Rebuilding our NHS
Why it’s time to invest
Creating a 21st century health service

REBUILD OUR NHS
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The context

- A comprehensive spending review is expected in 2020. This represents the best opportunity for many years to improve resourcing and reset the rules governing capital investment in the NHS.

- It comes in the context of a prolonged under-investment in facilities across the English NHS, and at a time when the system for allocating capital funding to the frontline is not fit for purpose. The impact of many years of underinvestment in facilities is now obvious to patients, demoralising for staff and of concern to NHS leaders.

- Without changes, these problems will continue despite welcome recent announcements from the government committing to greater investment in infrastructure and facilities in the years ahead. 97% of trust leaders we surveyed are worried that their organisation's requirement for capital investment will not be met.

The impact

- NHS leaders are clear about the impact of inadequate access to capital on frontline services. 94% of trust leaders said restricted funding posed a high or medium risk to patient experience, while 82% said there is a high or medium risk to patient safety.

- Constrained capital funding is also stopping trusts from improving how they run. 97% reported high or medium risks to transformation programmes, with 95% saying there was a high or medium risk to productivity and efficiency initiatives.

What the NHS needs

- The NHS needs three fundamental changes to help deliver the long term plan. First, the NHS needs a multiyear capital settlement, ideally lasting 10 years and extended annually.

- Second, the NHS' capital budget needs to be brought into line with comparable economies, meaning funding available to trusts should roughly double. Some of this should be spent on essential maintenance works. However, to rebuild and replace facilities it will also be necessary to fund a national building programme on a scale comparable with the 1960s Hospital Plan, and the investment that took place between 1999-2010.

- Third, the NHS needs an efficient and effective mechanism for prioritising, accessing and spending NHS capital based on need. A key principle should be that wherever possible capital spending decisions should be devolved to the level where service accountability sits, and to avoid rationing, the national capital spending limit must be high enough with sufficient revenue to fund most investment from trust surpluses.
Central funding will be needed to fund large-scale projects, such as rebuilds, that cannot be paid for from surpluses. It may also be necessary for national level action to deal with entrenched problems, such as the maintenance backlog.

- It is reasonable that capital decisions affecting more than one provider within a sustainability and transformation partnership (STP) or integrated care system (ICS), are taken collectively by providers at a system level. Trusts may also choose to delegate decision making or capital planning to their systems.

The opportunity

- Investing more in infrastructure offers the opportunity of tangible improvements to health services and would support delivery of the long term plan. These opportunities include: reduced treatment delays due to equipment failure, increased inpatient capacity, expanded diagnostics services, transformed care pathways, more efficient services, and bringing about a fully digitised, technologically enabled service.

- Taken together, our recommendations represent a package of capital reforms that would put NHS infrastructure on a sustainable footing and improve the lives of all those who use, and work in, NHS services for the long term.
INTRODUCTION

The long term plan for the NHS (NHS England, 2019) set out a vision for an NHS built around preventative and technologically-enabled models of care. Accompanied by a new revenue funding settlement providing a £20.5bn real terms increase by 2023/24, it described new ways of working to support changes to how care could be delivered, and charted a path towards financial recovery for NHS trusts and foundation trusts.

There needs to be an appropriate capital settlement to support the ambitious vision of the plan. Delivery will require the transformation and upgrade of existing facilities, as well as enhanced digital capabilities and investment in diagnostic equipment. Not only will this help deliver the aspirations of the long term plan, but it will also lead to a more efficient and productive provider sector, offering a better working environment for staff, and in many instances, better services for patients.

However, in recent years there has been a prolonged under-investment in facilities across the English NHS as a whole, which has left too many providers with inadequate buildings, failing equipment and an inability to adopt new technologies to improve care.

A comprehensive spending review is likely to take place in 2020. It represents the best opportunity that has existed or will exist for many years to address this issue. This report is NHS Providers’ contribution to the discussion ahead of this vital decision point. We surveyed trusts about the nature and scale of the problem that currently exists, and the impact underinvestment is having on the frontline.

This publication makes the case for why capital matters and how we have campaigned to influence recent policy developments in this area. Informed by trust leaders’ experiences, we have sought to identify both the opportunity that an improved capital system presents, and a set of solutions that, taken together, would put the NHS on a more sustainable footing.

Why capital matters

Capital investment covers spending on assets such as buildings, land and equipment. Investment in facilities is essential to keep any health system safe, and to adapt to meet the changing needs of the population the NHS serves.

Capital spending in the NHS falls within the Department of Health and Social Care’s (DHSC) capital departmental expenditure limit (CDEL). This is separate to the NHS revenue budget, which covers day-to-day running costs such as the pay bill, medicines and consumables. For accounting purposes, all NHS providers, whether NHS trusts or foundation trusts, are part of the DHSC group. That means that all capital spending by these organisations, whether sourced from trusts’ own cash reserves or from central DHSC funds, scores against the department’s CDEL that year.
CDEL is only ever a fraction of the size of the revenue departmental expenditure limit (RDEL) – in 2019/20 the DHSC’s CDEL was £7bn – 5.3% of the £132.3bn RDEL. However, despite being a small proportion of overall spending, it provides the facilities and infrastructure that support all healthcare delivery.

Capital spending is vital in several ways:

- **Safety.** Poorly maintained facilities put patients and staff at risk. This manifests in a variety of ways. Trusts have reported poorly maintained water supplies leading to legionella outbreaks, unresolved fire risks from unsafe cladding, broken guttering falling from a roof into a public carpark, lifts needed to transfer critically ill patients around a hospital not working, an increased risk of infections breaking out in older hospitals which are harder to clean and mental health facilities which increase the risk of people in crisis harming themselves.

- **Supporting good performance.** Trusts need appropriate facilities to be able to treat ever-increasing volumes of patients needing NHS care. They need bed and theatre capacity to keep pace with rising emergency admissions at the same time as meeting demand for elective care, diagnostic equipment such as scanners to enable timely diagnosis and to modernise facilities to ensure care is delivered in appropriate settings, for example in dementia-friendly wards.

- **Efficiency and productivity.** Investment in equipment and buildings can enable trusts to adopt more efficient ways of working, that release clinicians’ time for more patient facing activities. Such interventions could include new software to make it easier for doctors to capture information, or enable mobile working to support community care. Larger investments could also support internal reconfigurations of services, to co-locate functions that work best in close proximity to one another.

- **Transformation.** Trusts are keen to adopt the most up-to-date and best models of care – but moving from the existing way of working to an improved one often requires investment. Consolidating highly specialised services will often involve building works to provide new facilities or repurpose old ones, while a shift to a preventative model may require community facilities to be expanded or modernised. Meanwhile, introducing remote monitoring of patients or e-consultations will require investment in technology.
While governments since 2010 have helpfully decided the core NHS revenue budget should rise at least in line with inflation every year, capital budgets have been subject to the constraints seen elsewhere in the public sector during the past decade. As a result, the NHS has not seen adequate investment in facilities and infrastructure for many years.

To make the case for this underinvestment to be reversed, NHS Providers launched its #RebuildOurNHS campaign on 29 August 2019. The campaign clearly makes the case for a new deal on capital between government and the NHS to be set out in the next comprehensive spending review.

Why is the campaign needed?

It identified three main problems relating to capital in the NHS.

- **First, no capital budget has been set for the NHS beyond 2020/21.** As a result, when NHS organisations plan for long-term change they are currently doing so without being sure that the funding for the infrastructure to support those changes will be available.

- **Second, current levels of capital spending are insufficient to meet the NHS’ needs.** Analysis by The Health Foundation (The Health Foundation, 2019a) demonstrates the proportion of the NHS’ budget spent on capital fell from 5% in 2010/11 to 4.2% in 2017/18 – mainly as a result of capital budgets being diverted into revenue to pay for day-to-day running costs. If capital funding had kept pace with growth in revenue funding it would have grown by more than £2bn over the same period – enough to build the equivalent of four new hospitals annually.

- **Third, existing mechanisms for individual trusts to access capital funding do not work.** There is no match between trusts’ need to replace, update or repair facilities and their ability to do so, as allocation of the capital funding is not based on need. Agreements for major new NHS infrastructure projects effectively ceased in 2015, when the private finance initiative (PFI) regime fell out of favour without an alternative being put in its place. There is also a lack of transparency in how decisions over central allocations are made.
The three asks

At the core of the #RebuildOurNHS campaign are three changes we believe the government needs to make:

- **First, set a multiyear NHS capital funding settlement** – just as the government has done for the NHS’ revenue budget – allowing the NHS to plan for the long term and transform its services and equipment. Ideally, this would match the 10 years of the NHS long term plan.

- **Second, commit to bringing the NHS’ capital budget into line with comparable economies**, allowing the NHS to pay for essential maintenance work while also investing in long-term, transformational capital projects. We should be aiming to at least double the NHS current capital spend and sustain that growth for the foreseeable future. Because the NHS is a universal public service, increasing NHS capital budgets has the added benefit of bringing much needed investment and jobs to parts of the country that would otherwise struggle to attract them.

- **Third, establish an efficient and effective mechanism for prioritising, accessing and spending NHS capital based on need**, in consultation with those planning and delivering services. This mechanism should ensure trusts are not punished for needing emergency capital funding by the use of interest-bearing loans which they cannot afford to repay.
Since summer 2019, while the campaign has been running, there has been a series of government announcements about NHS infrastructure. This section outlines the interventions that have been made in recent months that, collectively, demonstrate a welcome acknowledgement from ministers that NHS facilities need investment, and that this is an appropriate public spending priority. While these announcements are welcome, they do not go far enough to address the maintenance backlog within the NHS or allow for sufficient investment in transforming services and introducing new technologies.

- **Hospital upgrades announced:** In a speech in Downing Street on 24 July, the day he became prime minister, Boris Johnson announced “20 new hospital upgrades”. These will span acute, mental health and primary care facilities and will cost £850m, to be spent over several years (Gov.UK, 2019a).

- **Urgent repairs and upgrades for 2019/20:** An additional £1bn was made available for urgent infrastructure repairs and upgrades in 2019/20. This has mainly been funded from trust reserves, which are sourced mainly from surpluses in previous years.

- **Spending round:** The September spending round increased the 2020/21 CDEL from £6.8bn to £7.1bn, and promised: “The Department for Health and Social Care will receive a new multiyear capital settlement at the next capital review. This will look to deliver a smarter, more strategic long-term approach to the country’s health infrastructure, with investment focused on local areas where the need is greatest. The plan will include capital to build new hospitals, modernise diagnostics and technology, and help eradicate current critical safety issues in the NHS estate.”

- **Legislative change proposed:** Following the publication of the long term plan, NHS England and Improvement consulted on a set of supporting plans for legislative change. In September 2019, after extensive consultation with the wider health sector, including NHS Providers, a narrow “reserve power” limiting foundation trust capital spending was proposed. Under existing law, foundation trusts are free to set their own capital budgets.

- **Further investment announced:** Later in September, ministers announced a further round of investment. This comprised, £200m for MRI and CT scanners, £2.7bn for six large scale hospital rebuilds, to take place between 2020 and 2025, and £100m “seed funding” for a further 21 acute and community trusts to develop business cases for rebuilds between 2025 and 2030.

- **Health infrastructure plan:** The September hospital building announcement was accompanied by a health infrastructure plan (HIP). This document, published by DHSC on 30 September (Gov.UK, 2019b) sets out why the existing capital system in the health service is currently not fit for purpose, and outlines a new set of arrangements for approving capital spending. This includes an enhanced role for STPs/ICSs, including system-wide capital spending envelopes, a commitment to a “five-year rolling programme” of infrastructure investment, and a streamlined sign-off process, including a new national joint approvals committee.
The increasing political focus on NHS capital echoed the rising concern among trust leaders about underinvestment, and the growing understanding of the opportunity for improvement and transformation that a new settlement presents.

This section outlines the existing situation trusts currently face, explores its causes and details the impact on frontline services, covering:

- the lack of resource available
- the mismatch between access to funding and the need for investment
- the existing allocation system
- the impact of underinvestment.

To better understand the impact of the capital system as it currently exists on frontline services, we surveyed trusts during July and August 2019, seeking both strategic and technical feedback.

One survey sent to all board members received 200 responses from 143 providers, including acute, specialist, community, mental health and ambulance providers and accounting for 63% of the provider sector.

The other – sent to finance directors – received responses from 75 trusts, representing a third of the sector. Again, every type of provider was represented.

These survey responses, plus a set of detailed case studies produced with ten member trusts, inform the analysis that follows.

Lack of money available

The most obvious problem facing the NHS relating to capital is that the annual CDEL is not currently high enough, and has not been for the past decade. In its April 2019 report, *Failing to capitalise: capital spending in the NHS*, (The Health Foundation, 2019) The Health Foundation states: “Since 2010/11, capital spending by the DHSC has declined in real terms – from £5.8bn in 2010/11 to £5.3bn in 2017/18, a fall of 7%. This means the capital budget in 2017/18 was 4.2% of total NHS spending, compared with 5% in 2010/11.”

These sums include some DHSC capital spending which is not for frontline NHS provision, for example around £1bn of annual research and development spending. Only around 60% of the total DHSC capital spend goes to providers, and this portion has been cut by an even greater amount. The study found that capital spending by NHS providers fell 21% in real terms between 2010/11 and 2017/18, from £3.9bn to £3.1bn (based on 2018/19 prices).

This has partly been brought about by repeated transfers of funding from capital to revenue budgets. The total transferred between 2014/15 and 2018/19 was £4.46bn. A further £471m transfer was made at the beginning of 2019/20 – although this has been mitigated by the £1bn CDEL increase made in the spending round.
At the same time as this prolonged squeeze on capital resources, the main source for large scale health building projects – the private finance initiative – was discredited as delivering poor value for money to the taxpayer. It fell into disuse after 2010 and was finally discontinued in 2018. PFI used to supplement CDEL to provide an extra £1bn of infrastructure investment a year at its peak. As a result of it falling out of favour, very few new or large scale NHS facilities have been built over the past decade.

According to our survey, 97% of trust leaders are worried about their organisation’s requirement for capital investment. Of these, 63% were very worried and 34% were somewhat worried. Only 3% were not at all worried.

Meanwhile 74% of respondents did not think they would be in a position to make sufficient capital investment during the coming years.

Our survey of finance directors found that, on average, trusts needed to make £40.2m of capital investments this year across, land and buildings, machinery and fleet, and IT equipment. However, the average likely investment was £24.9m. Asked about the top priorities for a new capital regime, finance directors most frequently named an increase to the national CDEL.

Finance directors overwhelmingly said they would have to defer some of their planned capital expenditure into future years. They said this would lead to delays in new projects starting, delays in replacing medical equipment, making refurbishments and adopting new technology. It may also impact on waiting times or clinical quality.

While these findings date from before the £1bn CDEL increase announced in the spending round, they demonstrate the gap between resource available and investment need which has existed for many years and which is still in need of a long-term resolution.
The mismatch between access and need

Underinvestment in capital was a consequence of prioritising the revenue position, including the introduction of strict control totals for each trust. Alongside these measures, the sustainability and transformation fund (STF) was introduced, later renamed the provider sustainability fund (PSF), to incentivise and support providers to eliminate deficits.

These measures have enabled the DHSC overall to remain within its RDEL in a time of unprecedented rises in activity in NHS services.

However, they have also created an environment in which the availability of capital has not matched the need for investment.

Under STF and PSF, trusts that continued to perform well financially were rewarded with additional payments. Much of this money has gone straight into providers' cash balances, but many have not been able to spend it: NHS trusts are subject to hard capital resource limits, while foundation trusts have also been strongly encouraged by NHS Improvement to constrain capital spending to keep the sector as a whole within its CDEL allocation. However, the implicit agreement has been that those that succeed on the revenue challenge have the reward of investing in facilities in future years.

This combination of factors has caused NHS provider cash balances to rise from £4.17bn in 2016/17 (NHS England, 2018) to £5.8bn in 2018/19 (NHS Improvement, 2019), even as the cost to bring deteriorating assets back to a suitable working condition, has also risen, from £5.6bn to £6.5bn.

The same factors have also driven a similarly perverse mismatch between the trusts able to generate a surplus to reinvest and those with the greatest need to invest. Trusts struggling with deficits tend to also have difficulty generating sufficient capital funding.

Estates returns information collection (ERIC) data for 2018/19 demonstrates that, for trusts in deficit, the median maintenance backlog as a percentage of turnover was 6.0%. For trusts in surplus, it was 2.9%.

As they are not able to generate a surplus for future reinvestment, trusts in deficit are less able to keep up with growth in their backlog. In 2018/19, spending by trusts in deficit on maintenance equalled 10.4% of the total size of the backlog – for trusts in surplus, the figure was 25%.

Trusts in deficit are more likely to be reliant on emergency capital loans from DHSC to make the investments they need. Although less than half of the provider sector was finished 2018/19 in the red, 51 of the 58 trusts that needed interim capital support loans from DHSC in that year were in deficit. These interest-bearing loans therefore compound the problems these trusts face by introducing additional cost pressures.
How capital funding is allocated

Just 3% of finance directors we surveyed thought the existing capital regime is fit for purpose.

**Figure 2**
*Do you think that the current capital regime is fit for purpose?*

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don't know</th>
</tr>
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<tbody>
<tr>
<td>90%</td>
<td>7%</td>
<td>3%</td>
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Apart from the insufficient resource in the national CDEL, respondents said the existing system for allocating resources was also inadequate. They said the approval and applications process needed to be clearer and easier, while the “last minute” release of central capital funding during the year makes it hard to spend the money available before year end. Finance leaders also expressed concern that investment was easier for those that had built up cash reserves via surpluses, rather than allocating based on need.

Where trusts had taken out loans from DHSC, they reported the loan application and approval process is laborious, lacks clarity, and can take as long as a year to be approved.

Broadly trusts were very critical of centrally-run processes for accessing capital, although some acknowledged central bodies such as NHS England and Improvement and DHSC had been helpful given the considerable constraints they faced.

Impact of underinvestment

The impact of trusts’ inability to access adequate capital is visible in four ways – in the condition of the estates, patient experience and safety, staff wellbeing and recruitment, and transformation and improvement.

Trust leaders were asked to give detail on assets in ‘poor’ or ‘very poor’ condition.
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WHY IT'S TIME TO INVEST

The condition of estates. Overall, 45% of trust leaders surveyed said their trust estate was in poor or very poor condition, compared with 28% who described their condition as ‘good’ or ‘very good’.

“This week’s joy was the sewage system failing in the main ward block – so far has cost £50k in hiring tankers and drain clearers. Now need to replace the sewage pumps, which wasn’t on the list at all for the year.”

Chief executive of an acute trust

Patient experience and safety. Respondents to our survey were clear that inadequate access to capital has a direct impact on the services their organisations provide. In our survey of all trust board roles, 94% said the current climate of restricted capital funding posed a high (57%) or medium (37%) risk to patient experience, while 82% said there is a high or medium risk to patient safety.

“We have two acute hospital sites that still have large dormitory wards... To move to single, en-suite rooms would mean losing between 30-50% of our beds. There needs to be a significant national capital investment in mental health bed provision.”

Chief operating officer of a combined mental health and community trust

“Neo-natal babies will continue to be squeezed into a space that is a quarter what they need.”

Strategy/transformation director of an acute trust
• **Staff wellbeing and recruitment.** Trusts are also very concerned about the risk of restricted capital on staff wellbeing and recruitment, with 92% indicating the risk is ‘high’ or ‘medium’.

> “Poor care environments affect the confidence of families and patients, and staff do not believe they are valued and do not wish to work in poor environments, nor should they have to. It is an utter contradiction to the stated aim of parity of esteem for mental health.”

Nursing director of a mental health and learning disability trust

> “Our estates infrastructure is insufficient to meet the increasing levels of demand we are seeing. We need facilities to attract, retain and develop staff in a climate of significant workforce challenges.”

Chief executive of an acute trust

• **Transformation and improvement.** As well as the impact on staff and patients, the current climate of restricted capital funding is also stopping trusts from improving how they run. 97% reported high or medium risks to transformation programmes, with 95% saying there was a ‘high’ or ‘medium’ risk to productivity and efficiency initiatives.

> “We will be slower in achieving our strategy. We will be slower in achieving integrated electronic records within our STP. We have prioritised patient safety but integrated electronic records being delivered over a longer period is heartbreaking to our cause.”

Nursing director of a combined mental health and community trust

The majority of trust boards are now very concerned about the impact that capital is having on the board’s duties and liabilities to both patients and staff.

**Figure 4**

**How concerned is your board about the trust’s ability to make necessary capital investments, and the impact this is having on the board’s duties and liabilities to both patients and staff?**

(n = 193)

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>Not at all concerned</td>
<td>1%</td>
</tr>
<tr>
<td>Somewhat concerned</td>
<td>47%</td>
</tr>
<tr>
<td>Very concerned</td>
<td>52%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>1%</td>
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</table>
The underfunding and failure to allocate limited resource to where it is most needed are well established problems that are being keenly felt on the frontline. However, it is possible to imagine major improvements being made to services under a more appropriate capital system.

This section describes the opportunity that investing more in infrastructure presents, spanning the patient experience, and a number of themes highlighted in the long term plan – expanding diagnostics capacity, transforming care pathways, and creating a fully digitised, technologically enabled service.

The patient experience

Trusts need to invest in services in order to keep up with rising levels of need, deliver improvements in the quality of patient care, and meet rising public expectations about the way they interact with services.

Reducing delays due to equipment failure

Trusts need resilient infrastructure to guarantee the smooth running of services. For example, at University Hospital Southampton NHS Foundation Trust (NHS Providers, 2019), a high voltage power failure led to the closure of almost all clinical services for eight hours. This led to 1,788 cancelled outpatient appointments and 99 cancelled elective procedures (although all were subsequently rescheduled).

Other trusts have described problems with ventilation machinery, which can put theatres out of action for several days. Plant equipment also needs to be well maintained to ensure clinical functions run smoothly, for example the supply of medical gas. Access to appropriate capital funding could lead to a wholesale upgrade of supporting infrastructure, limiting cancellations and helping ensure patients are treated on time.

Investing in improved diagnostics equipment, such as MRI and CT scanners, X-ray machines and ultrasound equipment, will speed up diagnosis and identify diseases and conditions much more quickly. Early diagnosis, particularly in cancer, can save lives and avert treatment costs. Improving diagnostic capacity is a key ambition of the long term plan and is discussed in more detail below.

Increasing ward capacity

During summer 2019, NHS England chief executive Simon Stevens warned the existing bed stock in the NHS was “overly pressurised” and said the NHS would need more bed capacity to deal with demand (The Guardian, 2019). There is a strong correlation between the NHS being unable to meet the four-hour accident and emergency target and high occupancy levels: bed occupancy above 88% across the NHS as a whole is a strong predictor of the service being unable to maintain performance within the standard (NHS Providers, 2018a).
Since quarter two 2010/11, the NHS has been unable to meet the four-hour target and occupancy levels have consistently exceeded 90%. Without significant capital investment to increase the bed base by around 10 percent, patients will continue to wait longer to receive treatment.

Investing in new ward capacity also has the potential to reduce staffing costs: trusts tell us that using overspill space or side rooms to add capacity requires more intensive use of staff to guarantee safety than a modern, properly designed acute ward. Where trusts become reliant on using additional beds, their staffing costs can rise disproportionately.

There could also be a positive impact on staff wellbeing. One trust explained how rooms designed for staff were being used to treat patients, which meant there were no suitable rest areas for staff on breaks between busy shifts. Trust environments should ensure staff safety and remain conducive to relieving stress. If the NHS cannot provide good working environments for staff, this will have a negative effect on patients.

Improving safety and quality
Some trusts need more capital funding to deliver programmes that reduce safety risks and improve the quality of care. The mental health sector’s estate was described in DHSC’s independent review of the Mental Health Act as “the worst estate that the NHS has” (Gov.UK, 2018). For many providers the priority will be to remove fixed ligature points – currently three-quarters of people who die from suicide while on a psychiatric ward do so by hanging or strangulation (Care Quality Commission, 2015). For some mental health providers there is a similarly urgent need to remediate accessible flat roofs which can lead to patient harm.

In the acute sector, there are emergency departments where staff cannot maintain clear lines of sight to more unwell patients. Some trusts have installed nurse alarms in high-risk areas on wards as a workaround. Kettering General Hospital NHS Trust has an ambition to open a dedicated paediatric entrance waiting treatment and observation area to make it easier for staff to observe patients (NHS Providers, 2019).

Improving patient flow
Patient flow could be dramatically improved through increased access to capital funding. Too often, hospital layouts do not support modern healthcare.

Many trusts wish to redesign and relocate their emergency departments to establish a better integrated service. For example, Hampshire Hospitals Foundation Trust plans to relocate its orthopaedic outpatients department so it is adjacent to its emergency department. This approach will enable multi-disciplinary working which is focused on rapid triage and assessment, and will stop patients being bounced around multiple sites. Widespread improvements of this kind could be delivered with an increased and properly-allocated capital budget.
The long term plan recommends creating “hot” and “cold” sites which separate planned services from urgent and complex services. It is hoped this model will improve performance of urgent and emergency care, including the speed of ambulance handovers. The plan suggests NHS England and Improvement will back providers wishing to pursue this model, but in reality this will require extensive capital funding.

In addition to these improvements, trusts can also invest in more advanced programmes to help improve planning, scheduling and flow. Patient flow technology, such as radio-frequency identification and the use of control centres, can reduce length of stay, improve A&E performance and increase available capacity. Some trusts have already been able to make this investment, such as the Royal Wolverhampton NHS Trust. As a result, the turnaround of vacant beds has been significantly improved.

However, improving patient flow may not always require services to be rebuilt: it may be as simple as reducing the reliance on faulty lifts. In one trust, lift repair works can make transferring patients from one building to another impossible without an ambulance. This leads to delay and a waste of money.

**Improving patient experience**

Reducing waiting times and improving safety, quality and flow all improve the overall patient and service user experience and will support better outcomes. However, there are other opportunities to materially improve the way patients receive care, from properly insulating wards to designing environments that make more use of natural light. Temperature control is a problem for many trusts with ageing buildings, with some wards exceeding 30 degrees during the summer. We also heard from a community provider which had to buy electric heaters and put tape around its single glazed windows during cold winter weather.

Mental health trusts would like to invest in the removal of the 350 dormitory wards that still exist in the NHS (Health and social care committee, 2019). In December 2018 the independent review of the Mental Health Act made a number of recommendations to the mental health estate:

> “Poorly designed and maintained buildings obstruct recovery by making it difficult to engage in basic therapeutic activities (getting outdoors or social interaction with others) and contributing to a sense of containment and control. Wards are experienced as cold and impersonal places, that some say are more similar to a prison than a hospital, making a return to the community, with all its everyday stimuli and risks, more challenging. We are calling for a major capital investment in the NHS mental health estate as part of the proposals from the NHS for a multiyear capital plan to support the long term plan.”

There is also evidence to suggest that therapeutic environments are linked to improved rehabilitation in mental health services (Joint commissioning panel for mental health, 2016).
Delivering the long term plan

The long term plan sets out how the NHS needs to adapt over the next 10 years. It details new service models, action on prevention, progress on care outcomes, the NHS workforce, digitally enabled care, and improving value for money. But the plan is clear that upfront capital investment will be needed to deliver on those recommendations.

Diagnostics
The long term plan calls for a wholesale upgrade to existing diagnostics infrastructure. It explicitly states that a capital settlement is needed to invest in new CT and MRI scanners to deliver faster and safer test results. This is to support the ambition for the proportion of stage 1 and 2 cancer diagnoses to rise from around 50% to 75% of cancer patients by 2028. It will also help the service deliver on a new faster diagnosis standard for cancer to be rolled out so patients receive a definitive diagnosis within 28 days (NHS England, 2019).

The UK already lags behind peers on the number of CT scanners in operation (The Health Foundation, 2019). But much of the existing stock is faulty and unreliable. For example at University Hospitals of Morecambe Bay NHS Foundation Trust (NHS Providers, 2019), between June and July 2019 two CT scanners developed faults at the same time, resulting in reduced activity for 270 hours over a twelve-day period, affecting over 500 scheduled CT scanning slots.

Digitally enabled care
Our survey results revealed the most commonly cited capital priority/opportunity was investment in digital and IT (67%), followed by general reconfiguration of estates and wider service transformation (66%) and addressing the backlog maintenance (55%).

The long term plan commits to the NHS to be “digital first” within 10 years. Particular attention is given to digitally-enabled primary and outpatient care.

There is a commitment to shift towards models of outpatient care that do not rely on face-to-face consultations, with the aspiration that around 30 million hospital visits a year can be avoided. Where capital has been available, trusts have already begun implementing digital alternatives. At University Hospitals of Morecambe Bay NHS Foundation Trust, the trust has already rolled out digital services for the Cumbrian town of Millom, which is saving patients and staff mileage and time. Other trusts are already looking at how they can better manage their estate as they move towards digital outpatient services, for example potentially building on car parking space as the number of visits is reduced.

It is also well known that improved IT capacity can help maximise the value of clinical time, but this again requires investment in digital infrastructure. For example, one trust in the south east has set up a virtual fracture clinic, enabling patients to be assessed ahead of their appointments. This has led to the cancellation of more than three quarters of new patient appointments in favour of GP-led self management, freeing up consultant time for urgent referrals from elsewhere (NHS Providers, 2018b).
New ways of working

Investing in technology remains important in supporting new remote and flexible working. This is particularly important for trusts which provide healthcare remotely and in the community, as delivering care remotely can reduce the time clinicians spend driving between appointments. Where trusts have implemented electronic patient record systems and smartphones or tablets, staff can access data remotely. This can create flexible working spaces, allowing clinicians to work from different locations, and can also encourage healthier work-life balance if staff are able to work from home. National leaders have noted that failing to invest in technology (The Telegraph, 2019) risks frustrating staff who may choose to leave the NHS for other sectors (Health Service Journal, 2019).
Financial and clinical sustainability
Capital investment will also support trusts to deliver financially and clinically sustainable services.

Failing to invest in infrastructure is a false economy. Many investments often deliver significant financial savings, whether through consolidating back office services, or replacing paper with electronic care records. For example, Liverpool Women’s NHS Foundation Trust plans to build a new hospital which would be physically joined to the new Royal Liverpool and Broadgreen University Hospitals NHS Trust by a bridge. This would deliver value for money as co-locating services would enable the organisations to reduce costs by sharing services such as facilities management.

Existing clinical configuration can sometimes be the accident of history rather than design. At University Hospitals of Leicester NHS Trust, for example, the trust’s maternity and neonatal services are spread across two sites. This duplication means staff and equipment are spread too thinly, and the service is expensive to run. Care Quality Commission and NHS England have raised concerns over the safety and quality of the configuration of this service. The trust has now received funding from the government to consolidate this service onto a single site. Quality and clinical outcomes will improve. Similar situations exist across the country.

Transforming ambulance services
In the ambulance sector, a better capital settlement could enable trusts to invest in fleet, reconfigure estate to improve efficiency, and invest in digital transformation to improve resilience and responsiveness.

Ambulance trusts must be able to reach people across wide geographies within minutes, and need to run and maintain many sites. Their estates are therefore complex and varied. They typically include a headquarters and control centres where hundreds of people are based, and dozens of ambulance stations of varying size. However, too often trusts do not have buildings that support the best use of staff time and resources. For example, many smaller ambulance stations are decades old and expensive to heat. In extreme cases stations are not large enough to accommodate modern larger ambulances.

Lord Carter’s 2018 review of operational productivity in the sector (NHS England, 2019) recommended trusts adopt a “make ready” system, in which ambulances would begin and end their shifts at hub sites where all maintenance work can be carried out, before being deployed to smaller local stations ready to be called out. Lord Carter found this model makes better use of clinical staff time, and reduces running costs by enabling trusts to rationalise their estate. It also facilitates better asset management and infection prevention and control processes. However, to implement it, trusts need the right facilities in the right places across their geography, and may need to spend capital to build new, fully equipped hub stations. Yorkshire Ambulance Service NHS Trust estimated the cost of implementing this model at around £70m.
Ambulance trusts also need to invest more in IT to drive transformation. One major opportunity is for providers to jointly invest in common computer aided dispatch systems, telephony systems and a common triage tool. This would bring two advantages. First, it would give neighbouring trusts visibility of each others' fleet, which would make it much easier to lend support or capacity to one another when needed. Second, it would bring significant opportunities to improve resilience in the event of a critical IT failure or loss of a control room. However, such systems represent an investment of many millions of pounds which has not been possible for some trusts in recent years.

Ambulance services function at the heart of the urgent and emergency care system, interacting with all other health sectors and social care. It is therefore imperative to invest to build robust and reliable IT infrastructure that can support real-time communication with a mobile, dispersed workforce, as well as being able to share patient information and care plans across interoperable systems.
The purpose of capital in the NHS is to provide the infrastructure needed to deliver safe, modern, high quality health services. This report has demonstrated the extent of the problem and outlined the case for change.

It is widely accepted that in recent years there has not been enough money to provide universally high quality facilities across the whole NHS, and there has not been an adequate system for ensuring the available resource reaches the places it is most needed.

In the next phase of the NHS’ development, as described in the long term plan, it will be necessary for a completely new approach to capital investment. This should enable facilities that have reached the end of their useful life to be rebuilt and replaced. It must guarantee safety by ensuring care is delivered in buildings that do not risk causing harm, and enable the service to grasp the opportunities offered by technology. Finally, it must provide an infrastructure that can continue to serve a growing and changing population.

As we have set out in our campaign, this will require:

- a multiyear NHS capital funding settlement
- an increase in the NHS’ capital budget to bring it into line with comparable economies
- an efficient and effective mechanism for prioritising, accessing and spending NHS capital.

This year’s comprehensive spending review presents an opportunity to improve resourcing and reset the rules governing capital spend in the NHS. This final section sets out how a new capital system for the NHS could work and deliver against each of our three campaign asks.

A multiyear NHS capital funding settlement

We welcome the fact that the health infrastructure plan published in September included a commitment in principle to multiyear capital settlements. In our view this commitment should extend beyond the usual comprehensive spending review approach of a maximum of five years of indicative CDEL allocations, which are extended every five years – an approach which leads to increasing uncertainty in the latter years of the CSR period.

Instead, a rolling approach should be taken, with the long-term settlement extended each year. This would give the frontline NHS long-term certainty over the resource that will be available, and a planning horizon long enough to enable deterioration in facilities to be anticipated and provided for, and to support the lead in times needed for larger scale building projects. It is unclear whether this, or a consecutive series of five-year settlements, is what is recommended in the health infrastructure plan.

Capital budgets for each year to 2023/24 would align with the existing NHS revenue settlement, but would not be enough to enable the service to plan its infrastructure effectively. Critical infrastructure in departments such as transport and defence are planned over a much longer time period – as long as 20 years – while the long term plan describes a generational change in the model of care that will take up to 10 years to complete.
To implement the long term plan, a rolling 10-year indicative capital envelope would be the minimum required. This should be split between funding for major schemes (such as hospital rebuilds) and more routine capital funding.

Increasing the capital budget

It will be necessary to spend significantly more on NHS capital, permanently, if the service is to be able to meet the priorities of the long term plan, hit key performance metrics, reshape itself for the future, invest in new technology, replace decrepit facilities, and adapt to the changing demands of the population it serves.

This has been acknowledged by national NHS leaders. NHS Improvement’s report for quarter four of 2018/19 (NHS Improvement, 2019) cited OECD data showing that, if the NHS’s capital budget matched the average as a proportion total spend, it would be nearly twice as much. The long term plan also cites OECD data demonstrating that the NHS uses its capital assets and infrastructure “more intensively” than most other western countries (NHS England, 2019). It shows how, while the average among EU27 countries is to spend 0.6% of gross domestic product on “fixed capital formation in the health sector”, the UK spends 0.3%.

Both citations lead to the conclusion that the NHS’s capital budget should roughly double from its current level.

Research by The Health Foundation supports this. In *International comparisons of capital in health care: why is the UK falling behind?* (The Health Foundation, 2019b) researchers reported that, over the past 20 years, the amount spent on healthcare technology internationally has risen faster than workforce spending in most comparable countries. However in the UK, the briefing concluded: “The value of machinery and equipment per health care worker in the UK is the lowest of all [ten comparable] countries analysed.”

The Health Foundation said that to bring the English health system in line with comparable countries, an extra £2.5bn would need to be added onto the CDEL for 2019/20. As the capital envelope for providers at the beginning of the year was £3.7bn (Gov.UK, 2019), and £1bn was added to this figure in the September spending round, an additional £2.5bn for provider capital budgets would roughly double the resource available.

Such an increase will be needed if the NHS is to permanently reduce its maintenance backlog to a safe level, while investing in technology and rebuilding its estate.
A national rebuild programme

Taking stock of past rebuilding programmes and the first wave of the HIP helps to understand the scope of building work required.

Many of the buildings in the NHS that now need replacing date from the last and only major national infrastructure programme of the 1960s. Beginning in 1962, the hospital plan for England and Wales delivered 95 major schemes in its first three years, while a further 66 new or substantially remodelled hospitals, and 84 other major schemes had been started (Policy Navigator, 2020).

The next biggest infrastructure programme was that delivered under PFI between 1997 and 2015. There are currently 109 health PFI projects still being paid for that were built under these arrangements – these are generally partial rebuilds although some completely new hospitals were also delivered under PFI.

While this was a major long-term investment in NHS infrastructure, it should be borne in mind that it has not been sufficient on its own to provide the estate that the NHS as a whole needs.

When the PFI pipeline was in full flow, it delivered 101 completed projects between 1999 and 2010, with a total capital value of £13bn in today’s prices, or more than eight finished projects with a combined value of more than £1bn every year.

This is an order of magnitude greater than the first wave of the HIP envisages – £2.8bn of hospital rebuilds across five years. Even taking into account the second wave of the government’s planned health infrastructure spending, around 40 projects would be delivered in the decade from 2020 to 2030: again, a much more modest ambition than was achieved in a decade under either PFI or the 1960s hospital plan.

It will be necessary to expand upon the ambitions set out in the health infrastructure plan and embark upon a national rebuild programme on a scale comparable with the last two major infrastructure schemes.

An efficient and effective mechanism for spending NHS capital

The chief executive of NHS England, Simon Stevens, told the health and social care committee in October 2019 (Health and social care committee, 2019) that the current sign-off process had acted as an implicit rationing system which prevented the service from spending more than its CDEL allocation. The health and social care secretary Matt Hancock agreed, adding: “The truth is that the Department, in many cases, did not have the national budget and therefore did not approve things because they did not fit within our envelope.” (Health and social care select committee, 2019)
The primary solution to this problem is therefore not to design a better way of rationing insufficient resource: it is to first ensure there is enough headroom in the CDEL for the service’s capital needs to be met.

A functional capital allocations system
A functional capital allocations system needs to be underpinned by a set of principles. Rather than acting as a menu of options, the following points should be seen as elements that make up the whole.

- **A functional capital system starts with the total amount of money available to the system as a whole**: there should be enough revenue funding to pay for day-to-day running costs without making transfers from the capital budget, plus depreciation of assets. RDEL should also be sufficient to enable any well-run provider to make a surplus that they can invest in capital in future years. CDEL should then be high enough to enable those surpluses to be reinvested when needed. It is reasonable to expect that the total budget available to the health service will be enough to cover both its revenue and capital costs.

- **Subsidiarity and fair shares**: Spending power should be devolved where possible for two reasons: trust leaders know best how to invest in their services, and trust leaders retain statutory and regulatory accountability for their quality and safety. To enable this, resource needs to be distributed to the frontline via a financial structure that takes providers’ genuine costs into account. Once this is in place, and the CDEL is set at an appropriate level, providers will ordinarily have access to the funding they need to maintain their facilities, and develop their services for the future. As long as the national envelope is equal to what the NHS needs, and funding is allocated equitably, controls on individual providers’ spending will not be needed. Restoring the link between good day-to-day management and capital investment gives trusts a positive incentive to perform well financially, and has the added benefit of clinical engagement: the promise of improved facilities can help engage clinicians in redesigns which will make a trust more efficient.

- **Nationally allocated funding**: While most capital spending should be self-generated by trusts, there will still be circumstances where funding will be best resourced from central funds. For example, there are projects so large that a trust can never be reasonably expected to fund it from surpluses – such as large scale rebuilds – and for which close central oversight is justified because they could on their own have an impact on CDEL. There may also be a role for DHSC or NHS England and Improvement to distribute funding for new equipment or technology, which trusts may need external expertise in procuring or implementing.

- **Addressing entrenched problems**: the fair shares principle only works if everyone starts from an equal position. Therefore it will be necessary to adjust factors that will, if left alone, prevent some trusts from ever being in a position to self-generate capital. For example, it should be accepted that the maintenance backlog has arisen not because trusts have been badly managed, but because both RDEL and CDEL have been insufficient for many years, and shortfalls have been distributed inequitably due to the
flawed existing financial architecture. As it will take some trusts many years to bring their backlogs down, it may be fairer to fund maintenance work via a central fund to enable providers to focus their self-generated funding on other priorities.

Additionally, the combination of financial architecture and underfunding are the primary reason why trusts have had to take capital loans from DHSC. As these loans represent an additional cost pressure, those trusts will inevitably find it harder to generate a surplus to invest in facilities. It therefore may be justified to restructure these loans in such a way as to minimise the ongoing cost pressure to providers. Finally, some trusts have long-term structural cost pressures that will reduce their ability to deliver a surplus that can be reinvested in future years. In considering and addressing these points, the primary focus must always be on the quality of services, and how the available capital can best be used to maximum benefit for patients.

- **Streamlined and transparent sign-off processes.** The best way to ensure timely sign-off on necessary capital work is to uphold the principle of subsidiarity. However, where approval is required by regional or national leaders, it should be recognised that not every decision needs to be signed off by all trust boards, STPs/ICSs, NHS England and Improvement regional teams, national teams, DHSC and HM Treasury. The single investment committee proposed in the HIP to consider major schemes is a reasonable step in this direction, although assurance should be given that it will not duplicate the work or the purpose of either the NHS property board or the independent trust financing facility. In addition to a more streamlined process, decisions must be wholly transparent. Trust leaders should have confidence that the bids they submit will be fairly and objectively assessed and, when central sign-off has to be made, they should understand how decisions are reached against a clear set of criteria.

- **The role of systems.** An appropriate balance will need to be struck between trust autonomy and system working. As long as accountability for service delivery sits with trusts and their boards, most routine capital spending should be controlled by providers. However, it is also reasonable that capital decisions affecting more than one provider within an STP or ICS – for example investment to support a reconfiguration or service consolidation – are taken collectively. Further, trusts may voluntarily choose to delegate decision making or capital planning to their systems. This can happen without altering provider boards’ ultimate accountability for the facilities and services they run.
The long term plan set out a vision for an NHS built around preventative and technologically-enabled models of care, and charted a path towards financial recovery for NHS trusts and foundation trusts. It also made clear that a new capital settlement will be needed, to realise efficiency gains, to transform and upgrade existing facilities, enhance digital capabilities and expand diagnostic capacity.

The impact of many years of underinvestment in facilities is now obvious to patients, demoralising for staff and of concern to NHS leaders.

The CSR expected to take place in 2020 represents the best opportunity for many years to improve resourcing and reset the rules governing capital in the NHS.

The NHS needs:

- A multiyear capital settlement, ideally lasting 10 years and extended annually.
- A capital budget in line with comparable economies, roughly doubling the amount available to providers. This will be necessary to reverse the growth in the backlog of maintenance works, and to fund a national building programme on a scale comparable with previous large-scale infrastructure investment schemes.
- An efficient and effective mechanism for prioritising, accessing and spending NHS capital based on need. This must start with there being enough money available in the system overall, and once there is, should run on the basis that capital spending decisions should wherever possible be devolved to the level where accountability for services sits. Central funding will be needed for large-scale rebuilds and to deal with entrenched problems that place trusts on an unequal footing. Sign-off processes should be streamlined, while systems can add value overseeing investments that affect more than one local provider or sharing decision-making where trusts choose to.

These recommendations are intended to be taken together as a coherent package. We hope that ministers will take the opportunity this year to implement them, thereby putting NHS infrastructure on a sustainable footing and improving the lives of all those who use, and work in, NHS services for the long term.
References


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Interactive version

This report is also available in a digital format via: www.nhsproviders.org/rebuilding-our-nhs
NHS Providers is the membership organisation for the NHS hospital, mental health, community and ambulance services that treat patients and service users in the NHS. We help those NHS foundation trusts and trusts to deliver high-quality, patient-focused care by enabling them to learn from each other, acting as their public voice and helping shape the system in which they operate.

NHS Providers has all trusts in voluntary membership, collectively accounting for £84bn of annual expenditure and employing more than one million staff.