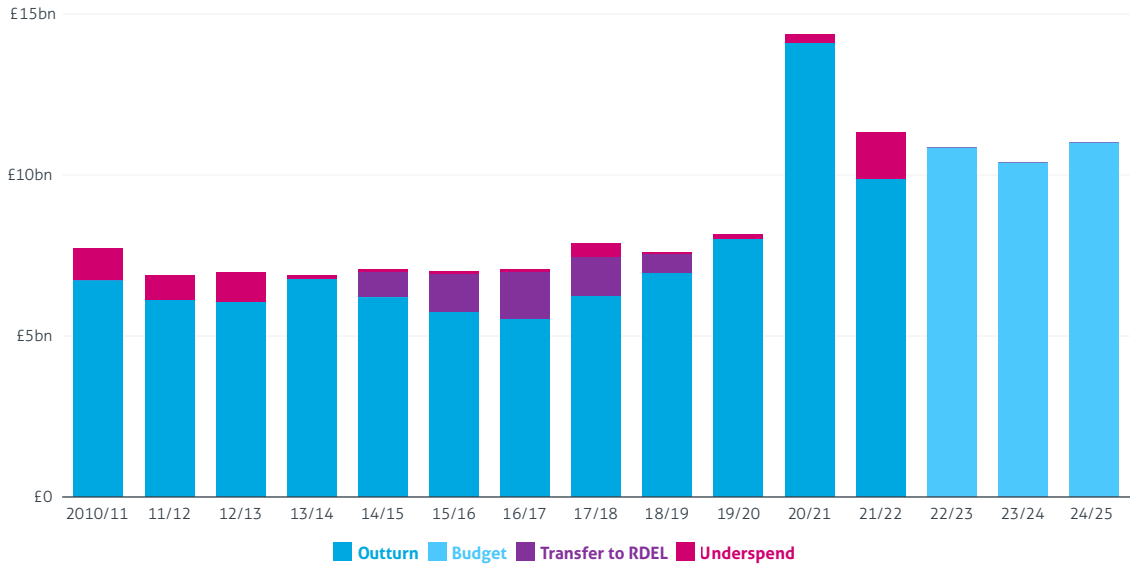
This means that even though revenue spending – on the day-to-day running of the health service – is above the OECD average, its comparatively low capital spending has made the NHS less productive as clinical staff have less equipment, worse technology and fewer beds to work with. The problem is also cumulative. Every year the UK spend is lower than average the bigger the gap gets. Ultimately, if large increases in the workforce are not matched in capital almost any system will get less productive.

Even limited capital budgets are not spent due to spending rules and short-termism

Arrestingly, despite this worsening gap, DHSC did not actually spend its full capital budget in any year between 2010/11 and 2021/22 (with the sole exception of 2013/14),[55] with the largest underspend – £1.3bn, or 12.7% of the capital budget – occurring in 2021/22. In the early years of the period there was a substantial underspend on budgets, which looks like the result of complex allocation challenges. Foundation trusts had more freedom over how they spent money and so DHSC had to hold back funding for other trusts to avoid going over budget, as they did not know until late in the year what overall spending was looking like. Underspending capital is a general problem across government departments.[56]

Between 2014/15 and 2018/19, DHSC repeatedly siphoned off capital budgets into revenue to manage lack of resources in core day-to-day budgets, totalling some £4.3bn. This is yet another example of a deeply short-termist approach to spending by central government, with the result that covering holes in acute budgets creates bigger holes elsewhere in the future. In addition, trusts are increasingly turning to land and property sales to cover revenue gaps, which reduces land available to add capacity.[57] It will be hard for the NHS to improve hospital productivity without better protecting future capital.

Figure 14 **DHSC capital spend, by type, 2010/11 to 2024/25 (2023/24 prices)**



Source: IfG, Public First and Health Foundation analysis of Department of Health and Social Care, 'Annual accounts', 2021/22 and HM Treasury, 'Comprehensive spending review', 2021. Notes: "RDEL" refers to resource spending – planned money that the department spends on day-to-day activities.

Conclusion

A defining image of the current NHS crisis is the slow progress of citizens' interactions with the health service: it is hard to get an appointment, and if one results in a referral or hospital stay the flow of patients in and especially out of hospitals also takes too long. The result is a vicious cycle of different backlogs leading to delays that worsen the overall backlog, all reducing NHS productivity.

The lack of capacity and infrastructure has to be considered a major contributing factor to the NHS productivity puzzle. There are simply not enough beds in UK hospitals. There is not enough diagnostic equipment. UK governments have not invested enough in technology. Maintenance backlogs are growing. These problems are exacerbated by lack of capacity elsewhere in the health and social care system. Discharging to social care in particular remains a big problem but so is discharging when additional health care support is required, given reductions to community health budgets.

These shortfalls in capacity and infrastructure make clinicians' lives harder. They spend more time managing flow between parts of the hospital; more time supporting patients who should be in a bed and cannot get treated until they are; more time treating patients whose condition has got worse due to waiting longer; more time treating patients who were ready for discharge but got sick while waiting; more time dealing with the lack of equipment and working round failing IT systems and crumbling hospital buildings.

And across the board, a short-term approach to spending has led to the problems seen in the NHS today and risks making them worse in the future. Worryingly this looks set to continue with, for instance, the recent announcement that money allocated to social

care reform alongside the 2021 white paper has been halved and will instead be spent on acute health care.[58] A £2bn technology investment package also announced in 2021 has been halved.

Another worry is that new strategies to manage backlogs are storing up more problems for the future. The fall in GP referrals may on the surface appear to be a positive contribution to productivity but equally could indicate a 'hidden backlog' of patients who are not formally on the waiting list but are either not able to get a successful referral or are put through an 'advice and guidance' pathway. On this there is, as yet, little evidence. More research is urgently needed on this question.

All of these capacity pressures have a negative effect on staff. The next chapter looks at how increasing pressure on staff more generally may be harming productivity in the NHS.

2. Staffing: retention and morale

Limited numbers of beds and diagnostics are a clear driver of worsening productivity in hospitals. No amount of staff will help if there is nowhere to treat patients. But that alone cannot explain all the problems the NHS is currently experiencing. Even taking all capacity constraints into account there should be more elective activity after the pandemic, given the size of the staffing increases since, and lengthy waits for initial consultations cannot be blamed exclusively on a lack of equipment.

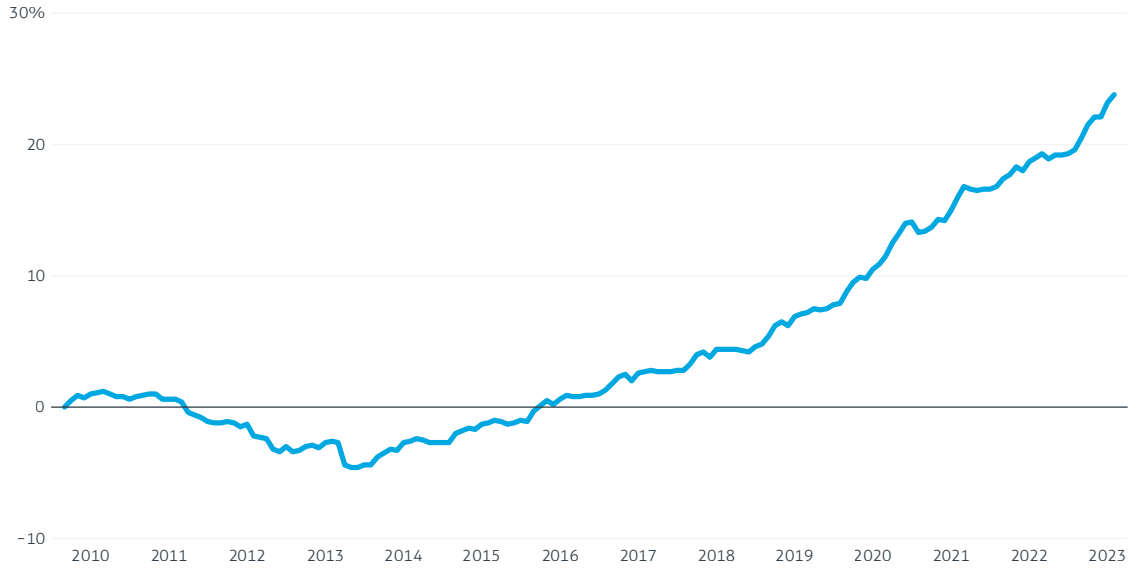
Overall, there are more people working in the NHS than in 2019 – but who these people are has changed a lot, as has the pressure being put on them. This has a big effect on both retention and morale, which in turn are contributing to the wider NHS productivity puzzle.

Whether there should be a further staffing increase, or what that should be, is outside our purview. Instead we offer an analysis of the current workforce and what may be driving reductions in productivity – from its composition to problems of retention and morale. These will be important to restoring productivity in the near and medium term, and are the focus of this chapter.

Headline staff increases do not tell the whole story

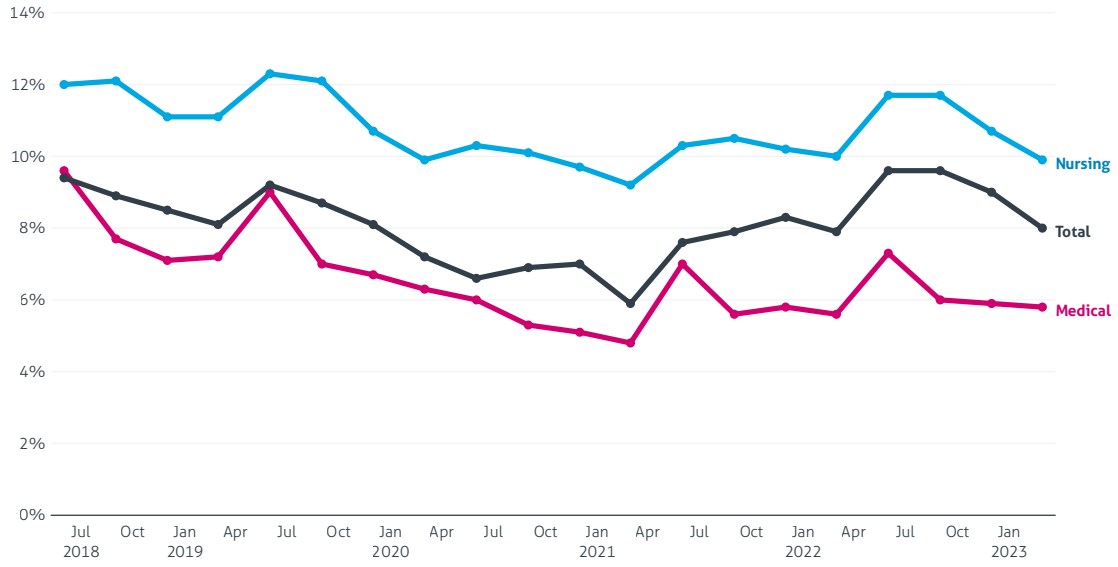
The overall growth in headcount since the pandemic conceals some more concerning metrics. For instance, the vacancy rate in the quarter ending December 2022 was 8.9%, up from 8.1% in December 2019. This suggests that despite even marked overall growth the NHS is still short in many key areas, with many important posts remaining unfilled.[1]

Figure 15 **Change in NHS headcount since September 2009**



Source: IfG, Public First and Health Foundation analysis of NHS Digital, 'NHS workforce statistics, England and organisation' ('1. England' table), February 2023.

Figure 16 **NHS vacancy rates by type of role, June 2018 to March 2023**



Source: IfG, Public First and Health Foundation analysis of NHS Digital, 'NHS vacancy statistics England' ('Total 2018 onwards', 'Nursing 2018 onwards' and 'Medical 2018 Onwards' tables), March 2023. Notes: Data was not published until June 2018.

The level of staff shortages across the NHS has led the Royal College of Nursing (RCN), the BMA, the Commons Health and Social Care Committee, among many others, to argue that patient safety is at risk, and to call for a further increase in the NHS workforce.[2,3,4] A 2022 survey of BMA members also suggests very low confidence that current backlog targets in the elective recovery plan can be hit with the existing workforce, with almost 9 in 10 respondents calling it "unachievable".[5] Leaks from the long awaited government NHS Workforce Plan suggest the NHS may be operating with more than 150,000 fewer full-time staff than it needs, and that number could grow to more than half a million staff by 2036 if current trends continue.[6]

Composition of staffing increases

Between December 2019 and December 2022, the headcount number of doctors and nurses employed in hospitals increased by 17,000 and 36,300 respectively. Overall headcount increased by 11.1%. What the data does not show as clearly, however, is how these new staff have been put to use – and it is in the composition of these staffing increases that we can perhaps find part of the answer to the low productivity puzzle in hospitals.

Many factors relate to staff composition, though not all show a clear impact on the speed of patient flow through hospitals, the fundamental problem with current NHS performance as discussed in the previous chapter. Such factors, including the increase in staff employed by central bodies and the sharp recent increase in staff recruited from abroad, are discounted from our analysis in favour of more significant factors – like the disruption of inducting new staff at a time of rising voluntary retirements.

The number of new staff also affects patient flow because many new staff don't have the experience to make the kinds of decisions – like if further tests are needed before discharge – which can see patients discharged quicker. Slower growth, or even shortages, in some of the most important roles in hospitals – in particular band 5 and 6 nurses, and senior consultants – also play a big part. Similarly, the rate of hospital managers has not kept pace with other staff growth (see Chapter 3).

Experienced practitioners are being replaced by junior staff

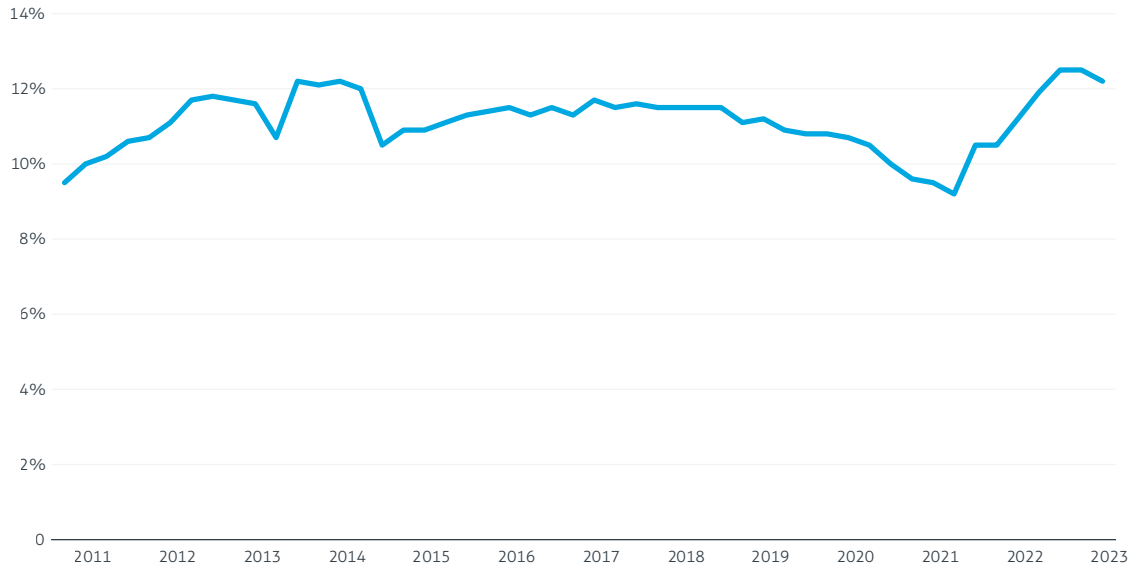
A consistent theme in interviews was that the NHS has lost experienced practitioners, and that many had been replaced by junior staff who are, understandably, less able to speed up patient flow through hospitals. Moreover, the time taken to train junior staff drains the capacity of the more experienced staff who are left.

The leaver rate has been increasing since the pandemic and hit a record high of 12.5% across the entire NHS in the years ending June and September 2022. In contrast, only 10.7% of the workforce left their posts in the 12 months to December 2019, before the pandemic struck. Voluntary resignations are also up since the pandemic. In the 12 months to December 2019 some 9% of the workforce voluntarily resigned from the NHS; the figure for the year ending December 2022 was up more than a percentage point, to 10.5% (though down from the record high of 10.8% in September 2022).

This could indicate a rise in unexpected vacancies at different stages of seniority, disrupting the more natural process of doctors growing in experience until they replace their retiring seniors. That would likely have an impact on how efficiently a hospital was run. However, it is not possible to say this for sure as only headline numbers are reported.

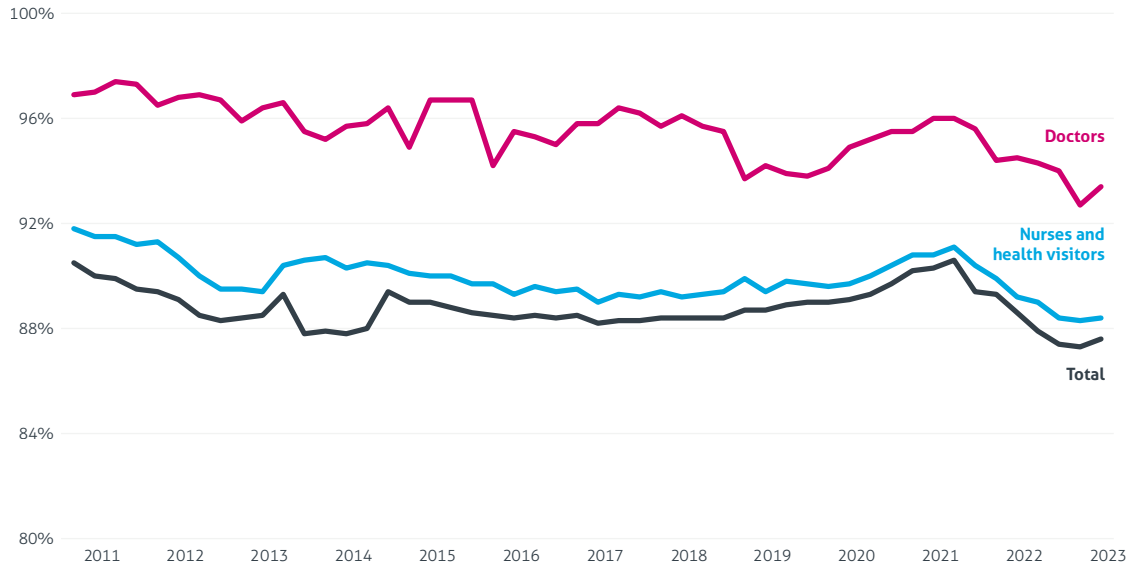
This increase in voluntary resignations appears to be reflected in the stability index, a metric that shows the proportion of staff that did *not* leave the service in the previous year. This shows that – with the exception of the period around the Lansley reforms in 2012 – staff stability for both nurses and doctors remained fairly steady throughout the 2010s, before dropping in the last few years to hit record lows in the year ending September 2022 of 87.3%, 92.7% and 88.3% for total NHS staff, doctors (excluding those in their foundation years), and nurses respectively.

Figure 17 **NHS workforce leaving post in the previous 12 months, September 2010 to December 2022**



Source: IfG, Public First and Health Foundation analysis of NHS Digital 'NHS workforce statistics, Turnover tables' ('Turnover' table), December 2022.

Figure 18 **NHS staff staying in post over the previous 12 months, by staff group, September 2010 to December 2022**

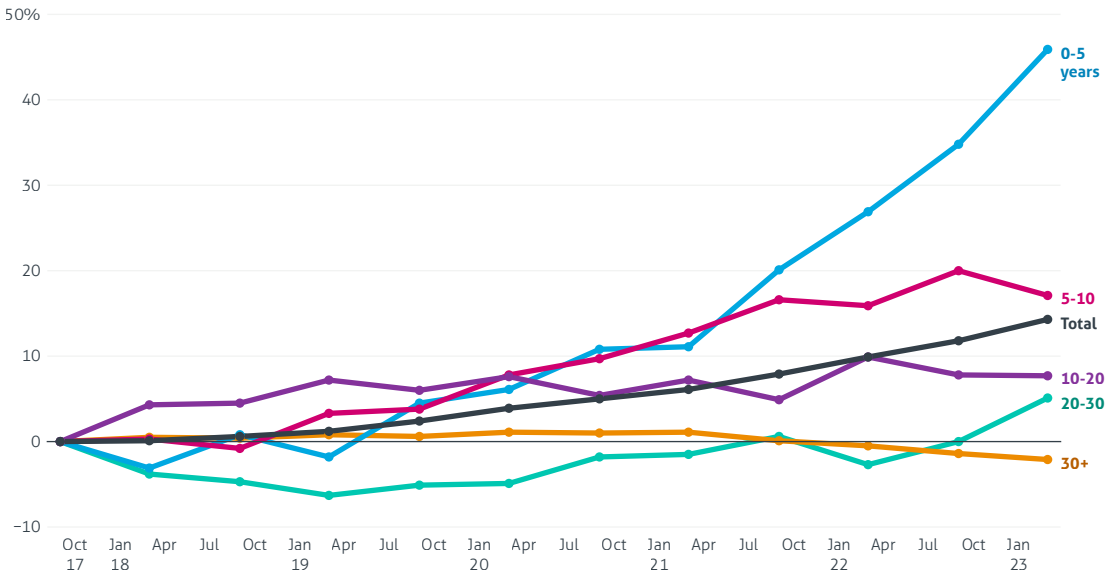


Source: IfG, Public First and Health Foundation analysis of NHS Digital, 'NHS workforce statistics, Turnover tables' ('Turnover' table), December 2022. Notes: "Doctors" refers to all doctors working in hospital and community settings, excluding those in their foundation years.

There is evidence that there has indeed been an increase in less experienced staff. Analysis of the Nursing and Midwifery Council (NMC) data shows an increase in the number of nurses with less than five years' experience.[7] Figure 19 shows a growing gap between the least and most experienced – and this gap might actually be much worse than the data is currently showing as the NMC takes three years after someone stops practising to remove them from the register.[8]

This matters because less experienced staff will be less familiar with hospital processes, and require more training by senior staff. We also heard from research participants that less experienced staff may have lower confidence to make decisions that may seem risky or could expose them to litigation, which can slow down hospital processes (by, for instance, ordering further tests before discharging a patient).

Figure 19 **Change in registered nurses since September 2017, by time since registration**



Source: IfG, Public First and Health Foundation analysis of Nursing and Midwifery Council, 'Permanent register data tables', ('Time' table), March 2023.

Interviewees also suggested that the recent increase in recruitment from abroad might add to staff churn, as they may choose to return to their home countries, meaning they work for less time in the NHS. While it is logical that this may be the case in the future, there is no evidence it has contributed to the challenge in the period we are examining. We also heard that the departure of staff from the EU/EEA has caused additional churn, although numbers are comparatively small.

Staff churn does seem to be a significant factor in current hospital productivity problems, and staff stability is clearly lower in the period we are examining. Spikes in staffing increases may have caused bottlenecks as more senior staff scrabble to train newly hired employees, and the increase in voluntary redundancies could have had a disruptive effect in hospitals. We can also clearly see an increase in more junior nurses who may be less able to make the kinds of experience-based decisions – such as choosing not to order a test, based on other assessments – which can speed up patient flow.

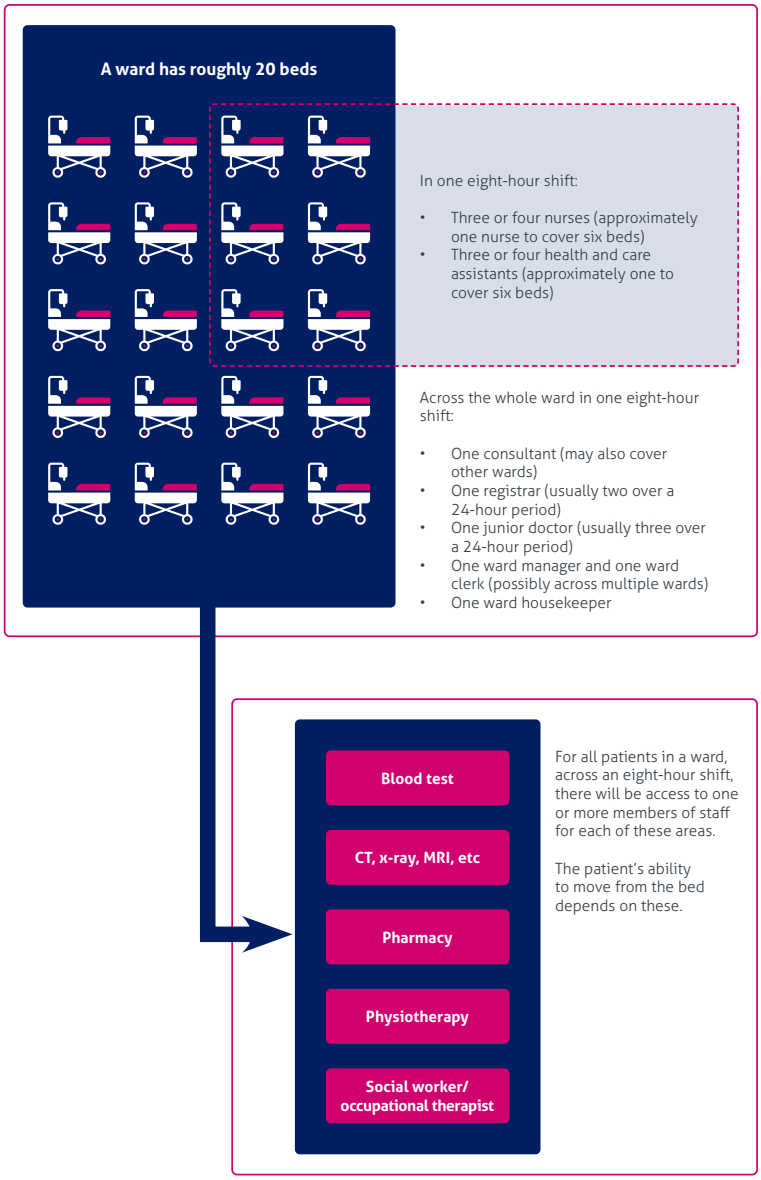
While difficult to observe, it is almost certain that the surge in NHS churn over the last two years has drained the NHS of both institutional knowledge and more experienced staff's time. Those dual losses mean that remaining staff are struggling to deliver the same level of activity as they did before the pandemic, despite an increase in staff numbers.

Band 5 and 6 nurse recruitment has lagged behind both junior and senior roles

Hospitals' processes are finely balanced, with set ratios and rotas that require the right balance of staff. If that balance is lost, hospitals will not achieve the full potential of all of the new staff they have employed. Put simply, if there are not enough nurses to staff a ward, the extra doctors will not be able to see more patients.

Interviewees offered a rough outline of the staffing required for an average ward, presented (albeit in approximate form) in Figure 20. What it shows us is the importance of nurses to the overall ability of a hospital to treat and discharge patients quickly, with one fully qualified nurse needed for every six beds. One interviewee, who works in a hospital, told us that nurses are the "lynchpin" of patient treatment, and that it was their job to advocate for patients, arrange tests and give the doctor the information they need, among many other things. "If the nursing level isn't right, everything grinds to a halt," they concluded.

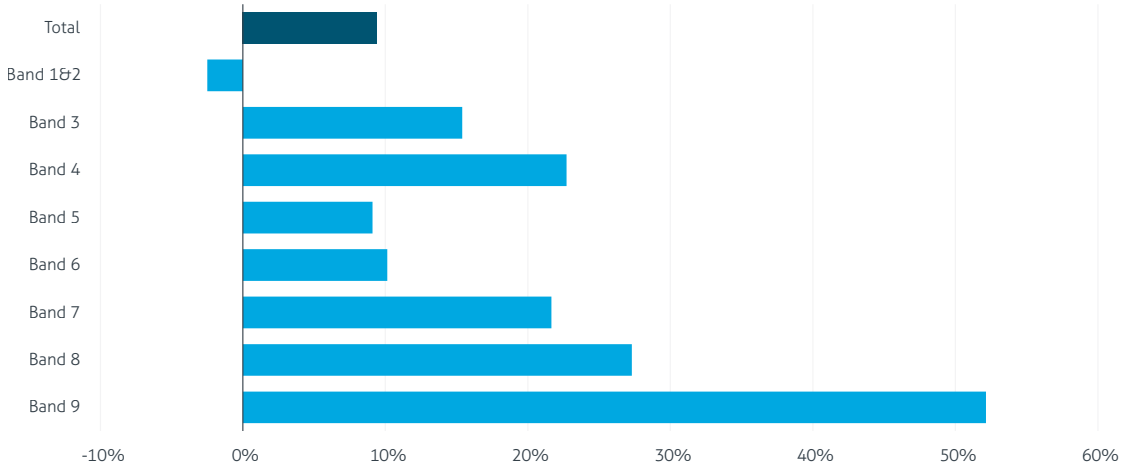
Figure 20 **Staffing ratios in hospitals**



Source: IfG, Public First and Health Foundation analysis.

There are several data sources that suggest the numbers of highest and lowest paid staff are growing faster than those in the middle,[9] but most significantly our analysis of staffing by Agenda for Change pay bands suggests that the rate of band 5 and 6 staff – typically newly qualified, and slightly more experienced nurses, respectively – has not kept pace with the growth of junior and senior staff. Demand for agency nurses is also concentrated at band 5 level, further suggesting a shortage at this level.

Figure 21 **Change in Agenda for Change staff, by band, September 2019 to December 2022**



Source: IfG, Public First and Health Foundation analysis of NHS Digital, 'Equality and diversity in NHS trusts and core orgs' ('Source data' table), December 2022. Notes: Bands 1 and 2 are grouped because band 1 roles were ended from 2018 onwards, and new hires employed under band 2, making band 2 changes artificially larger. September 2019 was used as the base rather than December 2019 because the NHS only published data for March and September until 2021, after which it published data for every quarter. Agenda for Change staff are almost all NHS staff who are not doctors.

We also know that fully qualified nurses are important to patient outcomes. A 2017 study showed the proportion of registered nurses working on their normal ward has a significant impact on patient mortality, but agency nurses or support staff working on wards do not. This study concluded:

> **"Additional [health care support workers] (HCSWs) and agency [registered nurses] (RNs) have no significant impact and therefore should not, at the margin, be treated as effective substitutes for experienced permanent RNs. Instead, policy should be directed towards increasing the number of trained RNs, fostering professional growth and progression for RNs and improving the retention of existing staff in clinical practice roles."**

Senior consultant posts are going unfilled

Studies have also shown that seniority makes a difference for doctors, too. A 2018 NHS Improvement study of patient flow in A&E departments found that a 1 percentage point increase in the proportion of A&E staff who were senior doctors increased A&E performance by 0.1 to 0.2 percentage points. The report argues that these senior staff are often "responsible for making rapid treatment decisions, drawing on their large amount of experience, which improves patient flow".[10]

In addition to this, data indicates that senior consultant posts are increasingly unfilled due to a lack of applications, suggesting that there are fewer senior staff around to take these roles. The 2021 Royal College of Physicians (RCP) census showed that 52% of advertised consultant physician posts in England and Wales went unfilled last year, with 74% of these unfilled because of a lack of any applicants at all. Before Covid, the same census showed 43% of consultant posts in England and Wales were unfilled due to a lack of suitable applicants.[11]

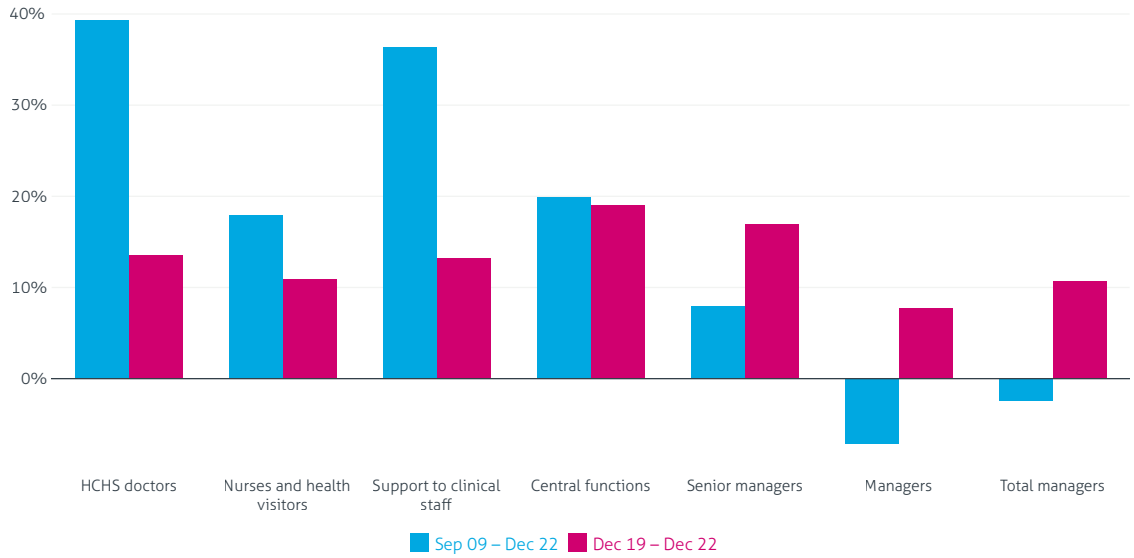
Insufficient management staff have been employed to support new clinical staff

Interviewees told us they felt that management processes in hospitals – and the staff needed to support them – have not kept pace with the influx of new clinical staff, which in turn means these new staff cannot be used to their full potential. Without a good system to decide rotas or manage beds, bottlenecks will build up regardless of the number of new recruits elsewhere on wards.

NHS workforce data shows the total percentage increase in managers between December 2019 and December 2022 was just 7.7% – but there was actually a 7.2% *reduction* if tracing the figures back to September 2009. Over the same periods, professionally trained clinical staff (HCHS doctors, nurses and health visitors, ambulance staff, and scientific, therapeutic and technical staff) have both grown, by 11% and 25% respectively.

Analysis published by the Institute for Fiscal Studies (IFS) in December 2022 suggested that it "could be that a shortage of managers could be contributing to weak NHS performance".[12] And a report on NHS productivity by the Health Foundation in 2021 argued that productivity gains would only be found if action is taken to "strengthen provider agility" including effective management and leadership alongside investment in infrastructure[13] (see Chapter 3).

Figure 22 **Change in NHS full-time equivalent staff, by staff group, September 2009 to December 2022 and December 2019 to December 2022**



Source: IfG, Public First and Health Foundation analysis of NHS Digital, 'NHS workforce statistics, England and organisation' ('1. England' table), January 2023. Note: HCHS doctors are doctors that work in hospital and community settings.

New staff are not always deployed to the right teams

We also heard that new clinical staff are not always being deployed to the teams where the bottlenecks in patient care tend to pile up, such as diagnostics (Chapter 1). Data published by the NHS does not allow us to explore this in detail, but it is possible to look at some key staff groups. There was an 11% growth in the number of diagnostic radiographers between December 2019 and December 2022, in line with the growth in nurses but below the growth in doctors, support staff and central administrative functions.

This suggests the NHS is behind on its 2020 diagnostics recovery plan, which indicated the NHS should increase the number of radiologists (doctors) by 2,000 and radiographers (support staff) by 3,500 in five years. Between December 2020 and December 2022, there were 546 more radiologists and 1,087 more radiographers – two years in, assuming a uniform annual increase in staff, those numbers should be 800 and 1,400 respectively.[14] Similarly, the number of staff employed to support operating theatres has remained steady for the last two years, creating another bottleneck.[15]

We also heard about lots of staff being added into A&E departments in an attempt to bring down waiting times but that these additional staff do not speed things up across the hospital – again due to bottlenecks further up the chain. Steve Black, a health care data scientist, has analysed available performance data for trusts to confirm this point, showing that extra staff in A&E does not correlate to better performance.[16]

Vacancies

The current problem with vacancies is not substantially worse than it was before the pandemic, and the recent spike in nursing vacancies is driven by mental health nurses not nurses working in acute care. But nonetheless the impact of the staff shortages created by these vacancies has affected the speed of patient flow, because it reduces capacity and because so much money and effort is being spent filling gaps with agency staff. There is also a sense that as more pressure piles on hospitals, they become less able to deal with vacancies.

Vacancies are worst in the areas most important for productivity

Our research also suggests that vacancies may be worst in the areas most important for hospital productivity. From the interviews we conducted, the biggest challenge here is in diagnostics. In February 2022 the Royal College of Anaesthetists estimated that there was a shortfall of 1,400 anaesthetists across the NHS,[17] an 8.7% vacancy rate which is worse than the vacancy rate for doctors.[18]

The vacancy rate is also higher for nurses than it is for doctors. Given that hospitals with more productive consultants are more likely to have a higher proportion of nurses, and as discussed earlier in this chapter, a lack of nurses is one of the most critical parts of the puzzle to speed up patient flow.

Agency staff being used to fill gaps hinders patient flow

There was a clear view among interviewees that staffing gaps are being filled with extremely expensive agency and 'bank' staff – who fill vacant roles in a ward temporarily – who are not as able to improve patient flow as their full-time counterparts. There is also concern about the migration of NHS staff to working in agency roles.[19]

NHS figures show the use of agency and bank staff rising between 2020 and 2022. Measures to curb agency spending were reintroduced in September 2022, but the NHS does not expect this to have an immediate effect on reliance on temporary staffing.[20] There is no data routinely published on the use of such staff, but the leaked NHS Workforce Plan suggested that use of bank staff is up 51% and agency staff 26% since 2020.[21]

Some evidence has also been published on how much money is spent on these staff. NHS England figures submitted to the Pay Review Body estimate the total agency bill at £3bn for 2021/22;[22] it has also said that such staff cost on average 20% more than NHS staff.[23] This clearly has an impact on productivity as it costs more to employ staff to do the same job.

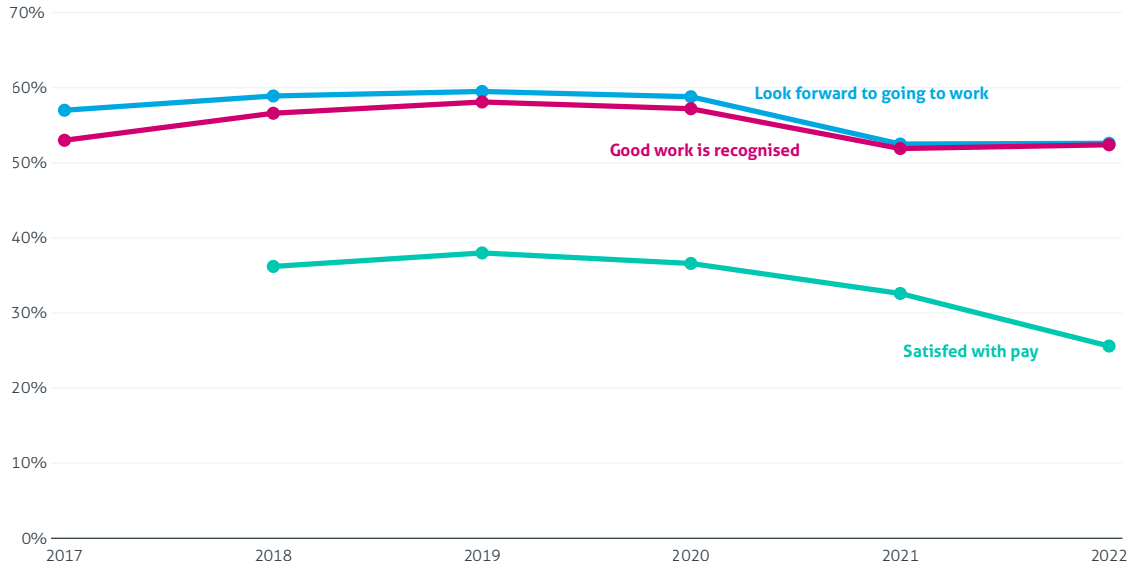
There is also evidence that agency staff can have a negative impact on patient care. The leaked workforce plan cites evidence that "use of temporary staffing – particularly agency staff – can have a negative impact on patient and staff experience, and continuity of care".[24] Other research has suggested that agency staff are likely to be more inefficient as they work in unfamiliar teams, areas and roles.[25] Interviewees also told us that agency staff may sometimes make less discretionary effort than payroll staff, again contributing to slow patient flow through hospitals.

More worrying are reports that more and more nurses are leaving the NHS to join agencies, or joining agencies while working in the NHS. It was suggested to us that they are doing this to boost their pay, or gain greater certainty or flexibility over shifts. Given the benefits to patient outcome of nurses working in one place and gaining experience, this trend is of concern. Data isn't published on this, but a 2017 RCN survey suggested that one third of nurses who work in an agency combine it with another job, and for 79% of that number the other job was in the NHS. The study also found that 23% of these people had recently reduced the hours they work in their contracted jobs to do more agency shifts.[26]

Staff morale and retention

Serious problems with low morale among NHS staff have been plain to see throughout the winter of 2022–23, not least in repeated strikes. The 2022 NHS Staff Survey shows a significant decline in morale since the pandemic, with staff now far less likely to look forward to going to work and to think good work will be recognised, and far more likely to be considering leaving the NHS.[27] Unhappy staff are more likely to leave their jobs and less likely to produce good work[28,29] – the NHS is far from immune from this, and is already beginning to feel its effects.

Figure 23 **Staff satisfaction, 2017–2022**



Source: IfG, Public First and Health Foundation analysis of NHS England, 'Staff Survey', 2022. Notes: For the "look forward to going to work" and "good work is recognised" questions, the percentage shows those who responded "agree" and "strongly agree". For the pay question, the percentage shows those who responded "satisfied" and "very satisfied".

Poor morale and high pressure is making experienced staff leave

As noted earlier, voluntary resignations are one of the reasons for high vacancy rates in the NHS.[30] This concerning trend seems to be in large part driven by the working environment in the health service, with more people citing it as a reason for their departure.[31] Recent Nuffield Trust analysis suggests:

> **"In the last decade, the numbers pointing to work-life balance, promotion and health as reasons to leave have all roughly quadrupled. Those who have left citing a lack of opportunities, having incompatible working relationships, wanting better rewards packages or to undertake further education or training have all more than doubled."**[32]

The 2021 RCN employment survey (conducted every two years) also reported high levels of dissatisfaction with the working environment, and suggests this could be a significant factor in decisions to leave the profession. Some 60% of respondents working in hospitals were considering or planning on leaving their current post, with the main reasons given being feeling undervalued or under too much pressure.[33]

There is also concern that this is feeding through to students, who are dropping out from their training in greater numbers than before the pandemic. It has been estimated that one in three nurses left their course in 2020, a spike in numbers,[34] compared to one in four previously.[35] The most common reason junior doctors give for leaving is feeling burnt out.[36]

A post-Covid psychological shift is affecting performance and could be causing lower discretionary effort

Connected to this growing feeling of burnout, interviewees told us about the wider psychological impact of Covid on staff. There is a strong sense that, having given so much over the pandemic, staff have not been given the time and space to recover from the trauma. One interviewee drew a comparison with soldiers who had been at war, who get time off to recover – whereas NHS staff were straight back at their posts. Indeed one study found levels of post-traumatic stress disorder among staff who worked in ICU during the pandemic was as high as soldiers returning from Afghanistan.[37] We also heard that staff feel like they have rapidly moved from pandemic "heroes" to "enemies" now NHS performance has dropped and the pandemic faded from people's minds.

Combined with battles over pay, and the burden of missed targets, this has left staff feeling exhausted and undervalued and so, we were told, less able – and willing – to engage in discretionary activity (that is, to 'go the extra mile' at work). Interviewees were clear that the NHS "used to be run on goodwill" but that there was now less of that around, and that "people are fed up and willing to tolerate less. Staying over time now feels less like it helps than it did." Consequently, we heard, the NHS is getting less than it used to from its staff.

It is hard to substantiate these claims with the data. The NHS Staff Survey shows that most NHS staff consistently work unpaid extra hours, and this number has remained steady in recent years.[38] Other surveys also show that doctors regularly work overtime. The 2021 RCP census found that full-time consultants worked 10% more than they were contracted to, and those working less than full-time worked 20% more, mainly due to clinical workload.[39] Similarly, a 2022 RCN survey that asked nurses to think about their last shift, revealed 60% of hospital nurses worked additional time, with the vast majority of this work being unpaid. NHS staff clearly work more than they are paid to to get the job done, and there is only limited hard evidence they are doing this less.

The same RCN survey does show that the number of nurses working extra unpaid hours dropped to 77% from 91% in 2017.[40] However, this could be explained by either more staff being paid for the extra hours or by fewer staff choosing to do the unpaid work – or both.

But, despite the lack of clarity in the data, the sense that a psychological shift in the workforce is affecting the speed of patient flow was so prominent in our research it is hard to discount. It might be that this lower discretionary effort isn't reflected in data on unpaid hours – working these hours is quite embedded in the NHS culture – but it could be manifesting itself in other ways.

One might be in the perseverance to see patients as quickly as possible. One person we spoke to gave the example of a hospital team who had been seeing 25 people in every morning clinic before Covid restrictions dramatically reduced that number. The clinic has not returned to the pre-pandemic numbers, despite restrictions being lifted, because staff are struggling to see how they managed it before – and also understand now that they previously may not have given the best possible level of

care. These staff aren't working less hard – in fact, they feel they are providing a better service to the patients they are seeing – but their primary motivation is not simply the speed of patient care.

In addition to this, another person we spoke to argued that the overall pressure on the NHS leads staff to make decisions that are actively detrimental to the speed of patient flow through the hospital. They gave the vivid example of nurses in A&E having to search widely for gas and air, which had been hidden by maternity nurses because it kept being taken. Those maternity nurses acted out of their own frustration with process – the lack of a needed resource – but in doing so slowed down their A&E colleagues, so starting another vicious cycle. The episode shows how, as demand increasingly outpaces supply, people are more likely to make short-term decisions to solve an immediate problem but that slow the system down overall.

We also heard a lot about the psychological impact of missed targets. As things get worse in the NHS and the targets feel harder to hit, motivation can take a hit. Several interviewees told us that if targets are consistently not met, staff may lower their eyes from trying to solve bigger problems in the hospital and just focus on doing their day-to-day job well. And if targets feel impossible, less effort may be spent trying to hit them in the first place.

It is clearly a problem that hospitals must rely on the goodwill of staff to do unpaid activity. If there has been a post-pandemic reduction in discretionary effort, this must be coming from a high starting point because staff are clearly still going above and beyond. It is also clear that asking staff to do more again is not a feasible policy lever. But that said, some degree of psychological shift within the workforce does seem to be part of the explanation for why patient flow has not sped up. Added to an increase in the share of staff taking time off sick, this suggests the NHS needs more people just to have the same activity volumes as before the pandemic.

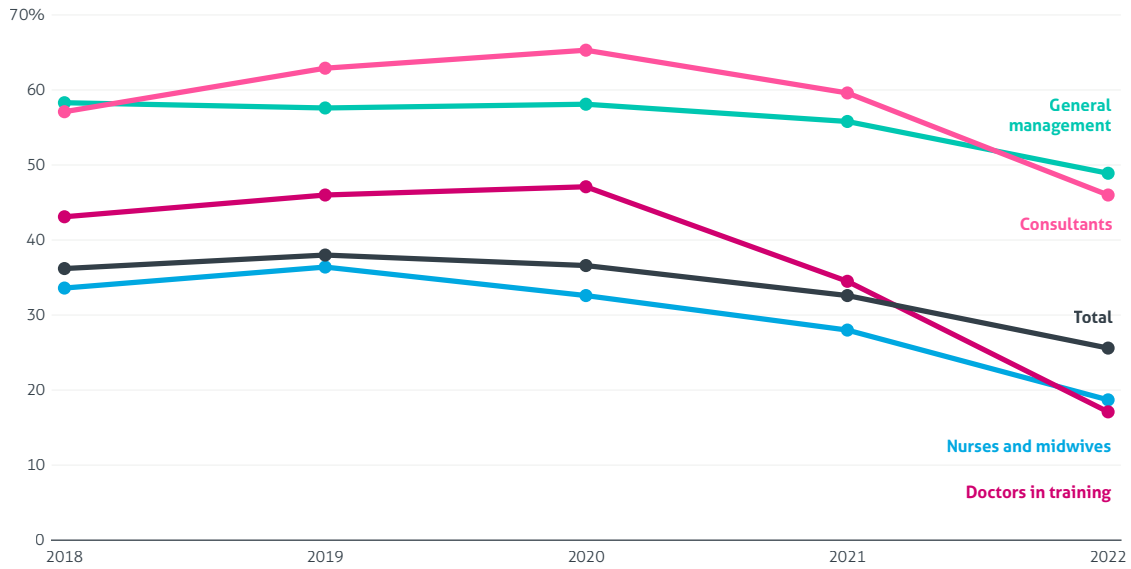
The NHS is not doing enough to attract and retain talent

It is not just the working conditions that are driving people to leave the NHS, but also low pay and a lack of flexibility in the job. Our interviewees were concerned that this is not only driving vital experience away, but also that graduates are now less likely to choose a career in a hospital in the first place. The government's recent decision to amend pension rules (to encourage more senior consultants away from early retirement) shows it is also worried about retaining experience in the NHS.

Staff dissatisfaction with pay has been well documented throughout a winter marked by industrial action. The NHS Staff Survey shows declining levels of satisfaction with pay levels – and it is clear that high and rising inflation combined with competing sectors such as retail and hospitality offering better pay deals means that staying in the NHS does not make financial sense for many staff.[41,42,43] We also heard that NHS pay for scientists, analysts and managers simply does not match up with the private sector, leaving the NHS at a significant disadvantage in the race for the best staff.

Other interviewees pointed to the comparatively poor remuneration for doctors and nurses compared to other countries – and argued that the NHS needs to pay people properly to attract and retain the best talent. Pay is certainly part of the problem, then, even if the broader fiscal situation makes it hard to return levels to where they were in previous years.

Figure 24 **Satisfaction with pay, by NHS staff group, 2018–2022**



Source: IfG, Public First and Health Foundation analysis of NHS England, 'Staff Survey', 2022. Notes: The percentage shows those who responded "satisfied" and "very satisfied" when asked about satisfaction with their level of pay.

One critical area the NHS has much greater control over is the reported inflexibility over the desire for 'portfolio' careers – where staff undertake a range of roles outside their core job – although there are recent moves to address this. There has been a growing trend towards doctors working less than full-time – and often supplementing their income with other work. The most recent RCP survey, for example, shows that 25% of consultants worked less than full-time, and that this has been increasing year on year.[44] As noted above a similar trend is seen among nurses, with increased agency work.

In 2022 the Health and Social Care Committee called for an "overhaul" of flexible working in the NHS, which they suggested would stop doctors and nurses being forced to join agencies or become locums to gain control over their lives.[45] Research participants echoed this, suggesting that greater flexibility to allow staff to build portfolio careers would be a way of retaining and attracting more talent into the NHS. Even small improvements like more widespread use of rota apps – staff report very restrictive schedules, even being denied leave to attend weddings – would help.

Conclusion

The doctors, nurses and other staff that make up the NHS are clearly a critical element of how fast patients move through hospitals. But their headline numbers do not tell the whole story. Recruitment levels are high, but those new staff are by definition less experienced and often then much less able to affect the speed of patient flow than existing staff – who are leaving in greater numbers too. This churn sees vital institutional knowledge lost, and there is not enough being done to keep experienced staff in the NHS.

The headline numbers also conceal shortages in key roles – particularly the ward nurses and managers who make processes work in hospitals. These are the people who drive the speed of patient flow through hospitals, but the evidence suggests these are also the areas where staffing is most stretched. This should demand far greater focus from any policy makers targeting improved patient flow.

Finally, one area that is unquestionably worse since the pandemic is morale, due to burnout, backlogs and ongoing pay disputes. Staff survey satisfaction data has been plummeting, and voluntary resignations at a record high. NHS staff still go above and beyond, but seemingly less so and then from an unhealthily high base. As the pressure gets greater and the targets feel further away, staff simply become less and less able to paper over the cracks.

In many ways, the sheer determination and dedication of staff is what has held the NHS together. Now, much like the buildings, that resolve is crumbling too.

3. Management: targets and incentives

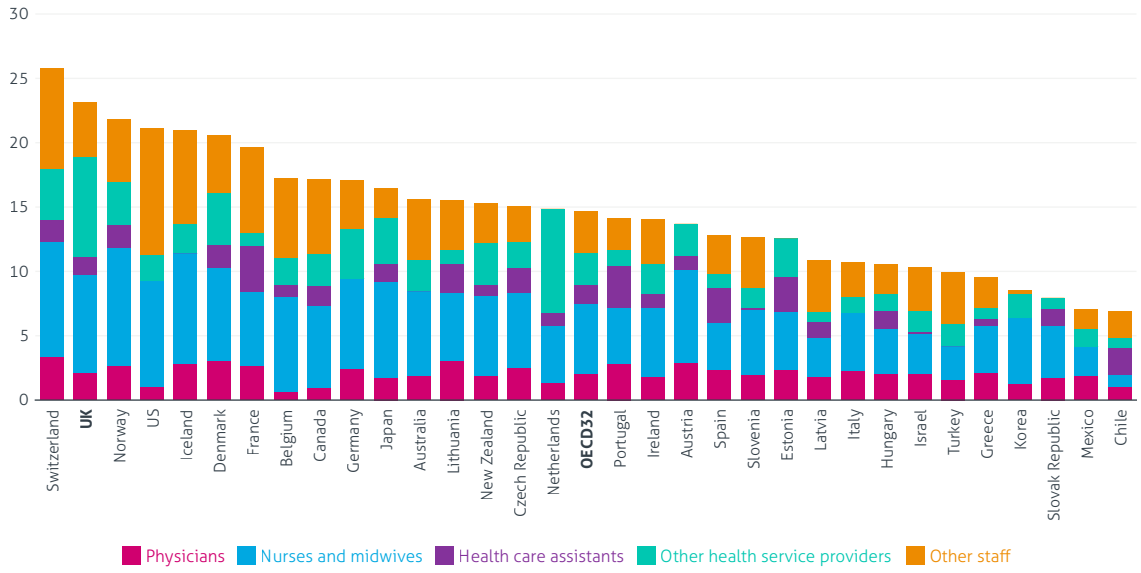
Chapter 1 of this report looked at capital constraints in the NHS, Chapter 2 at issues with labour (staff); this chapter looks at how those two interact. In particular how is the NHS managed, and how successfully can people make productive decisions?

The NHS is severely undermanaged. It is also highly constrained with insufficiently clear or simple targets and incentives. This makes it difficult for the managers already working in hospitals to succeed. These problems – that existed before Covid – have made it more difficult for the system to increase activity in the last few years. They may also limit the ability for integrated care systems, introduced in 2022, to improve performance.

Understanding undermanagement in hospitals

The NHS has very high hospital staffing relative to peer countries but has very few managers. OECD figures show that in 2014 (the latest data available) the NHS was spending less than half the OECD average on administration and management combined.*

Figure 25 **Staffing levels per 1,000 of population, international comparison**

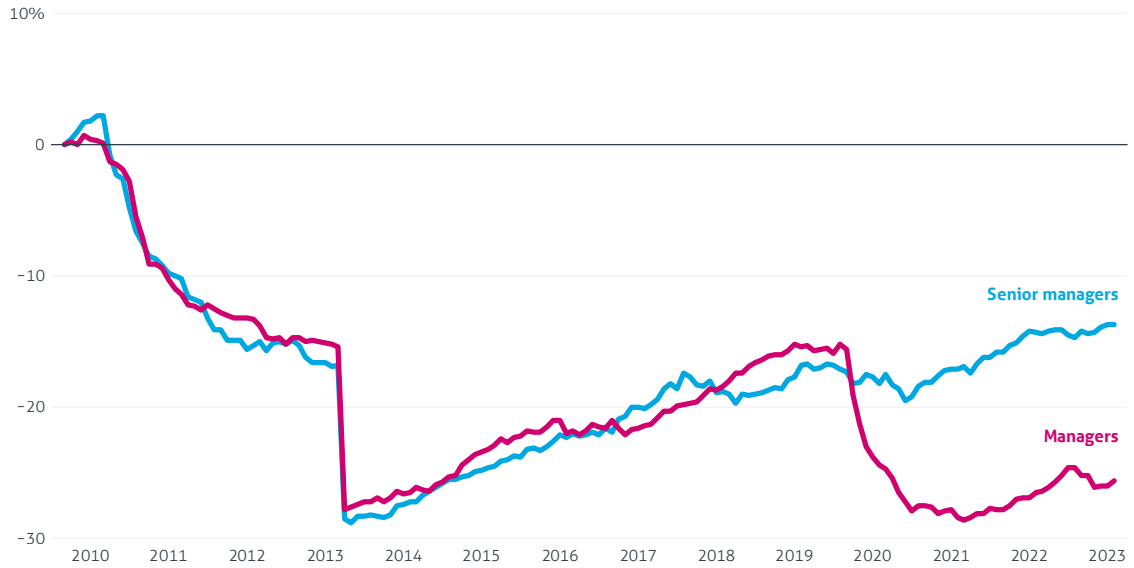


Source: IfG, Public First and Health Foundation analysis of OECD, 'Hospital staff per 1,000 people', 2019, or latest year.

* The UK spent £2.7bn out of £190bn on admin (1.4%) against an OECD average of 3%: see www.kingsfund.org.uk/audio-video/key-facts-figures-nhs and www.oecd.org/health/health-s2-ystems/Improving-Estimates-of-Spending-on-Administration.pdf, p. 5.

Management levels also fell in the 2010s, and then further since 2019.[1] Since 2009 the percentage of managers in the NHS has reduced from 2.6% of all staff to 1.9% (equating to 1,600 fewer managers overall).* This compares with 11% of staff employed in management roles in the overall economy.

Figure 26 **Change in managers per NHS employee since September 2009**



Source: IfG, Public First and Health Foundation analysis of NHS Digital, 'NHS workforce statistics, England and organisation' ('1. England' table), February 2023. Notes: Both managers and total NHS staff numbers are in terms of FTE.

Low management levels are a deliberate choice. Politicians like to promise front-line staff, as these are after all the ones most members of the public see and interact with. The 2019 Conservative manifesto had a central promise of more nurses and doctors, and Labour has made a similar commitment.

Politicians do not like to promise more managers. The instinctive view is that managers increase bureaucracy and fail to improve performance. Andrew Lansley, health secretary in David Cameron's coalition government, made a promise in a 2010 white paper entitled *Equity and Excellence: Liberating the NHS* to "reduce NHS management costs by more than 45% over the next four years, freeing up further resources for front-line care".[2] Successive health secretaries have made similar promises.

This notion that reducing managerial staff would somehow 'free up' front-line operations is not supported by the broader management literature. The academics behind the World Management Survey have found that "around half of the faster productivity growth between the US and Europe in the decade after the mid-1990s could be accounted for by managerial differences". Hospital-specific studies have found a strong association between good 'management practices' and better clinical and financial outcomes (and that hospitals managed by people with clinical experience score more highly). In other words, management matters.[3,4,5]

* FTE basis, NHS Workforce Statistics, January 2023.

A reasonable conclusion would be that problems around management in the NHS are another major bottleneck – alongside those others discussed in this report – which lowers the productivity of hospitals, even if adding more front-line staff. It would follow that increasing the share of hospital staff in management roles and encouraging those roles to be filled by people with clinical expertise could significantly improve productivity.

However, it may not be that simple. Evidence is that increasing managers *within the current system*, without any other changes to that system, may not make a huge difference. Research into hospitals in the New Labour and early coalition era – including a study of hospitals from 2007 to 2012 – found that increasing managers up to 3% of hospital staff (the current figure is 1.5%) did improve patient satisfaction scores, increase efficiency, and reduce the rate of infection. A more recent study, however, looking at hospital performance from 2012 to 2019, found no impact from more managers on performance:[6]

> **"We found that hospitals that had more managers or spent more on management were not rated as having higher quality management in the staff survey, nor did they have better performance. The implication being the overall hospital performance is dictated by clinical actions and behaviour, while hospital management is focused on administrative tasks ensuring regulatory constraints are met. The number of managers in each hospital was largely determined by the administrative tasks that needed to be fulfilled, with the scope of management circumscribed to these well-defined tasks."**

Authors of the more recent study theorised that "in public sector hospitals where the management role is highly constrained, the way to achieve better managed hospitals is unlikely to be by hiring more managers or paying them more". In short, for managers to be effective, they need to be less constrained – and if hospitals in the pre-Covid era had become this managerially constrained, it is less surprising that adding new people has had limited impact.

The move from the Blair and Brown governments, and in particular the effects of the 2010-on Lansley reforms, meant the funding arrangement, build-up and culture of the NHS was changed dramatically. So while immediate pressures in the 2020s are the focus of most attention, including in this report, it is instructive to look back to that period, in particular the long-running effects of the increasing controls put upon the NHS in a time of relative funding constraint. How trusts became managed in the 2010s (see Box 1) has in our view a negative impact on how they are behaving now.

Box 1: Key NHS reforms of the 2000s and 2010s

The NHS had received generous 6%-a-year spending increases for much of the 2000s. It had also undergone substantial reform. There were a bewildering number of initiatives and reorganisations in the New Labour era, encompassing all parts of health care and reflecting the different priorities of successive health secretaries. Four are particularly important for this report:

- The Blair government accelerated and enhanced the establishment of more autonomous hospitals (started under the Major government) with the creation of foundation trusts. These were – at least theoretically – allowed to borrow and invest.

- Those trusts were funded increasingly through 'payment by results' (that is, payment by activity) as opposed to block funding.

- Simple targets and measurement were used to manage NHS performance.

- It also introduced more patient choice and competition of providers (including private) – accelerating and broadening the 'internal market' introduced under the Major government.[7]

This system was never quite as perfect or complete as the list above suggests but the system was simpler and clearer than what the NHS works to today. The reforms were highly controversial at the time, though. The King's Fund review in 2005[8] found that over half of the extra money had been allocated to pay increases (and less than 10% on capital investment) and that "with consultant and nurse pay rates already near the top of the international league table, it raises questions about value for money".

However, time has been kind to the original Blair reforms. Research has generally found that the new regime improved efficiency and a number of outcomes. This may be, in part, because financial incentives and targets acted in concert – directed at the same basic behaviour – while the combination of increased choice and autonomy allowed hospitals to respond to incentives.

Time has not been kind to the next major set of NHS reforms, introduced in 2010 by Andrew Lansley, the coalition health secretary. Lansley wanted to accelerate Blair's reforms by increasing patient choice and hospital autonomy, turning an advisory body into a statutory regulator of NHS competition, and by creating an independent board to oversee the commissioning of care by GPs, who were to be given huge responsibility and power as a driver of efficiency.

The Lansley reforms never truly got off the ground. With the Conservatives entering coalition with the Liberal Democrats a deeply unhappy marriage of the two sides' proposals resulted. What had been presented as largely an extension of New Labour's programme became a monumentally disruptive reorganisation, one so large "that you can actually see it from space", as the NHS chief executive David Nicholson put it. The opposition, including opposition from within the Liberal Democrats, was such that at one point the legislation had to be paused and the original bill ended up with some 2,000 amendments, though little change to its substance.

The end result was an overlapping and confusing set of structures that left everyone unhappy. Some felt the very first iteration of these proposals might have been effective. Almost no one thought the end result would be.

It killed the Conservative government's desire to consider any further health reform and was seen internally, both in the party and in the NHS, as a disaster. In practice, the legislation was progressively ignored and/or worked around.

In fact, and crucially for this report, in the succeeding years many of the 2000s reforms were effectively reversed. Foundation trusts became increasingly centrally managed. Competition became less important, and central planning more so. It became increasingly clear that a number of trusts would never get foundation status, and funding became less focused on incentivising activity.

In performance terms, while it is hard to disaggregate the impact of lower than usual funding rises, and changes in policy, 2014–15 marked a turning point where NHS indicators started to worsen substantially – including A&E waiting times, delayed transfers out of hospital, and elective waiting times.

Taking the experience of the past two decades into account, our view is that in a clear and well functioning system managers:

- would have appropriate **responsibility and autonomy**; it would be clear who, within a hospital, is responsible for deciding that (for example) it is better to invest in more beds or MRI scanners than additional people

- would have sufficient **analytical capacity**; those people could access clear analysis on whether this was the right decision and would improve bottlenecks

- would have relevant **targets and incentives**; assuming it did improve activity and flow through the hospital, managers would be incentivised (through relevant targets and decisions) to make this decision.

Responsibility and autonomy

Foundation trust autonomy was a critical concept in the Blair era. It was, as mentioned in many of our interviews, substantially eroded during Cameron's second term. New planning guidance issued in 2016 ended many of the differences between foundation trusts and other NHS trusts,[9] including their autonomy over capital expenditure and borrowing, described by the King's Fund as a "death by 1,000 cuts".[10]

These controls were then tightened further. At first, informally, foundation trusts were asked to reduce their capital spending plans (sometimes through long and tortuous negotiations) to make room for other trusts in the system. This was ultimately formalised in the Health and Social Care Act 2022, which introduced a new discretionary power to impose a limit on a foundation trust's capital spending if DHSC is worried it will breach its capital budget (CDEL).[11] In other words, foundation trusts now have little meaningful control over investment and capital decisions.

This control over CDEL, and uncertainty over whether it will be breached, has made devolved decision making and planning impossible. Some may argue this was inevitable because of squeezed finances and that structures and decision making power are irrelevant. And funding does, clearly, matter. But in the last few years there has been a directive and specific funding to increase front-line staff but until recently none to increase capital (as the new hospital programme has been rowed back, before being re-announced in some form just before this report was finished) or management capacity, and trusts themselves were not able to choose which they would prefer.

Because of the way central government is attempting to manage its capital year on year, the process by which approval for capital happens – and the money disbursed – has become bureaucratic and deeply uncertain.

A report by Birmingham University in 2019 found that increasing bureaucracy and uncertainty in both the application and the post-approval process was limiting hospitals' ability to invest capital:

> **"If we decide that we want to do something bigger than what our depreciation can fund, we will put a request in to utilise some our [income and expenditure] reserves as capital and that is never agreed. And so we have our plans ready to go, we get to November, it still hasn't been approved and therefore we can't continue so then we have to say, 'okay, we request to withdraw our request for additional CRL because we now can't get it done in time.**

> **"Over the last two years because the Trust has been in deficit it has been subject to the requirement for capital loans by the Department of Health and in both of those years there has not been approval of the loan until December last year. And so I now have to spend in effect 60 or 70% of my capital expenditure for the year in the last three months of the year..."**[12]

A report in 2018 by the Healthcare Financial Management Association (HFMA) gave a number of similar examples.[13]

> "One HFMA member reported that they worked at an NHS trust that had sufficient cash balances to invest in capital expenditure but could not proceed until a business case was approved by NHS Improvement. There was insufficient headroom against the national CDEL to allow for the business case to be approved. Neither could the trust lend its cash to another NHS body to invest in capital projects for the good of the local health system, again because of the possible impact on the national performance against the CDEL.
>
> "A foundation trust applied to the Independent Trust Financing Facility (ITFF) for a loan to fund a programme of work in December 2016 to meet clinical demand and to address safety concerns. The foundation trust was informed by the ITFF that the loan was approved in January 2017. After much chasing by the trust, 10% of the loan value was issued as a loan in September 2017. The remainder of the loan remains outstanding, on a list of loans awaiting clearance by the DHSC and is still being chased by the trust. The DHSC are asking for further prioritisation of the schemes due to their own capital constraints and are encouraging the foundation trust to request a lower figure than the outstanding 90%. Due to the delay in accessing capital, the foundation trust's current capital programme has slipped, and some schemes have not progressed."

In contrast one former NHS trust CEO we spoke to – whose career spanned the foundation trust era – described the relatively easy process by which she added bed capacity in her hospital before 2015. Another head of strategy for a current trust described a vastly quicker and relatively lower cost process for adding beds during the pandemic (with sped-up approvals and reduced controls from the centre) compared to attempts in 'normal times'.

Beyond the desire to limit overall capital expenditure, there appear to be two reasons bureaucracy and timescales cause so many problems. First, the business case rules drive trusts towards changing their 'model of care' whenever asking for capital funds, even if what they need is more of the same (beds, for example).

Second, even for substantial capital programmes (such as for the new hospital programme) uncertainty over what trusts might actually get drives them to submit unrealistic bids. Without clarity needed to produce better bids or – better still – devolved capital, huge amounts of time is wasted. This is precisely where other major government capital investments have similarly struggled; levelling up funds, where councils have had similar experiences, is a good example.

A recent paper by the Nuffield Trust and Policy Exchange noted similar challenges and made sensible recommendations: in essence, without devolved decision making through some form of umbrella capital approval, any manager in any hospital will struggle to make good decisions.[14]

Analytical capacity

Good hospital management relies on good information. Yet several roundtable participants mentioned the low analytical capacity of the NHS. Their view was that there are too few analysts, who themselves often lacked sufficient skills, and who are absorbed with increasing upward reporting requirements ('feeding the beast'). This prevents managers from understanding where bottlenecks lie, how these are changing, impeding their decision making.

There is no a definitive count of the number of data analysts in the NHS. The Health Foundation estimated in 2016 that there were 5,140 analysts working in trusts[15] but concluded that:

- decision makers in health care cannot always access the type of analysis they need
- in some cases, there are too few analysts and those that are there are too busy working on mundane data manipulation (known as 'lifting and shifting')
- where there are analysts within health care, their skills can be limited and, in addition, they often work in small units with little chance to develop professionally
- the increasing amount (rightly) being spent on information is not being matched by investment in people to analyse this data.

All these points were echoed in our own conversations.

A more recent survey conducted for NHS England in 2022 (albeit with different methods) found more data analysts in the health and social care sector overall – but only 4,483 in hospital trusts.[16] It is unclear if this represents a decrease from the 2016 finding, or simply different methods of counting. The NHS England survey will be repeated in future years, which will be instructive.

Analytical capacity is relevant to the impact of management within the NHS productivity puzzle because managers and hospitals rely on data and feedback loops to react to exactly the types of issues described in this report. Understanding the problem is key to addressing it. The lack of analysis, and analysts, is not new, but it may be hindering the response.

Another frequent complaint in our interviews was that the size of the central NHS bodies, and their requirements on hospital staff, had increased inexorably, reducing the capacity of existing analysts and managers to deal with problems on the ground. One interviewee suggested that there are thousands employed by NHS bodies "which do no good at all" and others referred to the growing size of a "big beast" in the centre, which generates new requirements for hospitals to meet without sufficient support to help them boost productivity. This is disputed by NHS England, whose stated aim is to support partnerships to deliver better outcomes for patients, drive improvement and ensure the best possible value for taxpayers.[17]

These concerns have been echoed many times before. The recent Messenger review[18] on leadership in the NHS remarked: "The sense of constant demands from above, including from politicians, creates an institutional instinct, particularly in the health care sector, to look upwards to furnish the needs of the hierarchy rather than downwards to the needs of the service-user."

In their defence, both ministers and the NHS have professed a desire to reduce bureaucracy. But change is slow. For example, a 2020 report, *Busting Bureaucracy* from DHSC, promised to reduce the number of health care regulators, but in November 2022 this was still being considered after a further report from KPMG.[19]

It is hard to quantify whether there has been an increase in reporting requirements since the pandemic, but it is clear that the number of people working in centralised NHS organisations – for example, NHS England itself, or Health Education England – has increased dramatically. We can say with some certainty that there are fewer managers in hospitals than in 2009, but many more people managing the managers.

Targets and incentives

Even if a manager were given more autonomy to manage capital investment, and more analytical capacity to identify problems, they must still be incentivised to deal with the fundamental challenge the NHS currently faces – of speeding up hospital activity and patient flow. This is being made harder by the recent proliferation of targets and measures that have muddied hospital incentives.

With an organisation the size of, and as centralised as, the NHS, it is impossible for the top to do much more than issue simple directives and measures. It can set floor standards through targets and must accept that this will create some perverse incentives as well as some good ones. It can only then *encourage* excellence through local autonomy. The new integrated care systems (ICSs) are one way of achieving this, but will only succeed if their own accountability and purpose is clear. More autonomous trusts are another (and they can coexist).

However, one of the decisions of the NHS in recent years has been to add more targets and measures at a much more granular level. An example that came up in our roundtables is the NHS quality indicators – which include supporting patients to drink, eat and mobilise (DrEaM) after surgery; prompt switching of intravenous to oral antimicrobial treatment; and timely communication of changes to medicines to community pharmacists via the Discharge Medicines Service.

Many of these are aimed at processes not outcomes, and hospitals are provided relatively small amounts of money for a long list of better behaviours. This we were told was partly to blame for more and more analytical time going on upwards reporting.

Beyond the core quality measures, the NHS has had a huge number of objectives in its planning guidance. These have been streamlined in the last few months – from around 130 in 2022 to 35 this year.

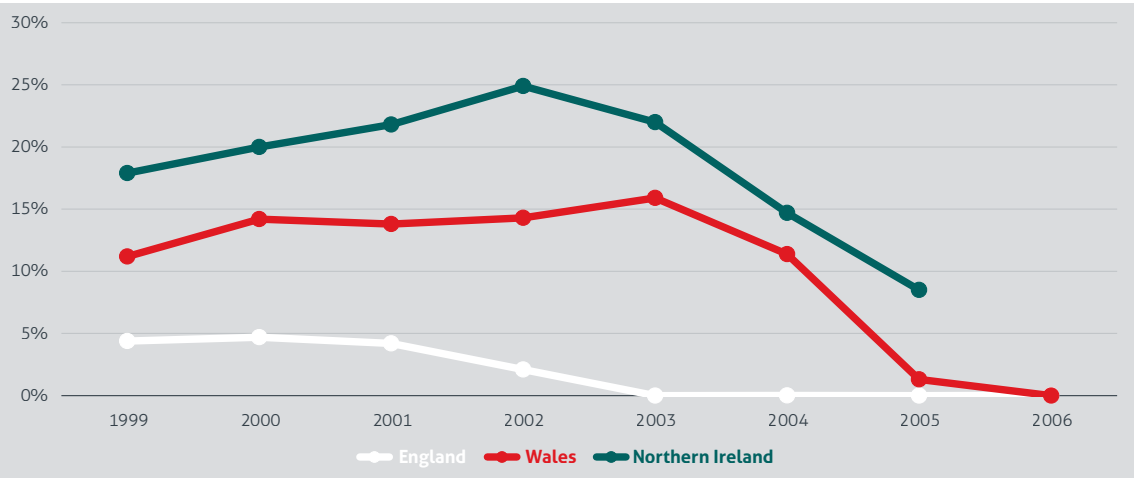
There was recognition in our roundtables that quality measures had explicitly pushed hospitals away from focusing on activity – indeed there was mild indignation that hospitals were being beaten over the head about activity when they'd been explicitly told to move away from it as the only measure.

And there is little evidence – either from the ONS productivity statistics nor from our discussions – that these measures have in fact improved quality in hospitals, and formal evaluations of quality indicators have been disappointing.[20] Given the current crisis centres so squarely on activity, a stronger focus on that, even at the – temporary – expense of other aims, seems appropriate.

The latest reduction in objectives marks a return to the pre-2015 focus on a small number of targets. Jeremy Hunt, as health secretary in 2012–18, was generally much less keen on targets than his predecessors, actively criticising the use of 'top down targets' in favour of a more 'learning' based NHS system. Over the course of his tenure he removed a number of targets on elective waiting lists, and downgraded the A&E target as hospitals increasingly failed to meet it.[21,22] This, though, was probably an error.

Targets are not, and have never been, particularly popular: people still refer to the 'targets and terror' era of New Labour. But, at least on what was measured, they worked – in the 2000s waiting times in England, which used the targets as a performance management tool, fell much faster than in Wales and Northern Ireland (which did not, and which also benefited from additional money); it performed similarly well compared to Scotland.[23] Funding, of course, is important but works in concert with incentives – but what the 2000s waiting time figures do suggest is that money without targets is less effective.[24]

Figure 27 **Patients waiting more than 12 months for inpatient elective care, by nation, 1999–2006**



Source: IfG, Public First and Health Foundation analysis of Office for National Statistics, Department of Health, National Assembly for Wales, Godden S and Pollock A, 'Waiting list and waiting time statistics in Britain: a critical review', Bevan G and Hood C, 'Have targets improved performance in the English NHS?'.

There was unquestionably, and inevitably, gaming of the system and a lack of safeguards in some cases – as shown most notably by the Mid Staffordshire hospital scandal in the middle of the decade – but overall A&E waiting targets reduced mortality by a significant 14%.[25] In other words, even if the targets did not work perfectly, they worked. In the current climate, clear, simple, high-priority targets would be of great benefit.

Table 1 **Core NHS targets against performance**[26]

Category	Target	What has happened
A&E	95% of patients should wait four hours or less to be admitted, transferred, or discharged from A&E. Now revised to 76% of patients by the end of 2023/24, in the NHS's 2023/24 priorities and operational planning guidance.[27]	The percentage meeting the waiting time target declined steadily from 2014 before falling drastically after Covid. In May 2023, only 60% of patients were treated within the target time (and only 40% at the worst performing trust.) 10% of patients are waiting 12 hours or more.[28] Meanwhile attendance levels at A&E are now at pre-pandemic levels, but not higher (though GP appointments are significantly up).
Treatment	92% of patients should wait 18 weeks or less from GP patient referral to treatment. • New target to eliminate 52-week waits (a year) by March 2025.	This has not been met since 2016. Just before the pandemic, the average wait for the 92nd percentile had risen to 26 weeks. It now stands at 46 weeks, and the worst performing trust is at 66 weeks. Hospital treatment levels remain below pre-pandemic levels.
Cancer treatment	85% of patients should wait 62 days or fewer from GP referral to cancer treatment; 93% of patients with urgent referrals should be treated within two weeks.	Just 61% of patients are currently within the 62-day target. Performance on the two-week waiting standard fell to 73% in September 2022, though it has risen again to 78% The NHS has radically increased the number of urgent cancer appointments – an 18.3% increase from 2019 to 2022.
Ambulance response times	Ambulance response times should be an average of 18 minutes (category 2).	They were at an average of 1hr 32min in December 2022. This has improved to 32min in May 2023, though this is still 80% above target.

However, unrealistic targets without adequate backing are probably worse than no targets at all. The NHS is not close to reaching any of its core targets, and while there remains high trust variation, all are working well below pre-pandemic levels, let alone pre-2010 levels. This renders the targets largely pointless. And as many of the experts we talked to pointed out, unrealistic or even impossible targets have no useful motivating effect – in fact, the opposite; pushing staff to defeatism and worsening morale with knock-on effects across the health system (see Chapter 2).

It is difficult for politicians to publicly admit to downgrading targets (although they have now done so) but it can be, and in this case is, the right decision. This is also the (sensible) purpose of the new less ambitious targets in the 2023/24 NHS operational guidance, and the interim targets in the government's backlog recovery plan.

However, for this renewed focus on a small number of achievable targets to work, the government still needs to put other conditions in place: clear political prioritisation and consistency; the funding to achieve targets; the autonomy to make decisions and deliver against them; and a sense that NHS staff are supported and valued.[29]

Box 2: Government initiatives and funding, March 2020 to January 2023
The government is currently focused, rightly, on reducing delays in discharging patients. However, to do this it has issued a series of changing initiatives and funding pots – analysed in detail in a recent Health Foundation report[30] and summarised here:

- March 2020: NHS England changes guidance to ask hospitals to urgently discharge patients who were well enough to go ('discharge to assess'). It effectively asked hospitals to look at patients in acute beds at least twice a day, and discharge anyone they could, with the default (95%) being that they would go home. The aim was to reduce the number of people in hospital, at almost any cost.

- March 2020–March 2022: government provides funding to support six weeks of care costs (in homes or formal settings) to help hospitals get people out of hospital. It also provides local authority grants to increase social care capacity.

- 2021: a taskforce established to drive higher discharge rates.

- April 2022: national funding for discharge to assess ends.

- Summer 2022: a '100-day challenge' to reduce discharge delays announced.

- September 2022: £500m allocated for adult social care discharge, though not disbursed until December 2022.

- January 2023: £200m made available to build additional capacity in care homes; £50m made available to expand discharge lounges in hospitals.

What Box 2 shows is that the government has been focused on an important problem, with increasing amounts of money since 2020 – but then reversed its funding in 2022 before providing it again through different emergency pots at the end of 2022/23. This creates uncertainty and makes it more difficult for hospitals to plan.

There are, somewhat surprisingly, no actual targets relating to discharge for hospitals (other than, indirectly, A&E waiting times). That is of course, in part, because it is adapting to how serious the situation is, and in part due to different health secretaries assuming the brief in the period. But without certainty of financial incentives and targets, it is unlikely that hospitals will be able to plan and respond optimally.

Financial incentives

The theory (if not always the practice) of New Labour's model for the health system was that autonomy and clear targets were matched to simple financial incentives. This led to the development and increasing use of the 'payment by results' (PbR) model introduced in 2003/04.

PbR shifted a lot of hospital funding from a block payment to payment for activity. It was ramped up over the following decade and dovetailed with Labour's core aim to reduce waiting lists and speed up care. There is evidence that, in that period and in conjunction with other changes, it improved efficiency and reduced costs without affecting the quality of care.[31]

Under the coalition, however, and even more so after 2015, the government wanted to control costs and focused more exclusively on efficiency. Collaborative 'benchmarking' became more important than competition. From 2016, money was increasingly diverted from PbR to block contracts and 'risk-sharing' – where hospitals do not get all of the additional funding if activity is significantly higher than predicted, but retain it if activity is lower than predicted.

By 2019 less than 60% of acute care was covered by PbR, down from almost 90% in 2016.[32] It was then suspended completely when Covid hit and the system switched wholesale to block grants (and retrospective reimbursement for costs in the Covid period).

The result at the time – in an emergency, with high levels of uncertainty and a need to collaborate in new ways – was considered positive. But many of our interviewees felt that now the pandemic risks have receded, and with waiting lists and A&E wait times the dominant concern again, a somewhat more activity-focused payment model was again preferable (although they did not want it to be the sole form of funding). This is now happening for elective procedures, but not across hospital activity.

Table 2 **Hospitals payment models**[33]

Type of payment	Description	Pros	Cons	Usage
Block grants	A formula based usually on population and location. Allocates money to hospitals, regardless of what the hospital does, how many people it treats, or its outcomes. Has consistently been used in mental health, community, and ambulance services.	Certainty of income. Good in a crisis (like Covid) where quick adaptation and collaboration is needed. More likely to incentivise collaboration across parts of the health system and can encourage efficiency, as providers need to meet the demands of their populations within their budgets.	Reduced incentive to increase activity or make it easy for patients to access treatment easily.	Before 1997, this was how most of the NHS was funded. Block grants again became the predominant funding mechanism during the pandemic; this has only partially been reversed.*
Payment by results	A fixed payment for a particular kind of activity, from a nationally determined and priced list. The more of each activity a hospital carries out, the more it gets paid.	Strong incentive to improve efficiency and help more patients.	Can disincentivise collaboration with other parts of the health system (for example, there is no incentive to fund preventative health activities). Quite high administration costs (hampered, as much of the NHS is, by bad technology). Can curtail innovation as central bureaucracy is slow to agree prices for new forms of service. Open to gaming of the system – prioritising the cheapest way to treat patients or changing how admissions are classified.	Until 2015 PbR formed the vast majority of acute health care payments. In the years preceding the pandemic it was diluted by 'risk sharing' agreements. PbR was suspended during the pandemic. It was announced in December 2022 it would be returned for elective activity, but has not been brought back fully.
Quality payments	Additional pots of money allocated to hospitals that provide 'good quality' care based on 17 key processes.[34]	Focuses activity on areas of weakness that are known to reduce the quality of care.	Muddies incentives and creates activity in return for little money. Evidence very mixed on the results in hospitals.[35,36] Hospitals remain unclear whether to treat the money as core funding or not.[37]	At most 2.5% of hospital payments and down to 1.25% by 2019, further diluted by focusing on a large range of activities with reporting requirements.

* Payment by results has now been reintroduced for electives.

There were clear reasons why the PbR system was diluted. All payment mechanisms, like all targets, create distortions. Over time they become more distorting, not less. And PbR worked best in a system where funding increased rapidly, and where the objective was higher overall activity as well as efficiency. It is not, for example, entirely compatible with a new ICS system designed to support planning across services and investment in preventative care, social care and mental health. The Health Foundation and others have argued on that basis that a three-part funding system (part block grant, part PbR, and part quality-based payments) is sensible.

No one we spoke to wanted an entirely PbR-based system. There were also important caveats to how the model would apply today. A payment by activity system does not work when the payment is substantially below the cost of the activity – as is reportedly the case at the moment (and funding pressures unquestionably diluted the impact of the PbR system from 2010 onwards).[38] There is also always a risk that incentivising activity in one place disincentivises it in another – be that other parts of the system (such as preventative care) or even within the same hospital (for instance, by prioritising less complex or 'easier' cases over more complex ones). There is also an advantage to some level of guaranteed payment, since moving staff and capital takes time; it helps if the trust bears some risk and expense up front.

Most crucially, the PbR system worked best in concert with the increased autonomy that came from the foundation trust model – when trusts had both the levels and form of funding to build up surpluses it could invest, and managers saw a tangible benefit from achievement. This is not the case now.

Nevertheless there are reasons to think an increased use of PbR would be sensible in the context of the NHS in 2023, as it recovers from the stresses of the pandemic:

1. The absolute priority for hospitals is to increase hospital activity, both in A&E and in electives.

2. The NHS has seen large spending increases, but with less impact than hoped.

3. A significant proportion of discharge delays result from in-hospital issues. Offering hospitals financial incentives would help address these.

4. As the recent Hewitt review on ICSs recognised, hospital trusts must remain fundamentally accountable for their performance on key NHS metrics.

For all its faults, an increased PbR element may be worth considering, at least for the next few years.

Would the 2000s health system work today?

This chapter has spelled out many of the major advantages of the New Labour-era health system over what succeeded it. But the focus of the last eight years has been increasingly on a collaborative model, and the move to the integrated care board (ICB) model (see Box 3) will make them even more explicitly cross-service. That would appear at odds with the mix of top down and devolved power of the earlier era.

Under an ICB model the centre of government should in our view have an extremely small number of priorities, which should be cemented through simple targets and funding mechanisms. This is echoed in the recent Hewitt review – which welcomes the NHS's recent reduction of targets in planning guidance, and calls for considerable autonomy at the ICS level, but expects trusts to remain accountable for a small number of core activities to NHS England.

But it is concerning that ICS accountability is so muddled (Box 3). The number of bodies involved is in the pursuit of greater cross-sectoral working, which is welcome, but it is unclear how the different organisations will really operate together, or how they will join things up (as opposed to attending a lot more meetings and producing a lot more plans).

And though there are some impressive examples already,[39] which rely on the more effective use of data across services to identify and solve problems, this is not supported by particularly clear structures or targets.

Box 3: Accountability in ICSs

Integrated care systems (ICSs) are at the heart of the new structure for health in England. They cover large geographic areas often comprising several trusts and local authorities, and are managed by integrated care boards (ICBs). Under the Health and Care Act 2022:

1. They must have, as a minimum, a chair, a CEO, and at least three other members from NHS trusts, general practice and local authorities. At least one member must have knowledge and expertise in mental health services. They do not need to have someone from the social care sector (though the Hewitt review encourages this).

2. They are formally accountable to NHS England.

3. They may choose to have additional members on the board; for example, someone from social care.

4. They must create joint system plans and capital plans for their area.

The commissioning previously done by clinical commissioning groups (CCGs), and increasingly commission done by NHS England, will now be under ICBs. There is a separate board, an integrated care partnership (ICP), that brings together the ICBs and local authorities:

1. The ICP must develop its own plan (an 'integrated care strategy') and ICB plans must have regard to this.

2. Beyond the LAs and one member of ICBs, ICPs can choose to have other members – social care providers, public health, voluntary organisations, local housing and local education providers.

3. Each partner in an ICS operates within its own financial, regulatory and accountability framework – local government, voluntary, community, faith and social enterprise (VCFSE) sector, social care provider, NHS provider.

The NHS parts of ICBs and ICPs control almost all funds allocated to them. The formal accountability is to NHS England through the ICB – who are accountable for the majority of the NHS budget (£108bn or 72%).

ICSs will devolve budgets (though how they do this is down to them) to 'places' (often a local authority), which will in turn devolve to 'neighbourhoods'. None of this is set, however, and the extent to which places are autonomous varies enormously.

Beyond this, the Hewitt review also mentions an array of other local accountability frameworks "as well as Health and Wellbeing Boards, Health Overview and Scrutiny Committees, Healthwatch, foundation trust governors and many other forms of patient and public involvement in system, place, provider and neighbourhood working".

Many of these overlap with ICPs – health and wellbeing boards are an earlier partnership between local authorities and the NHS to produce local plans. The health overview and scrutiny committee is a local authority committee which Hewitt recommends forming "System Overview and Scrutiny Committees". Healthwatch is a statutory body feeding in patient and community views. Beyond this the Care Quality Commission also has an oversight role and NHS trusts are expected to "participate in multiple collaborative forums".[40] ICBs are also "accountable... to their local communities" (which is not necessarily the same as their local authorities).

It remains unclear how ICBs should manage NHS directed priorities, with local priorities developed by the ICP.

For trusts it is similarly complex. According to the review, "trust chief executives are accountable... to their board, as well as to NHS England... to system partners – within a provider collaborative or Place Partnership where appropriate, but also with and through the ICB... to partners across the ICS... They have a crucial role as the convenor of the NHS."

Any system with this many acronyms and boards is almost bound to be a mess. And as currently formed the ICS model does not obviously achieve the clear accountability and small number of targets Hewitt recommends. Indeed, she proposes a further layer of organisation – around 10 groups of ICS leaders should create "High Accountability and Responsibility Partnerships" reporting to DHSC, DLUHC and the chief executive of NHS England. She also proposes a new Integrated Care Partnership Forum and a new Health, Wellbeing and Care Assembly.

The laudable attempt of ICSs is to remove siloes between parts of the health system and social care, and prioritise preventative care and health (not illness). The worst case scenario is that the NHS continues to respond to NHS England – which is where the money and true accountability lies, and where public demands are strongest – while getting caught in a loop of filing endless paperwork and attending endless meetings with the myriad other groups listed above.

Conclusion

The NHS is catastrophically undermanaged. The headline-seeking focus on new front-line staff (itself with its own issues) has come at the expense of managerial staffing numbers, which are among the lowest as a proportion of total staff in the OECD. But simply hiring more managers and administrators without implementing reforms to give them the right conditions to succeed will risk being a wasted effort. The NHS needs better information gathering and data analysis, greater freedom to make decisions, and more clarity accountability. This last point is especially important in the context of the new ICS model brought in in summer 2022.

Better equipping the NHS management to do its job well would strengthen its ability to get the most out of hospitals, and so work towards increasing patient flow and reducing the backlog – the fundamental cause of the current crisis.

That is possible within the new move to ICSs, but there is a risk that without streamlining and clarifying their role, those who need to make critical decisions on the ground will be even more constrained.

Conclusion: key questions for any NHS reform

This report set out to understand why activity in hospitals has not risen in line with recent funding and staffing increases. It offers three answers.

First, and most directly, hospitals are running at above full capacity. They do not have enough beds, and too many of the ones they do have are full of people who should not be there. A lack of capital investment, notably preventing a boost in low diagnostic equipment stocks, is slowing the response to this problem.

Second, despite notable increases in the headline number of staff the NHS is losing too many experienced employees, and they are being replaced with more junior people who are naturally less experienced and who need more support. Staff burnout, low morale and pay concerns are principle reasons for this.

Third, the NHS is badly undermanaged – and system-level policy changes over the past decade have muddied incentives and placed additional constraints on those running trusts, making their job harder. Clearly the three are connected.

We do not propose a set of specific recommendations but rather offer an analysis of the above factors that we hope will be useful to anyone serious about fixing the current NHS crisis. With an election next year, politicians from all parties will be seeking to convince voters they are best placed to 'fix the NHS'; understanding the problem, and seriously engaging with reform efforts, will serve them better than relying on the usual rhetoric around cutting managers and hiring more front-line staff.

Key questions on reform

1. How can policy makers design a long-term capital settlement for the NHS that hospitals can rapidly and nimbly use?

The need for more beds, more diagnostic equipment, and better IT systems is clear. New approaches like virtual wards might be of use, though the effectiveness of these are as yet unknown; this should be examined. Capital investment and accountability may also play a part: the UK has consistently spent less on capital than comparator countries and continues to do so, while restrictions on trust autonomy limit their

ability to move quickly to add capacity. The challenge here is not just to commit to higher capital spending but to ensure that spending is protected and can be used quickly and efficiently. The 'how' will be as important as 'how much'.

2. What is the right balance between resilience and efficiency – and how much spare capacity is needed in the health system?

Identifying the right level of resilience in the health system means balancing cost with the ability to manage future shocks without breaking. Additional capacity is needed just to get back to 2019 levels, but assessing how much beyond that will be needed for any long-term reform efforts.

3. What can be done to incentivise senior staff to stay in the NHS?

Amid record voluntary retirements, keeping experienced staff should be a priority for the NHS. Pay is part of the answer but the challenge goes well beyond that – flexibility is critical, as is recognition and status.

4. What is the best way to increase management, including clinical management, in hospitals?

The narrative that management costs drain front-line budgets is profoundly unhelpful and inaccurate. Better administration within hospitals would improve efficiency, but managers also need more autonomy. Adding numbers without considering the system in which they are operating may not help.

5. What model can most effectively balance the need for clear lines of responsibility and autonomy with the need to integrate different parts of the health system?

Is it possible to capture the benefits of New Labour's targets and incentives model of reform in an ICB system nominally more geared to collaboration and quality focus? Finding the right balance – between a small number of centrally driven targets or objectives and local level autonomy that acknowledges context and variation – will be key here.

6. How can data collection be improved and streamlined?

There should be a debate over what data is actually worth collecting nationally. Reducing the burden on trusts' data analysts will help them work on other tasks. Maximising analytical value rather than scattering data across multiple different sites, and exploring what new data might be of use will also help.

A debate that focused on these questions would be far more valuable than one focused purely on the amount of resourcing and staffing required, although more staff in some areas or at some levels may well be part of the picture. We know the NHS can work well because it did a decade ago. Getting back there will not be easy but is achievable if policy makers focus on the right things. If they, as they have for at least the past decade, instead focus on the wrong questions the recovery of the NHS will only get harder – and more expensive. That would be a disservice not only to the hard-working staff in the health service, and their patients, but to all taxpayers who fund it.

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