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Environmental sustainability in the NHS

A new approach to national leadership and accountability

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Key messages

Why sustainability matters for the NHS

- Climate change is the biggest risk to health in the 21st century and the NHS is the largest public sector contributor to UK carbon emissions. Climate modelling indicates that rapid decarbonisation is needed this decade to avoid the need for more costly action in future. The NHS has played a leading role internationally in championing the need for more sustainable approaches to health and care, and this work now needs to be accelerated.
- The financial and environmental sustainability challenges facing the NHS are closely connected. Both require achieving the best-possible outcomes from the resources invested, minimising activities that are of limited value to patients and prioritising prevention and early intervention.
- Improving the environmental sustainability of the NHS delivers benefits for patients, staff and taxpayers. Examples in this report illustrate that, by reducing waste and improving the efficiency of care, sustainability initiatives can save money and improve services. Sustainability interventions also strengthen the resilience of the NHS to cope with climate-related threats, such as extreme heat, flooding and supply chain disruption.

What this research aimed to understand

- This research examined accountability arrangements for environmental sustainability in the NHS in England, focusing on the mechanisms and practices used to hold trusts and integrated care boards to account. We aimed to understand the strengths and limitations of existing arrangements and how these could be improved.

What the research found

- **Progress to date.** Progress has been made over the past five years as part of NHS England's Greener NHS programme, which has introduced a number of accountability mechanisms. This has included legal duties regarding carbon reduction for the NHS as a whole, and various statutory requirements for trusts and integrated care boards, including the obligation to produce 'green plans' setting out how sustainability goals will be met.
- **Limitations in current accountability arrangements.** Despite the existence of statutory environmental requirements, accountability for meeting these requirements is not sufficiently strong in practice because sustainability is often deprioritised compared with other NHS goals. For example, trusts and integrated care boards must appoint a board-level sustainability lead, but responsibility is often delegated to colleagues with insufficient influence, authority or resources to drive change within their organisations.
- **Alignment with wider national NHS goals.** The focus of the 10 Year Health Plan for England (Department of Health and Social Care 2025b) – on a more preventive approach to health that reduces the need for resource-intensive hospital care, shifts

care from hospitals to the community and makes better use of technology – is potentially highly aligned with environmental sustainability. If implemented successfully, these changes could help to decarbonise the NHS and protect vital natural resources. However, sustainability needs to be an explicit goal in the reforms to ensure that the mechanisms used to hold NHS organisations to account for delivering these shifts also create environmental benefits.

- **The role of leadership and narrative.** Accountability mechanisms will achieve little unless visible leadership and prioritisation at the highest levels accompany them. Senior NHS leaders and politicians need to communicate the importance of sustainability for the NHS, conveying the benefits for patients and staff in a compelling way, and ensuring that long-term and short-term priorities are balanced appropriately. The government has emphasised the need to reform the NHS to make it 'fit for the future'. Environmental sustainability and resilience should now become part of that narrative.

What needs to change?

We propose a twin-track approach to ensure accountability arrangements drive action at the scale and pace required.

- First, accountability mechanisms designed specifically for sustainability need to be strengthened.
- Second, environmental sustainability needs to be embedded throughout broader national and regional accountability and performance management processes so it becomes part of routine decision-making.

We provide 10 recommendations for national policy-makers to put this twin-track approach into practice.

1. Build on and reinforce the work of the Greener NHS programme, including through a new statutory duty for the Secretary of State for Health and Social Care.
2. Define clearer responsibilities for board-level leaders in trusts and integrated care boards.
3. Introduce annual sustainability performance checks led by regional leads.
4. Make as much performance data as possible publicly available in a consistent and accessible format, to strengthen public accountability.
5. Identify a small set of high-impact priorities and use these to create energy and focus at the local level.
6. Work towards having organisation-specific carbon reduction trajectories for each trust and integrated care board.
7. Embed sustainability in wider performance management processes at the regional level.
8. Ensure national accountability mechanisms used for other priorities drive changes that are aligned with sustainability.
9. Ensure the Care Quality Commission's new assessment frameworks lead to greater prioritisation of sustainability in providers.
10. Make sustainability part of the national vision for a high-quality NHS by communicating the benefits for patients, staff and public finances.

1 Introduction: the need for sustainable health care

Health care has a sustainability problem on multiple fronts. Whether we focus on financial or natural resources, the inputs that go into the NHS are all finite, but the systems designed to manage them are failing to keep resource use sufficiently under control. This cannot continue, for both financial and environmental reasons.

Long-term forecasts produced by the UK's Office for Budgetary Responsibility suggest that the NHS could become financially unsustainable if spending growth continues on current trajectories over the coming decades (Arnold 2026; Office for Budget Responsibility 2024). As well as consuming an ever-increasing share of public spending, health services can also be highly profligate in their use of natural resources – for example, a typical maternity unit throws away tens of thousands of plastic baby bottles a year, each used a single time before being disposed of (Leissner and Ryan-Fogarty 2019).

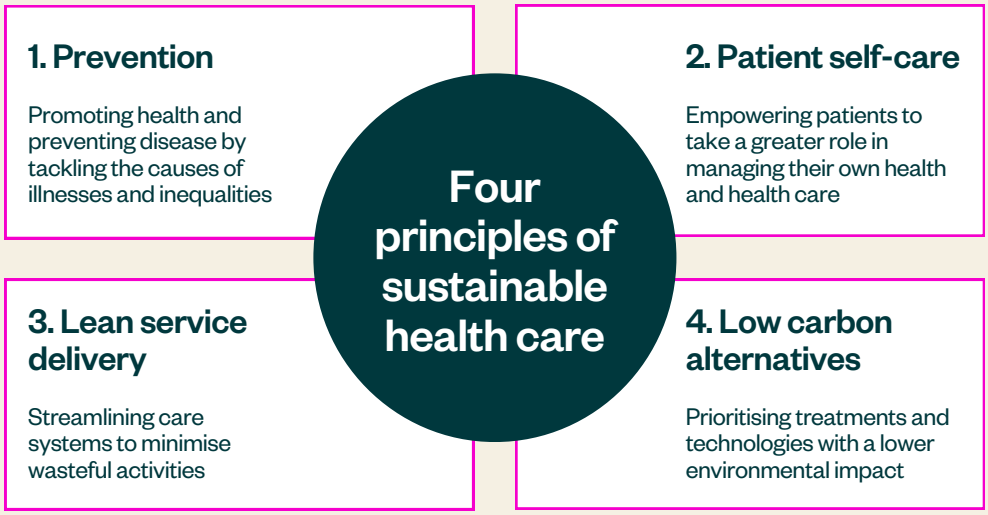
A health service is sustainable if it can meet the needs of the population now *and in the future*. The widely used 'three pillars' definition of sustainability (United Nations 2023) suggests this would involve health services doing three things, which – despite appearing to be quite distinct issues – are in practice highly interdependent:

- spending money wisely and being as efficient as possible (**financial sustainability**)
- helping to address social and economic factors to improve population health and reduce health inequalities (**social sustainability**)
- operating in a way that safeguards the planetary systems that life depends on, minimises harmful outputs such as emissions, pollution and waste, and is resilient to environmental threats (**environmental sustainability**).

Only by having all three of these components in place can the NHS be considered to be 'fit for the future' in the way the government's 10 Year Health Plan for England envisages (Department of Health and Social Care 2025b).

The focus of this report is on the environmental sustainability of the NHS in England. As a framework for understanding environmental sustainability in health care, we use the 'principles of sustainable health care' described by Mortimer (2010), as illustrated in Figure 1 (page 5). At the heart of this framework is the insight that, to provide high-quality care in a sustainable way, it is necessary both to minimise avoidable or low-value health system activity, and to reduce the environmental impacts associated with each unit of activity.

Figure 1 The principles of sustainable health care



Source: Mortimer (2010)

Understanding sustainability in this way makes it clear that sustainable health care is in the interests of patients and taxpayers because it involves helping people to stay healthy, giving people greater control over their own health and care, and minimising wasteful activity – as well as adopting lower-carbon alternatives where these exist.

The environmental impact of the NHS

The NHS is responsible for around 4–5% of the UK's carbon dioxide emissions, and around 40% of public sector emissions (NHS England 2025a). The health care sector is also a major contributor to other forms of environmental damage, including pharmaceutical pollution and plastic waste.

Analysis conducted by NHS England (2025a) found that 62% of the carbon emissions attributable to the NHS come from its supply chain – as a result of the manufacture and distribution of medicines, clinical equipment, clinical consumables and other products. Around 14% come from travel-related emissions, 11% come from energy use in NHS buildings and the remainder come from a variety of sources, including inhalers and anaesthetic gases. One inescapable conclusion is that providing the same care in more energy-efficient buildings will not be sufficient to solve the problem – environmental sustainability must also involve clinical transformation and new approaches to care.

It is sometimes argued that the NHS is too small to make a meaningful difference to climate change. This argument underplays the fact that the NHS is part of a highly interconnected global health care sector, which collectively accounts for more than 10% of the world's economic output (Sterlin 2024). Health care is big business – big enough to play a substantial part in the global effort to slow down climate change and protect people from its worst effects.

The Greener NHS programme

The NHS has been regarded as a world leader on sustainability for several years. Since 2008, there have been a number of national strategies and initiatives on carbon reduction and related issues, initially led by by the Sustainable Development Unit (SDU). In 2020, NHS England launched a Greener NHS programme, building on the work of the SDU, with responsibility for overseeing the delivery of a new net-zero strategy (NHS England 2020). This strategy included two major commitments on decarbonisation, which have since been converted into legally binding targets:

- net-zero carbon by 2040 for the emissions within the direct control of the NHS (referred to as the 'NHS carbon footprint'), with an 80% reduction by 2028–32
- net-zero carbon by 2045 for the emissions within the influence of the NHS, including supply chain emissions (referred to as the 'NHS carbon footprint plus'), with an 80% reduction by 2036–39.

NHS England produced a progress report on the Greener NHS programme in 2025 (NHS England 2025a), which describes what has been achieved since the strategy was launched. Over five years, there has been a 14% reduction in the 'direct' NHS carbon footprint. Notable successes have included a 10% reduction in energy-related emissions from NHS estates and a 33% reduction in emissions from inhalers and anaesthetic gases (including the near-complete phase-out of the anaesthetic gas 'desflurane' – a potent greenhouse gas in its own right).

The NHS has also become significantly more carbon efficient, now emitting less carbon dioxide for each pound spent and for each patient treated. However, this has not yet translated into a reduction in the broader 'NHS carbon footprint plus', which rose during the Covid-19 pandemic and has now returned to 2020 levels. This is largely because of growth in the amount of care provided by the NHS, driven by internal and external factors and exacerbated by the pandemic. As a result of this, despite providing care in a less carbon-intensive way, the wider growth in NHS activity has counterbalanced the gains made.

There has also been progress in areas that the headline carbon footprint statistics do not capture. For example, major suppliers to the NHS have committed to decarbonise their own activities in line with the NHS Net Zero Supplier Roadmap (NHS England 2021) and all new contracts must require that carbon reduction plans are in place. Given that the supply chain is the largest single contributor to the 'NHS carbon footprint plus', this is expected to lead to further carbon reduction in future.

Given the challenges involved in reducing carbon emissions in the context of rising demand for NHS care, a concerted effort is now needed to ensure the NHS keeps on track with decarbonisation – as acknowledged in both the Darzi review of the state of the NHS (Darzi 2024) and the government's 10 Year Health Plan for England (Department of Health and Social Care 2025b). As described below, doing so also presents opportunities for cost savings, health gains and improved service continuity.

The wider benefits of environmentally sustainable health care

There is a strong financial case for focusing on sustainability in the NHS. Sustainability initiatives in health care often focus on reducing waste and improving the efficiency of care processes and technologies. The examples given below and expanded on in Appendix 1 illustrate some of the ways in which they can reduce NHS costs, particularly when value for money is considered with a sufficiently long-term perspective.

- Recent commitments on solar power are expected to save the NHS around £325 million in lifetime energy costs (Department for Energy Security and Net Zero *et al* 2025).
- Evaluations suggest that data-driven interventions that reduce the carbon footprint of kidney dialysis have the potential to save kidney units across the United Kingdom approximately £7 million a year as well as benefiting patients and staff (Mortimer *et al* 2013).
- Better management of nitrous oxide is already saving the NHS £2.3 million a year and has the potential to save up to £4.5 million a year once fully implemented (NHS England 2025a).
- Plans to decarbonise travel and transport, including by switching to a zero-emission NHS fleet, are expected to save the NHS £59 million a year (NHS England 2025a).
- Recent research shows that the opportunities for cost savings from a shift to reusable products could run into millions of pounds annually (Mortimer *et al* 2025; Brighton and Sussex Medical School *et al* 2023).

Climate change poses direct and indirect health risks to the UK population (Department for Environment, Food and Rural Affairs 2022) and measures to tackle climate change can reduce these risks (Haines 2017). Several of the steps being taken in the NHS to reduce carbon emissions are expected to improve health, for example by improving air quality or supporting active travel. Often this involves working in partnership with local authorities and other organisations – as seen, for example, in work to improve air quality around hospitals and community health hubs in the north-east of England (Global Action Plan 2022).

Sustainability also involves being prepared for environmental threats such as extreme heat, flooding and supply chain disruption. These all pose significant risks both to people's health and to NHS service delivery, with the risks increasing rapidly over time as a result of climate change (UK Health Security Agency 2023). The major incident caused by computer system failures at Guy's and St Thomas' NHS Foundation Trust in London following the summer heatwaves in 2022 provides one example of how serious the impact can be for patients (Tallon 2023). Making changes that ensure the NHS is well adapted to climate change means less chance of disruption to services in future.

2 About this research

In 2024, the Health Foundation outlined the range of levers available to policy-makers to drive action on sustainability in the NHS (Callan *et al* 2024). Our research builds on that earlier work by offering an in-depth examination of one of the key policy levers – namely, the accountability mechanisms that exist between national and local NHS bodies.

The research focused on the arrangements through which national bodies in England hold trusts and integrated care boards (ICBs) to account for delivering environmentally sustainable health care services. It had the following objectives:

- to understand what accountability mechanisms are already in place
- to understand the strengths and weaknesses of these mechanisms
- to identify opportunities to strengthen accountability arrangements to support the delivery of environmentally sustainable health care services in the NHS.

Our research involved a range of activities, including 21 in-depth interviews with sustainability experts and senior NHS leaders, two online workshops, a focus group, a review of relevant policy documents and research literature, and analysis of existing metrics used to measure sustainability in the NHS. Appendix 2 provides a detailed description of our research methods including a list of the types of job roles we included in the interviews.

Accountability arrangements in the NHS are significantly more developed for secondary care than for primary care, and the focus of our research was primarily on how trusts and ICBs are held to account. However, as discussed in this report, research participants raised the need for stronger accountability in primary care and this requires further work.

Sections 3 to 5 follow the three objectives listed above. In the process of conducting the research, we identified several enabling conditions that are needed in order for accountability mechanisms to function as intended and these are set out in section 6. Based on our analysis, we developed 10 recommendations, which are described in section 7.

One of the threads running through the research was the question of how progress can best be measured for the purposes of accountability. As well as addressing this question in the main report, we also provide greater detail on it in Appendix 3.

A note on context and timing

This research was conducted at a time of significant organisational upheaval in the NHS in England.

NHS England, which hosts the Greener NHS programme, is being abolished as a separate organisation and is being merged into the Department of Health and Social Care. Leadership for sustainability at the regional level is also set to change, as a new regional structure will replace the seven regional teams of NHS England, the exact form of which remains unclear at the time of writing. And the role of ICBs is evolving significantly, both in general and specifically in relation to sustainability.

All of this means that there is a degree of uncertainty around future accountability arrangements for sustainability. In response to this uncertainty, our approach has been to develop recommendations that we believe will remain relevant regardless of the precise structural arrangements through which accountability will be mediated.

3 Mapping accountability mechanisms for sustainability

In this section, we outline the range of approaches to accountability currently used in the NHS and describe the specific mechanisms that have been developed in relation to environmental sustainability. We begin by setting out what we mean by accountability and how this was defined for the purposes of our research.

What is accountability?

Accountability is typically thought of as a mechanism for encouraging individuals and organisations to take responsibility for their actions, be answerable for outcomes and report results – often with some form of consequences attached to performance. In this research we drew on academic literature to define accountability.

A useful definition comes from Klein and New (1998), who described accountability as the requirement for organisations to report and explain their performance but with a distinction between two forms of accountability:

- 'soft' accountability, which focuses on reporting and explanation
- 'hard' accountability, which involves the possibility of sanctions if the account giver fails to satisfy the account holder.

When thinking about what accountability for sustainability looks like, and how it may be strengthened, we wanted to consider all relevant types of mechanisms. To understand the different forms of accountability used in health care, we drew on Maybin *et al*'s (2011) work, which identifies several distinct types of accountability. These types provided the foundation for our understanding of accountability in relation to sustainability and are outlined in Table 1 (page 11).

For the purposes of this research, we consider accountability to include both the formal mechanisms developed to enable national bodies to hold trusts and integrated care boards (ICBs) to account, and the practices and behaviours through which this is done.

Table 1 Types of accountability in health care

Type of accountability	What it typically involves
Scrutiny	Provision of a detailed account of performance, which can then be scrutinised and shared
Contractual	Inclusion of agreed objectives in contractual agreements
Managerial	Direct answerability based on a hierarchy of authority and control
Regulatory	Application of set rules based on the achievement of agreed minimum standards
Democratic	Accountability to the public through elected representatives and other democratic channels
Mutual	Partner organisations using 'soft power' to hold each other to account for delivering agreed objectives

Source: Adapted from Maybin *et al* (2011)

Accountability arrangements in the NHS

Accountability in the NHS varies depending on the issue. For example, accountability for meeting cancer care goals or elective and accident and emergency (A&E) waiting time targets is relatively 'hard', with clear national targets, regular reporting requirements and consequences such as financial penalties, increased oversight and – less formally – reputational impacts, if targets are missed.

By contrast, accountability for other aspects, such as health inequalities, tends to be softer (Allen and Boyce 2023). While frameworks and benchmarking tools exist to guide and assess progress on the reduction of health inequalities, there are no legal targets and few formal consequences for poor performance. Instead, the role of national bodies tends to focus on support and improvement rather than enforcement.

Both forms of accountability have a role, but harder targets often attract more attention because they carry clearer consequences and oversight, whereas softer goals rely more on improvement-focused support and risk being 'crowded out' by harder targets (Alderwick *et al* 2024).

What accountability mechanisms exist in relation to sustainability?

In recent years, a number of accountability mechanisms have been introduced in the NHS in England that provide a basis for holding trusts and ICBs to account. The Health and Care Act 2022 provides the legal underpinnings – it requires NHS organisations to 'have regard to the need to contribute to compliance with statutory emissions and environmental targets' set out in the Climate Change Act 2008 and the Environment Act 2021. The Health and Social Care Act also gives NHS England the power to issue statutory guidance on sustainability. Using these powers, NHS England set out legally binding net zero targets for 2040 and 2045 through its *Delivering a 'net zero' National Health Service guidance* (NHS England 2022).

The NHS Standard Contract (specifically 'Service Condition 18') includes environmental obligations that trusts must fulfil (NHS England 2022, 2020). These are updated annually and include the development of 'green plans', complying with the NHS Net Zero Supplier Roadmap (NHS England 2021) and specific objectives such as the phasing out of the anaesthetic gas desflurane. Requirements are also included in the NHS Provider Licence (NHS England no date), which sets out mandatory conditions for all providers of NHS-funded services in England.

Each trust and ICB is required to develop and regularly update a green plan, setting out its sustainability priorities and measurable actions over a three-year period. Progress against the plan must be reported annually to the organisation's board and published in its annual report. Statutory guidance also requires that organisations identify a designated board-level lead who is responsible for green plan delivery (NHS England 2025b).

The Care Quality Commission (CQC) plays an important role in holding health care providers to account through its single assessment framework, which is currently being reviewed. The existing framework includes a sustainability quality statement within the 'well-led' domain.

Table 2 on page 13 summarises the key accountability mechanisms currently in place for sustainability in the NHS in England. In section 4 we explore how these mechanisms are used in practice and give further detail on the strengths and challenges that our research has identified.

Table 2 Accountability mechanisms used for environmental sustainability in the English NHS

Mechanism	Description	Type	Strengths and weaknesses
NHS Standard Contract	– Makes sustainability a contractual obligation for NHS providers. – Requirements include appointing a board-level lead and producing a green plan. – NHS England sets the Standard Contract and, in principle, ICBs hold trusts to account for meeting requirements.	Contractual	*Strengths:* – Provides formal, legally binding requirements for providers. *Weaknesses:* – Limited enforcement or consequences for non-compliance.
Green plans	– Trusts and ICBs are mandated to have a board-approved green plan, which should be refreshed every three to five years and published on websites. – NHS England (2025b) publishes statutory guidance on creating these, and regional sustainability leads play a role in assuring delivery.	Scrutiny, mutual	*Strengths:* – Provides a structured mechanism for agreeing local sustainability priorities, based on a common national framework. – ICB-level green plans enable mutual accountability between partners. *Weaknesses:* – Monitoring and enforcement vary significantly. – Limited consequences for not achieving planned objectives.
Internal governance	– Trusts and ICBs are mandated to present their green plans to their boards for approval, and to provide an annual update on progress.	Managerial	*Strengths:* – Helps to create local ownership of sustainability agenda, particularly when board leaders are supportive. *Weaknesses:* – Strength of commitment at board level is highly varied. – Competing priorities can lead to sustainability being deprioritised.
Quarterly data returns	– ICBs and trusts are required to submit a range of data to the Greener NHS team on a quarterly basis. – This is then shared back with ICBs and trusts via the 'Greener NHS Dashboard', which also draws on wider data returns (*see* Appendix 3).	Managerial, scrutiny	*Strengths:* – Enables national oversight of trends through the Greener NHS Dashboard. – Supports local benchmarking. *Weaknesses:* – Can be time-consuming to complete. Time lags mean data is not always current. – Variation in data quality affects comparability across organisations.
Care Quality Commission (CQC)	– Sustainability is included in the CQC's assessment framework for acute hospital inspections through a quality statement in the 'well-led' domain.	Regulatory	*Strengths:* – CQC scrutiny carries significant weight with providers. – Embedding sustainability in the 'well-led' domain signals its importance. *Weaknesses:* – Prominence and impact of the quality statement are unclear.

4 Strengths and limitations

This section describes the main strengths and challenges that our research participants identified regarding current accountability mechanisms for environmental sustainability in the NHS. Appendix 3 provides a more detailed analysis of the specific challenges involved in the measurement of sustainability objectives for accountability purposes and the limitations of existing metrics.

Strengths of the approach taken so far

Interviewees described how, over the past five years, NHS England has adopted a 'carrot rather than stick' approach to sustainability. Rather than imposing strict penalties, the emphasis has been on a supportive approach involving engagement, education and guidance. This was described as a pragmatic choice when the Greener NHS programme began, given that most NHS organisations at the time had no dedicated sustainability teams, limited capability and little understanding of the sustainability agenda. Participants described how this focus on building awareness and buy-in has helped to normalise sustainability in NHS organisations and has driven some early progress:

> *The Greener NHS team has done a fantastic job... and I think that what they've done is right over the last five years, which is not to be worrying massively about accountability and what progress is, but actually recognising that, five to six years ago, very few trusts had any sustainability teams. Very few trusts were even looking at this. Very, very few trusts had capability or capacity to even understand any of this.*
>
> (Trust sustainability lead)

Some interviewees from national bodies told us they are cautious about shifting too quickly to a 'harder' approach to accountability and expressed concern that stronger enforcement might 'put people off' sustainability, particularly when many are working under intense resource pressures. Part of this concern is that the level of prioritisation given to sustainability at a senior level in NHS organisations is highly variable, and that creating change in this context requires bringing people along and demonstrating the benefits for patients and staff.

However, efforts have also been made in recent years to create some harder-edged requirements, the following in particular.

- The inclusion of environmental duties in the Health and Care Act 2022 means that NHS organisations have legal responsibilities in relation to sustainability and could be subject to judicial review if a claimant argues that these responsibilities are not being fulfilled.
- Documents such as the recently updated green plan guidance (NHS England 2025b) have the status of being statutory guidance, meaning that trusts and integrated care boards (ICBs) are legally required to act on it, and again could be subject to judicial review for not doing so.
- Over the five years since the Greener NHS programme was initiated, specific requirements have been gradually introduced, for example to only buy zero-emission vehicles from 2027 (excluding ambulances) and to remove oil heating systems by 2028. These are reflected in the updated green plan guidance, which aims to ensure that the second wave of green plans is more focused on specific, measurable actions (NHS England 2025b).

In section 5, we discuss what can be learnt about accountability from some of the successful work on carbon reduction where most progress has been made over the past five years.

Learning from examples of progress

NHS England's (2025a) progress report on the Greener NHS programme shows that advances have been made in reducing several sources of carbon emissions in the NHS. A major success story has been the reduction in emissions from anaesthetic gases and inhalers, which have fallen by 33% over the past five years. This has involved action on a number of fronts, including the replacement of the anaesthetic gas desflurane with other forms of anaesthesia that deliver equivalent clinical benefits at lower environmental cost. Other successes include:

- a 32% drop in clinical waste emissions, which has avoided £22 million in costs
- the introduction of light emitting diode (LED) lighting in half of the secondary care estate
- solar energy generation tripling since 2019, with recent solar projects expected to save £325 million over their lifetime.

Our research explored what role accountability has played in the switch to lower-carbon anaesthetic gases and inhalers.

In the case of desflurane, we found that a combination of aligned factors has driven progress. National mandates provided an impetus for change, but progress also relied on support from clinicians and professional bodies. Guidance and advocacy from bodies such as the Association of Anaesthetists and the Royal College of Anaesthetists supported the cessation of desflurane use, alongside analysis from the National Institute for Health and Care Excellence showing that switching to sevoflurane could be several times cheaper. The existence of clinically acceptable, lower-cost alternatives made change possible, while local anaesthetists championed implementation on the ground. Accountability from NHS England also played a role, however, adding momentum and legitimacy to existing work that clinicians were leading. One participant summarised this as follows.

> *[With desflurane], there were two simultaneous things going on... one was the policy thing, which was led by NHSE [NHS England] and endorsed by national bodies. But the other thing was a grassroots thing where people working in anaesthesia day to day were listening to the ongoing discussion in the literature... also in social media and stuff like that, and they were just changing their practice. I think that there's a really good lesson on how to get things done... the effect of the national policy was to endorse and bolster what the profession was already doing. And I think that's why we managed to do it so quickly.*
>
> (Anaesthetist)

The availability of funding has also played a critical role. For example, financial reimbursement for primary care networks through the Investment and Impact Fund in 2021/22 and 2022/23 was instrumental in encouraging and supporting GPs to adopt greener forms of inhalers where clinically appropriate. In the case of building- and vehicle-related emissions, some of the most significant steps forward have been made where the NHS has secured additional funding from outside the Department of Health and Social Care's budget, including:

- more than £1.4 billion from the Public Sector Decarbonisation Scheme
- additional solar and battery funding from Great British Energy
- substantial support from the Office for Zero Emission Vehicles.

This highlights the importance of providing appropriate support and investment alongside accountability.

Limitations with current accountability arrangements

Despite the progress that has been made, many of the participants in our research argued that the pace of change will need to increase if the NHS is to decarbonise in line with national goals, and that accountability arrangements will need to evolve to drive this. From the research, nine key themes emerged regarding challenges with existing arrangements, described in Table 3 (page 17).

A key issue running through several of these themes is the relationship between accountability and prioritisation. Some interviewees argued that the accountability arrangements are strong 'on paper', with requirements written into legislation and key documents, such as the NHS Standard Contract, but that this does not always lead to strong accountability in practice because of the low priority given to sustainability nationally relative to other NHS goals. As a result of this, the existing accountability mechanisms are not always used to their full potential. In turn, interviewees felt that if local leaders are not held to account, this can lead to limited prioritisation at that level too.

Taking these nine points together, our research indicated that a new approach to accountability is needed to help make sustainability a higher priority in NHS organisations and to achieve decarbonisation at a greater scale and pace. This concurs with the findings of a recent evaluation of trusts' green plans, which argued that significant changes are needed to ensure there is sufficient accountability for the delivery of these plans (Tabakov and Bhutta 2025).

Table 3 Limitations with current accountability arrangements

1 Limited external scrutiny or consequences

A consistent theme was that trusts and ICBs are subject to limited scrutiny by regional or national bodies. For example, while organisations are required to report annually to their boards on green plan delivery, there tends to be limited scrutiny of these results outside of the organisation itself. Regional teams do not oversee and manage performance in the way they often do for other NHS priorities, where there are regular checks, direction and performance interventions.

Linked to this, there are few tangible consequences when organisations fall short of sustainability requirements. There is a potential risk of being subject to judicial review but in terms of accountability within the NHS, interviewees did not offer any examples of national bodies taking action in response to specific cases of under-delivery. This lack of consequences was seen as a major barrier to prioritising sustainability at the executive level, where leaders tend to prioritise targets that are associated with greater penalties or consequences. Interviewees felt that without consequences for failing to meet sustainability targets, this work gets deprioritised compared with immediate operational pressures.

> *I'm pretty convinced that there's no chief exec in our setup that's going to get sacked because they don't have a green plan. They might get sacked if they don't meet their financial targets and various other targets, but no one's going to get called for not having a green plan.*
>
> (NHS England regional sustainability lead)

2 Internal accountability relies on senior leadership support, which varies significantly

Interviewees argued that in the absence of robust external accountability, progress on sustainability depends heavily on the strength of support among senior leaders in each trust or ICB. However, this can vary widely between organisations. Sustainability remains a low priority for many leaders and is sometimes influenced by personal views on the net zero agenda. The effect is that there is significant unwarranted variation in progress towards sustainability across England.

3 Long-term targets may not lead to prioritisation or create urgency

Participants expressed concerns about the long-term nature of the national 2040/45 net zero targets. Although there are also interim targets for carbon reduction, as well as shorter-term targets associated with some specific deliverables, many felt that overall sustainability is seen as being a long-term issue and that there is insufficient clarity about what action is needed in the short term. As one interviewee reflected:

> *We get kudos and promotions because we've stamped out fires. The longer-term planning for [preventing] a fire in the first place isn't really [in] lots of people's psyches.*
>
> (NHS England regional sustainability lead)

4 Metrics for measuring progress have significant technical limitations

Throughout our research, issues with the metrics used to track progress were highlighted. Some of the data sources used to give trusts feedback on their carbon emissions come with a time lag of around 18 months, meaning the information is of limited practical use to decision-makers at trust level. Also, technical limitations with carbon measurement mean that changes that NHS organisations introduce are not always reflected in their carbon footprint, particularly with estimates of the broader 'carbon footprint plus'. Participants also noted that to be effective in driving engagement, it is helpful to have metrics that are directly relevant to clinicians so that they feel meaningful in practice. The limitations of current metrics are explored further in Appendix 3.

continued on next page

Table 3 *continued*

5 Responsibility for sustainability often falls to individuals or small teams

Many participants described how responsibility for sustainability work in trusts is often delegated to a single sustainability specialist or a small team. These sustainability leads lack the authority or resources to drive the necessary changes alone, as they are often constrained by a lack of funding, capacity or seniority to make the changes set out in green plans. In some cases, sustainability leads sit within estates and facilities teams, which does not reflect the breadth of the sustainability agenda and the need for senior-level support from other teams. Participants warned that when accountability for sustainability is not shared more widely and at a senior level, work can become siloed, which limits progress.

> *You should have chief finance officers, CEOs [chief executive officers], [and] heads of estates owning the accountability for sustainability, not just sustainability leads.*
>
> (Trust senior leader)

6 Requirements and roles are not specific enough

We heard concerns that current requirements are sometimes too high-level to drive meaningful improvement. For example, while participants welcomed the inclusion of sustainability in Care Quality Commission assessments, they also described the current requirements as being abstract and lacking in practical detail, making it difficult to know how performance would be assessed or what organisations would be held to account for. Roles and responsibilities were another area of ambiguity. Although ICBs and trusts are required to appoint board-level sustainability leads, participants told us that what these roles should look like and what they are expected to deliver are not well defined.

7 Wider constraints mean that accountability does not always translate into prioritisation and action

Participants emphasised that even where accountability mechanisms exist, wider constraints can limit the extent to which sustainability becomes an organisational priority. These include competing priorities that may be in tension with sustainability. For example, one participant noted that the drive to increase hospital activity levels as part of post-pandemic recovery emphasises 'doing more' rather than focusing on allocative efficiency and long-term value.

> *NHS financial recovery means doing more, when some of us think sustainability requires us to do less and different.*
>
> (ICB chief financial officer)

Participants also stressed that accountability is only effective when organisations have the finances, time and expertise to deliver. For example, work such as upgrading estates can require significant capital investment, and while there has been recent success at securing investment from wider sources beyond the NHS, several participants argued that more will be needed in future.

8 Accountability for sustainability in primary care is limited

Participants described there being a notable gap around accountability for sustainability in primary care. In contrast to the requirements that have been created for trusts, there are currently no requirements for leaders of general practices, primary care networks or GP federations to engage with the sustainability agenda – and in practice, they have very little capacity or support to do so. This is problematic given that primary care is responsible for around 23% of NHS carbon emissions (Tennison *et al* 2021), meaning that a significant proportion of emissions sits outside the scope of existing accountability structures.

continued on next page

Table 3 *continued*

9 The 'why' is missing – there is a lack of narrative and education accompanying accountability We heard that national and local leaders need to communicate a more compelling rationale behind sustainability requirements. Participants argued that the anticipated clinical benefits or cost savings associated with planned changes should be highlighted to help build staff buy-in. Many initiatives may be best understood as clinical improvement projects first and foremost, with carbon reduction being a secondary benefit. For example, one interviewee felt that GP support for 'greener' inhalers would be more consistent if national targets were accompanied by more education and engagement about the clinical case for change, with the primary goal being to improve respiratory outcomes.

5 Ways in which accountability could be improved

In this section, we summarise the views of our research participants on the question of how accountability for sustainability could be strengthened. The section is structured using seven key themes that emerged from our analysis of the interviews and our other research activities. In section 7, we offer our own conclusions about the approaches that would be most effective, along with our recommendations.

Stronger national mandates, combined with guidance and support

There is a balance to be struck between national prescription and local autonomy. A widely held view among our interviewees was that accountability arrangements need to combine clear national expectations with an element of local prioritisation and ownership.

The call for stronger national direction was often based on a view that, rightly or wrongly, this tends to be how change is delivered in the NHS. Sustainability leads described national requirements as being helpful in securing buy-in from senior colleagues in their organisations.

> *People in my team are hearing from trusts that actually they prefer more of a strong steer because it allows them to go to their chief exec and say, actually, NHS England are expecting us to do this around our estates, our travel and transport, our medicines, whatever it is.*
>
> (NHS England regional sustainability lead)
>
> *I hate a strategy, and I hate a target. But that is the only thing that generates action.*
>
> (Trust non-executive director)

In making the case for a stronger national push on sustainability, interviewees emphasised three things that would help.

1. **Shorter-term targets.** Participants argued that targets that need to be achieved within a short timeframe (one to three years) create a stronger impetus for action. Having a clear trajectory for carbon reduction would allow organisations to assess how they are performing over time.
2. **Focusing on a small number of national priorities.** Interviewees said that it is helpful to have a clear steer on the highest-impact changes to focus on, with a concerted push on up to three to four national priorities at a time, and specific timeframes for delivery. Learning from the successful phasing out of desflurane, interviewees stressed the importance of identifying priorities that already have a degree of support among health care professionals and where national policy could help build momentum.

3. **Guidance and support for delivery.** Interviews viewed existing toolkits that the Greener NHS team and other organisations had published as helpful. There was an appetite for further guidance about how national expectations can be met, and for practical support in meeting these expectations.

There were also clear views about what stronger national accountability for sustainability should not involve.

1. **Stronger national mandates must not undermine the intrinsic motivation and local support already in place.** There was a concern that very heavy-handed performance management – so-called 'targets and terror' – would be 'unlikely to win over hearts and minds when it comes to sustainability'.

   > *We have a motivated workforce on the whole who really get it and who feel deeply professionally accountable because they know that what they're doing is impacting the environment, and they can see it affecting their patients or their family. They just need to be enabled to make it better.*
   >
   > (Trust senior leader)

2. **Organisations should not be penalised financially for struggling to meet national targets.** Trusts that are further behind on carbon reduction are sometimes limited in what they can achieve because of ageing estates, a lack of resources or other constraints. Financial penalties could risk exacerbating their situation. Some interviewees argued that there need to be consequences for inaction, but that this should involve stronger performance management or national direction rather than financial penalties.
3. **Stronger national mandates should not be accompanied by an increased administrative burden associated with reporting performance data to national bodies.** Interviewees felt that this burden is already high and risks generating a 'box-ticking' approach to sustainability.

Embedding sustainability in existing national frameworks

In parallel to strengthening accountability mechanisms that are explicitly focused on sustainability, we heard a consistent message about the importance of embedding sustainability within wider national accountability and performance frameworks, and in the oversight of national programmes. Several interviews argued that this would be a more effective driver than standalone mechanisms. For example:

> *It's more effective when it's part of [a broader organisational framework] than when we are reporting it [separately] from a sustainability perspective.*
>
> (Integrated care board sustainability lead)
>
> *I don't think we need to have a separate thing. I think we need to build it into stuff that are already important mechanisms for how organisations work.*
>
> (Trust senior leader)

Interviewees highlighted the NHS Oversight Framework as an important mechanism. NHS England uses this framework to give an indication of the overall performance of ICBs and trusts. We discuss how sustainability could be embedded in this framework in our recommendations (*see* section 7) and in Appendix 3.

Interviewees saw the Care Quality Commission (CQC) as having a crucial role to play. They welcomed the inclusion of a quality statement on environmental sustainability in the single assessment framework currently used as the basis for CQC inspections. However, they also saw an opportunity to embed sustainability across other parts of the assessment framework to create a stronger driver for action, particularly as CQC reviews its approach towards assessment.

More broadly, there are opportunities to link sustainability with delivery of the government's 10 Year Health Plan for England (Department of Health and Social Care 2025b). The 'three shifts' that form the backbone of this plan (towards preventive, digitally enabled and community-based models of care) could potentially help to reduce the environmental impact of care, but only if this is an explicit goal in the implementation of the plan. It remains unclear how national bodies intend to hold local systems to account for delivering the three shifts, and interviewees stressed the importance of embedding sustainability in whatever mechanisms are developed.

There are also opportunities to integrate sustainability into mechanisms designed to improve productivity and identify cost savings, for example through cost improvement plans. The integration of sustainability into the Getting It Right First Time (GIRFT) programme – with the recent development of 'GIRFT Greener Pathways' – was highlighted as a successful example that could deliver clinical, financial and environmental benefits.

Interviewees suggested that these changes to national accountability mechanisms would work best if made as part of a wide-ranging attempt to embed sustainability in the financial and decision-making architecture of the NHS, including in:

- payments systems
- capital investment decisions
- commissioning and procurement processes
- business case approval
- the health technology assessments that the National Institute for Health and Clinical Excellence conducts.

Stronger regional oversight

The regional tier of the NHS plays a vital role in accountability. The recent Model Region Blueprint sets out that regions are expected to have primary responsibility for the performance management of trusts, with integrated care boards (ICBs) stepping back from this role (Purbrick-Thompson 2025). In this context, a common theme in our interviews was that if there is to be effective accountability arrangements for sustainability, the role of regions is paramount.

Research participants suggested that the regional role could be strengthened in at least two respects.

First, regional sustainability leads could be given more responsibility for overseeing national requirements. This would not necessarily need to involve the highly assertive performance management deployed for issues such as access targets. But interviewees suggested it could involve regular check-ins at which ICBs and trusts would provide

evidence on progress in delivering their green plan commitments, with an element of challenge and the identification of support needs. Although regional leads acknowledged that shifting to a role that involves more performance management and accountability might change their relationship with trusts and ICBs, they thought that this would be worth the potential relational costs if it led to faster progress.

Second, sustainability could be woven into other regional functions. Interviewees suggested that sustainability should be part of wider performance conversations, for example on finance, workforce or service transformation. One interviewee gave an example of a regional finance director who has encouraged their counterparts in trusts to bid for decarbonisation money as a way of securing cost savings in future. A potential benefit of embedding sustainability in performance conversations in this way could be spreading accountability across executive teams in trusts and ICBs, because all senior leaders would need to know how to answer questions on sustainability. For example:

> *The region are monitoring us all on outpatient transformation, like reducing our follow-ups. That could also contribute to carbon savings, but we're never asked about that. Sustainability is always separate, whereas actually it should just be part of our conversations about the 'left shift' [to prevention], performance, all of that.*
>
> (Trust chief strategy officer)

Clearer responsibilities for senior leaders in trusts and ICBs

Interviewees argued that while the existing requirement to appoint a board-level leader with responsibility for sustainability is a helpful start, there needs to be a much clearer description of what these board-level leaders are expected to do as part of that role. Specific suggestions for this are included in our recommendations (*see* section 7).

ICB leaders have an important and distinct role to play in driving sustainability across the health and care system. Interviewees suggested that this role could encompass several things:

- bringing together local partners to deliver collaborative work on sustainability where this will lead to greater impact, including NHS organisations and local government
- supporting primary care networks and neighbourhood health providers to improve sustainability as part of their work
- embedding sustainability in commissioning requirements, for example by including relevant outcomes in contracts
- cultivating a culture of mutual accountability across partner organisations.

We heard that clarifying roles and responsibilities at all levels of the system would help to ensure that action on sustainability is coherent and joined up, and would make it easier to develop relevant forms of accountability for trusts, ICBs and other system partners.

Public scrutiny and mutual accountability

As described in section 1, accountability does not always have to be a hierarchical relationship between national, regional and local bodies. It can also come in the form of public scrutiny, and in the form of mutual accountability between partner organisations working in the same place or system.

To strengthen both of these forms of accountability, interviewees suggested that there should be greater transparency and sharing of progress data. Significant data exists describing the performance of NHS organisations against environmental metrics, for example in the Greener NHS Dashboard, but access to this is limited. ICBs and trusts are required to include data on the progress made in delivering their green plans' objectives in their annual reports. However, interviewees suggested that more could be done to ensure as much data as possible is in the public domain, easily accessible and in a consistent format across organisations to allow for benchmarking and comparison. This concurs with research by Tabakov and Bhutta (2025), which found that, to date, trust annual reports vary significantly in terms of the level of detail provided on sustainability. Updated green plan guidance (NHS England 2025b), which includes more specific expectations about what trusts include in their annual reports, may address this.

Better data and metrics

Effective accountability depends on the existence of appropriate performance data. Carbon footprinting methodologies are being continually refined but still have a number of significant limitations (*see* Appendix 3). In this context, interviewees cautioned against creating an industry around measurement and advised that 'good enough' metrics are often sufficient to give an indication of whether outcomes are heading in broadly the right direction. Nonetheless, there are a number of improvements that could help support action on sustainability.

- Improving the timeliness of data and reducing time lags in reporting would give organisations up-to-date information to inform their decision-making and support improved accountability.
- Further work is needed to ensure metrics are standardised and easily comparable across organisations. This would make it easier for organisations to benchmark their performance and learn from their peers.
- Alongside metrics on carbon and sustainability, accountability needs to draw on broader metrics from existing frameworks capturing improvements in quality or efficiency that are also likely to confer a sustainability benefit.
- Over time, improved measurement systems could support accountability at the sub-organisational level, demonstrating changes at department or specialty level that might not be visible in whole-organisation metrics. However, this would require significant investment (for example in electricity sub-metering) to be viable.

Appendix 3 discusses these points in greater detail.

Nationally led delivery

While the focus of our research was on the role of national bodies in holding local organisations to account for delivery, we also heard that for some things this might not be the most effective way to bring about change. Several interviewees argued that some of the changes required to make health and care services sustainable would be best delivered through a centrally managed programme of work rather than a trust-by-trust or system-by-system approach. For example, one interviewee suggested that rather than requiring trusts to bid for funding to install solar panels, there should be a nationally managed roll-out of solar energy across the entire NHS estate – particularly given that this would deliver cost savings for the government in the medium term.

> *The NHS is going to save money, so why is the government not taking responsibility for funding solar throughout the entire estate? There are pockets of funding, it's true. You can apply to get a few solar panels and if you're lucky you might get it. But it should be across the board. Where there's a clear benefit, that should just be centrally funded and centrally supported.*
>
> (Clinical academic)

Interviewees also suggested that nationally or regionally led approaches to delivery might be helpful in supporting a large-scale shift from single-use to reusable products, building on the work of the Design for Life programme, which aims to build a circular economy for medical technology (Department of Health and Social Care 2025a).

6 Enabling conditions

An important message that emerged from our analysis was that stronger accountability mechanisms alone will not deliver meaningful change. Research participants stressed that effective accountability needs to be part of a wider approach, backed by visible and consistent national leadership.

In this section, we outline four key enabling conditions we identified through our analysis. These describe wider factors that participants argued would need attention from policy-makers if accountability mechanisms for sustainability are to achieve the results they are designed to deliver.

1. **The narrative around sustainability needs to focus on system benefits.** We heard that the narrative around sustainability and net zero can limit buy-in from NHS leaders. Sustainability tends to be framed as an environmental obligation rather than an enabler of efficiency and high-quality care. This narrative can be problematic as leaders sometimes see sustainability as sitting outside their remit or as competing with other priorities. We heard that reframing the narrative around sustainability as a positive, value-adding strategy, rather than a trade-off, is essential for accountability mechanisms to gain traction. Participants felt that when senior leaders see sustainability as a way to make the health care system more resilient, efficient and effective, while also reducing carbon emissions, this would enable faster progress. Indeed, for many audiences, the environmental benefits may not need to be the primary focus at all, but rather a secondary benefit.
2. **Stronger mechanisms are needed to implement policy goals for prevention and efficiency.** National ambitions in the 10 Year Health Plan for England (Department of Health and Social Care 2025b) to shift care from hospitals to communities, have a more preventive approach to health and make better use of technology are potentially highly aligned with sustainability. If implemented successfully, these changes could reduce the need for unnecessary interventions and streamline processes, in turn reducing avoidable environmental costs. However, interviewees felt that it is not yet clear what mechanisms will be used to hold NHS organisations to account for delivering these shifts, or how sustainability could be embedded within them.

   > *Those three shifts can and should have a measurable impact on sustainability. So how do we attach sustainability to that – not being something separate, but being part of those three shifts?*
   >
   > (Trust senior leader)

3. **There needs to be a longer-term approach to NHS finances.** Interviewees highlighted that short-term budgeting cycles can undermine sustainability investments. Many projects, such as those to decarbonise estates, require upfront investment but deliver cost savings over the years that follow. When spending decisions are taken with a multi-year perspective, financial sustainability and environmental sustainability are therefore often easier to align. The introduction of multi-year capital budgets could be helpful in this regard, as signalled in the recent Medium Term Planning Framework (NHS England 2025c).
4. **Work on sustainability led by NHS staff needs to be supported.** Clinicians and front-line staff make day-to-day decisions that affect resource use and environmental impacts. We heard that they are often highly motivated to act on this but lack the time, autonomy or structural support to bring about changes. Ways to support their action on sustainability could include:
   - prioritising things that are already visible issues for the workforce, such as reducing the use of disposable products or cutting unnecessary appointments
   - incorporating sustainability into the management of staff through appraisals and performance reviews
   - incorporating sustainability into education and training, as some Royal Colleges are already doing
   - protecting staff time for sustainability work to reduce reliance on voluntary effort and increase buy-in and impact.

Taken together, participants' views on these four enabling conditions indicate that stronger accountability mechanisms for sustainability would need to be introduced as part of a wider change of approach, with consistent national leadership at its heart. Making progress in these four areas – some of which relate to longstanding issues that are already a focus for policy-makers – would help to raise the level of priority given to sustainability in the NHS and ensure that accountability leads to meaningful action.

7 Recommendations

Encouraging work has been done on environmental sustainability in the NHS over recent years – work that has saved money, improved people's health and reduced carbon emissions. But this work now needs to be driven with greater urgency to ensure the NHS – and the people who depend on it – are prepared for the uncertain future that the world faces due to climate change.

Our research suggests that changing the way local NHS organisations are held to account could help to ensure improvements are delivered at the pace and scale required.

Based on our analysis of stakeholders' views, reported in sections 4, 5 and 6, we have identified 10 recommendations that we believe would help to drive faster progress. These recommendations fall into two broad categories:

- recommendations on how accountability mechanisms that have been designed with the explicit purpose of driving sustainability in the NHS can be strengthened
- recommendations on how sustainability can be embedded in broader accountability mechanisms used in the NHS to monitor and improve performance.

Strengthening mechanisms designed to drive action on sustainability

Recommendation 1: Build on and reinforce the work of the Greener NHS programme, including through a new statutory duty for the secretary of state for health and social care.

There has been considerable progress in developing accountability mechanisms to drive action on sustainability in the NHS in England since 2020 as part of the Greener NHS programme. As described in this report, this programme has successfully overseen the introduction of legal duties regarding carbon reduction and various statutory requirements for NHS organisations, including the production of green plans. Our research has examined how these existing mechanisms could be strengthened.

The starting point should be to build on what has already been put in place. As NHS England merges with the Department of Health and Social Care, it is imperative that the work of the Greener NHS programme continues and that there is high-profile leadership on sustainability within the department. The programme will need to have sufficient capacity and resources to ensure that the benefits for health, NHS finances and the environment

can be realised at a greater scale in future. Importantly, to replace the legal responsibilities that currently sit with NHS England, the government's new health bill should introduce a new duty on the secretary of state for health and social care to issue annual progress updates to parliament, detailing how the NHS is meeting its statutory duties regarding environmental sustainability.

Recommendation 2: Define clearer responsibilities for board-level leaders in trusts and integrated care boards.

Board-level leaders in trusts and integrated care boards (ICBs) need to be held accountable for making progress on sustainability and ensuring this is a high priority in their organisations. The existing requirement for organisations to identify a board-level lead for sustainability is a helpful start but needs to be strengthened to ensure that this leadership role is a meaningful and substantial part of people's jobs. This is needed to avoid accountability being delegated by default to specialist sustainability leads who typically have less influence and authority to bring about changes within their organisations.

Specific responsibilities for board-level leads in trusts could include:

- acquiring a minimum level of personal expertise on sustainability
- overseeing the development and implementation of local green plans and targets
- leading performance conversations on sustainability with regional teams and being held accountable for delivery and reporting (*see* recommendation 3)
- ensuring that sustainability is embedded in core organisational processes
- ensuring that adequate training on sustainability is provided to other board members and to staff throughout the organisation.

Clear expectations should also be placed on ICB leaders, who can play a vital role in bringing together NHS organisations, local government and others to develop an aligned approach towards environmental sustainability. ICB leaders should be accountable for ensuring primary care networks and neighbourhood health providers improve sustainability as part of their work, and for using commissioning and contractual levers to drive relevant outcomes.

Recommendation 3: Introduce annual sustainability performance checks led by regional leads.

Sustainability leads in trusts and ICBs are already required to report annually to their own boards on the progress being made in delivering their green plan objectives. This creates a form of internal accountability within each organisation. We believe this could be strengthened further through the measures outlined in recommendation 2, above. However, our research also highlighted that internal accountability varies significantly in terms of effectiveness, and we believe it cannot be relied on to deliver improvement at the speed needed. Instead, stronger external oversight and scrutiny should accompany it.

National policy-makers will need to identify the best way of delivering this strengthened external assurance in the context of other reporting arrangements. Our suggested approach would be to dial up the assurance role of Greener NHS regional leads by introducing annual review meetings at which each trust and ICB is required to give an account of its performance against local green plan goals and national expectations.

This could be done in a light-touch way that does not create excessive administrative burdens and which does not replicate the heavy-handed performance management seen in relation to some other national goals. Importantly, we suggest that it should be mandatory for there to be board-level representation at these meetings so that accountability is spread from sustainability leads to senior leaders.

Recommendation 4: Make as much data as possible publicly available in a consistent and accessible format, to strengthen public accountability.

Strengthened external accountability can also come in the form of public scrutiny or through mutual accountability, in which local partner organisations hold each other to account. To support this, there needs to be easier access to standardised comparative data showing how organisations are performing relative to their peers. We recommend two specific actions to allow this to take place.

1. The existing requirement for trusts and ICBs to publish progress data on sustainability in their annual reports should include specific expectations regarding the data that should be reported and the format it should be provided in, so that there is greater comparability across organisations.
2. Where possible within legal constraints, the data in the Greener NHS Dashboard should be made publicly available in an accessible format. To make it easier to make meaningful comparisons across organisations, data should be standardised using common denominators such as per bed day, per patient episode, per full-time-equivalent staff member, per square metre and per pound of expenditure.

Recommendation 5: Identify a small set of high-impact priorities and use these to create energy and focus at the local level.

Specific national expectations help to drive action, as observed with recent successes such as the phasing out of desflurane. The guidance produced to support the development of green plans (NHS England 2025b) contains a number of national expectations across nine areas of focus, but local sustainability leads told us that further assistance with prioritisation would be helpful.

Based on our research, our suggestion is that the Greener NHS programme team should aim to have a concerted national push on no more than three to four priority actions at a time, with the goal of creating a social movement in the NHS workforce on each of these things. The intention here is not to supplant the other objectives that organisations have included in their green plans, but to have a small set of more visible national priorities that create energy and focus, winning hearts and minds as well as delivering rapid carbon reduction and cost savings. For this to work, the priorities would need to be connected to issues that patients and staff already care about, and should lead to tangible benefits in the short to medium term.

Trusts and ICBs should be provided with suitable resources to help with implementation, including by using existing national programmes – such as Design for Life and Getting It Right First Time (GIRFT) – as vehicles to support delivery. In some cases, having national and regional teams directly involved in the delivery of these priorities may offer better value for money and faster progress than using a trust-by-trust or system-by-system approach.

Recommendation 6: Work towards having organisation-specific carbon reduction trajectories for trusts and integrated care boards.

Setting specific carbon reduction targets for each trust or ICB would be highly challenging at present due to measurement issues, methodological constraints and data lags. Given the urgency of the threats that climate change poses, taking action to reduce carbon emissions now is more important than the development of perfect measurement systems. Nonetheless, we heard that it would be helpful to give trust and ICB leaders a clearer picture of what their organisation's contribution to the NHS's overall carbon reduction goals needs to look like between now and 2040/45. The Greener NHS national team already provides local organisations with an annual estimate of their contribution to the overall NHS carbon footprint. Building on this, we suggest that trusts and ICBs should be given a trajectory with indicative targets for each three- to five-year period, to align with the lifecycle for refreshing green plans. Initially, this would need to be conducted as a learning exercise rather than a rigid performance management mechanism, with scope to further develop the process over time as methodological challenges are overcome.

Embedding sustainability throughout national and regional accountability arrangements

Recommendation 7: Embed sustainability in wider performance management processes at the regional level.

Our research makes it clear that accountability for sustainability cannot be a 'bolt-on' process that is separate from wider accountability mechanisms. We therefore recommend that sustainability should be embedded in the performance management processes that trusts and ICBs are already subject to. This would need to involve national leaders in NHS England directing senior staff at the regional level to incorporate sustainability within performance discussions. To support them in doing so, relevant national teams should work with the Greener NHS team to identify key issues for finance and performance teams at the regional level to enquire about, as part of their interactions with trusts and ICBs. This would need to be aligned with the existing remit of these regional teams and supported by training.

For finance teams, the focus of these questions should be on opportunities to reduce waste and deliver financial savings through actions that also deliver improved sustainability, including through procurement and commissioning processes. For other regional teams, the focus might be on encouraging forms of clinical transformation that are expected to deliver health, financial and environmental benefits. To ensure a coherent approach, the questions would need to be aligned with the national priorities suggested in recommendation 5 and with the annual performance reviews proposed in recommendation 3.

The intention underlying this recommendation is to expand the set of leaders at trust and ICB level who contribute to and are held to account for aspects of sustainability, in a way that is relevant to their remit and that reduces unwarranted variation across England.

Recommendation 8: Ensure national accountability mechanisms used for other priorities drive changes that are aligned with sustainability.

National mechanisms such as the NHS Oversight Framework need to create incentives for trusts and ICBs to focus on improvements that would bring about both health and environmental benefits. NHS England should integrate environmental sustainability into existing oversight and performance frameworks, with the goal of embedding these commitments into routine accountability and decision-making. The 'principles of sustainable health care' (*see* section 1) should be used as a basis for identifying relevant areas to prioritise, including prevention, patient empowerment and developing more efficient care processes and pathways.

We recommend two specific actions in relation to the NHS Oversight Framework.

1. As a first step, metrics on prevention, population health and reducing demand should be given greater emphasis in the NHS Oversight Framework, including by ensuring these are all 'scored' metrics (*see* Appendix 3) – both because of the potential sustainability benefits and because of their centrality to the government's 10 Year Health Plan for England.
2. The Greener NHS and system oversight teams in NHS England should work together to identify specific sustainability metrics for inclusion in the NHS Oversight Framework. To support this, further work may be needed to develop suitable metrics that enable accountability without creating excessive reporting burdens.

More broadly, national teams with a performance oversight function should embed environmental sustainability in existing measurement of efficiency and quality. For example, metrics tracking theatre use, readmission rates, discharge delays, medicines optimisation and procurement efficiency could include environmental considerations, such as carbon intensity or waste minimisation.

Recommendation 9: Ensure the Care Quality Commission's new assessment frameworks lead to greater prioritisation of sustainability in providers

The assessment frameworks that the Care Quality Commission (CQC) uses could be powerful tools in driving forward environmentally sustainable health and social care if they are aligned with efforts that other national bodies are leading. The inclusion of a quality statement on environmental sustainability in the single assessment framework from 2024 onwards helped to give this greater prominence in inspection processes. As part of its work to develop new assessment frameworks, the CQC should have three goals in relation to sustainability.

- First, sustainability should be prominent enough in the assessment frameworks to ensure that organisational leaders understand that it is an important national requirement.
- Second, the focus on sustainability should be rolled out more broadly so that it is included in the assessment of primary care and social care as well as trusts, with the relevant sectors being involved in co-designing the approach to this.
- Third, while a focus on environmental sustainability aligns well with the 'well-led' domain of the assessment frameworks, the CQC should also make explicit how organisations' performance in other areas, such as safety or effectiveness, can contribute to delivering environmentally sustainable care, highlighting the opportunities for multiple benefits.

Recommendation 10: Make sustainability part of the national vision for a high-quality NHS by communicating the benefits for patients, staff and public finances.

Accountability cannot be strengthened solely through technocratic fixes – it also requires effective leadership and communication. National leaders, including senior NHS leaders and government ministers, need to be clear and direct about the reasons for pursuing an environmentally sustainable approach to health care. In particular, they need to powerfully convey the benefits:

- more efficient use of resources
- less waste
- improved care environments for patients and staff
- better health outcomes.

The government has emphasised the need to reform the NHS to ensure it is 'fit for the future' (Department of Health and Social Care 2025b). Environmental sustainability and resilience should become part of that narrative, including through explicit inclusion in key NHS policy and planning documents.

Appendix 1: Examples of how sustainable health care saves money

In this appendix we give examples of how the NHS is achieving better value for money through a range of environmental sustainability initiatives.

Energy use

- In 2021, NHS England estimated that investment in technologies to improve energy efficiency could save £346 million a year.
- Recent commitments on solar power are expected to save the NHS around £325 million in lifetime costs (Department for Energy Security and Net Zero *et al* 2025).
- Switching off ventilation in operating theatres when not in use led to reduced energy costs in three trusts, which, if implemented across the NHS, could save £90 million a year (Symons and Groome 2024).

Reducing medicines waste and other forms of clinical waste

- The NHS in England spends at least £300 million a year on medicines that go unused. Addressing this creates significant opportunities to reduce both costs and carbon (Trueman *et al* 2010). For example, Hampshire Hospitals NHS Foundation Trust saved almost £84,000 by encouraging inpatients on eight wards to return unused medications as part of a carbon reduction initiative led by the pharmacy team (Williams and Bond 2023).
- Nitrous oxide is a highly potent greenhouse gas that contributes to climate change. Better management of nitrous oxide is saving the NHS £2.3 million a year and has the potential to save £4.5 million a year once fully implemented (NHS England 2025a).
- Reductions in volumes of clinical waste have saved the NHS £22 million since 2020/21 (NHS England 2025a).

Travel and transport

- Plans to decarbonise travel and transport, including by switching to a zero-emission NHS fleet, are expected to save the NHS £59 million a year as well as delivering significant health benefits from a reduction in air pollution and an increase in physical activity (NHS England 2025a).

Switching from single-use to reusable products

- Recent research shows that the opportunities for cost savings from a shift to reusable products could run into millions of pounds a year (Mortimer *et al* 2025; Brighton and Sussex Medical School *et al* 2023). For example, the NHS spends around £90 million a year on single-use gloves, aprons, gowns and couch roll from NHS Supply Chain alone. Some trusts have demonstrated it is possible to safely reduce glove use by at least 10–30%.

Improved care processes

- Seven organisations taking part in the Centre for Sustainable Healthcare's Green Team Competition achieved anticipated financial savings of more than £780,000 through a wide range of initiatives designed to improve care processes while also reducing carbon emissions. This included work in the Christie NHS Foundation Trust to prevent hip fractures among people with cancer using a screening tool (McLean 2023).
- The Royal College of Emergency Medicine and others have developed the GreenED framework to help emergency departments improve their environmental sustainability. Eight hospitals involved in piloting the framework collectively saved £40,000 a year as a result of improved efficiency and reduced waste (Royal College of Emergency Medicine 2023).
- Data-driven interventions that reduce the carbon footprint of kidney dialysis could save kidney units across the United Kingdom approximately £7 million a year as well as benefiting patients and staff (Mortimer *et al* 2013).

Appendix 2: Research methods

This research aimed to assess current accountability mechanisms in the NHS and set out recommendations for strengthening them so that they provide a more effective driver of action on environmental sustainability.

The objectives were:

- to understand what accountability mechanisms are already in place
- to understand the weaknesses and strengths of these mechanisms
- to identify opportunities to strengthen accountability arrangements to support the delivery of environmentally sustainable health care services in the NHS.

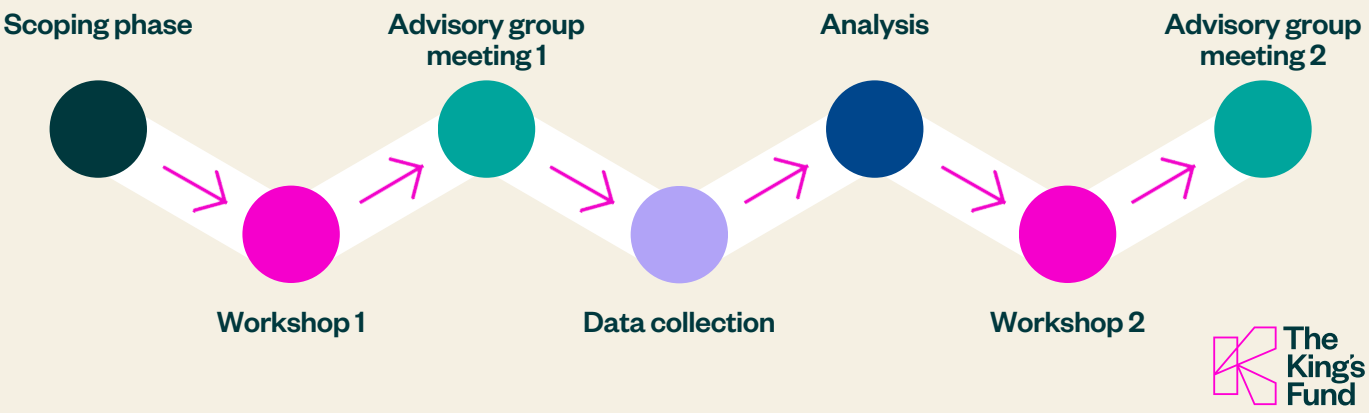
This research was conducted in three phases:

- scoping – to gather initial insights and refine the research focus
- data collection – to explore key issues in greater depth through interviews and other methods
- analysis – to synthesise findings and develop actionable recommendations.

In addition to these phases, we conducted two online workshops and convened an advisory group to guide the work.

Figure 2 illustrates the sequence of activities conducted and we provide further detail on these activities below the figure.

Figure 2 Sequence of research activities



Scoping phase

The scoping phase was designed to inform the research approach by gathering insights on current accountability mechanisms for environmentally sustainable health care delivery in the NHS. During this phase, we undertook the following activities:

- **seven scoping calls** with national, regional and local stakeholders to explore how sustainability objectives feature in accountability frameworks and views on 'soft' versus 'hard' accountability
- **a literature review** to examine factors that strengthen accountability, including clear roles, enforceable goals and robust data collection
- **a mapping of current mechanisms** to understand what accountability looks like for sustainability
- **comparative pen portraits** of accountability arrangements in other areas (cancer, elective waiting lists and health inequalities) for comparison with sustainability accountability.

Workshop 1

Workshop 1 took place at the end of the scoping phase. It helped to explore initial hypotheses, deepen our understanding of the challenges and identify the most significant issues for detailed exploration in the interviews. Participants included integrated care board (ICB) and trust sustainability leads, the Greener NHS team and other key system stakeholders.

Research protocol revision

Drawing on insights from the scoping phase, workshop 1 and an advisory group meeting, we refined the project plan and developed an updated protocol to inform the rest of the research. In this protocol, we set out our updated research questions, outlining three 'lines of enquiry' that we aimed to explore in greater depth through the data collection phase:

- how to strengthen accountability mechanisms focused explicitly on sustainability
- how to integrate sustainability within wider accountability mechanisms
- how to measure progress for the purpose of accountability.

Data collection

Building on the insights from the scoping activities and workshop, we moved into an in-depth data collection phase to explore the most significant issues in greater detail. This phase focused on the three lines of enquiry and combined interviews, a focus group and desktop analysis.

- **Line of enquiry 1: Strengthening accountability for explicit sustainability objectives.** We conducted semi-structured interviews with relevant stakeholders, including primary and secondary care clinicians, trust and ICB sustainability leads, senior leaders and Greener NHS regional leads.

- **Line of enquiry 2: Embedding sustainability in wider accountability mechanisms.** We conducted a focus group with three clinicians with an interest in sustainability, and semi-structured interviews with stakeholders working in areas where sustainability is already embedded or where there are opportunities to do so. This included people involved in work on Getting It Right First Time (GIRFT) Greener Pathways and the UK Renal Registry, as well as representatives from NHS England, the Department of Health and Social Care and the Care Quality Commission.
- **Line of enquiry 3: Measuring sustainability for accountability.** We carried out desktop analysis of existing metrics, supplemented by metric-related questions in the interviews.

A total of 21 semi-structured interviews were conducted with a range of participants (*see* Table 4). Participants were purposively sampled to provide insights into specific focus areas identified during the scoping phase, and to ensure diversity across roles, organisational levels and geographies. While the sample included participants without direct sustainability roles, these were individuals known to have an interest in environmental sustainability and who therefore may not be representative of their peers on the issue. Recruitment was supported through existing networks as well as recommendations from advisory group members.

Focus group participants were recruited using the Centre for Sustainable Healthcare's Networks Platform (Centre for Sustainable Health Care no date).

Table 4 Interview participants

Role	Number of interviews
NHS England – national	2
NHS England – regional	2
Care Quality Commission	1
ICB sustainability lead	2
ICB senior leader	1
Trust sustainability lead	3
Trust senior leader	4
Clinician/clinical academic	6 + 3 focus group participants

Analysis

The interviews and focus group were audio recorded with participants' consent and transcribed in full. Data was analysed thematically using framework analysis. Our analytical framework was developed iteratively, drawing on themes identified during the scoping phase and refined as data collection progressed.

Workshop 2

Workshop 2 was held at the end of the analysis phase to validate our research findings and to test and refine our emerging recommendations with local and national stakeholders. Feedback from this session was used to ensure our recommendations were realistic and actionable. Participants included individuals involved in earlier stages of the project as well as additional stakeholders. We included senior trust and ICB leaders in this workshop to allow us to test our findings with people with a broader strategic view not focused on sustainability.

Advisory group

Our advisory group met twice during the project. The first meeting, at the end of the scoping phase, was used to test assumptions and provide feedback on the refined approach developed through scoping activities. The second meeting, following workshop 2, focused on sense-checking emerging findings and discussing recommendations.

The advisory group comprised the project team, representatives from The Health Foundation and selected individuals in local and national sustainability roles.

Ethical approval and consent to participate

The research adhered to ethical principles throughout, with the research team at The Health Foundation reviewing and approving our approach to research ethics. All participants received an information sheet outlining the purpose of the study, what participation involved and how their data would be used. Informed consent was obtained before the interviews, focus group and workshops. Participation was voluntary and individuals were free to withdraw at any point without consequence.

Appendix 3: Measuring progress

This appendix provides further details on the subject of data and measurement. It describes how progress against environmental objectives is currently measured in the NHS, limitations with these existing arrangements, and how metrics and measurement could be strengthened in future.

Current data collection and reporting

In recent years, the NHS has made significant progress in establishing the routine collection and reporting of environmental data by trusts and integrated care boards (ICBs). NHS England has established a number of data collections and reporting mechanisms to capture and monitor environmental data. These include the Greener NHS Data Collection and the Greener NHS Transport Data Collection. Similarly, the Estates Returns Information Collection (ERIC) also captures key environmental data, although environmental sustainability is not its primary purpose. Data from the various collections is reported back to trusts and ICBs via the Greener NHS Dashboard and other Greener NHS support tools – to support benchmarking and to show the extent of progress against deliverables. Summary data on overall NHS carbon emissions is included in NHS England's annual report.

Table 5 on page 41 outlines the key mechanisms used for data collection and reporting across trusts and ICBs.

Alongside these mandatory reporting requirements, several voluntary frameworks and toolkits encourage deeper engagement with sustainability data in specific specialties, including the following:

- **Green Impact for Health Toolkit** – for general practices, dental practices and trusts
- **GreenED Framework** – supporting emergency departments to benchmark and improve sustainability
- **UK Kidney Association (UKKA) Benchmarking Tool** – supporting environmentally sustainable renal care
- **Greener Pharmacy Toolkit** – supporting pharmacies to become more environmentally sustainable, produced by the Royal Pharmaceutical Association.

Table 5 Key mechanisms for data collection and reporting

Mechanism	Brief description	Who collects and reports?	How often?	Links
Green plan metrics	Green plans include measurable actions and key metrics that NHS organisations commit to tracking over time. Statutory guidance states that annual progress summaries need to be published in annual reports.	Trusts and ICBs	Every three years	Suggested metrics are included in the updated green plan guidance: www.england.nhs.uk/long-read/green-plan-guidance/#annex-a-supporting-metrics
Greener NHS Data Collection	This allows trusts and ICBs to measure progress on key Greener NHS deliverables for the current financial year. The data is intended to support internal and external reporting and is shared via the Greener NHS Dashboard.	Trusts	Quarterly	
Estates Returns Information Collection (ERIC)	This records information related to buildings, equipment and utilities. While not designed specifically for sustainability, it gathers data useful for environmental reporting, such as energy use, waste volumes, solar energy generation, and environmental impacts such as flooding and overheating incidents.	Trusts and ICBs	Annually	https://digital.nhs.uk/data-and-information/publications/statistical/estates-returns-information-collection
Greener NHS Transport Data Collection	This tracks NHS fleet carbon emissions and the make-up of the fleet, as well as data from ambulance trusts. It includes data such as business travel costs, employee commuting patterns and remote working levels.	Trusts	Annually	
Data on anaesthetic gases and inhalers	Specific arrangements exist for the collection of data on the use of anaesthetic gases and inhalers. For example, a data-sharing agreement exists with suppliers of nitrous oxide.	Trusts and suppliers	Monthly	

Challenges with current accountability metrics

The NHS has made significant methodological advances in carbon measurement over the past five years and is recognised internationally as a leading health system in this regard. This is reflected in the Greener NHS programme team co-authoring World Health Organization guidance on carbon measurement (World Health Organization 2025). However, despite these advances, carbon measurement is an evolving field and methodological challenges still exist.

Limitations of carbon footprinting methodologies

Recognising the methodological challenges with carbon measurement, NHS England's (2025b) green plan guidance advises using 'non-carbon' metrics alongside carbon footprint estimates to track progress.

Methodological challenges particularly apply to the supply chain emissions included in the broader 'NHS carbon footprint plus' estimate. This currently relies to a large extent on an expenditure-based method – environmentally extended input–output analysis (EEIOA) – rather than using detailed activity data or cradle-to-grave product-level carbon footprint data. While EEIOA provides a broad, system-level estimate of emissions, it assumes that spending correlates with carbon intensity when, in practice, expenditure may increase or decrease depending on inflation or procurement contracts rather than a shift in clinical practice or resource efficiency. In addition, EEIOA often fails to capture granular, service-specific improvements. As a result, the methodology may not reflect real changes in operational practice and improvements such as streamlining clinical pathways, the adoption of lower-carbon technologies or a reduction in resource use.

Greater granularity in supply chain carbon footprints can be achieved through the use of product-specific life cycle assessments. However, life cycle assessments can often be time-consuming and resource intensive to undertake and currently exist for only a small proportion of the thousands of medical devices in use, and for an even smaller share of pharmaceutical products (Eckelman *et al* 2024). This might change in the future as methodologies improve and new requirements are introduced as part of the NHS Net Zero Supplier Roadmap (NHS England 2021).

Standardisation at the organisational level

Another limitation of current environmental sustainability metrics is the lack of standardisation in how data is normalised, which can restrict comparability across organisations, services and care settings. For example, some trusts are much larger and encompass multiple hospitals, while others are smaller. Differences in building age and energy efficiency further complicate comparisons, as older hospitals may have limited potential for estate-related improvements, whereas newer facilities may already be highly efficient. Similarly, the type of services provided matters as acute trusts are likely to have different carbon footprints and hot spots compared with community or mental health trusts due to the nature of their clinical activity.

Understanding progress at more granular levels

Sustainability metrics are typically monitored at system or organisational level, such as for entire trusts. Developing more granular and functionally relevant metrics – such as the carbon footprint per patient episode, per bed day or per procedure – could enhance transparency, support evidence-based decision-making and promote more meaningful comparisons across different parts of the NHS. It could also help embed environmental sustainability within day-to-day clinical operations rather than confining it to organisational-level reporting.

Similarly, specialty-level reporting within the NHS is currently limited and tends to be focused on specific actions guided by national policy, for example a reduction in the use of desflurane. So, while some areas such as anaesthetic gases are monitored, other sources of environmental impact such as medicine use, surgery and bed-day emissions remain unmeasured and are often not captured in reporting frameworks. The absence of specialty-specific metrics might restrict clinicians' ability to understand the environmental implications of their practice, or they might not feel they are able to implement improvement initiatives.

A key challenge in understanding progress at more granular levels is the limitations of existing measurement infrastructure. For example, directly measuring electricity use within specific departments or services would require significant investment in sub-metering equipment. In the short term at least, approaches would therefore need to be developed that give some indication of environmental impacts at service, department or specialty level within existing constraints.

Narrow scope of measurement

The current scope of environmental measurement within the NHS remains relatively narrow. Carbon emissions are the primary focus of the NHS Net Zero Plan (NHS England 2022). As a result, metrics, reporting and accountability frameworks tend to prioritise carbon reduction, often overlooking other significant environmental impacts such as pharmaceutical pollution, air pollution, resource depletion and biodiversity loss. For example, health care activities contribute to local air pollution through travel and transport (staff commuting, patient travel and supply chain logistics). Similarly, pharmaceuticals can enter waterways through manufacturing waste streams, use or improper disposal. The carbon-centric approach could lead to these important environmental impacts being neglected.

Limited details on measurement in green plans

An evaluation of the first generation of green plans found that only 46% of the commitments made in them came with measurable targets (Tabakov and Bhutta 2025). This may have improved with the next generation of green plans published from 2025 onwards – the first-generation plans were written before the introduction of statutory duties or guidance, and the updated green plan guidance published in February 2025 contained more specific requirements around measurement, including a set of suggested metrics to help organisations track progress (NHS England 2025b). The guidance also notes that organisations may wish to adopt additional locally relevant metrics to monitor progress against specific actions.

Principles for strengthening sustainability metrics

Embed relevant metrics within existing frameworks

Reporting requirements are already widely regarded as burdensome within the NHS. Rather than creating a parallel system for environmental sustainability, relevant metrics could be embedded within existing frameworks and reporting structures.

For example, the NHS Oversight Framework sets out how NHS England monitors and rates the performance of providers and ICBs using an agreed set of metrics. Metrics are selected to reflect 'core NHS operating objectives', aligned with national priorities, financial performance, quality of care, access and value. Some metrics are scored while others are contextual (not used for scoring, but for insight and monitoring).

Integrating environmental sustainability into oversight and performance metrics could help embed these commitments into everyday accountability and decision-making without increasing reporting burdens. Many of the 2025/26 NHS Oversight Framework delivery metrics already align with the principles of sustainable health care described in section 1, as outlined in Table 6 (page 43).

Table 6 How the NHS Oversight Framework metrics align with the principles of sustainable health care

Principles of sustainable health care	Examples of metrics that align with the principles
Prevention (promoting health and preventing disease by tackling the causes of illnesses and inequalities)	– Percentage of inpatients referred to in-house tobacco treatment services who make a supported attempt to stop smoking – Percentage of pregnant women who stop smoking – Measles, mumps and rubella (MMR) vaccine uptake rate
Patient self-care (empowering people to take a greater role in managing their own health and health care)	– Percentage of patients supported by obesity programmes
Lean service delivery (streamlining care systems to minimise wasteful activities)	– Percentage of urgent referrals for suspected cancer to receive a definitive diagnosis within four weeks – Average number of days from hospital discharge-ready date to actual discharge date
Low-carbon alternatives (prioritising treatments and technologies with a lower environmental impact)	– No metrics currently align with this principle

There are several ways in which environmental sustainability could be embedded in the NHS Oversight Framework.

1. **Ensuring that all metrics that align with sustainability (for example, those on prevention and population health) are scored rather than being treated as contextual indicators.** One approach is to ensure that all metrics with a clear link to sustainability – such as those relating to prevention, population health and a reduction in demand – are scored rather than being treated as contextual indicators. Scoring these measures would give them greater prominence within the NHS Oversight Framework and reinforce their importance.
2. **Including a sustainability narrative and data alongside existing metrics.** Many of the current Oversight Framework metrics focus on improving productivity, reducing costs and optimising resource use, which naturally lend themselves to a sustainability perspective. By reframing the accompanying narrative to include sustainability-focused language, and by providing data on environmental impacts alongside existing metrics, the framework could highlight the environmental impact of operational performance.

   For example, the metric on the average number of days from hospital discharge-ready date to actual discharge date could be enhanced by linking this to its associated carbon footprint. By multiplying the emission factor for a low-intensity inpatient bed day by the average number of delay days, the carbon impact of prolonged admissions could be quantified. This would allow sustainability considerations to be embedded directly into performance monitoring, reinforcing the connection between efficient patient flow and reduced environmental impact.

3. **Introducing scored sustainability metrics.** Another approach would be to introduce scored sustainability metrics in the NHS Oversight Framework that enable a structured and comparable assessment of an organisation's environmental performance. Potential metrics could include carbon emissions per trust/ICB relative to annual financial expenditure or per full-time-equivalent staff member, or progress against green plan objectives.

Ensure metrics are comparable and standardised across organisations

To support effective accountability and drive system-wide improvement, metrics should be easily comparable across organisations so that the data gathered can be used for benchmarking and peer learning.

As described above, simplistic comparisons between organisations can be misleading because of the significant differences that exist in organisational characteristics and contexts. To address these variations, trusts could be grouped based on size, service type or other relevant characteristics. Metrics could also be normalised using common denominators such as per bed day, per patient episode, per full-time-equivalent staff member, per square metre or per pound of expenditure. This would enable more robust benchmarking and support more transparent evaluation of clinical pathways and sustainability initiatives.

Ongoing work being undertaken as part of the Greener NHS programme aims to overcome these comparability issues and to support improved standardisation in future.

Ensure metrics are sufficiently granular enough to detect change

Metrics should be designed to capture meaningful change at the right level of granularity. Broad organisational measures often obscure progress and make it difficult to identify which interventions are most effective. Metrics that track specific activities, such as clinical pathway redesigns, procurement changes or resource reduction, provide a clearer focus on and insight into what drives improvement.

Responsibility for each metric should be clearly assigned, ensuring that the team(s) best placed to influence outcomes monitor and report on progress.

Link sustainability metrics to efficiency and quality measures

Environmental sustainability should be embedded within existing measures of efficiency and quality. Studies have already suggested that environmental and health outcomes should be combined and that established quality metrics that are routinely tracked are an ideal starting point (Eckelman *et al* 2024). Many existing NHS metrics already promote resource efficiency and cost-effectiveness. Integrating environmental sustainability into these measures could strengthen alignment between sustainability and core operational goals.

For example, metrics tracking theatre use, 30-day readmission rates, discharge delays, medicines optimisation or procurement efficiency could include environmental considerations, such as carbon intensity or waste minimisation. By explicitly linking sustainability with quality and productivity, NHS organisations can demonstrate that environmental action supports both financial sustainability and patient outcomes.

Include wider environmental metrics beyond carbon

While carbon emissions have been the primary focus of NHS sustainability reporting and metrics, this often overlooks other critical environmental impacts such as air pollution, pharmaceutical pollution, water use and biodiversity. Expanding the suite of sustainability indicators beyond carbon would provide a more holistic picture of the NHS's environmental footprint.

It should be acknowledged that carbon footprinting methodologies and reporting within the NHS are still in the early stages of development, with ongoing challenges around data quality, consistency and methodological transparency. Given these limitations, it may be wise to focus on strengthening and standardising carbon accounting before expanding the scope to include additional environmental indicators. However, there may be opportunities to work with other organisations, such as local authorities and combined authorities, which already track indicators related to biodiversity and nature recovery, and to make use of their existing datasets.

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