

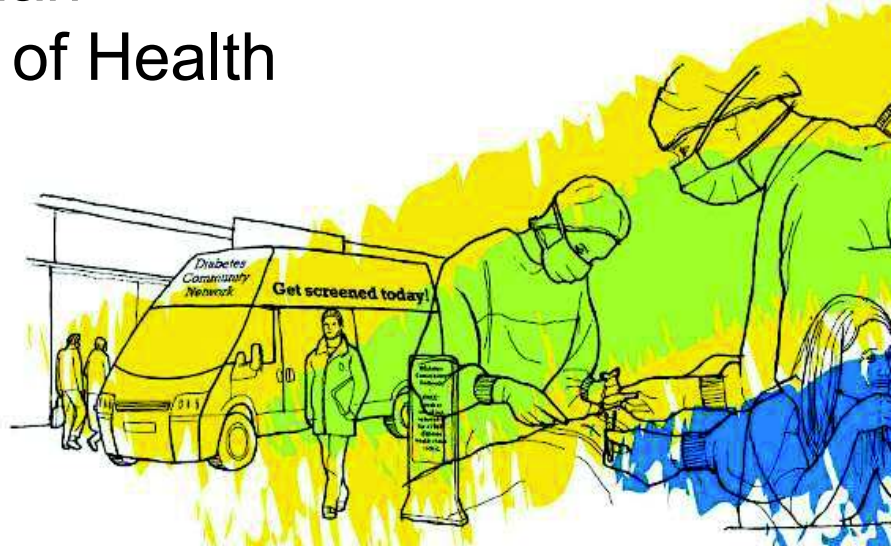


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Lessons from England: Towards sustainable health care

Ruth Passman
Department of Health

re 2030



Sustainable healthcare?

“Healthcare that meets the needs
of the present...
*...without compromising the ability
of others, in future or elsewhere
now, to meet their own needs”*

- Adapted from the Brundtland Commission



Who produces the greenhouse gases?



The world map reflecting production related to climate change.

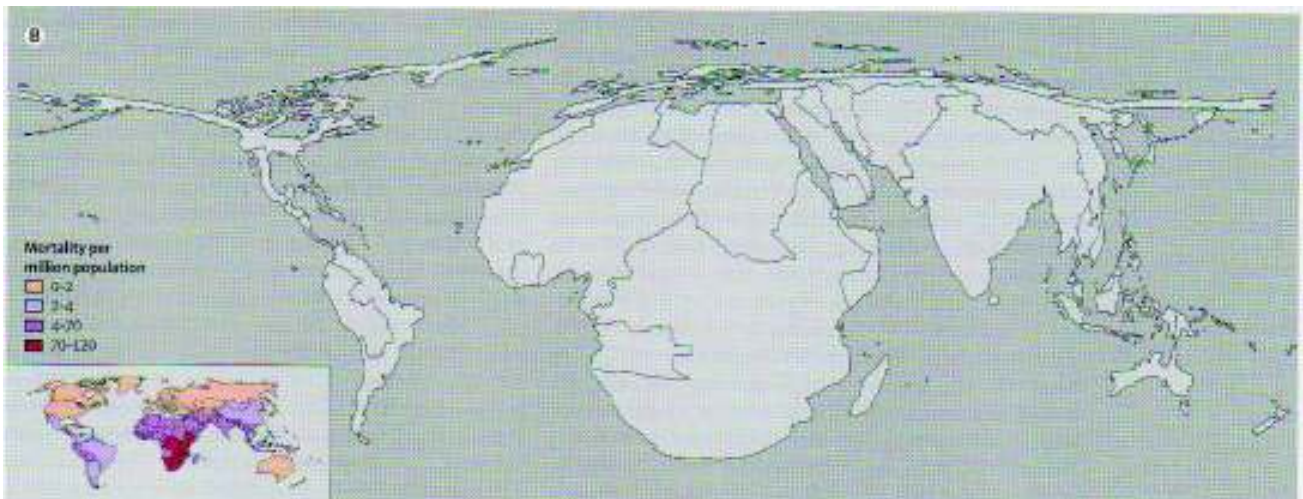
“Climate Change presents the biggest threat to health in the 21st Century” The Lancet (373;9697 pp 1659-1734, May 16-22 2009).

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Who bears the burden?



The world map reflecting mortality related to climate change.

“Climate Change presents the biggest threat to health in the 21st Century” The Lancet (373;9697 pp 1659-1734, May 16-22 2009).

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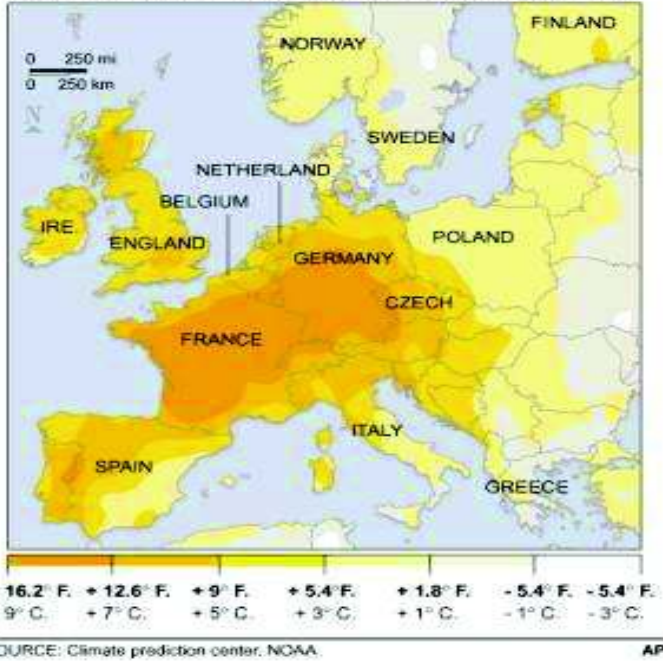


The time is now

Deadly heat wave holds firm in Europe

Temperatures throughout Europe continued above normal, as France reported as many as 3,000 deaths due to the heat.

Difference from normal temperatures Aug. 3 to Aug. 9, 2003



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At least 30,000 people died prematurely as a result of Europe's heat wave in 2003 in France¹

1. Unprecedented heat-related deaths during the 2003 heat wave in Paris: consequences on emergency departments
Jean-François Dhainaut, Yann - Erick Claessens, Christine Ginsburg, and Bruno Riou.
Crit Care. 2004; 8(1): 1-2.

Published online 2003 December 4. doi: 10.1186/cc2404.

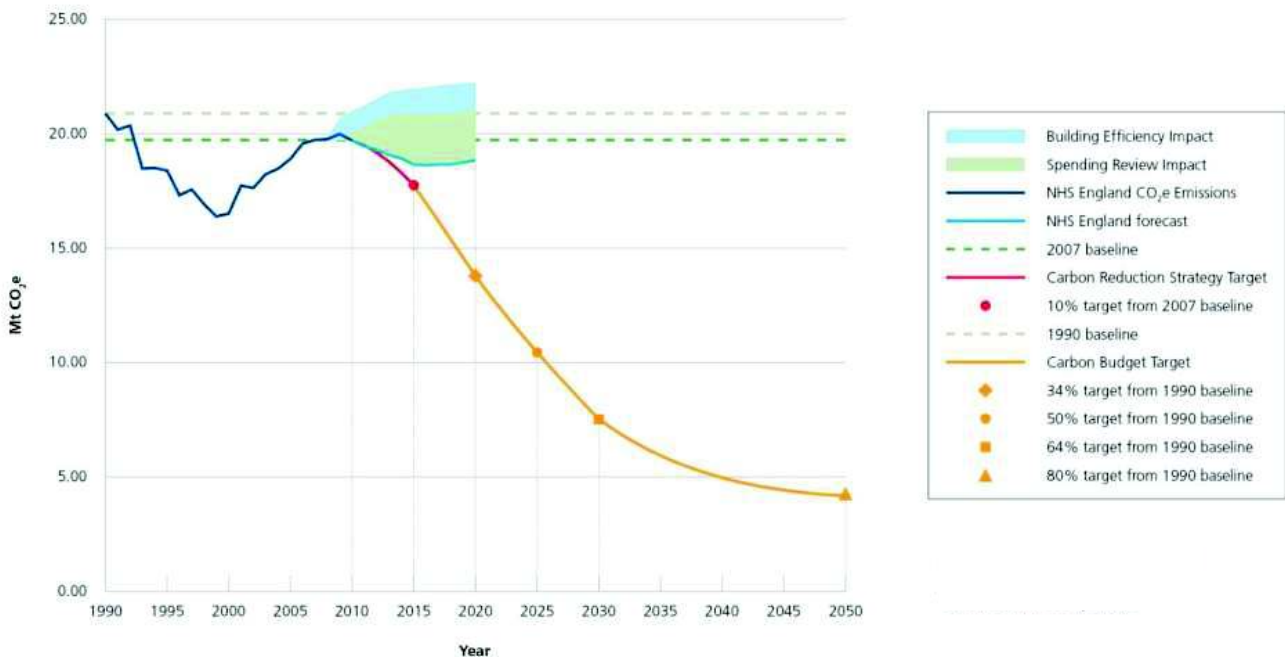
and Bhattacharya, S. (October 2003), 'European heat wave caused 35,000 deaths', The New Scientist.
<http://www.newscientist.com/article/dn4259>



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NHS England CO₂e footprint 1990 – 2020 with Climate Change Act targets

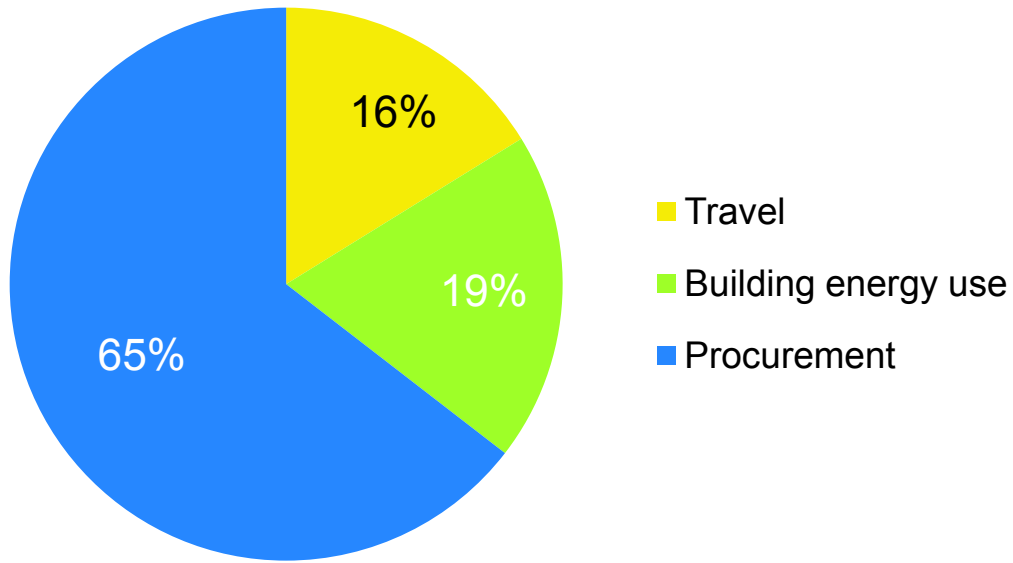


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Breakdown of NHS England 2010 emissions?

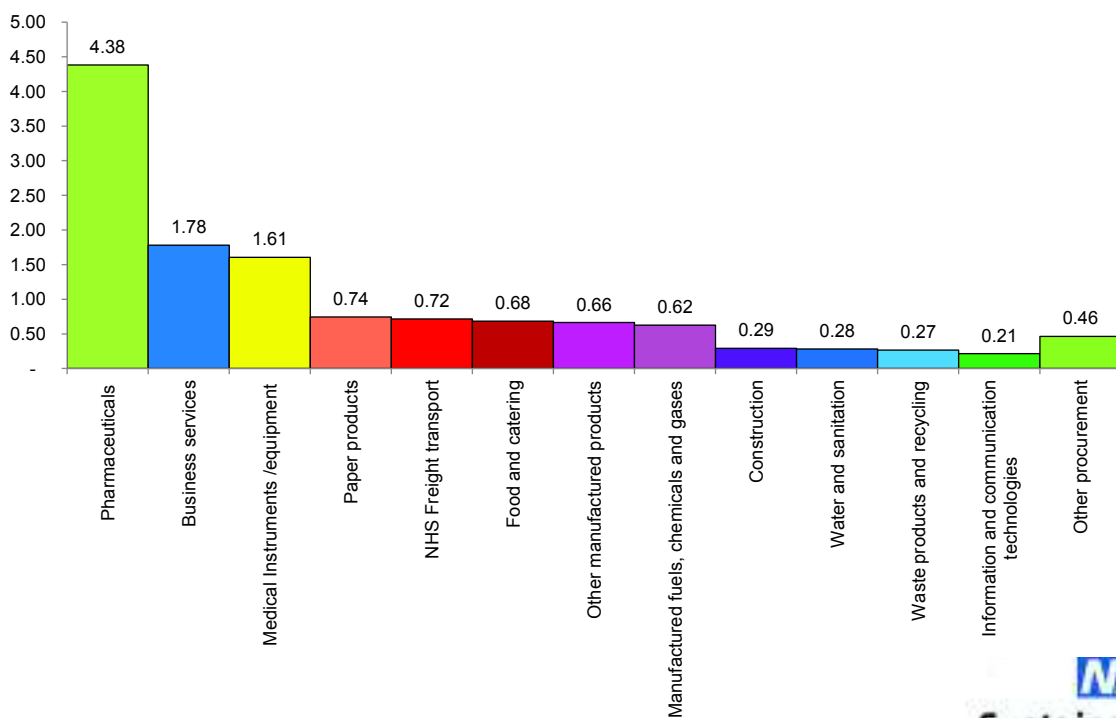


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Procurement Breakdown

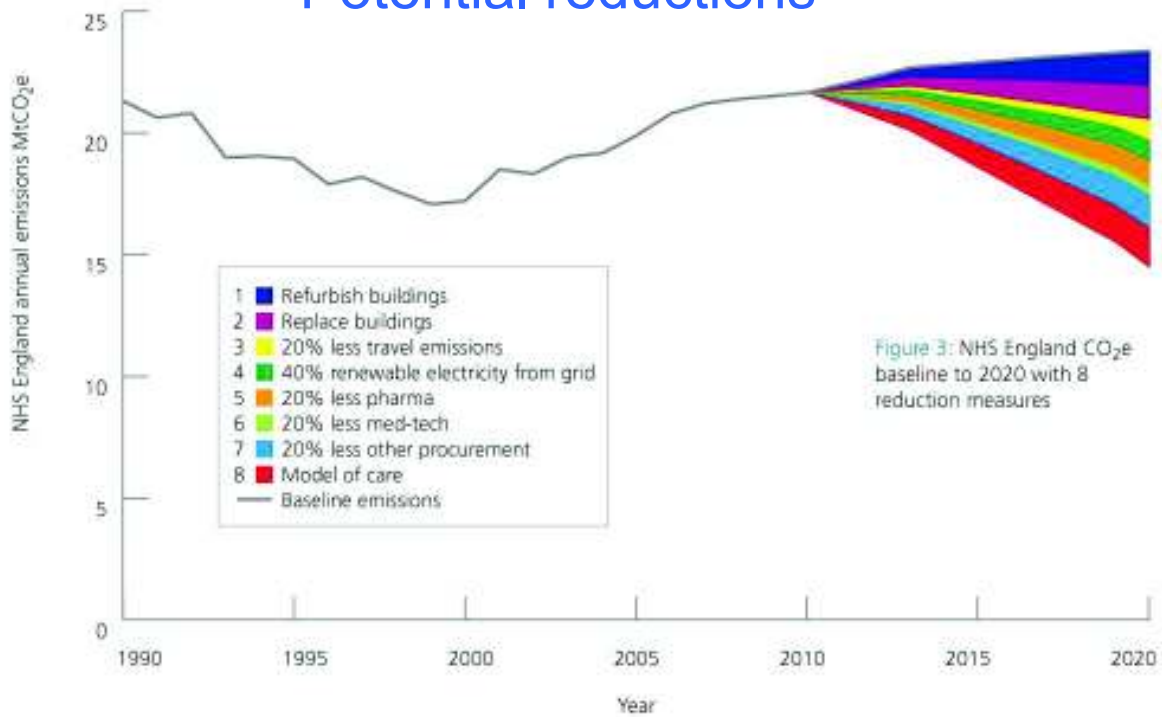


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Potential reductions

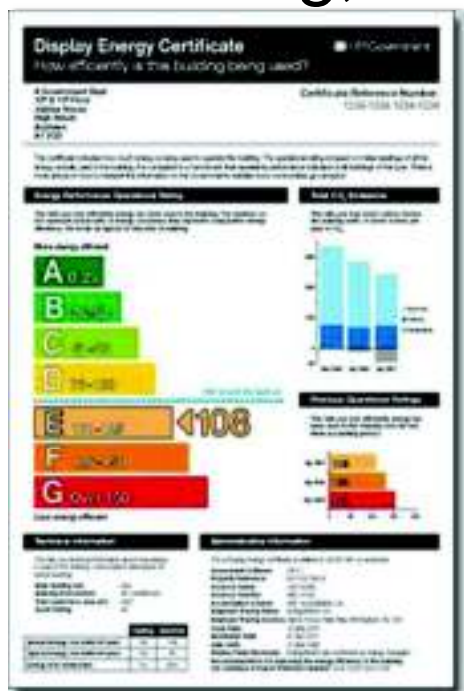


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Energy: Measuring, monitoring, displaying



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This table illustrates just some of the carbon saving measures that the NHS could implement. Not all are numbered above. Some CO₂ savings are too small to depict on this scale of graph.

	(£/tCO ₂) - savings + costs	CO ₂ Savings (tCO ₂ /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
Total		823,638	179,987	



The journey so far...



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>



From	health care as an institution led service	To	health and social care as part of the community
From	curative and fixing medical care	To	early intervention and preventative care
From	sickness	To	health and well-being
From	professional	To	personal
From	isolated and segregated	To	integrated and in partnership
From	buildings	To	healing environments
From	decision making based on today's finances	To	an integrated value of the future which accounts for the impacts on society and nature
From	single indicators and out of date measurements	To	multiple score card information and in real time
From	sustainability as an add on	To	integration in culture, practice and training
From	waste and over use of all resources	To	a balanced use of resources where waste becomes a resource
From	nobody's business	To	everyone's business



National, Regional and Local Action

- Ensuring a systems approach
- Monitoring the NHS carbon footprint
- Raising the profile of carbon reduction, sustainable development and its impacts with public and patients



Why do healthcare organisations take sustainable development and climate change seriously?

1. Save money
2. Comply with regulation
3. Improve resilience
4. Enhance reputation
5. Improve health

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EDITORIALS

Assessing the health benefits of tackling climate change

Robust measures and interdisciplinary collaboration are needed

Anita Charlesworth *chief economist*¹, Alastair Gray *professor of health economics*², David Pencheon *director*³, Nicholas Stern *IG Patel professor of economics and government*⁴

¹Nuffield Trust, London, UK; ²Health Economics Research Centre, Department of Public Health, University of Oxford, Oxford, UK; ³NHS Sustainable Development Unit, Cambridge CB21 5XB, UK; ⁴Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science, London, UK

Health systems around the world are not short of big challenges, such as managing demand; containing cost; improving access, quality, and transparency; embracing new technology, and engaging patients and the public. More recent challenges to add

urgently needed that assess the full social impact of health and healthcare, to ensure that opportunities for advancing social welfare are taken and that unnecessary damage (such as unsustainable resource use, irreversible climate change, or even



The Marmot Report 2010:

Health and Sustainability



The role of health services?

1. The effect of health services on unsustainable resource use, social inequalities, GHG emissions...
2. The effect of unsustainable resource use, social inequalities, GHG emissions on health services and health...
3. The exemplar responsibility of health services and health professionals
4. Triple bottom line health care....

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Current drivers in health/care

- Demographic – growing / ageing
- Long term conditions / CDM
- Growing / changing expectations of public, patients and staff
- Triple bottom line health care
 - *Economic: more value for investment*
 - *More health and social outcomes*
 - *Within environmental limits*

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Health co-benefits:

“What is good for adaptation to, and mitigation of, climate change.....is ALSO good for health and healthcare”

1. For the public's health

- *More physical activity, better diet, improved mental health, less road trauma, less air pollution, less obesity/ heart disease/cancer, more social inclusion/cohesion...*

2. For the healthcare system

- *More prevention, care closer to home, more empowered / self care, better use of drugs, better use of information and IT, fewer unnecessary admissions, **better models of care...***

3. For global health inequalities / social justice

- *Contraction and convergence, technology leapfrogging*

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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
- 60% believing it is essential to the running of their organisation
- Easy things:
 - Promoting energy efficiency
 - Engaging with staff on sustainability
 - Implementing travel initiatives
- More challenging:
 - Improving infrastructure
 - Ensuring sustainable pathways and models of care
 - Working with other groups and organisations to achieve more sustainable results

Source: RAND survey http://www.sdu.nhs.uk/documents/publications/RAND_Europe.pdf

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Priority areas for more sustainable clinical practice?

1. Helping people eat better and move better
2. Enabling women to have control over their fertility
3. Targeting prescribing on those most likely to benefit
4. Promoting a greater sense of belonging
5. Helping people manage care before / without / after specialist hospital care
6. Helping people manage a better death

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Working with the Workforce, Patients and Communities to create Greener, Healthier Hospitals in the North of England


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Results of Public Opinion Survey:



 % 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%

Source:

Ipsos MORI

<http://www.sdu.nhs.uk/healthcheck2012>

<http://tiny.cc/w7fg5>


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University Hospital South Manchester: Britains' 'Greenest' Hospital

- Overall energy reduction of 26% since the introduction of carbon management in 2007/8
- Carbon Trust Standard award: ground source heating pumps, bio-mass boilers and Trust travel carbon footprint reduction initiatives
- Nobel Peace Prize award to UHSM Professor Ashley Woodcock for his work on climate change and greener pathways in respiratory medicine.
- Green Champions drive the 'Be Seen, Be Green' environmental agenda within the hospital and local community



Britains' 'Greenest' Hospital

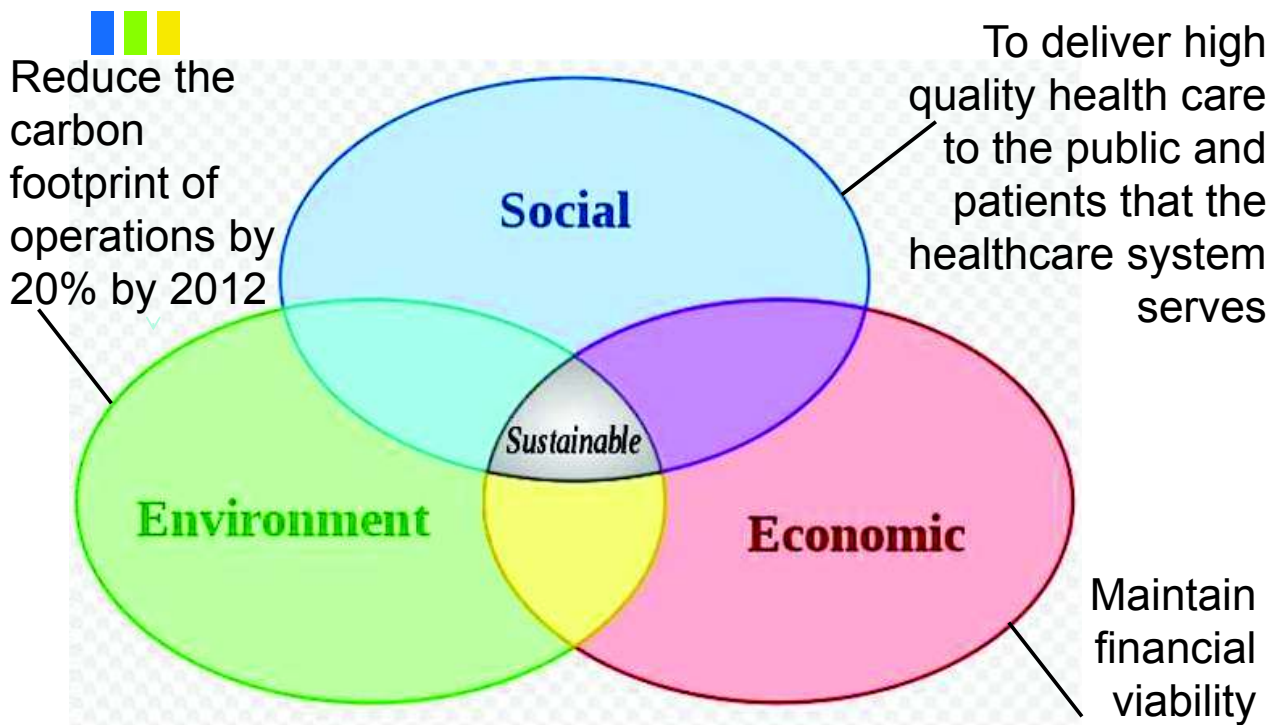
Developing an 'enhanced organisational offer' to create added social and public value, ensuring every NHS pound can be spent wisely to support wider Healthgain across our communities and sustainable development through the commissioning of services

Promoting organisational and individual resilience as a central tenet of the Sustainable Development and Health & Wellbeing Agenda

Workforce Green champions: Promote cultural change in the NHS workforce for green volunteering opportunities that ensure workplace support for mental and emotional wellbeing,

Harness the role of patients and the public in co-producing sustainable greener clinical pathways and local public services

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- Barbier, E., 1987. *The Concept of Sustainable Economic Development*. Environmental Conservation, 14(2):101-110.

- Adams, W.M. (2006). ["The Future of Sustainability: Re-thinking Environment and Development in the Twenty-first Century."](#) Report of the IUCN Renowned Thinkers Meeting, 29–31 January 2006.

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Six of the lessons so far...

1. This is a journey: Therefore engagement and a call for action is crucial: Leaders need to ask, listen, understand and re-articulate the win-wins, and take exemplary action
2. Don't focus too much on the environment / climate change – focus on finances, governance, reputation, resilience and health
3. Focus on win-wins, be positive, and remember to align change with what is driving large scale societal change
4. Communicating the science is as important as doing the science. Be honest about risk and uncertainty
5. Measure, compare, track progress, report, in order to help embed SD within evolving system-wide governance
6. Work on efficiency and transformational (large scale) change *simultaneously*; (adaptation / mitigation)

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