

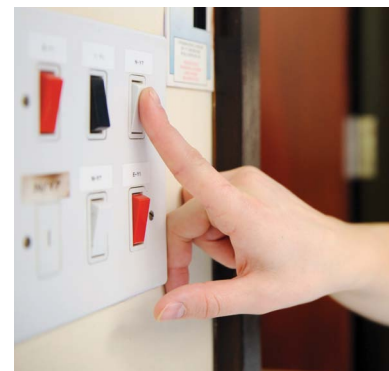


NHS

*Sustainable
Development Unit*



**SUSTAINABILITY IN THE NHS
HEALTH CHECK 2012**



Foreword

It is essential we strive to improve patient care today at the same time as enabling the system to deliver high quality healthcare tomorrow. Fortunately we can do both, and in ways that improve public health for all.

The long term future of the health and social care system depends on health and sustainability outcomes being integrated into its structures, core to its services, and championed by public, patients and staff.

We are therefore delighted to introduce this timely summary of progress which highlights three important areas of new research: an updated NHS carbon footprint, a thorough analysis of the views of health service leaders, and a large public opinion survey. When read together, they provide compelling evidence that the NHS and public health system in England should continue striving to be leaders in sustainable healthcare.

Progress towards a more sustainable health system is being made but we cannot be complacent. We need the right organisational culture to embed sustainable policy, leadership and practice in all that we do; from the design of constitutions, mandates and governance, to the delivery of bedside care.

The work done in the health system in this country is already well respected internationally, particularly where the NHS showcases how good the future can be. We look forward to the ongoing work of the NHS Sustainable Development Unit (SDU) and we hope you will join us in embracing innovation and shaping quality services so together we can improve our NHS.



Professor Dame Sally Davies
Chief Medical Officer and Chief Scientific Adviser, UK Department of Health



Sir Neil McKay CB
CEO of NHS Midlands and East and Lead CEO for Sustainable Development, NHS England

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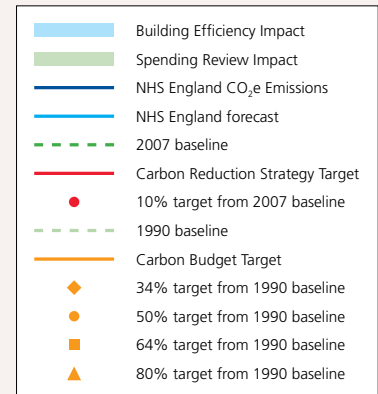
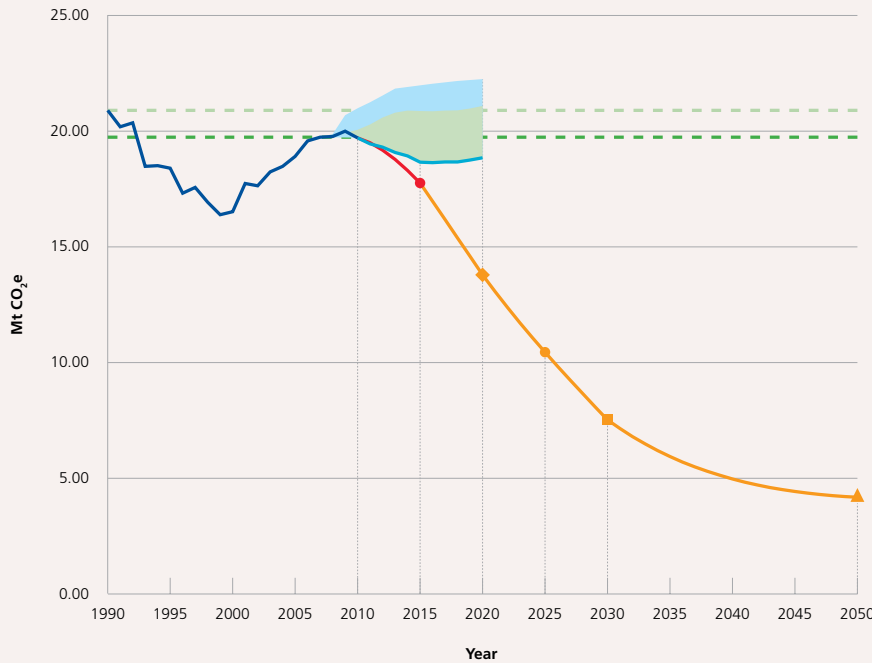
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Sustainable development in healthcare:

A high quality sustainable health and social care system will meet the needs of today, without compromising the needs of tomorrow. It will include the best of environmental, social and financial sustainability and provide a world leading patient centred service which will minimise its impact on the environment.

Sustainability in the NHS

The Carbon Footprint



Graph 1: NHS England Carbon Footprint

The latest NHS England carbon footprint^A shows carbon emissions have stopped rising and are levelling off. However, meeting NHS carbon^B reduction targets will still be a significant challenge.

The graph above illustrates three key points. Improvements in NHS building energy efficiency during 2010/2011 (despite a cold winter and increased activity) coupled with more nationally available renewable energy are bringing down NHS carbon emissions (blue wedge on the graph). In addition, the current health service spending review is impacting on previous projections of the footprint because the spending forecast is now significantly lower than before (green wedge on the graph).

Of the points already mentioned, the actual reductions made by the NHS itself are relatively small. The biggest impacts are being made by the spending review and increased availability of renewable energy.

However, it is worth noting that many NHS organisations have been cutting emissions significantly and have been making financial savings in the process. Unfortunately the effects of this good work have been lessened by other organisations not making such good progress. To achieve the level of carbon reduction required in the future requires a concerted effort by all NHS organisations.

This latest footprint establishes the overall carbon footprint of NHS England at 20 million tonnes of CO₂e (MtCO₂e).^B In 2010 the carbon intensity^C of the NHS was approximately a third of its 1990 level.¹

The graph shows a 5.4% (1 MtCO₂e) decrease in the NHS England carbon footprint by 2015.

A further cut of 4.6% (0.9 MtCO₂e) will be needed if the NHS is to reduce its emissions by 10% by 2015 as proposed in the NHS Carbon Reduction Strategy.²

This is likely to be a challenge for the NHS. However, if action is taken now then it can be achieved. The 10% target is crucial as it determines whether the NHS is going to meet the Climate Change Act³ targets for 2020 and 2025. Overall by 2020 the NHS carbon footprint forecast predicts a 9.8% (2.1 MtCO₂e) reduction on a 1990 baseline. A further 24.2% (5.06 MtCO₂e) reduction will be needed to achieve the 34% reduction required by 2020. This is a significant challenge and will require coordinated action in all parts of the health and social care system.^D

This graph shows the NHS Carbon footprint for 2010. It is the third time the footprint has been calculated for the NHS with previous versions produced in 2004 and 2007.

Full details of the data updates are available at www.sdu.nhs.uk/healthcheck2012.

Sustainability in the NHS

The Views and Values of NHS Leaders

Almost nine out of every ten leaders surveyed in the NHS actively engage with sustainability and believe it is important.

This is the overriding message from a comprehensive survey and series of interviews conducted by the independent not-for-profit research institute RAND Europe.⁴

"All Trusts should recognise the need to consider the environmental impact of their business activities and be committed to ensuring sustainability and environmental management are an essential part of our health care."

Claire Murdoch
Chief Executive
Central and North West London
NHS Foundation Trust

172 senior NHS leaders contributed to the survey's findings and highlighted the real need for organisations to promote and embrace sustainability at board level. While **90%** of respondents agreed sustainability is important, **60%** believe it is essential to the running of their organisation. In particular, it was said that in difficult times for the NHS, sustainability offered an opportunity to engage staff and both reinforce and clarify a sense of organisational purpose and values. Expressing care for both present and future generations was seen to be an effective way to build a culture which delivers improved health services today.

"The NHS has a caring culture. What better way to support that culture than by supporting sustainability and so protect both the patients of today and the citizens of tomorrow."

Professor Martin Roland
Chair in Health Services Research
University of Cambridge

The challenge therefore lies in ensuring that sustainability is successfully implemented. Well over half of the respondents felt they have both the powers and the measurements in place to monitor and implement more sustainable practice.

NHS leaders were particularly aware of initiatives related to minimising the use of resources and implementing technological solutions such as teleconferencing. They said the easiest things to do related to promoting energy efficiency, engaging with staff on sustainability and implementing travel initiatives. The areas they found more challenging included improving infrastructural changes, ensuring sustainable pathways and models of care, and working with other groups and organisations to achieve more sustainable results.

These issues need addressing. They require clear leadership if organisations are to become more sustainable. Delivering sustainability requires very substantial organisational and cross organisational commitment. It needs corporate branding and effective use of performance metrics and rewards as well as regular engagement with staff, patients and the public.

This approach will deliver a quality and sustainable health service.

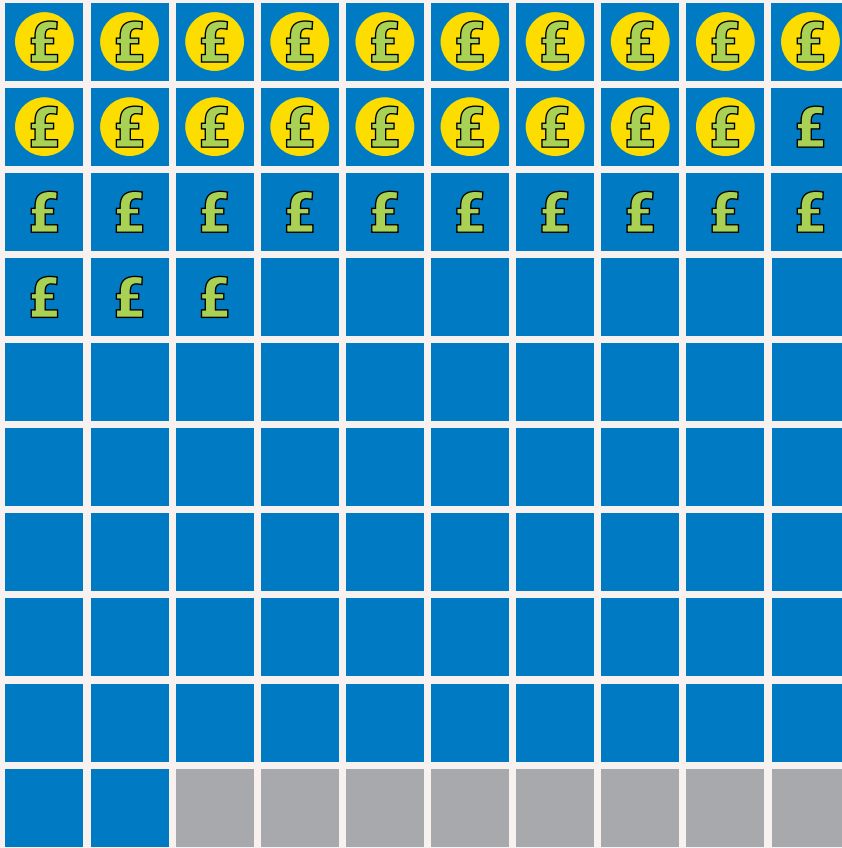
"The message from leaders should be 'do as I do' so you show sustainability can be done."

Lisa Rodrigues
Chief Executive
Sussex Partnership
NHS Foundation Trust





Sustainability in the NHS


The People's Perspective



Graph 2: An illustration of the public's response to sustainability in the NHS

 % of the public who felt that sustainability should be a top priority - 19%

 % of the public who said that the NHS should act in a more sustainable way even if it would cost money - 33%

 % of the public who think it is important for the NHS to work in a more sustainable way - 92%

In the first independent survey^{5,E} of its kind 92% of the public questioned said it is important that the NHS works in a more sustainable way with 19% feeling sustainability should be a top priority.

More than 1000 members of the public took part in interviews conducted by Ipsos MORI, the survey specialists. Many of those surveyed

felt the NHS should and could do more, with **33%** believing the NHS should act in a more sustainable way even if it would cost an organisation money.

When presented with specific examples where the NHS could be more sustainable, **75%** said that hospitals serving locally sourced food will improve the patient experience, and a similar proportion (**73%**) said that locating services closer to people's homes would have the same effect. Half the public (**52%**) said they would be likely to accept re-issued medicines that had been checked for safety.

The majority of those surveyed did not feel they were likely to highlight wastage to staff. This suggests that

the culture of NHS organisations needs to change to allow the public to talk to staff about saving resources and reducing waste.

The results are significant. They demonstrate to health and social care leaders that the public expects the NHS and the health system to act sustainably, particularly by saving resources.

"This survey is a national vote of confidence for implementing sustainability in healthcare. It demonstrates people want their health service to consider sustainability as part of its day job. It also means that we all need to find better ways of engaging with the public and with patients on sustainability."

Sonia Roschnik
Operational Director
NHS Sustainable Development Unit

Sustainability in the NHS

Making a Difference

Sustainable development is at a critical juncture internationally, nationally and in the NHS.



"It's important to lock in the moral and economic imperatives. Sustainable development is a process not an event."

Dr Peter Homa
Chief Executive
Nottingham University Hospitals
NHS Trust

Most people realise sustainable development (SD) is a key component of the future because of the increasing threat of climate change. SD will also ensure the NHS is fit for the present by delivering economic, environmental and social value at a time of ever increasing pressure on resources.

Sustainability must be embedded into new organisational structures and governance mechanisms in a consistent way so that it becomes part of everyday practice. This is particularly crucial during times of transition and reorganisation where processes and principles are reviewed and renewed.

It is good news that during 2010, the rising NHS carbon footprint levelled off and that the carbon intensity of the NHS reduced to a third of its 1990 level. However, the NHS still faces a challenge if it is going to reduce emissions by 10% by 2015, and meet the legal requirements set in the Climate Change Act. Even though this is now more achievable it needs close monitoring and delivery at a national, regional and local level.

Sustainability needs individual and system-wide action to be aligned. It needs to be progressed across boundaries, cultures and organisations. Sustainability needs to be integrated into discussions and decisions with staff, patients and the public at clinical, service and organisational levels to ensure it becomes a core principle of the NHS.

Indeed, patients can suggest and support change in the health and social care system. This can be achieved by showing interest and concern in the products and services used, the way in which waste is minimised and how resources can be used more effectively.

Patients' views are crucial to the way in which services are developed and delivered and will help shape a more sustainable health system.

Organisations such as the King's Fund are also responding to this longer term thinking and are providing useful direction to support further research so we all know more precisely how to deliver the next steps.⁶

The Route Map for Sustainable Health⁷ provides a vision and a framework for developing a sustainable health system. It divides sustainability into six areas and describes the actions the NHS and its stakeholders can take. The Route Map can be used as a framework to describe where progress towards a sustainable health and social care system is being made and where further action is required.

Current progress on sustainability in the health system is illustrated in the table on page 7. Page 8 highlights the areas which health and social care organisations need to focus on to deliver high value, resilient, and exemplary healthcare.



Sustainability in the NHS

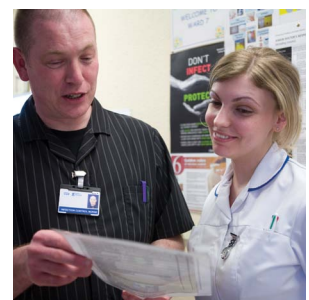
Summary of Progress

BEHAVIOURS		STANDARDS		INNOVATION	
Society	Individual	System governance	Use of resources	Models of care	Technology
<p>10:10 Campaign with 80 NHS and many other health related organisations signed up</p> <p>BMJ and Lancet articles: climate change is biggest threat to health this century and mitigation interventions can improve health now</p> <p>Public engagement workshops carried out with Which? the consumer association during 2011</p> <p>Public Ipsos MORI survey on sustainable healthcare in November 2011</p>	<p>Joint publications developed with professional associations, for GPs, nurses, finance, estates, human resource professionals and more</p> <p>Royal College statements on sustainability or environmental issues</p> <p>Climate and Health Council encouraging health professionals to pledge personal action</p> <p>Many unions actively engaging on this agenda</p>	<p>HM Treasury have standardised sustainability reporting for the public sector</p> <p>A Sustainability Reporting Framework was launched by DH in February 2011</p> <p>Since 2009, DH have included in their Statement on Internal Control/Annual Governance Statements a requirement to respond to the Climate Change Act</p> <p>Cross Government Climate Change Risk Assessment has taken place during 2011</p> <p>74% NHS organisations had a board approved Sustainability Plan in place in May 2011</p> <p>NHS has been highlighted in UK analysis of strategic responses to global climate change</p> <p>Good Corporate Citizenship Awards in place</p>	<p>1% reduction in carbon emissions from NHS building energy usage during 2010/11</p> <p>Carbon intensity of NHS in 2010 has reduced to around a third of the 1990 level</p> <p>King's Fund publication on research and development in SD in health and social care</p> <p>Procurement best practice includes sustainability tools developed by DH & NHS SDU</p> <p>Government carbon reduction energy efficiency scheme first phase started with NHS a leading sector in signing up and submitting data</p> <p>Graphs developed to illustrate combined carbon and financial savings for NHS</p> <p>Prince of Wales and Soil Association recognise better food in 14 hospitals</p>	<p>Future healthcare scenarios developed for 2030</p> <p>DH and NHS programme to increase value of care</p> <p>Case studies of effective care on NHS evidence website</p> <p>GP commissioning standards developed for sustainable care</p> <p>Launch of collaborative pharmaceutical research on standardised carbon footprint methodology for products</p> <p>Research on the carbon footprint of kidney care published</p>	<p>Increased renewable energy available and used from national grid</p> <p>Evidence of impact of tele-health is published</p> <p>Increased use of Combined Heat and Power plants in the NHS from use of Energy Funds</p> <p>Additional funding schemes announced</p> <p>District heating schemes concept adopted more widely</p> <p>Small Business Research initiative includes SD in its core statement</p> <p>Life Sciences Innovation Delivery Board includes SD criteria</p> <p>Programme of hospital refurbishment research in place</p>

Table 1: Summary of progress being made towards a sustainable health system based on the Route Map for sustainable health framework.

This table is not comprehensive. The NHS SDU welcomes feedback if you think other important examples need including.

Full references for this table are available at: www.sdu.nhs.uk/healthcheck2012.



Sustainability in the NHS

Taking Action

INNOVATION		Current Phase		Preparation for next phase	
		Models of care	Technology	Models of care	Technology
		Commission services so sustainability is part of the core criteria and invest in health and prevention	Encourage innovation boards, procurement processes and business cases to promote sustainable technologies	Develop cross system joint sustainable service plans	Ensure technology developments support wellbeing and reduce inequalities
		Evaluate models of care based on environmental criteria		Integrate with a benefits realisation process and risk assessment process	
STANDARDS		System governance	Use of resources		
		Organisations embed sustainability principles, criteria and metrics into mandatory board business, annual reports, regulatory frameworks, risk assessments, induction & training	Use food, water, waste, energy and human resources efficiently by improving measurements and management, procurement procedures and installing smart meters		
		Adaptation plans are developed and integrated	Build on the research needs identified		
BEHAVIOURS		Individual			
		Work with individuals to choose sustainable lifestyles and products e.g. engage in active transport, better food, less personal consumption and more social connection			
		Work with patients, staff and the public on key sustainability issues e.g. recycling / transport / re-use of medicines			
		Organisations describe services based on sustainability criteria, taking into account full life cycle costs. This is explained to the public and patients			
		People ask questions of services and providers to know how decisions are made and then make choices accordingly			
		Full life cycle costing methodology is developed and can be easily used for all board & business decisions			
		Development of full carbon analysis on all resources and services			
		Health business decisions take full impact analysis into account			

Table 2: A record of areas where health and social care organisations can take action to deliver sustainable health.

This table is not comprehensive. The NHS SDU welcomes feedback if you think other important points need including.



Sustainability in the NHS

A Regional Perspective - Planning for the Future

The NHS has regional leads for sustainability in England. Their statements below indicate how the agenda is being taken forward in their part of the country.

NHS North of England

NHS North of England actively promotes the core principles of sustainability to all NHS organisations in its region. There are many examples of organisations already reducing their carbon footprint and delivering significant cost savings. NHS North of England leads by example by encouraging sustainability across the organisation. It advocates the relevance of sustainable principles to modern models of care and encourages partnerships and networks so that best practice can be shared and sustainability performance managed effectively.

NHS Midlands and East

NHS Midlands and East will be placing sustainable development considerations at the heart of its Board's decision-making processes. It will work through Executive and Non-Executive Directors to embed SD in the planning, performance and reporting systems of its Directorates. Through SD networks it will focus on meeting the differing needs of NHS organisations and support them as they reduce emissions in areas of travel, procurement and energy in order to deliver the NHS Carbon Reduction Strategy.



NHS South of England

NHS South of England has a proven track record for innovation and championing of sustainability. Building on this strong foundation, it will help all NHS organisations to meet sustainability challenges and take advantage of opportunities to commission and provide a more efficient, fair and quality health service for all. By reducing carbon emissions, responding to climate change and supporting sustainable communities, NHS South of England will play a lead role in tackling inequalities and developing a truly sustainable NHS.

NHS London

NHS London is making excellent progress in reducing its carbon footprint and the impact of its services on the environment. It has already seen a significant reduction in carbon emissions. NHS London's sustainability agenda is led by the Carbon Reduction Steering Group and its network is represented by all NHS organisations in the capital. London's Commissioning Service Plans for 2012-2015 include statements which require the improvement of sustainability through sustainable commissioning.



Sustainability in the NHS

Adapting to Climate Change

Good long term planning helps with two challenges - avoiding the unmanageable while managing the unavoidable.

The NHS needs to adopt the same approach as it tackles the issues related to climate change.

The health system is already making progress in reducing its emissions and becoming a more sustainable organisation, helping to mitigate⁶ the environmental causes of climate change.

However, equally important is adapting¹¹ to the unavoidable consequences of climate change. These threats, which have been well researched and predicted by the UK Climate Impacts Programme⁸ include more severe weather events, more frequent and prolonged hot and cold weather, and severe flooding. It is important we all take action to minimise the impacts this will have on services.

Work carried out in preparation for the UK's statutory Climate Change Risk Assessment⁹ suggests that the health

sector response to adaptation to climate change may not be at the level that is needed or that it is capable of.

Importantly, there are also extensive short term health and financial benefits of ensuring that the health system is well adapted to these anticipated changes. Many organisations are prepared to act, but have not yet developed the skills or culture to do so effectively. Understanding how best to integrate these requirements into organisational decision making (and into resilience and emergency preparedness plans) is key.

The most important areas for decision makers to consider are identified as:

- Climate-sensitive care pathways, specifically for resilience to heat and flooding events
- Renovation of existing premises
- The design and construction of new premises

The NHS SDU is working with the Department of Health and the Department for Environment, Food and Rural Affairs to ensure that the health and social care system integrates climate change adaptation into routine governance.

Supporting Sustainability

Tomorrow's healthcare environments - towards a sustainable future¹⁰

This Department of Health publication illustrates the commitment to raising the quality and sustainability of health buildings and spaces, using examples ranging from whole health reconfigurations to health centres.

NHS Day of Action on Sustainability

An annual Day of Action on the 28th March where NHS organisations, stakeholders and supply chain partners will engage and promote sustainability. It is an opportunity to encourage activity and to engage more fully with the sustainability agenda.

Please join by visiting www.nhssustainabilityday.co.uk

Global Green and Healthy Hospitals

Consider joining the Global Green and Healthy Hospitals initiative.

This worldwide collaboration will promote greater sustainability and environmental health in the health sector around the world.

To take part please sign up at www.greenhospitals.net and help the NHS become a worldwide ambassador for sustainable healthcare.

Sustainability in the NHS

Next Steps

The NHS Sustainable Development Unit and the regional leads are working with colleagues in the Department of Health, and partner organisations to ensure that:

- Climate change mitigation, adaptation, and sustainable development are integrated into the requirements, fabric and governance arrangements of the reformed health and social care system
- Systematic implementation of the carbon reduction strategy is being delivered and monitored across the NHS in England
- The system keeps developing good governance principles that include integrated reporting¹ and Sustainable Development Management Plans
- A comprehensive research programme is agreed and taken forward to support future needs in achieving sustainable services
- Further engagement of staff, patients, and the public is developed to support the NHS in becoming a sustainable public sector leader
- The health and social care system continues to contribute to the international reputation already developed

Glossary

- A** NHS Carbon Footprint 2010: All calculations in this publication have been made with the latest available data and the most widely accepted and tested methodology. There will inevitably be changes in data (and to some extent methodology) in years to come.
- B** Carbon / CO₂e: In the document, the word carbon is used as a generic term for carbon dioxide equivalent emissions (CO₂e), otherwise known as greenhouse gases.
- C** Carbon Intensity: The carbon emissions per pound spent on health services calculated for each year. In this document 2004 prices are used to correct for changes due to inflation.
- D** Health and Social Care System: Refers to all the components that contribute to supporting health and social care, including the NHS, social services and public health.
- E** Ipsos MORI conducted 1,101 face-to-face interviews for the NHS Sustainable Development Unit with respondents in England aged 15 and over using around 150 sample points. The research was conducted in two waves between the 11th November and 5th December 2011. All data has been weighted to reflect the population profile of people in England aged 15+.
- F** Life Cycle Costs: Costing methodology to establish the total cost of ownership. It is a structured approach that addresses all the elements of this cost and can be used to produce a profile of the product or service over its anticipated lifespan.
- G** Climate Change Mitigation: Human interventions to reduce the levels of greenhouse gases.
- H** Climate Change Adaptation: Actions that seek to reduce the vulnerability of natural and human systems to the effects of climate change and hence enhance resilience.
- I** Integrated Reporting: Public reporting on financial and non-financial results that integrates social, environmental and economic performance as one report.

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A Word of Thanks

Thank you to every person and every organisation that has been involved in taking forward sustainability in the NHS, because it is making a difference to the care of patients and to the health of the public.

Raising the profile of the immediate and long term benefits of sustainable development, and integrating this into everything we do, is a crucial part of our contribution to a sustainable health service.

We encourage you to continue the work you are engaged in, to sign up to the NHS SDU Bulletin, and to help us shape guidance, evidence and best practice to support consistent and ambitious progress across the health and social care system.

Please tell us about your successes, and let us know what you need and what you can offer, so we can work together to create a truly sustainable health service.

Dr David Pencheon OBE
Director
NHS Sustainable Development Unit

Sonia Roschnik
Operational Director
NHS Sustainable Development Unit



NHS Sustainable Development Unit

Victoria House, Capital Park
Fulbourn, Cambridge CB21 5XB
Tel: 01223 597 792
Fax: 01223 597 712
Web: www.sdu.nhs.uk

The NHS Sustainable Development Unit develops organisations, people, tools, policy, and research to help the NHS in England fulfil its potential as a leading sustainable and low carbon organisation.

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