

# Low-carb NHS

## Training and CPD for a sustainable health system

A collaboration between the NHS, the voluntary sector and academia has produced new advice for commissioning training on sustainability.

For the past 60 years our health system has successfully negotiated periods of financial constraint without the need to fundamentally alter its architecture. The three key tiers (national, intermediary and acute-focused provider) have contracted or expanded, but the goal of an integrated, primary care focused service that manages demand through prevention rather than incentivising activity has so far proved elusive.

Today, the convergence of an ageing, growing, less active population with high expectations for health outcomes, competition for natural resources from emerging economies and a changing climate all lead to the same conclusion: reshaping the health service to be financially, socially and environmentally sustainable. The secondary care focused approach to healthcare that has prevailed since the NHS started is not sustainable; that is, it will not allow us to meet current needs without compromising the needs of future generations. Training and continuing professional development will play a key role at several junctures in the transition from an unsustainable to a sustainable health system.



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GPs Commissioning Competency Framework includes sustainability as one of the five foundations for effective commissioning. Commissioners are expected to show “commitment to the sustainable use of resources, including the natural environment, NHS finances and the time and spirit of staff”. Guidance for leading improvement and innovation includes a number of skills, attitudes and behaviours that should come through many training avenues, not just those on waste-reduction or carbon-reduction, for example.

### RCGP Commissioning Competency Framework

All professionals should:

- Appreciate the role they play in the stewardship of natural, human and financial resources;
- Seek ways to reduce the inappropriate expenditure of time, natural resources and money.

Additionally, practice leaders should:

- Routinely identify opportunities to improve the sustainability of their services;
- Use systematic approaches to streamlining processes in order to improve sustainability;
- Procure products and services in keeping with principles of good stewardship.

Additionally, commissioning leaders should:

- Include the principles of sustainability in all service evaluation and design activities.

Additionally, commissioning directors should:

- Create a culture in which quality and value are understood in natural, human and financial terms;
- Be accountable for the consortium's stewardship of resources.

Commissioning teams should:

- Build capability in measuring, predicting and improving the use of resources in the local health economy.

### Tips for trainers and commissioners

A network of clinicians, managers and educators in the NHS, voluntary sector and academia have come together to respond to the multiple demands of developing a sustainability ‘perspective’ in training.

The Sustainable Healthcare Education network has developed teaching modules for medical students and registrars that develop knowledge about the anticipated constraints of 21st century healthcare as well as clinical, management and leadership skills to respond to them. We recommend that training on sustainability includes all of these following components.

### Step 1 - Changing mindsets

Helping health professionals understand why the system needs to change is crucial. Our priority-rich, time-poor environment draws us to become so task-focused that we lose sight of the wider financial, environmental and social implications of our activities. Yet health professionals at all levels can work more efficiently when they understand the bigger picture.

For example, NHS employees need to understand how the anticipated health effects of climate change will affect their professional duties, work behaviours and the tremendous potential for implementing sustainability strategies that can improve population health in areas currently seen as most intractable.

Training should encourage members of each professional group to think creatively about how changing work practices within their role can help deliver the broader sustainability agenda of carbon reduction, waste reduction, improved quality of care and workplace satisfaction.

Strategically-focused training can tend to be pushed down the list of priorities in favour of more operationally-focused development. Good training sessions will allow for sharing new knowledge and also time for individualised activities to help set new mindsets that will support the transition to a sustainable health system.

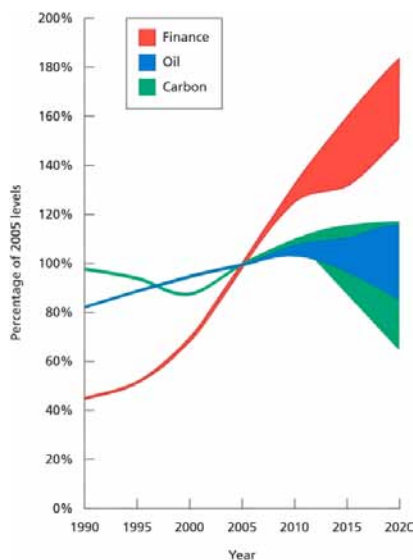


Figure 1 - NHS financial shortfall, oil production shortfall and carbon reduction requirements until 2020 (NHS Sustainable Development Unit, 2011)

### Commissioning CPD

All too often, training and CPD provision are developed without alignment with strategic plans. The new Royal College of

## Four principles of sustainable clinical practice

From: Dr Frances Mortimer, 'The Sustainable Physician', *Clinical Medicine* 2010, Vol 10, No 2: 110–11

The Campaign for Greener Healthcare has identified four principles which underpin sustainable clinical practice. These are:

### 1. Disease prevention and health promotion.

All clinicians should be involved in prevention. Through broader advocacy and in individual patient care, specialties should aim to tackle underlying causes of disease – the social, economic and environmental determinants of health. Where possible, interventions should capture environmental co-benefits of healthy lifestyles, such as the improvements in air quality and carbon emissions from a shift to active travel.

### 2. Patient education and empowerment.

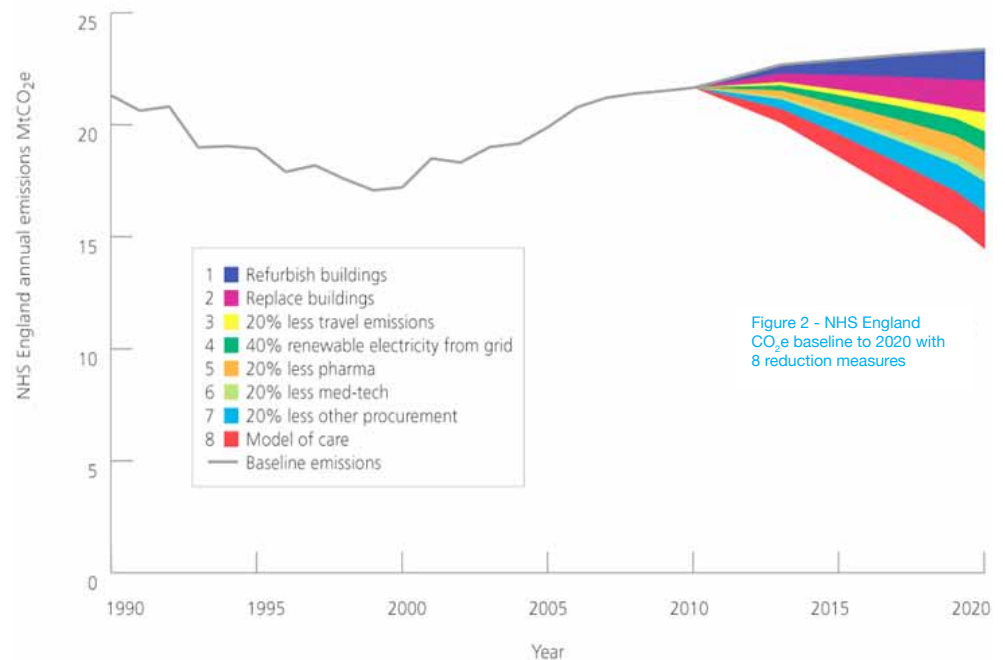
To reduce disease progression and prevent complications, many patients could be empowered to take on a greater role in the management of their own health and healthcare. Informed patients are also well placed to improve the co-ordination between clinical teams and reduce misunderstandings or duplication.

### 3. Lean service delivery.

Improving clinical decision-making in the selection and targeting of interventions will reduce lower value activities and their associated environmental impacts. Specialties can support this by describing the relevant patient pathways and providing clear, evidence-based guidance. Even where clinical input is of high value, a greater use of online records, email and telephone can reduce travel emissions by moving information in place of patients, staff and laboratory samples. Further efficiencies can follow from better integration of specialist services, such as diabetes, cardiovascular and renal care, which have a common patient base.

### 4. Preferential use of treatment options and medical technologies with lower environmental impact.

Inclusion of sustainability measures in the evaluation of medical technologies will allow service planners, clinicians and patients to choose clinically effective treatments with the best environmental profile and will encourage their further development.



## Step 2 – Clear practical benefits

A low-carbon health service will be better at preventing illness, give greater responsibility to patients in managing their health, be leaner in service design & delivery and low carbon technologies. Healthcare staff should learn to communicate effectively using teleconferencing, telemedicine and home-use diagnostics. Nursing patients in the community may require different skills from nursing patients on the ward

## Step 3 - Sustainable delivery of training

How we deliver training is as important as what we train. Sustainability is a way of doing things and its principles are most effectively understood and embedded when they are modelled as practices and behaviours.

Commissioners should look for training that models ways of doing things that minimise environmental impact, allows for multiple learning modes and takes advantage of technological innovations already present in our daily lives.

For example, at present, consultants gain CPD points for attending conferences but not for watching a recording of the conference, which would save time, money and travel.

Sustainable training models allow face-to-face networking opportunities to coexist

with e-learning and web conferencing. Above all, sustainable training models demonstrate that sustainability and quality are compatible by the choices they make in five key areas: transport, catering, venue, equipment, and involving delegates.

### 1. Transport

The distance to training and available modes of transport determine the time, expense and carbon footprint of learning. Trainers should:

- Inform attendees of their commitment to sustainable transport and explain why it is important, using pre-conference emails/literature/website;
- Choose a location with good public transport links and provide comprehensive travel information including pedestrian and cycle routes from bus and train stations at the top of the travel instructions sheet;
- Use tools, such as an online carbon calculator (see 'L'EcoCompareur' provided by the French train company SNCF);
- Collect information from participants on how they travelled to the event to raise awareness and help plan future training events.

### 2. Catering

The carbon footprint of food and tableware is determined by its production, storage, transport and disposal. [Continues >](#)

Sustainable training should:

- Provide locally produced, seasonal food;
- Avoid highly processed food (which has a higher carbon footprint);
- Offer jugs of tap water rather than bottled spring water;
- Look out for juice from the local area;
- Allow a vegetarian option (not just for vegetarians) as meat production has a higher carbon footprint;
- Ask suppliers to minimise packaging, and take back the rest on delivery;
- Ensure recycling of food waste and other disposables;
- Choose reusable tableware instead of disposable items;
- Inform attendees of the sustainable procurement and provision of the food.

### 3. Venue

Choose a training location with the following:

- Natural light and air;
- Heating, cooling and electricity provided partly or fully by renewable energy sources (at least asking about this will flag the issue for the venue managers);
- Set in a natural environment, e.g. with a garden or a nearby park;
- Which provides cycle racks and changing facilities.

### 4. Equipment & Stationery

- Send training information by email rather than by post;
- Avoid overprinting and duplicating documents;
- Keep handouts short and relevant, and print double-sided;
- Use recycled paper (including for folders if these are needed);
- Provide pencils or pens made out of recycled material.
- Ensure recycling of flip charts and other training materials.

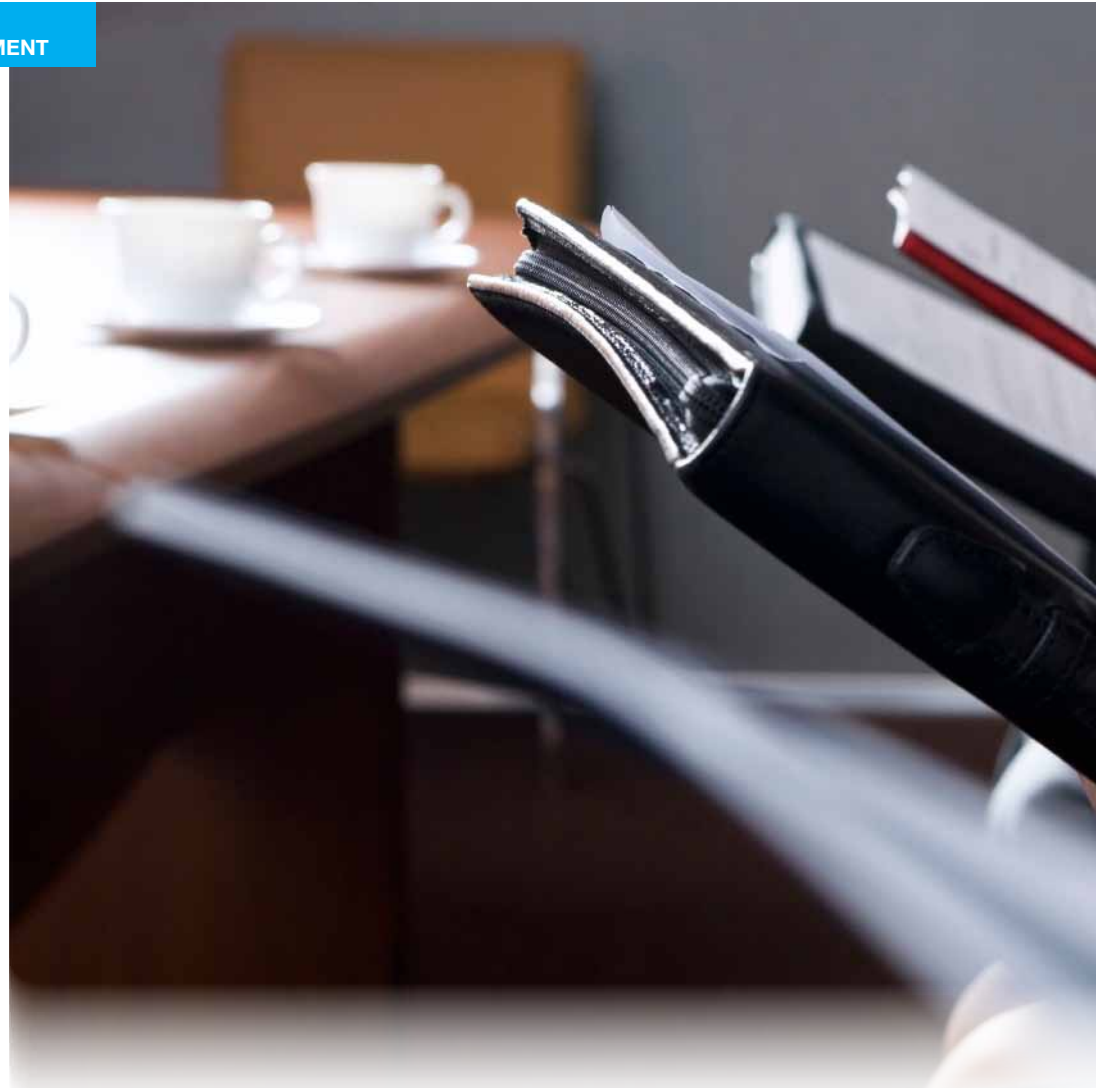
### 5. Involving delegates

Sustainable training should:

- Show the reduction in waste and cost involved in the choices made;
- Ask for feedback and suggestions;
- Offer a prize or donation to charity for those who arrived by the greenest means, or who put forward the most imaginative ideas for improving future training.

### Step 4 - Sustainability perspectives across training subjects

In addition to individual re-skilling, training



healthcare workers for a sustainable healthcare system will need to take place across all sectors: governance, technology, behaviour and models of care. Attempting to incorporate standalone sessions on financial sustainability, social sustainability and environmental sustainability into a curriculum or CPD programme may not be possible or enviable. A more pragmatic approach is to ensure trainers understand

the principles of sustainable development and incorporate these insights into all of their sessions.

Training days can provide meaningful links between seemingly disparate areas. Ideally, training spaces offer participants an insight into how their roles, responsibilities and needs relate to the larger organisational goals. Bristol Medical School has

This table illustrates just some of the carbon saving measures that the NHS could implement. Not all are numbered above. Some CO<sub>2</sub> savings are too small to depict on this scale of graph.

	(£/tCO <sub>2</sub> ) - savings + costs	CO <sub>2</sub> Savings (tCO <sub>2</sub> /yr)	£000 Savings (£000/yr)	
1	Packaging of medical equipment	-40,299	2	+81
2	Reduce drug wastage	-3,987	22,430	+89,428
3	Teleconferencing to replace 5% of business miles	-2,038	6,827	+13,913
4	Decentralisation of hot water boilers in non-acute/PCT	-240	10,612	+2,547
5	Combined Heat and Power installed in acute trusts	-213	232,331	+49,487
6	Variable Speed Drives	-168	5,508	+925
7	Introduce hibernation system for ambulance stations	-135	1,096	+148
8	Improve heating controls	-134	26,551	+3,558
9	Improve lighting controls	-127	29,686	+3,770
10	Energy efficient lighting	-91	30,140	+2,743
11	Voltage optimisation	-75	29,364	+2,202
12	Improve the efficiency of chillers	-71	7,313	+519
13	Roof insulation	-65	25,928	+1,685
14	Energy Awareness Campaign	-61	92,549	+5,645
15	Building Management System optimisation	-56	20,610	+1,154
16	Improve Insulation to pipework, and/in boiler house	-55	11,195	+616
17	Install high efficiency lighting/controls - ambulance trusts	-55	2,999	+165
18	1 degree C reduction in thermostat temperature	-53	49,144	+2,605
19	Improve the efficiency of steam plant or hot water boiler plant	-52	8,933	+465
20	Upgrade garage and workshop heating	-49	214	+10
21	Boiler replacement/optimisation for HQ/control centres	-12	171	+2
22	Improve building insulation levels in ambulance trusts	-12	951	+11
23	Wall insulation	-8	25,928	+207
24	Office electrical equipment improvements	-4	7,957	+32
25	Travel Planning	0	81,524	0
26	Insulation - window glazing and draught proofing	+6	25,928	-156
27	Electric vehicles	+19	36,969	-702
28	Wind Turbine	+25	245	-6
29	Biomass Boiler	+35	30,533	-1069
<b>Total</b>			<b>823,638</b>	<b>179,987</b>





must remember that our most valuable and truly unlimited resource is our capacity to imagine, to innovate and to educate.

Developing sustainability as both a focus and a method of training will help bring about meaningful, productive reform to ensure healthy futures for all of us.

**Route Map for a Sustainable NHS**

On 1st February 2011 NHS Deputy Chief Executive David Flory launched a 'Route Map' for a sustainable healthcare system (pictured below), as reported in National Health Executive.

It was developed by the NHS Sustainable Development Unit in collaboration with over 70 organisations to guide the transition to a sustainable health system.

The route map is a framework within which everyone can identify their role in developing a sustainable health system. It is a collaborative, whole sector approach, designed to encourage discussion and debate but, more importantly, co-ordinated action. It is a way of ensuring everyone is pulling in the same direction and also a series of milestones that outline the sort of things we need to do and the sort of timeframes we have to do them in.

But is not a step-by-step guide to a sustainable health system, it is not just for NHS or public sector organisations, and it is not set in stone; it will evolve over time to reflect rapid shifts following key critical events in the future. It is not a strategic plan for any one organisation to deliver – it is for everyone. Finally, it is not the end of a journey – it is in fact the very first step.

It can be used to identify which dimensions of the vision fit with what you or your organisation are trying to achieve, and to understand who else is working towards the same part of the vision. Use it to discuss how you can collaborate or carve your strategic/competitive niche in delivering the vision or milestones, and consider whether and how your business model or plan supports some of the key shifts required. Finally, join together and share your intelligence and expertise in taking this vision forward as part of the broad collaboration.

FOR MORE INFORMATION  
Visit [www.greenerhealthcare.org](http://www.greenerhealthcare.org)

developed a 'systems' perspective to understanding the links between the physiological systems that govern our bodies, the social systems that influence our behaviours and practices and the environmental systems and feedback loops in which all our human endeavours exist. This approach is being developed into CPD modules by the University of East Anglia and the Centre for Sustainable Healthcare. Materials are

available for free download at [sustainable-healthcare.org.uk/sustainable-healthcare-education](http://sustainable-healthcare.org.uk/sustainable-healthcare-education).

**The Future of Training**

The inherent tension in health between finite resources - financial, environmental, social - and infinite need has forced the NHS to consider radical reforms. Yet we



The NHS SDU 'route map' for sustainable healthcare (see box, right)